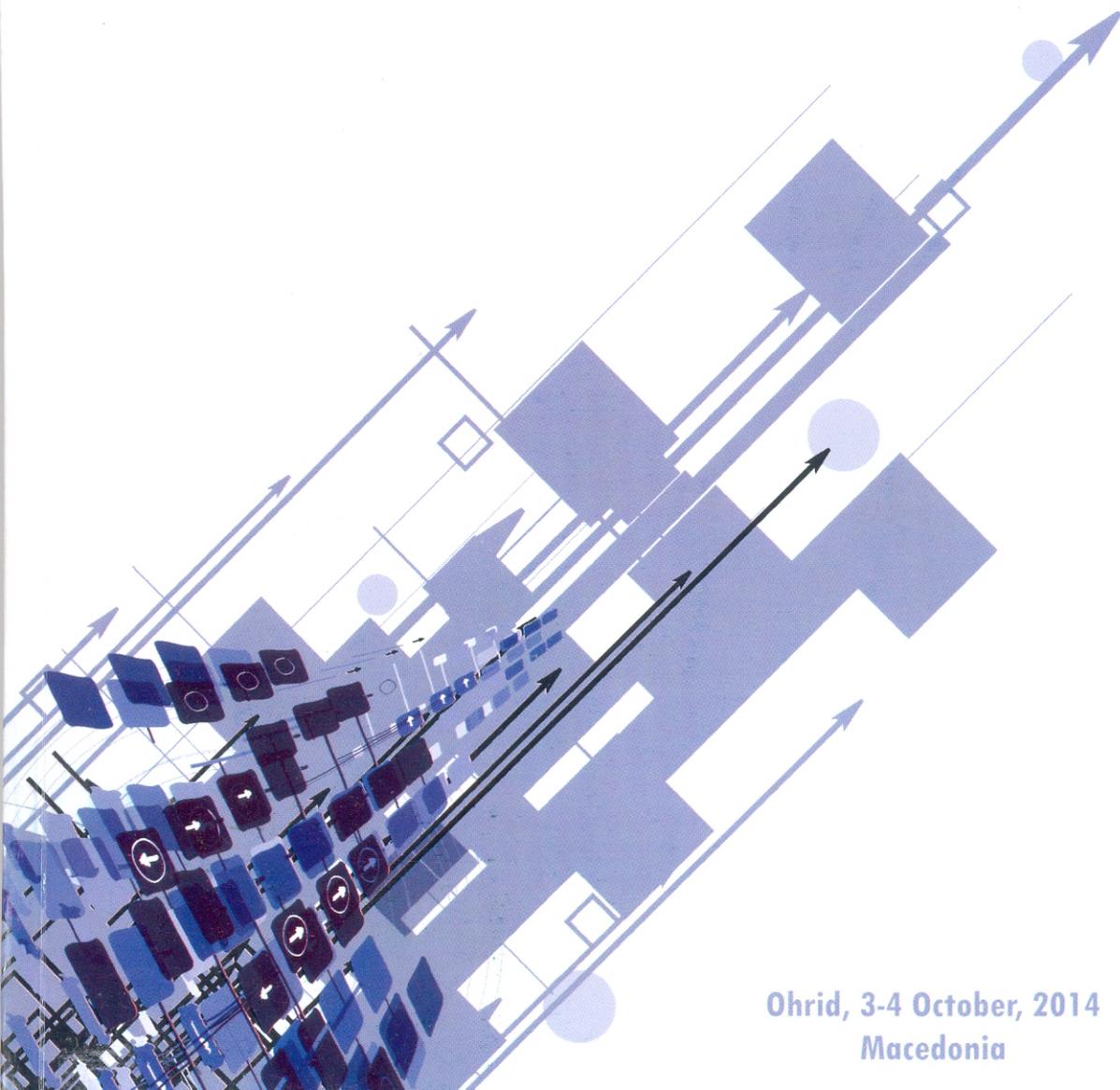




BOOK OF ABSTRACTS

INTERNATIONAL CONFERENCE
SMEs DEVELOPMENT AND INNOVATION:
BUILDING COMPETITIVE FUTURE OF SOUTH-EASTERN EUROPE



Ohrid, 3-4 October, 2014
Macedonia

INTERNATIONAL CONFERENCE

SMEs DEVELOPMENT AND INNOVATION: BUILDING COMPETITIVE FUTURE OF SOUTH-EASTERN EUROPE

CONFERENCE PROCEEDINGS



Ohrid, 3-4 October, 2014

Macedonia

CONFERENCE TOPICS

SMEs Internationalization and Innovation
ICT impact on the competitiveness of SMEs
Open innovation for SMEs growth
Innovation policies in SEE
Innovation Management in knowledge-based economy
Challenges of the Social Innovation in SEE

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PREFACE

Nowadays, the South-Eastern Europe (SEE) faces a challenge to increase the innovation capacity as a basic precondition for achieving sustainable growth and competitiveness on the global market. The new strategic direction of the SEE is based upon the ambitious goal to follow the leading world economies and to attain the EU membership. This implies the necessity for SEE countries to adjust towards the main EU developments. In this context, the new EU strategic framework underlines the role of SMEs as a driving force of the European economy. The knowledge intensity and innovation capability of SMEs are becoming the basic pillars for competitiveness and prosperity of the economies. These trends are actually the rationale and idea for organizing a conference that will be focused on further clarification of the role and importance of the innovative SMEs for improving the SEE economic performance.

The main goal of the Conference is to highlight many aspects of the contemporary changes in the SEE countries aimed at increasing innovation and achieving sustainable growth. More specifically, the conference will create a platform for presenting different academic and professional approaches (conceptual, empirical, multidisciplinary, case studies, etc.) and debates about the SMEs innovation developments in the SEE countries. The Conference will provide an opportunity for researchers, practitioners, PhD students and policy makers to give their contribution in considering the issues from theoretical and empirical point of view. In addition, it will offer the possibility to exchange the ideas, build partnerships, share knowledge and experience related to perspectives for improving the SMEs innovation capabilities and enriching the scientific achievements.

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MACEDONIANNATIONAL INNOVATION SYSTEM (NIS)
– MAIN CHALLENGES

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Abstract

It is generally accepted that the National Innovation Systems (NIS) are one of the most comprehensive systemic approaches that give insight into innovative and economic performance of a country. This insight is essential for the policymakers to develop legislatives for enhancing the innovative performance and the success of the today's knowledge based economies. The development of NIS is complex, path-dependant process due to the differences in the development of the main sectors involved: the academia and the industry.

Macedonian later emergence of the NIS is explained by the fact that after 1990, with the collapse of the Yugoslavian federation, there were significant losses in the Yugoslav, East and Central European markets. This process was accompanied by disintegration of numerous large industrial complexes, leading to large numbers of bankruptcies and lay-offs. The existing strong governmental support for the scientific and research projects in the federation was disrupted and disabled by these rapid changes, which was also reflected in the breakdown of the direct links between the academia and the industry.

The following two decades were transitional, and this period of recovery was terminated with the adoption of several strategic documents, such as: industrial policy; scientific-research work and technological development; innovation strategy; and strategy for intellectual property. The Innovation Strategy for 2012-2020 supports set of measures that promote competitive business environment, encourage transfer of knowledge and technologies from universities to industry and provide effective regulatory environment for academics and research institutions. Finally, in 2013 the Law on Innovation Activity, which includes establishment of Innovation Fund, was adopted.

This paper aims to retrospect the main activities for developing innovation infrastructure and enhancing the innovation capacities. Moreover it offers critical assessment of the improvements and the main challenges faced. The presented overview is designed to assist policymakers in further monitoring, evaluation and improvements and to provide researchers with a solid base for additional in-depth analysis of the impact of the implemented and proposed measures.

Keywords: National Innovation System, innovation strategy, knowledge-based economies, Republic of Macedonia

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INTRODUCTION

The huge ahead of growth rates of certain countries, which is result of economic growth over longer period, is attributed to the presence of social capability for institutional change, especially if the change facilitates or stimulates technical change, such as innovation systems (Freeman, 2002). Despite the diminished importance of the National Innovation Systems (NIS) caused by the globalisation (Ohmae, 1990), many scholars insist on their central importance for gaining insight into the economic and innovative performances of the countries, because the NIS are one of the most comprehensive systemic approaches (Freeman, 1995; Hu, 1992; Porter, 1990; Patel, 1995). This insight is essential for the policymakers to develop legal framework for enhancing the innovation performance, which is the main pillar of the knowledge-based economies. The earlier growth models developed were focused on accumulation of tangible assets, in first line investments and growth of the labour force, while the so-called "New Growth Theory" (Romer, 1986; Grossman and Helpman, 1991) moved the intangible assets, education, research and development to the centre of the stage. Therefore, the development of the NIS has to be analysed through the development of both sectors: the academia and the industry, with a great attention to the interaction between them.

Historically speaking, the development of Macedonian NIS could be divided in four periods: before '90s, the period between '90s and 2001, between 2001 and 2008 and after 2008. In the first period, Macedonia was one of the states in the Socialist Federal Republic of Yugoslavia. In 1991 Macedonia proclaimed its independence, and the following decade was transitional, ending with insurgency in 2001. After this point, Macedonia is constantly working on policy reformation and building a solid legal setting on a national level for encouraging the development of innovations.

HISTORICAL BACKGROUND

Before '90s (the first period of Macedonian NIS development), the Yugoslavian organisational system of collaboration between the main sectors of the society: industry and academia, was mainly regulated by the government, through the central institutions that were planning the whole strategy. From the aspect of triple helix analysis, this organisational and institutional settings closely described by the state model of triple helix (Figure 1). In Macedonia, there were only two state universities where the professor was one of the most prestigious professions. The study programmes were relatively adapted to the industry needs and were enriched with significant applied activity. The universities were supported by the government financially. There were dedicated funds for scientific and research projects, which were strong lever for creating knowledge-based intangible assets. The links between universities and industry were direct, based on personal contact between the professors and companies. Professors were members in boards of directors, advisors (consultants) to enterprises, directors of research centres in companies, and most of all, involved in preparation of new legislative. The industrial sector was consisted of big organisational systems mainly owned by the state, usually with more than 1000 employees, sometimes even more than 5000. Therefore, it was possible the national economy to be planned centrally (but this also led to over-employment, that later resulted in huge layoffs). Usually, all bigger companies had their internal research and development (R&D) departments that collaborated closely with universities. The strength of the economy and individual companies was in the big domestic market and huge export. The

movement of the labour force was very limited; however there were very low rates of unemployment thanks to the relatively strong economy.

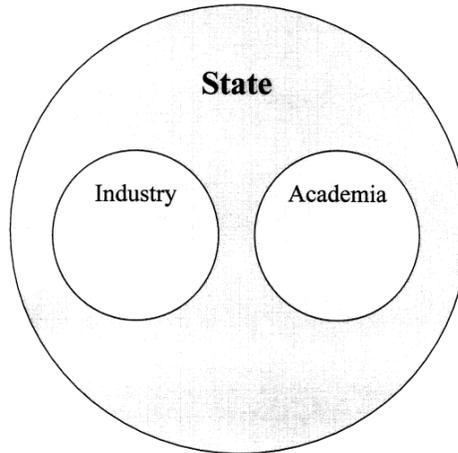


Figure 1 A state model of university–industry–government relations (Etzkowitz and Leydesdorff, 2000)

The second period is disruptive and transitional because of the major changes caused by the secessions and disintegration of the Yugoslav federation. In the early 1990s most of ex-Yugoslavian states registered hyperinflation and macroeconomic instability due to the break-up of the Yugoslav political, economic and monetary union (Uvalic, 2012). The consequences of these events the states were facing with were deep recession, long transitional period and delays of economic reforms and integration of most ex-Yugoslavian states with the EU. Macedonia is classified as early reformer together with Croatia and Albania (Bartlett, 2008) because it has successfully implemented macroeconomic stabilisation measures with a financial and technical support of the IMF and the World Bank, and later the EU. The restrictive monetary policies that were introduced decreased the inflationary pressures in 1995-96. However, according to Kadas (2010), these countries ran into severe problems toward the end of the decade because the implemented measures were not accompanied by simultaneous structural reforms on microeconomic level. The disintegration of the federation tempted interrupting of the traditional economic and trade links, as well as breaking the established connections between the universities and industry. The applied activity over this period was dramatically decreased and the governmental support for science and research projects was reduced to a minimal level. Privatisation of the state corporations was a major hit for the triple helix activities, reducing them to a limited number of isolated successful examples of collaboration, not only because of the research staff cuts, but also due to selling the best Macedonian capacities to foreign companies who bring know-how from abroad. In addition to this and in response to the increased unemployment rates, newly established companies emerged, mainly SMEs and family businesses which were not aware of their need for expertise from universities, or simply did not possess a capacity to re-establish the extinguished link of collaboration with the academia.

Since 2001 (the third period of Macedonian NIS development), after resolving the insurgency with the Ohrid Framework Agreement, Macedonian government has been devoting significant attention to developing an ecosystem for innovations and re-establishing the links between the industrial and academic spheres. Up to 2007, the gross expenditure on R&D

(Research and Development) was in a steady decline (Figure 2). In that period, there was no clear responsibility who will be in charge for establishing a NIS in Macedonia, although the main dialogue was between the MoE (Ministry of Economy) and MoES (Ministry of Education and Science). In addition to the not sufficient expenditure on R&D, the country was lacking national innovation strategy. There was National Entrepreneurship and Competitiveness Council whose role was to raise a dialogue of the private, public and civil sectors on strategic issues for achieving competitive business climate. The Macedonian SME Strategy 2002 – 2013, accompanied by entrepreneurial programmes for measures and activities defining general directions for SME development was in force. Although there was not dramatic improvement in the economic indicators at the end of this period, the strategic steps ahead for SMEs development and setting of the institutional infrastructure for innovation and entrepreneurial support is assessed as very important for the progress of the country (Machacova and Dall, 2008). Overall, key innovation infrastructures that were established before 2008 are: industry clusters, technology and innovation centres and other related organisations for entrepreneurial support. It should be noted that many of the initiatives in this – third period of Macedonian NIS development, were driven by different donor projects in the country (USAID, GTZ, ADA, SIDA, SINTEF, World Bank, EU technical assistance, etc.)

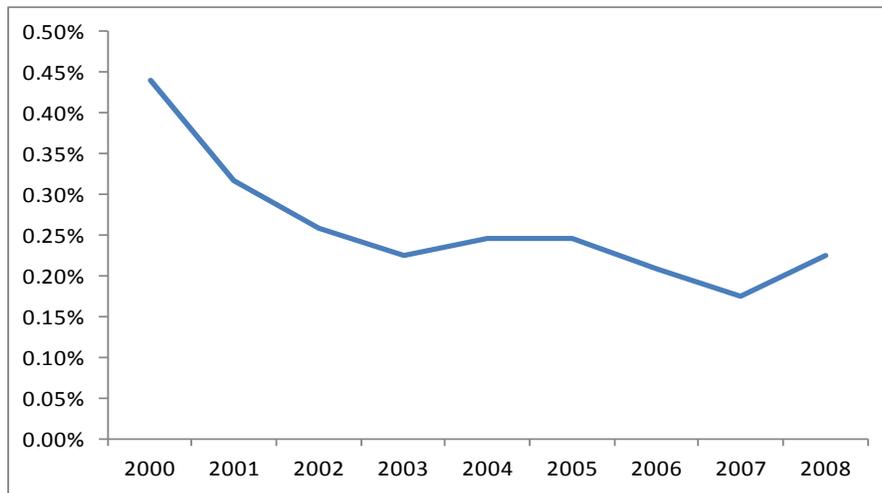


Figure 2 Gross expenditure on R&D - period 2000 – 2010(World Bank, 2013)

From the established infrastructures, the technology transfer centres were located at the universities or individual faculties. The technology transfer centres / offices that were established at Faculty of Mechanical Engineering, Faculty of Electrical Engineering and Information Technology (FEIT), Faculty of Technology and Metallurgy, Faculty of Agriculture and Faculty of Technical Studies – Bitola were financially supported by TEMPUS and GTZ programmes. In addition to these, centre of excellence – CIRKO-MES CE and Business Start-up Center (BSC) were founded in 2005 and 2006 respectively; both are still active and are based at the Faculty of Mechanical Engineering. The former provides access to new technology and training to partner companies in order to enhance their capabilities, increase the quality of their products and improve their production process, while the latter serves as a creative incubator of innovative technology based and service oriented solutions, providing entrepreneurial and small business management training; assisting students and recent graduates to start their own business and to increase their employability.

Independently from the academic sphere, eight business incubators were formed. Seven of them were financially supported by World Bank, while the last one – YES incubator, which is still very active, was supported by Open society foundation and Norwegian technical assistance. Also, Foundation for Management and Industrial Research was established in 2002 by SINTEF, and offers support to SMEs in a variety of areas. The Council of Foreign Investors was founded in 2006 and aims to improve the investment and business climate in the country through the establishment of public-private dialogue, exchange of experience with countries where member-companies propose solutions to overcome business barriers, exchange of knowledge among member-companies and promotion of sound business principles, etc. Center for Entrepreneurship and Executive Development (CEED) was launched in 2007 with the goal to stimulate growth of SMEs through training, mentoring and development of enterprise management teams.

The most important governmental infrastructural initiatives are: The Agency for Promotion of Entrepreneurship of the Republic of Macedonia (APERM), established in 2003 for support of entrepreneurship and competitiveness of the small business sector, and Macedonian Bank for Development Promotion (MBDP), which is also governmental institution for providing financial support to start-ups, developing businesses and export oriented companies through variety of credit lines with favourable credit terms, investment credits, technical assistance, as well as insurance of claims based on performed export against short-term commercial risk.

RECENT ACTIVITIES AND CURRENT SITUATION

The government has recognised the necessity of the innovation infrastructure and set goals for its development and growth (fourth period – after 2008). Among the most important, inter-ministerial group responsible for development of innovation policy was determined. The main challenges in delivering the innovation strategy were recognising and supporting the most proactive public and private innovation drivers. More subtle goals set were reversing the brain-drain of highly educated people and strengthening the capacity of public institutions that deal with science, technology and innovation related issues. The progress in structural reform and a liberalisation of the tax regime for foreign investors was a reason behind Macedonian better performance compared to the other countries from the region, according to the World Bank analysis of the business environment (Bartlett, 2010). When it comes to FDI (Foreign Direct Investments), despite the many positive developments during the 2000s, the Balkan Countries still attract lower rates of FDI than the central European and Baltic countries, because of the image problem. For many potential foreign investors the Balkan area associates to war and conflict, political and economic instability, rather than investment opportunities (Cviic and Santfey, 2010).

This section will retrospect the activities in each of the spheres of Macedonian society in the last 5 years, ending with the most recent attempts and initiatives that currently are in a very early stage.

GOVERNMENTAL (STATE) INFRASTRUCTURE

A new law on technological development defining the legal framework for establishment of incubators, and technology parks was approved by Macedonian Parliament in 2008. Since then, four main strategies which define the activities for enhancing the innovativeness and industrial development are adopted (SEE Project FINNO, 2014).

The first strategy is the Strategy for intellectual property of the Republic of Macedonia (2009-2012). This strategy aims to strengthen the legal framework in the area of intellectual property law, effective and efficient enforcement of intellectual property rights, developing capacity of individual holders and the business community for protection and enforcement of intellectual property rights, as well as strengthening the public awareness of the benefits of intellectual property.

The second strategy, “Industrial policy of the Republic of Macedonia (2009-2020)”, is national strategic document for enhancing the Macedonian industry and economy. This policy is a pro-active, development-oriented, horizontal strategic document that requires integration with all relevant policies for enhancing the competitiveness of the industry. The main weaknesses of Macedonian industry determined in 2008 that are addressed with this policy are: inadequate environment for R&D and innovation activities, low level of cooperation and coordination with higher education, underdeveloped networking, technological obsolescence and low firm-level technology absorptive capacity. With the implementation of the industrial policy, a stable development of the country will be secured based on diversification and modernization of the economy with creation of conditions for production of competitive products, increase of the employment and growth of the export. Industrial policy development also recognizes the need for a shared vision among the Macedonian business, academia and policy leadership for pro-active industrial policy that will encourage the orientation of Macedonian industry towards higher value added products and services based on knowledge, innovation and collaboration. The Industrial Policy includes five areas of intervention: international cooperation and FDI stimulation; applied research development and innovations; eco-friendly products and services for sustainable development; development of SMEs and entrepreneurship; and collaboration via clusters and networks;

The third strategic document, entitled “Program for scientific-research work, technological-technical development in the Republic of Macedonia” has been developed under the Law for scientific-research activity and the Law for stimulation and support of technological development. Scientific R&D is an essential pre-condition for the development of a country, which poses a need to place the development of this area as one of the priorities for advancement of the country and the economy. Besides the importance of the science and research for the country, Macedonia faces a lack of strategic documents. The Macedonian academics and researchers have to be included more heavily in a wider science and higher education area, starting from the regional, through the European, to become part of the global area. The position of small countries depends on their ability for adaptation to global processes. The adaptation to these processes is based on universal knowledge, knowledge on new technologies and informatics innovation.

And finally, the fourth strategy is the Innovation Strategy of the Republic of Macedonia for the period 2012-2020. The competitiveness of the private sector is recognised as the key indicator for economic growth, especially through improving of the knowledge and innovation. This strategy, therefore, aims to transform the national economy into knowledge-based economy capable to compete on the global market with skilled workforce and innovative companies. The strategy was designed within the framework of the Regional Competitiveness initiative, a project conducted by the OECD Investment Compact for South East Europe with the financial support of EU. Focal strategic objectives are: enhancing the business sector propensity to innovate; strengthening human resources for innovation; creation of regulatory environment in support of

innovation and increasing the knowledge flows between innovation actors. The governance structure of the National Innovation System is presented on Figure 3.

Additional governmental documents that relate to the Innovation Strategy are: National R&D Programme (2012-2016) – for facilitating the transformation of Macedonia into a knowledge-based society; Programme for Promotion and Support of the Technological Development (2012-2015) – promotes smart, sustainable and inclusive development based on knowledge and innovation and focused on strengthening the business sector; Action Plan for Competitiveness – prepared with analysis according to the Global Competitiveness Report for 2012 and adopted by the Government in 2012; and Program of the Government of the Republic of Macedonia 2014-2018. Since 2011, the annual programmes of MoE and APPRM have replaced the programme for support of SMEs in Macedonia. The two programmes include series of support, promotion and capacity-building activities. A number of other strategies, programmes and guidelines relate directly to Macedonian ambition to further strengthen its private sector, competitiveness and social cohesion. In this context, the Strategy for Regional Development 2009 – 2019 will also influence the improvement of the business environment in the regions. The focus is on supporting implementation of measures for improvement of entrepreneurship and support to broader economic development, as well as measures for creation of a competitive environment in the planning regions and the creation of functionally spatial structures for improved integration of rural and urban communities.

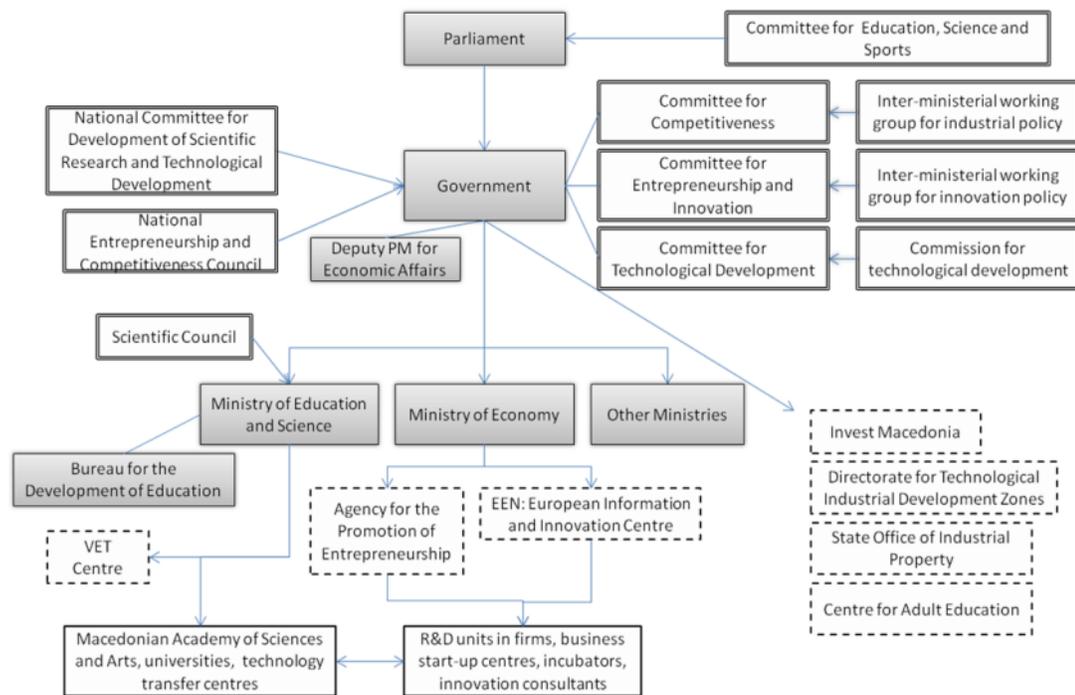


Figure3. Governance structure of the national innovation system
(Innovation Strategy of the Republic of Macedonia for 2012-2020, p.12)

The Law on innovation activity was adopted by the Government in May 2013. It determines the innovation activity, the principles for commercialisation of the innovation outcomes and the interactions between different innovation actors. Different forms of organisations for infrastructural support for innovation activity are determined. Such examples

are: business technological incubators and accelerators, science and technology parks, and centres for technology transfer. For monitoring of the development and commercial exploitation of the innovations, a Committee for entrepreneurship and innovations, consisted of president and 16 members, is created. The president of this Committee is the prime minister, while the members are relevant ministers and deputy ministers. According to this law, MoES is responsible for preparation of the innovation strategy and delivering of the action plans for three years periods.

Fund for innovations and technology development (FITD) is also foreseen by the Law on Innovation Activity. The main role of this body is financial assistance for research, development and innovations to the companies, especially SMEs, through grants, conditioned loans (royalty), equity investments, facilitation of the access to the regional funds, and so on. The process of the allocation of the available resources will be consisted of: announcing a call for projects, collection of applications, process of evaluation, approved projects for co-financing, monitoring the results and their public presentation. It is envisioned that this body will be developed in two stages, the first funded only by the Government, and the second stage to be funded by the World Bank and IPA funding scheme, in addition to the Government. In the first stage, the start-ups will be supported with grants up to €10,000, commercialisation of innovations with funds up to €30,000, while the financial support for equity and mezzanine investments will be up to €80,000 per project.

The two most important governmental infrastructural organisations reviewed in the previous historic period, MBDP and APERM, are keeping their continuity and successfully fulfil their roles. Since 2009, MBDPhas maintained intensive cooperation with the European Investment Bank (EIB)resulting in several contracts for EIB credit lines, which finances would be used for support of the SME sector and the development of other priority areas.APERM is continuously implementing its activities in cooperation with regional centres and other enterprise support organisations. One of the activities is innovation voucher scheme for boosting the knowledge-capacity of SMEs by building links with the knowledge providers.

NON-GOVERNMENTAL SECTOR

Although many of the infrastructural facilities for innovation and entrepreneurial support established in the previous period disappeared due to lack of continual financing or other difficulties, their efforts and outcomes have great impact on the development of the non-governmental sector. Among the most successful organisations that still operates is Youth Entrepreneurship Service (YES) Foundation. Its main component is YES business incubator, which supports SMEs in the ICT field though the process of business incubation, offering access to services for accelerating their growth and development. Similar positive activities are evident from the Business Start-up Centre located in Bitola (supported at the beginning with Holland technical support, and lately with USAID support).

Business Angles are new on the market with Superfounders starting its operations in 2012, with primary focus on the software development market.The Enterprise Europe Network (EEN) assists “small companies make the most of the business opportunities in the European Union” and provides information on EU business matters (e.g. EU markets, business cooperation, partner search, EU funding and tenders, EU legislation, EU standards, etc.).

The non-governmental sector is additionally strengthened with new civil organisations, as well as with private organisations for infrastructural support of innovation activities, defined by the Law on innovation activity. One of the most active non-governmental organisations is the

National Center for Development of Innovations and Entrepreneurial Learning (NCDIEL), established 2009 with a financial support from Austria Development Cooperation. The center supports the realisation of innovative, technology-based and profit oriented ideas through the provision of capital for start-ups, counselling and coaching of established SMEs in order to strengthen survivability, capacity and newly established enterprises. There are more than 20 registered clusters in the country. However around 10 of them are actively, including the MASIT led IT cluster, Textile cluster, MAP cluster (Macedonian Association of Food Processors), Food Cluster, Wine cluster, etc. Recently (July 2014), NCDIEL received support from MoE to establish a National Training Cluster Academy with the aim of offering tailored training programs for clusters and their members. As a representative of privately owned companies for infrastructural support of innovations is NewMan's Business Accelerator (NMBA) established 2014. The mission of this Macedonian-US company is bridging the gap between all actors of the NIS through providing professional education of young talents and business-technical support.

UNIVERSITY-BASED ACTIVITIES

In the last five years, the academic sector experienced rapid changes governed mainly centrally by the Government, in both: educational and business roles. The reforms in the educational system have its beginnings in 2006, with the gradual improvements of the educational programmes in respect to business and entrepreneurship. Up to now, the curricula for primary, secondary and tertiary studying cycles are enriched with extended set of business and entrepreneurial learning. Structurally, the high-educational segment was reframed with establishment of new universities, resulting with 5 state and 15 private universities at present day.

On the other hand, the business role of the academia was disrupted by the new legislatives. However, some of the organisations, such as CIRKO-MES CE and BSC, managed to keep their continuity. In 2013, the academic sector was enhanced with two very significant infrastructural facilities: SEEUTechPark, located on South-East European University campus, and Regional Hub for Social Innovation based on Faculty of Computer Science and Engineering (FINKI), founded with financial support of UNDP. The main role of the former is incubating new firms from ICT industry, while the later serves as technology transfer office for social innovative solutions.

PLANNED ACTIVITIES

The current period is marked with planning of radical structural changes and initiatives that are expected to have significant influence on the development of national knowledge-based economy. Therefore we have decided to emphasize them despite of their very early development stage.

The MoES, which is becoming dominant governmental unit for the establishment of the triple helix setting (Polenakovik and Pinto, 2010), has announced that it will be restructured. The planned restructuring envisages establishment of new National centre for technology transfer that will integrate all activities for transferring novel technology from high-educational and research institutions to industry. The Centre should serve as an umbrella to different technology transfer activities that already exist at the universities and businesses. Another anticipated activity is founding of National Cluster Academy (supported by the Ministry of Economy). The academy will strengthen and integrate the industrial clusters. The Fund for innovations and technology development, which was initiated by the Government and founded as national independent body, should announce its first call for innovative projects soon.

Recently, new initiative for establishment of Technology Park was undertaken by the Faculty of Electrical Engineering and Information Technologies, Ss. Cyril and Methodius University. The park should be situated at the campus for technical faculties and it is planned this park to satisfy the needs of all technical faculties at the state university.

DISCUSSION AND CONCLUSION

This paper reviews the main activities for developing innovation infrastructure and enhancing the innovation capacities in the Republic of Macedonia. The constraints experienced in the development of NIS are similar to those of other ex-socialist countries (Huggins and Strakova, 2012). In these two decades of independence, the country has constantly been undertaking evolutionary strides in each of the three spheres of the society: academic, industrial and governmental. From the given retrospective, it can be noticed that many of the infrastructural organisations created during these two decades extinguished due to disability to adapt to the changed legal framework, or lack of continual financing. However, these organisations were crucial lever in improving certain aspect of the society during their existence and their impact can be considered as significant contribution to the prosperity of the country.

In the last decade, the reforming steps for improving the competitiveness by deepening the regulatory reforms and strengthening the rule of law to attract foreign investments are assessed very positively by the European and international experts (World Bank, 2013). The reforms of the business environment and simplifying of the business registration system encourage opening of new businesses. However, despite being committed to a reform program for over a decade, including fiscal consolidation and reforms in the public sector, labour market and business environment, the reforms are yet to lead to sustainable results. In fact, the country still suffers from low growth in GDP, high unemployment and low FDI in comparison to other countries in South East Europe (World Bank, 2014).

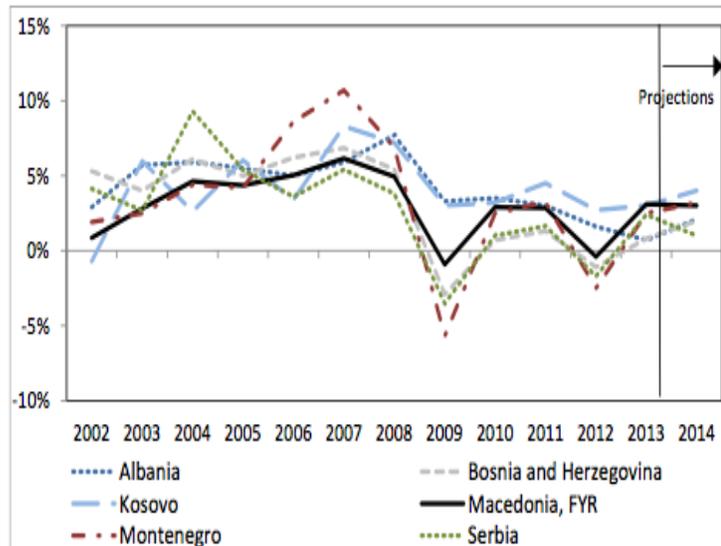


Figure 4. GDP level of Macedonia in comparison to the other South East European countries (World Bank, 2014, p.2)

In 2009, GDP(Figure 4) shrank by 1%, and then it bounced back in 2010 and 2011 with an annual growth of 3%, while falling flat in 2012. In 2013 GDP showed a recovery of approximately 2%, a growth which appears to continue in the first two quarters of 2014 (average growth of 3.1%), making Macedonia one of the better economic growth performers in the region in recent years. This recent growth is primarily a result of a boost in construction, driven by public investments (World Bank, 2014). On July 28 2014 the IMF predicted that the country's GDP would expand by 3.4% in 2014, while inflation would be as low as 1%.

	2010	2011	2013 (for 2012)	2014 (for 2013)
Summary Innovation Index (SII)	0.228	0.252	0.238	0.246
Current performance - MK				
ENABLERS				
Human resources				
1.1.1 New doctorate graduates	0.3	0.4	0.5	0.6
1.1.2 Population completed tertiary education	14.3	17.1	20.4	21.7
1.1.3 Youth with upper secondary level education	81.9	82.8	85.3	87.1
Open, excellent and attractive research systems				
1.2.1 International scientific co-publications	N/A	117	134	147
1.2.2 Scientific publications among top 10% most cited	N/A	N/A	3.08	3.6
1.2.3 Non-EU doctorate students	3.36	1.31	7.04	7
Finance and support				
1.3.1 R&D expenditure in the public sector	0.14	0.14	0.14	0.2
1.3.2 Venture capital investments	N/A	N/A	N/A	0.289
FIRM ACTIVITIES				
Firm investments				
2.1.1 R&D expenditure in the business sector	0.04	0.04	0.04	0.02
2.1.2 Non-R&D innovation expenditure	0.9	0.9	0.9	0.9
Linkages & entrepreneurship				
2.2.1 SMEs innovating in-house 31,8	11.3	11.3	11.3	11.3
2.2.2 Innovative SMEs collaborating with others	9.6	9.6	9.6	9.6
2.2.3 Public-private co-publications	N/A	N/A	0	0
Intellectual Assets				
2.3.1 PCT patent applications	0.13	0.22	0.18	0.42
2.3.2 PCT patent applications in societal challenges	N/A	N/A	N/A	1.47
2.3.3 Community trademarks	0.06	0.24	0.26	0.49
2.3.4 Community designs	0.06	0.03	0	0.03
OUTPUTS				
Innovators				
3.1.1 SMEs introducing product or process innovations	39.2	39.2	39.2	39.2
3.1.2 SMEs introducing marketing/organisational innovations	30.8	30.8	30.8	30.8
3.1.3 Fast-growing innovative firms	Not measured	Not measured		18
Economic effects				
3.2.1 Employment in knowledge-intensive activities	N/A	10.6	7.2	7
3.2.2 Contribution MHT product exports to trade balance	30.45	53.43	5.42	5.92
3.2.3 Knowledge-intensive services exports	28.66	29.35	27.85	22.5
3.2.4 Sales of new to market and new to firm innovations	9.9	9.9	9.9	9.9
3.2.5 License and patent revenues from abroad	0.06	0.06	0.1	0.28

Figure 5. EIS/IUS for Macedonia for the period 2010-2013 (EIS/IUS Reports)

According to European Innovation Scoreboard (EIS) and Innovation Union Scoreboard (IUS) for the last 4 years, the Summary Innovation Index for Macedonia fluctuates (Figure 5), with the highest noticed index for 2011 (0.252). Generally, the enabler indicators measured are in a steady rise, which is result of the improvements in the quality of human resources, research

systems and the additional funding sources available (Business Angel network, Balkan Venture Forum, Accelerator program and Several International Donor grand schemes). The governmental decision for equipping 80 laboratories in public institutions, which investment in total is around 60 million Euros, is an excellent initiative for boosting the R&D. In addition to this, scholarships for studying abroad are provided and a brain gain strategy is adopted. The educational role of the educational institutions is significantly improved with respect to innovations and entrepreneurship (introduction of courses Innovation and Entrepreneurship in 1st, 2nd and 3rd year in secondary schools since 2012, and Innovation in 9th class of primary schools since 2014), although the results are intangible and very difficult to be measured especially on a short term. Indeed, developing soft and difficult-to-measure infrastructure, such as knowledge networks present in competitive regions as a source for generating higher level of innovativeness and growth is often part of the problem in developing countries (Todtling and Trippl, 2005). The core of the triple helix model is the academic sphere where the universities are increasingly entrepreneurial institutions that create the knowledge spillover (Etzkowitz, 2006). This role for the universities as sellers of knowledge, skills and technology is secondary, or business oriented and it should be facilitated by infrastructure, such as technology and science parks, business incubators, as well as human capital development programmes. As mentioned earlier in the paper, new units at universities for strengthening the business role have just been established and their expected impact could be discussed after certain period. The same case is with the new laboratories. Without a real use of these infrastructural units and equipment for the real needs of SMEs, the collaboration with industry will remain limited to isolated best practices, which is on a very small scale to have certain impact on the national economy. Therefore, enhancing the business role of Macedonian universities is a remaining challenge for the future. In that direction, several of the activities of the national program for competitiveness and entrepreneurship of the Ministry of Economy support triple helix activities (in depth trainings of different topics provided by the university staff for targeted industrial sectors; trainings for cluster organisations supported by university guidance, etc.)

RECOMMENDATIONS ON FUTURE NIS DEVELOPMENT

Hard-working and committed Government is a strong precondition for development and growth of the effective NIS, especially in post-socialist countries, such as the Republic of Macedonia, due to the inherited dominance of this sphere over the other two in the triple helix constellation. In that direction, one of the priorities of the Government should be significantly to increase R&D investments as a part of GDP to 1% up to 2020. Also, the part of the business sector investment in R&D must be increased significantly. Nevertheless, learning from the advanced societies, giving more autonomy to universities will enhance their business role and will initiate demand for their services by the industry, which results in attracting investments for innovation from the industrial sector. The business role of the universities could be also encouraged by unconditional support from the top management (Rectors, Deans, Heads of the institutes). Additional advice from the other Western Balkan Countries examined is that educational curricula should be constantly improved due to detected inapplicability to industrial, and especially to SMEs' needs (Huggins and Strakova, 2012). Recently, Polenakovik, Penaluna & Penaluna (2014) presented a methodology for closing the gap between current competences of graduates, and skills needed on the labour market that included activities/measures that should be taken on different levels (macro, mezzo, micro, sub-micro) by different institutions/actors.

The FITD that was launched recently should foster and financially support the innovative activities and industry collaboration with research institutions. The foreseen programmes are: co-financing grants to support start-ups, spin-offs and innovation activities (up to 30.000 Euros and up to 85% of the project), co-financing grants and conditional loans for innovation commercialisation (up to 100.000 Euros and up to 70% of the project), co-financing grants for technology transfer (up to 200.000 Euros and up to 50% of the project), and technical assistance through business-technology accelerators (accelerators: up to 500.000 Euros and up to 75% of the project). It is very early to speculate, but it seems that these financial resources might not fully satisfy the real industrial needs. However, the challenges for this institution are determining the domestic champions in each area and supporting them with sufficient financial resources. In addition, the role of the government will be to find additional funds to support of FITD, while private funds (private investors, venture funds, business angels, hedge funds, etc.) should also find their interest to match the state FITD.

Developing an objective set of indicators for assessing the progress and impact of the plans and activities related to NIS is a must for all three spheres. The evaluation of the established innovation infrastructure will give invaluable feedback for its further improvement. Also, the coordination of the institutions is crucial for avoiding the duplication of work and for unlocking the real power of synergy between the innovation actors.

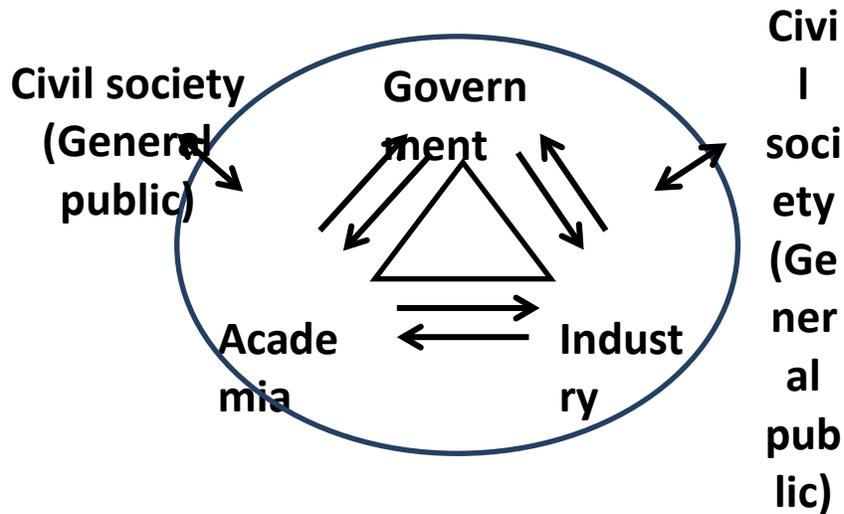


Figure 6. Quadruple helix for further development of Macedonian NIS

Eventually, the last challenge is leveraging the triple helix to quadruple helix by adding the civil society as fourth collaborator (Polenakovik, 2014), which transforms the innovation system into democratic and socially accountable through encouraging a feedback from the key stakeholders to the proposed decisions and strategies (Figure 6).

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ACCESSING FINANCE FOR INNOVATIVE EU SMES – KEY DRIVERS AND CHALLENGES

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Abstract

The small and medium enterprises (SMEs) play a vital role in economic development, they offer the most economical use of capital in relation to job creation and provide the strongest channel for development and innovation. Innovation is recognised as an essential component of the economic growth process, broadly defined as the development, deployment and economic utilisation of new products, processes and services.

SMEs are crucial for helping economies to restructure quickly in response to changing economic, social and market conditions, under the impact of international financial crisis. However, the SMEs can fulfill this potential if they obtain the finance necessary to start and develop their businesses. Access to finance is a key determinant for business start-up, development and growth for SMEs, including the innovative ones and they have different needs and face different challenges.

The limited market power, the lack of management skills, the absence of adequate accounting records and insufficient assets, the transaction costs and lack of collateral, all tend to increase the risk profile of SMEs. Moreover, uncertainty and informational asymmetries that characterize SMEs are amplified for innovative SMEs making it more difficult for them to access finance through traditional means.

The current economic environment has brought SME needs into particular focus given the significantly tightened credit supply conditions arising from the reduced ability and willingness of banks to provide the financing.

In order to improve the access to finance for SMEs, the efforts should be focused at the European and national levels on solving the problems regarding the working capital, improving the entrepreneurship and financial environment in the long term, attracting new financial resources, facilitating dialogue and consultation between governments, SMEs and financial institutions.

Keywords: financing, innovative SMEs, financial crisis, European Union

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INTRODUCTION

The SME sector represents an important actor in the complex process of developing a modern and dynamic economy. The arguments in favor of this fact consist on the substantial contribution of SMEs to the economic development (Biggs, 2002), (Newberry, 2006) and job creation, their ability to adapt quickly to the structural changes in the global economy. As well, SMEs are considered main actors for industrial growth (Acs and Audretsch, 1987), a source of considerable innovative activity (Thurik, 1996), (Nooteboom, 1994), they contribute to the development of entrepreneurship (Johnson and Cathcart, 1979) and contribute to the competitiveness' increase (Song and Parry, 1997).

An important part of the European economies (representing 99% of all enterprises and 57% of economic value added), SMEs are essential for the economic recovery. The SMEs can act as catalysts for change, helping economies to restructure quickly in response to changing economic, social and market conditions. This is why it is important to support SMEs in order to help the whole economy to regain strength and to return to sustainable growth.

Despite the measure taken in order to support the SMEs sector, the main problem they have to face, it is the access to finance. In fact, in the economic literature is recognized that these economy actors are in general confronted with the lack of financing sources (Berger and Udell, 2005), (Ayyagari et al, 2006), (Beck, 2007).

The ability of SMEs to access finance is important for facilitating new business startups, funding business investment, ensuring businesses reach their growth potential. The lack of finance can constrain cash flow and affect businesses' survival prospects.

Comparing with the large firms, the small and medium firms are particularly vulnerable because:

- they have weaker financial structures or lower capitalisation;
- their activities are less diversified;
- they have lower or no credit ratings;
- they are heavily dependent on credit;
- they have fewer options for finance, especially in financial markets.

The different financial characteristics of SMEs compared with larger ones require particular policy responses to foster a functioning finance market for them.

Moreover, for innovative SMEs the uncertainty and informational asymmetries are amplified making it more difficult for them to access financing: the returns to innovative activities are often uncertain; entrepreneurs may possess more information about the nature and characteristics of their products than potential financiers; innovative activities are usually intangible thereby making the assessment of their monetary values difficult. Thus, financing innovative SMEs could be very risky and uncertain, making it difficult to come up with a mutually agreeable financing contract.

The international financial crisis represents another new threat for SMEs financing and development which are related with innovation and competitiveness.

In fact, the financial crisis has highlighted many structural weaknesses in the European economy. In the current period, reforms to achieve greater efficiency are urgent and feasible; alongside these reforms, there need to be continuous investment and smart fiscal consolidation for the recovery. Also, the economic crisis has shown that there is a need for stronger integration of research and innovation in broader industrial and macro-economic policies.

Over the past two decades the European Commission (EC) has aimed to develop a comprehensive range of financial policies and instruments to support SMEs with the most appropriate sources and types of financing at each stage of their life.

An effective innovation policy requires a combination of three crucial dimensions: Europe needs to reform, invest and transform. The future beyond the crisis depends on having the capacity to transform the structure of the economy towards more knowledge-intensive and innovative industries and services (EC, 2013a).

The Europe 2020 strategy relies to a large extent on efforts made at country level, to which European instruments can contribute. Therefore progress towards a European Innovation Union is closely linked to the performance of Member States in mobilizing reforms of research and innovation systems, investing in knowledge and making structural changes.

FINANCING THE SMALL SME: FEATURES, CHALLENGES AND BARRIERS FINANCING LIFECYCLE OF INNOVATIVE SMEs

SMEs are a very heterogeneous group, which includes a wide variation of firms, and a subset of SMEs is dynamic, innovative, and growth-oriented.

Innovative' SMEs are defined as having introduced innovation in at least one area, such as products, services, marketing, production or management.

SMEs are important for innovation in manufacturing and services. Some arguments in this sense could be their simple organizational structure, their low risk and receptivity as the essential features facilitating them to be innovative (Harrison and Watson, 1998). Also, SMEs engage in technological innovations in a wide range of sectors and they are important sources of employment and productivity growth (Audretsch, 2002). However, the innovative capacity of SMEs tends to vary with the age profile of the companies, their size, their sector and the business environment in which they operate (Burrone and Jaiya (2005).

In recent years, an increased interest has emerged in the role of young innovative companies in generating productivity growth and competitiveness. But compared with US economy, young European firms reveal lower innovative capacity and most of them do not survive very long (Santarelli and Vivarelli (2007).

Unsurprisingly, the young innovative companies face financial constraints, both internal and external, significantly more than other innovation active firms. Also, the regional dimension, business environment, knowledge intensive services, high skilled labour are often seen as an important factor to determine the success or failure of young innovative firms. (EC, 2012).

One of the characteristics of the innovative SMEs is that each growth phase has different financing requirements and these can be met by various sources. (Figure 1)

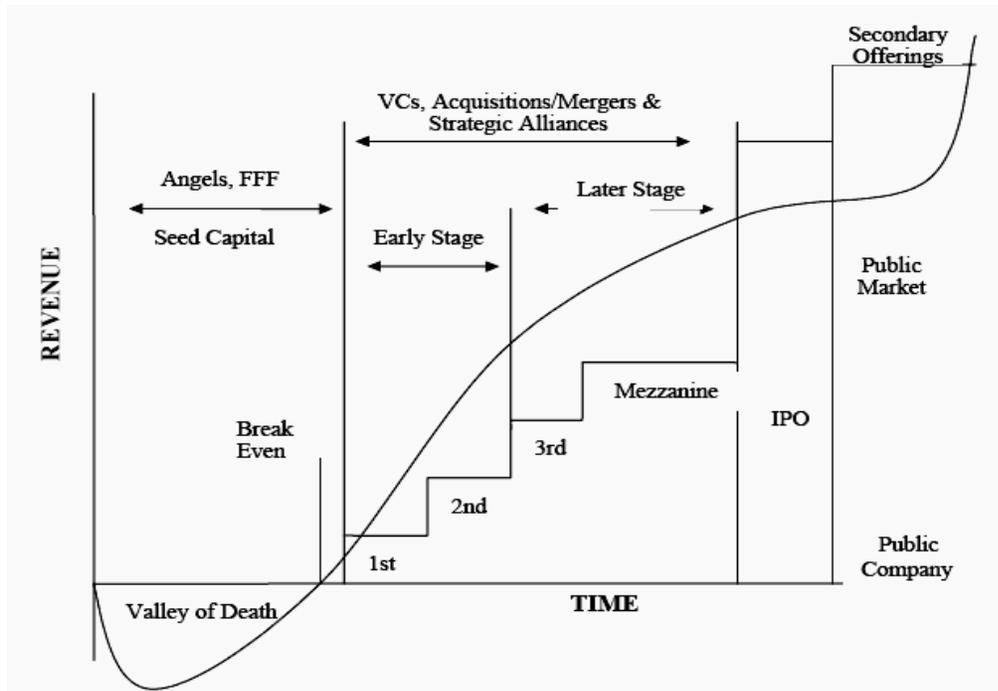


Figure 1. Financing lifecycle
Source: Mario Cardullo, 1999

The innovative start-ups tend to be highly risky with intangible assets and the perspective of years with negative earnings make extremely difficult to secure a loan from banks. Therefore, the personal savings of entrepreneurs, family and friends are often the most important source of finance. Recognizing a higher risk associated with financing innovative start-ups, some countries have government guarantee schemes to fill possible financing gaps (OECD, 2004).

In the second phase of survival the investment is still highly risky with high failure rates and the external sources becomes more important but the firms are not large enough to attract the venture capitalists. In general, business angels fill the gap between personal funds and institutional venture capital funds and contribute their expertise, knowledge and contacts both formally and informally to the business they invest in (Thompson and Sang-Mok, 2002).

After the firm has passed through the early stage, it requires a further injection of capital to fund the growth of its manufacturing and distribution capacity. However, its reliance on intangible assets with uncertain cash flows still affect the access to debt financing. Moreover, a low profitability and short track record make it unsuitable to raise equity through public listing.

Venture capitalists alleviate uncertainty and informational asymmetries associated with young firms by actively analyzing firms intensively before providing capital and monitoring them afterwards.

IPOs also enable firms to obtain finance more cheaply from banks. A reduction in the cost of bank credit may partly be related to improved financial information associated with stock exchange listing. In any case, as firms become larger, they increasingly rely on institutional investors and banks as their primary source of finance (OECD, 2004).

MAIN OBSTACLES ON FINANCING INNOVATIVE SME

In an interdependent and integrated world economies innovation became a essential component of the economic growth process. However, SMEs has to face a number of impediments to their growth and survival including limited access to financing.

The main obstacles to getting finance for SMEs are the followings:

- the *informational asymmetries* between small businesses and investors;
- the *higher risk* associated with SMEs activities;
- the *transactions costs* in handling SME financing;
- the lack of *collateral*,
- *institutional and legal factors*;
- *constraints on the SMEs side* related to the quality of projects, negative attitude towards equity financing or inability to use the available source of financing.

Informational asymmetries are in general related to the privileged information for the entrepreneurs that that cannot be accessed by the potential lenders or investors. Besides, the information that SME can provide to external financiers (financial accounts, business plans, feasibility studies, etc.) often lacks accuracy and rigor, mostly because of lack of management skills of the small entrepreneurs.

In this case, can appear an “adverse selection” problem for the investor, who can not make the correct choice between companies and projects and can lead to a risky portfolio.

Besides, after the investors have supplied the funding, they may not be able to assess if the firm is utilizing the funds in an appropriate way which can generate a “moral hazard” problem.

The informational asymmetries that characterize SMEs are amplified for innovative SMEs making it more difficult for them to access finance through traditional means:

- first, the returns to innovative activities are often highly uncertain (development of new products and new processes in untested markets);
- second, entrepreneurs may possess more information about the characteristics of their products and processes than potential financiers;
- third, innovative activities are usually intangible thereby making the assessment of their monetary values difficult before they become commercially successful.

Another difficulty faced by SME in accessing finance is related to their *higher risk* profile compared with the larger companies. SME face a more uncertain competitive environment than larger companies (they experience higher rates of failure); SME are comparatively less endowed in terms of human and capital resources to face economic challenges and there is the problem of inadequate information systems concerning profitability and repayment capacity.

For the innovative SMEs, the risks are even increased. It should be taken into consideration that the innovation cycle is a complex process which begins with an idea of a product and continue through prototype development and testing. The financing of this cycle needs a series of capital flows, and failure to finance any part of the cycle may cause the failure of the firm.

Another important issue in handling SME financing are the *transactions costs*. Irrespective of risk profile considerations, the SME financing involves the following costs: administrative costs; legal fees and costs related to the acquisition of information. In the case of smaller loans or investments, it is more difficult to cover these costs.

The lack of collateral is related to the debt financing; lenders typically request *collateral* in order to mitigate the risks associated with the credit. The enterprise may be unable to provide

sufficient collateral in the early stages and this problem is closely related to the ‘higher risk’ and the moral hazard issues.

In the case of innovative SMEs, the issue of collateral is even more severe because the intangible nature of innovation activities and assets generated through such innovation.

In the case of many countries, the obstacles to SME financing are generated by *institutional and legal factors*, such as:

- restrictive government regulations regarding the banking sectors, conservative lending policies, high interest rates;
- insufficiently developed legal systems effectively prevent the development of certain financing instruments, including the use of collateral as a risk-mitigating element;
- the underdeveloped “information infrastructure”. There is a lack of credit bureaus and other mechanisms for collecting information on payment performance. This inevitably exacerbates the informational asymmetries between enterprises and investors.

But should be underlined that the constraints on the “demand side” have also an impact on accessing financing by SMEs; the following factors play a significant role:

- lack of satisfactory business plans, accounting and other information;
- the low quality of projects submitted for financing;
- the inability of SME to make the best possible use of available sources of funding (dealing with financial institutions);
- insufficiently high levels of profitability, liquidity and other business-financial performance criteria on the part of funding applicants;
- the negative attitude displayed by SME toward equity financing control over the company by outsiders.

In a nutshell, financing innovative SMEs are risky and uncertain. Therefore, innovative SMEs appear to suffer from imperfections and inefficiencies in their use and access to various sources of finance.

EU SME FINANCING – RECENT TRENDS

The financial crisis increased the financing gap for SME financing. Banks tightened lending standards during the financial crisis. This resulted in shortened maturities, increased collateral requirements and higher interest rates. (Dalberg, 2011).

In fact, one of the first difficulties reported by the SMEs are related to the access to financing accordingly with a EC recent survey - “2013 SMEs’ Access to Finance”, November 2013 (figure 2).

The micro SMEs (18%, i.e. 1-9 employees) were more likely to report access to finance as the most pressing problem compared to larger SMEs (12%-15%, i.e. 10 – 49 employees and 50 – 249 employees). Similarly, as the company turnover increased, the likelihood to report access to finance as the most pressing problem decreased (EC, 2013b).

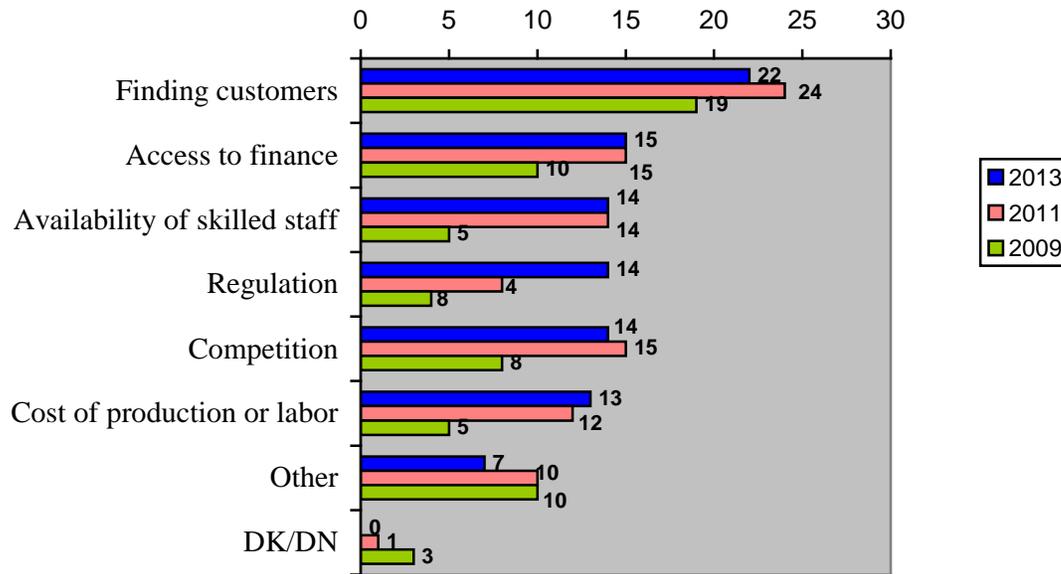


Figure 2. The most pressing problem faced by EU SMEs
 Source: European Commission, “2013 SMEs’ Access to Finance”, November 2013

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Differentiated by level of innovation, 17% of innovator SMEs reported it as the most pressing problem whilst it was only 13% for the non-innovators.

Considering the variation across the countries in terms of the severity of *access to finance* problem, Slovakia was most likely report the issue as “extremely pressing” (42%), followed by Greece (28%) and Cyprus (26%). On the other hand, Estonia was the least likely to report *access to finance* as “extremely pressing” (3%), followed by Finland (5%) and the Czech Republic (5%) (EC, 2013b).

Regarding the recent sources of financing, external and internal, it was most common for EU SMEs to have only used external financing in the previous six months: just over half (54%) looked for external financing only, slightly lower than in 2011 (56%).

For innovative firms, the external finance preferences are very similar to other types of SMEs and the bank loans were the most preferred source of financing (64%). Innovator SMEs were also more likely to access a loan (54%) than non-innovators (45%).

In general, there are no statistically significant differences between SMEs and innovator SMEs in accessing finance sources.

22% of SMEs used both internal and external sources of funding, while only a few (4%) used only internal funding sources. One in five (20%) had not used any source of financing in the past six months, the same level as seen in 2011. Avoidance of usage of any form of financing was especially high among SMEs in Romania, Latvia and Portugal (36%-42%, almost twice the EU average of 20%) (figure 3).

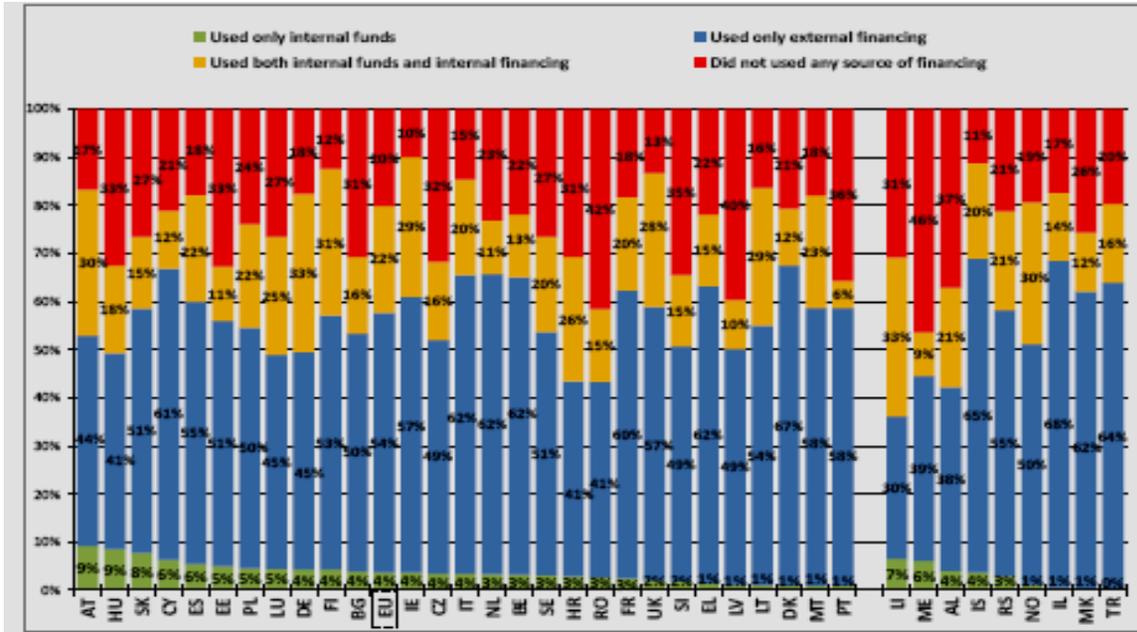


Figure 3. EU SMEs: use of internal funds and external financing
 Source: European Commission, “2013 SMEs’ Access to Finance”, November 2013

Internal funds were used as one of (or the only) source of financing by 26% of EU SMEs in the previous six months. This is only slightly above 2011 levels (24% for the EU 27) suggesting that the need for retained earnings and assets followed a rather stable trend. (figure 4)

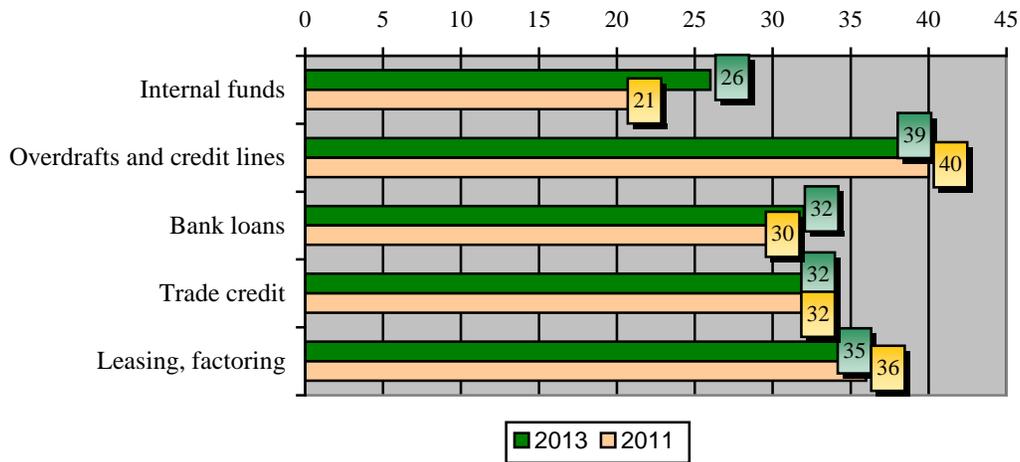


Figure 4. Financing structure of Euro area for SMEs
 Source: European Commission, “2013 SMEs’ Access to Finance”, November 2013

Many other sources of financing continue to be widely used, as in 2011 - in particular, bank overdrafts (39%, comparable to the 2011 level of 40%).

Close behind were leasing/hire purchase/factoring (35%, very close to 2011 level of 36%), trade credit (32%, the same as 2011 levels) and bank loans (32%, very close to 2011 level of 30%).

The two largest obstacles to external funding identified by SME managers were insufficient collateral and interest rates being too high – both were selected by 20% of managers in 2013, the same as in 2011, whilst the proportion claiming insufficient collateral has dropped two percentage points (figure 5).

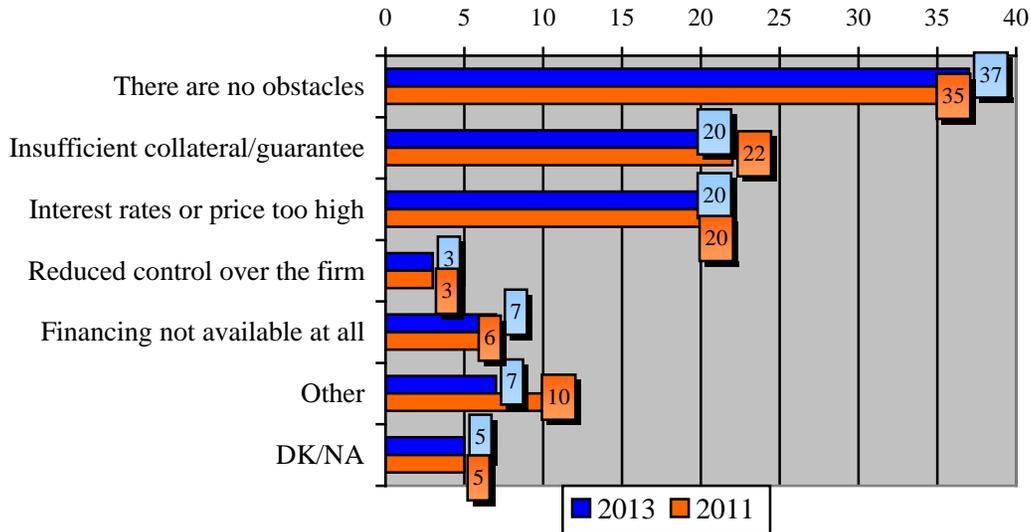


Figure nr. 5. Most important limiting factor to get external financing

Source: European Commission, “2013 SMEs’ Access to Finance”, November 2013

Amongst innovator firms that prefer bank or other loans as their source of external financing, 33% of innovators said they foresaw no problems in obtaining funds, compared to 36% overall (and 42% of non-innovative firms).

Innovator firms were significantly more likely than non-innovative firms to report that the availability of bank loans would increase, with 16% of innovators and 11% of non-innovators saying that availability would improve. (EC, 2013b).

Regarding the availability of equity investments there was only single percentage point difference between innovators (2%) and non-innovators (1%).

In terms of levels of usage of internal funds there was a significant difference between innovator SMEs (28%) versus non-innovators ones (23%).

Both in terms of changes in a firm’s own capital and a firm’s own credit history, innovator SMEs reported higher levels of improvement compared to non-innovators. (29% vs 23% for firm’s own capital and 24% vs 21% for firm’s credit history) (EC, 2013b).

Innovative SMEs were more likely to show high levels of turnover growth (16% in 2013) than non-innovators (10%) and less likely to be stable non-growers (19% versus 26%).

The proportion of innovator managers who selected other types of external financing were also close to the overall averages, with no significant differences.

M TOWARDS A BETTER FINANCING FOR INNOVATIVE SMES

There is a general recognition that the availability of adequate financing is crucial for business growth and development.

Policies to reduce financing gaps faced by innovative SMEs can be framed into three directions (OECD, 2004):

- First is to ensure the operation of efficient financial markets and innovative SMEs to have access to a reasonably priced credit;
- Second is to reduce uncertainty and risks associated with financing innovative SMEs;
- Third is to reduce information asymmetries between innovative SMEs and potential investors.

a) Efficient financial markets:

- There needs to be a viable equity market: well trained fund managers who can properly access the risk profile of innovative SMEs; a viable exit mechanism such as secondary stock markets; investment regulations that are flexible enough to allow institutional investors to participate in the equity financing of innovative SMEs. In this case, innovative SMEs need to have access to government programs, bank loans or foreign equity markets for financing.

- It is important investors to able to evaluate the nature and quality of the assets that innovative SMEs create and develop. Innovative SMEs should aim to develop a reporting system about the nature of their intangible assets (skills, intellectual property rights, etc.).

- Ensure a stable competitive banking industry. Through a proper regulatory framework, governments need to encourage commercial banks to make their credit available to innovative SMEs and increase transparency of lending practices.

- Strengthen the capacity to evaluate innovative SME credit worthiness by using information technology and statistical tools by financial institutions.

b) Reducing uncertainty and risks associated with financing innovative SMEs:

- Effectively manage public sector loan guarantee or equity guarantee programmes in order to reduce risks associated with financing innovative SMEs.

- Using of privately led insurance schemes for innovative SME loans through small business associations that can provide an insurance (or guarantee) on bank loans.

- The governments can stimulate the provision of private risk capital through co-investment and reduce taxes on capital gains for investment in SMEs by venture capital funds.

- New systems are needed to evaluate the credit risk of SMEs on a company basis rather than on a sectorial basis.

c) Reducing informational asymmetries between innovative SMEs and potential investors:

- Improve the transparency of corporate performance, this would help overcome information asymmetries between borrowers and financial institutions.

- Increase access to global capital markets. Governments can provide information on raising funds in global capital markets and support the formation of transnational business networks.

- Improve information on the creditworthiness of potential borrowers, by promoting the establishment of credit bureau and “credit mediators” in order to support SMEs to elaborate business plans and financial projections.

- Support the SMEs managers to better understand the financing options available including existing government programs.

There are already a large number of government programs to deal with SME financing constraints. But these programs are often characterized by overlap, fragmentation and competition among managing agencies.

The economic crisis has shown that there is a need for stronger integration of research&innovation in broader industrial and macro-economic policies. Most Member States are engaged in the strategic priority setting of specific science and technology profiles.

At the European level, the major instruments to provide direct support and a favourable environment for growth of SMEs are:

- the Horizon 2020 - programme for research&innovation for 2014-2020 with a €80 billion budget;
- Programme for the Competitiveness of Enterprises and SMEs (COSME) with a €2.3 billion budget.

The major contributions from Horizon 2020 to SMEs development are:

- the provision of financial support to own innovation projects by the SME instrument;
- the possibility to engage in the context of large projects with research institutions and to access specific financial instruments for technology and innovation based firms.

Moreover, Horizon 2020 provides direct support to the Enterprise Europe Network, a key player in improving SMEs' access to funding opportunities. On June 2013 the European Commission expanded the single portal on EU finance by including to it the EU structural funds. The merge enable an easier access to information, advice and expertise for businesses longing for finance.

The domains of major activities of the COSME programme are: providing access to financing for growth oriented companies that do not fall under the focus of Horizon 2020; developing better framework conditions for SME growth in sector of strategic interest, in particular through clusters; supporting the internationalisation of SME business activities.

The SME support will be targeted with a dedicated SME instrument for which the highly innovative SMEs with a clear commercial ambition and a potential for high growth are the prime target.

The SME Instrument offers business innovation grants for feasibility assessment purposes and innovation development & demonstration purposes; free-of-charge business coaching, in order to support firm's innovation capacity; access to a wide range of innovation support services and access to risk finance.

“Innovation in SMEs” also includes actions that provide indirect support to SMEs in the form of tailored services and projects (innovation management capacity building, IPR management, etc.), networking, mobilization actions for innovation service providers and policymakers. Also, it includes activities intended to support entrepreneurship, internationalization, and improving access to markets (through the COSME programme).

Horizon 2020 actively supports SMEs by providing both direct and indirect financial support to increase their innovation capacity. “Innovation in SMEs” aims at creating a bridge between the core of the framework programme - support to research, development and innovation projects - and the creation of a favourable ecosystem for SME innovation and growth.

CONCLUSION

The SMEs, especially the innovative sector is one of the most affected by the international financial crisis. The current economic environment has brought SME needs into particular focus given the significantly tightened credit supply conditions arising from the reduced ability and willingness of banks to provide the financing; higher risk margins; more demand for collateral/securities; financial difficulties on investment.

These constraints hampered investment and innovation, and thus growth, employment and welfare. In addition, lack of skills at various levels (entrepreneurs, banks, firm owners) may also be important. Various measures to improve the situation are feasible and realistic and should be targeted at the SMEs themselves, financial intermediaries, and at public policy in general.

Debt financing continues to be the primary source of financing for SMEs in Europe, much more important than venture capital. This implies that an efficient functioning of credit markets is of utmost importance for SMEs to thrive.

The venture capital plays a small role in financing SMEs and this underline the lack of developed venture capital markets in most European countries. A more prominent role should play the venture capital – and more generally risk capital – in SME financing in order to avoid cyclical fluctuations.

The survival of innovative SMEs is based mostly on the financing measures and opportunities offered to these firms. In order to improve their access to finance, the efforts should be focused on:

- solving the problems regarding the working capital (making guarantee effective, solving the cash flow problems);
- assisting innovative start-ups in accessing financing programs;
- improving the SME and entrepreneurship financial environment on the long term;
- accessing modern financing instruments such as mezzanine financing, venture capital or business angels;
- improving SME and entrepreneurs' information and competencies;
- facilitating dialogue and consultation between governments, SMEs and financial institutions.

Overcoming the present difficult conditions for SMEs and entrepreneurs requires effective short-term measures that need, however, to be linked to structural improvements on long term in the SME financial environment in order to be successful and to restore growth.

Therefore the appropriate broader framework conditions are a critical determinant for SME financing. In these circumstances, there is a need for reliable governance, tax, regulatory and legal frameworks that provide a reliable playing field for all economic entities.

At the European level there were done a lot of efforts in the last two decades regarding the SMEs financing and support innovation. In fact, access to finance, entrepreneurs and innovation of SMEs are at the core of EU 2020 strategy and its major instruments Horizon 2020, COSME and Regional Funds.

The objective of SME support in Horizon 2020 is to stimulate growth by means of increasing the levels of innovation in SMEs, covering their different innovation needs, thereby creating more fast-growing, internationally active SMEs.

A dedicated SME instrument is a novel approach to support SMEs' innovation which aims at supporting projects to launch the company into new markets, promote growth, create high returns of investment and addresses all types of innovative SMEs.

The EU initiatives should be correlated with the national ones in order to support the financing and development of the SMEs and thus, the economic growth. The measures that most governments are taking or planning to take to counteract the effects of the crisis and stimulate their economies should include easing SME and entrepreneurship access to finance.

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INTERNATIONALIZATION AND INNOVATION ACTIVITY OF ENTREPRENEURS IN SEE COUNTRIES

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Abstract

Levels of entrepreneurial activity and SMEs sector development clearly indicate country's ability to generate economic growth, create jobs and achieve international competitiveness. SMEs growth and development can be achieved by launching new products and/or reaching new customers. Studies have shown that higher internationalization levels in SMEs positively influence their innovation capacities but same holds true vice versa. Company's innovation propensity contributes to its ability to export, go international and grow. Therefore innovation and internationalization are seen as crucial competitiveness strategies for SMEs and are often explored jointly.

Representing most of the companies in the economy SMEs should be paid sufficient attention from policy makers and researchers. The Global Entrepreneurship Monitor (GEM) research provides a number of quality data about the prevalence, determinants, and consequences of entrepreneurial activity on an international level. It enables studying the compound relationship between entrepreneurship and economic growth and facilitates evidence-based policies that enhance entrepreneurship and SME development.

In this paper we provide a clearer insight into the levels of innovation and internationalization activity of entrepreneurs in Southeast European countries which have participated in the GEM research from 2008 to 2013, taking into account attitudes of both entrepreneurs and experts, by using indicators included in the GEM research. We also identify potential barriers and future trends for increasing these activities.

Keywords: innovation, internationalization, SMEs, SEE countries, Global Entrepreneurship Monitor (GEM)

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INTRODUCTION

During the past few decades, entrepreneurship and small and medium-sized enterprises (SME) have caught a great deal of attention of job-seeking individuals, prosperity-oriented governments, media and researchers, in many parts of the world including post-socialist South East Europe (SEE) countries. It is due to a numerous positive effects of entrepreneurial activity for both individuals and country's economy. By definition of the Organization for Economic Cooperation and Development (OECD), entrepreneurial activity is seen as "the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets" (Ahmad and Seymour, 2008, pp. 14). That means that entrepreneurial activity is based on innovations (identifying and exploiting new products, processes) and internationalization (identifying and exploiting new markets - outside country) which in turn contribute to economic growth and development. The investigation of the impact of entrepreneurial activity on economic growth has been one of the main justifications of the Global Entrepreneurship Monitor (GEM) project since its beginning. One of its core principles is to explore and assess the role of entrepreneurship in national economic growth (Amorós and Bosma, 2014, pp.16).

This paper is based on the GEM project data - the world's largest academic research project in the field of entrepreneurship. The objective of the GEM project is to measure entrepreneurial attitudes, activities and aspirations and to assess the entrepreneurial environment worldwide. The project was initiated in 1999 with only 10 countries participating, reaching the number of 70 in 2013 (2014 data is still being processed). In Bosnia-Herzegovina, GEM project has been implemented since 2008 by "Centre for Entrepreneurship Development" Tuzla in partnership with the Tuzla University. That allows the authors access to valuable and comparable GEM data collected around the world which will be used in this paper.

The research objective of the paper is to present levels of innovation and internationalization activity of entrepreneurs in South East Europe (SEE) countries which participated in the GEM research between 2008 and 2013 and compare them to the most developed countries in the world, taking into account attitudes of both entrepreneurs and experts.

In order to achieve the research objective, it is necessary to:

- to review the literature on internationalization and innovation of SME's and entrepreneurs;
- to present and analyze innovation and internationalization activity of entrepreneurs in SEE countries during the period of 2008-2013;
- to present and analyze conditions of entrepreneurial environment important for innovation and internationalization in SEE countries during the period of 2008-2013;
- based on the obtained data assess the current state of innovation and internationalization activity of entrepreneurs in SEE countries.

RECENT RESEARCHES ON INTERNATIONALIZATION AND INNOVATION OF SME'S

The SMEs are seen as the backbone of economies creating the most of new values and jobs and adapting to challenges and opportunities. Entrepreneurship is often recognized as a major driver of innovation, competitiveness and growth (Lehtoranta et al., 2012). Innovations are created by entrepreneurs by entering markets with new products (Acs and Audretsch, 1990 and

2003). Entrepreneurs also help develop new industries and increase productivity by increasing competition (Van Stel et al., 2005). It is clear that levels of entrepreneurial activity and SMEs sector development indicate country's ability to generate economic growth, create jobs and achieve international competitiveness.

SMEs growth and development can be achieved by launching new products and/or reaching new customers (Lecerf, 2012) i.e. by innovation and internationalization- if the new customers are outside the country. SMEs can also reach new customers within the country, but this paper focuses on internationalization.

Innovative SMEs have greater potential for geographic market expansions since they can better compete and thus become more internationalized (Lecerf, 2012). Product innovation enables managers to internationalization decisions (Cassiman and Golovko, 2010). Moreover, internationalized firms are exposed to diverse cultures and innovation environments from which they can learn. Both internationalization and innovation at the level of firms affect the countries in which the firms are based or in which they operate. (Filippetti et al., 2013).

Different studies have shown that higher internationalization levels in SMEs positively influence their innovation capacities but same holds true vice versa. Company's innovation propensity contributes to its ability to export, go international and grow. Therefore innovation and internationalization are seen as crucial competitiveness strategies for SMEs and are often explored jointly (Golovko and Valentini, 2011).

Audretsch and Thurik (2001) claim that highly developed economies have experienced a shift from the model of the 'managed economy' towards that of the 'entrepreneurial economy'. The model of the 'managed economy' is the political, social and economic response to an economy dictated by the forces of large-scale production, reflecting the predominance of the production factors of capital and (unskilled) labor as the sources of competitive advantage. By contrast, the model of the 'entrepreneurial economy' is the political, social and economic response to an economy dictated not just by the dominance of the production factor of knowledge but also by the presence of entrepreneurial activity to accommodate knowledge spillovers (Van Stel et al., 2005).

Our SEE countries are in different stages of transition from the managed economy towards the entrepreneurial economy, making entrepreneurship and innovation important source of competitive advantage.

Indicators such as those of the Innovation Union Scoreboard suggest that South East Europe has a significant catch up process to undergo to meet the EU average. The Member States fall into the following four performance groups: Innovation leaders, Innovation followers, Moderate innovators and Modest innovators, whereas Slovenia is Innovation follower, Croatia is Moderate innovator and Bulgaria and Romania are Modest innovators (Innovation Union Scoreboard, 2014). Other SEE countries are not EU members and data is not provided, but they would probably fit into pattern of less innovative countries than EU average.

According to the findings of a study Internationalization of European SMEs by the European Commission, 25% of SMEs within the EU27 export, of which about 50% also go beyond the Internal Market (13%), 29% of SMEs within the EU27 import, again 50% import from countries outside the Internal Market (14%), 7% of SMEs within the EU27 are involved in technological co-operation with a foreign partner (EC, 2010).

METHODOLOGY

The paper is based on the GEM project model and data. The GEM conceptual model sets out key elements of the relationship between entrepreneurship and economic growth and the way in which the elements interact. As shown in Figure 1, Social, cultural and political context shapes the existence and functioning of the 1) Basic requirements, 2) Efficiency enhancers and 3) Innovation and Entrepreneurship environment (known in GEM as Entrepreneurial Framework Conditions - EFCs).

These three groups of factors are differently important for economies at three development stages: factor-driven, efficiency driven, and innovation-driven economies. Innovation-driven economies are the most developed and will be used for benchmarking in the paper. This country development classification used in the GEM, is the World Economic Forum’s (WEF) Global Competitiveness Report classification.

All three groups of factors influence Entrepreneurial Attitudes, Activity and Aspirations as well as Employee Entrepreneurial Activity within established firms. In turn, the entrepreneurial activity generates socio-economic development (new jobs, innovation and social value).

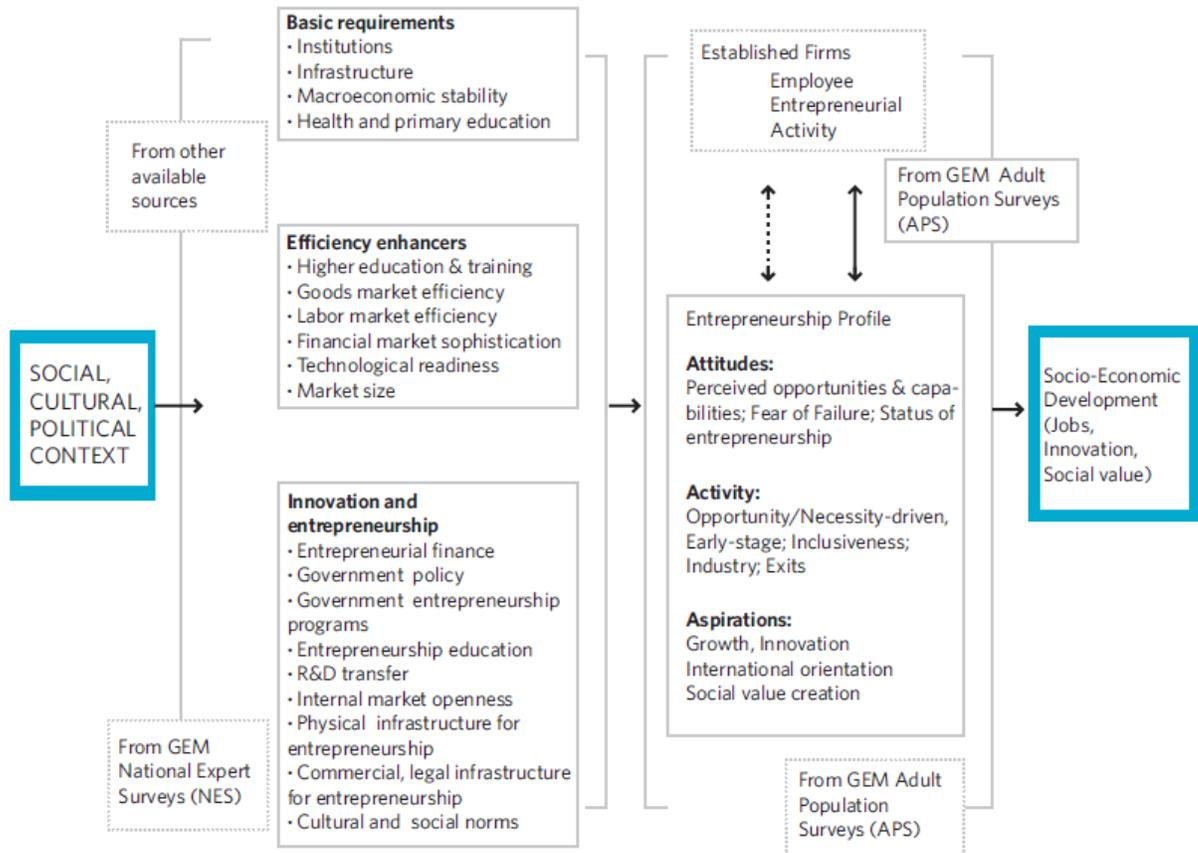


Figure 1. The GEM model (Amorós and Bosma, 2014, p.21)

An individual-level and multi-phase approach to entrepreneurship is special feature of the GEM research, where the entrepreneurship is seen as a process of having entrepreneurial intentions; starting up a business; managing new or established business and business

discontinuance (Umihanić et al., 2013). None of the phases does necessarily lead to the next one since it depends on individual and entrepreneurial environment factors (Figure 2).

The nascent entrepreneurial activity includes entrepreneurs whose businesses are less than three months old. Certain number of these businesses enters the next phase of new entrepreneurial activity, which includes businesses between three months and three and a half years old. Seen together, nascent and new entrepreneurial activity indicators present the key entrepreneurship state indicator - total early-stage entrepreneurial activity TEA. Established entrepreneurs are owners and managers of businesses existing for more than three and a half years. Some early-stage or established entrepreneurs can discontinue their business, but also re-enter entrepreneurship or join already established companies.

In this paper we will analyze certain entrepreneurship indicators for both, total early-stage entrepreneurial activity (TEA) and established business (EB), because GEM studies so far have shown significant differences in levels of entrepreneurship indicators among these two stages of entrepreneurial activity, which could be the case with innovation and internationalization activity as well.

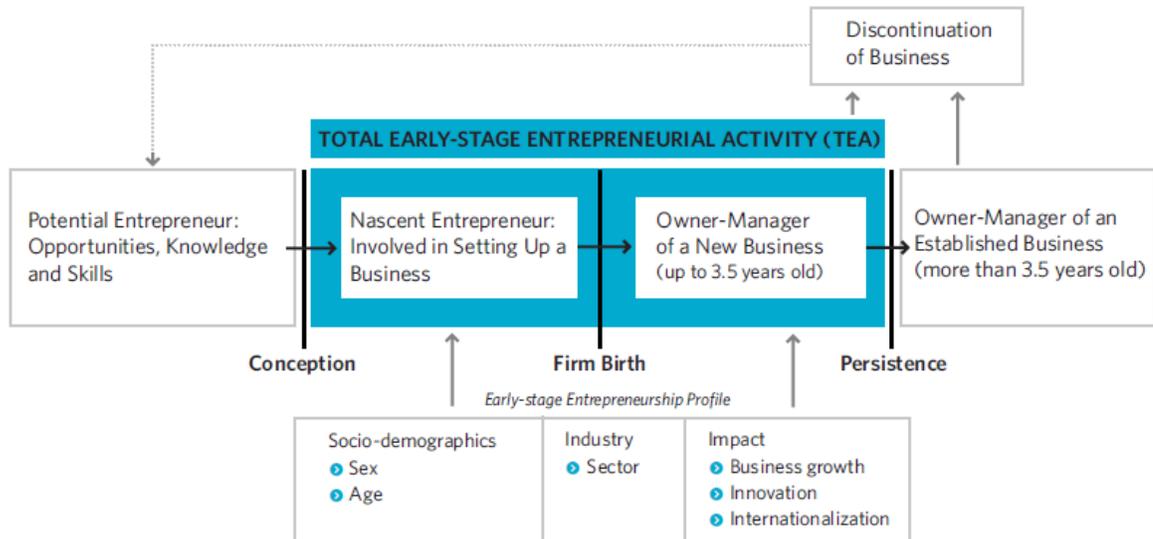


Figure 2. The Entrepreneurship Process (Amorós and Bosma, 2014, p.19)

The paper is focused on South East Europe (SEE) countries. Which countries are considered SEE countries varies greatly due to the political, economic, historical and geographic considerations of the observer. There are a few classifications of the SEE countries: the Balkans model, Stability Pact for South Eastern Europe model, South East Europe Transnational Cooperation Programme model etc. The authors chose to define SEE countries according to the European Bank for Reconstruction and Development (EBRD)(Sanfey and Zeh, 2012) and the WEF (Claros et al., 2006), which, combined, include the following nine countries: Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania, Serbia and Slovenia.

Table1 shows which of the stated countries participated in the GEM research between 2008 and 2013. Albania and Bulgaria have never participated and could not have been included in the paper. Seven other countries will be included in the paper, although Montenegro, Serbia and Macedonia did not participate every year in a row.

Table 1: The SEE countries participating in the GEM research, 2008-2013

	2008	2009	2010	2011	2012	2013
Albania						
Bosnia-Herzegovina	x	x	x	x	x	x
Bulgaria						
Croatia	x	x	x	x	x	x
Macedonia	x		x		x	x
Montenegro			x			
Romania	x	x	x	x	x	x
Serbia	x	x				
Slovenia	x	x	x	x	x	x

Below are the GEM indicators which will be observed within this paper. All the indicators will be presented for both SEE countries and innovation-driven countries participating in the GEM research for the observed period, as a benchmark.

Table 2: The indicators used in the paper and their definitions

	GEM indicator	Definition
Innovation activity	Innovative TEA	Percentage of TEA (18–64 age group who are either a nascent entrepreneur or owner-manager of a new business) who offer product or service which is new to some or all customers and where few or no other businesses offer the same product.
	Innovative EB	Percentage of EB (18–64 age group who are currently owner-manager of an established business that has paid salaries, wages or any other payments to the owners for more than 42 months) who offer product or service which is new to some or all customers and where few or no other businesses offer the same product.
Internationalization activity	Internationalized TEA	Percentage of TEA (18–64 age group who are either a nascent entrepreneur or owner-manager of a new business) with more than 25% of customers from outside country.
	Internationalized EB	Percentage of EB (18–64 age group who are currently owner-manager of an established business that has paid salaries, wages or any other payments to the owners for more than 42 months); with more than 25% of customers

		from outside country.
Innovation and Entrepreneurship environment	Valuation of innovation from the companies point of view	The extent to which <u>companies</u> value innovations; are likely to experiment with new technologies and use new, entrepreneurial companies as suppliers.
	Valuation of innovation from the consumer point of view	The extent to which <u>consumers</u> value innovations; are likely to try out new products and services, and use buy products and services from new, entrepreneurial companies.

INNOVATION ACTIVITY OF ENTREPRENEURS IN SEE COUNTRIES

In all SEE countries there are more innovative early-stage (TEA) entrepreneurs than innovative established entrepreneurs (EB). In most years the percentage of innovative EB entrepreneurs barely reaches 50% of innovative TEA entrepreneurs. In most countries percentage of TEA and EB entrepreneurs with new product-market combinations increased from 2008 to 2013, except in Croatia where there are less (4%) innovative EB entrepreneurs than in 2008 (6%). The percentage of innovative TEA entrepreneurs varies between 10 and 40% of all TEA entrepreneurs and the percentage of innovative EB entrepreneurs varies between 0 and 25% of all EB entrepreneurs.

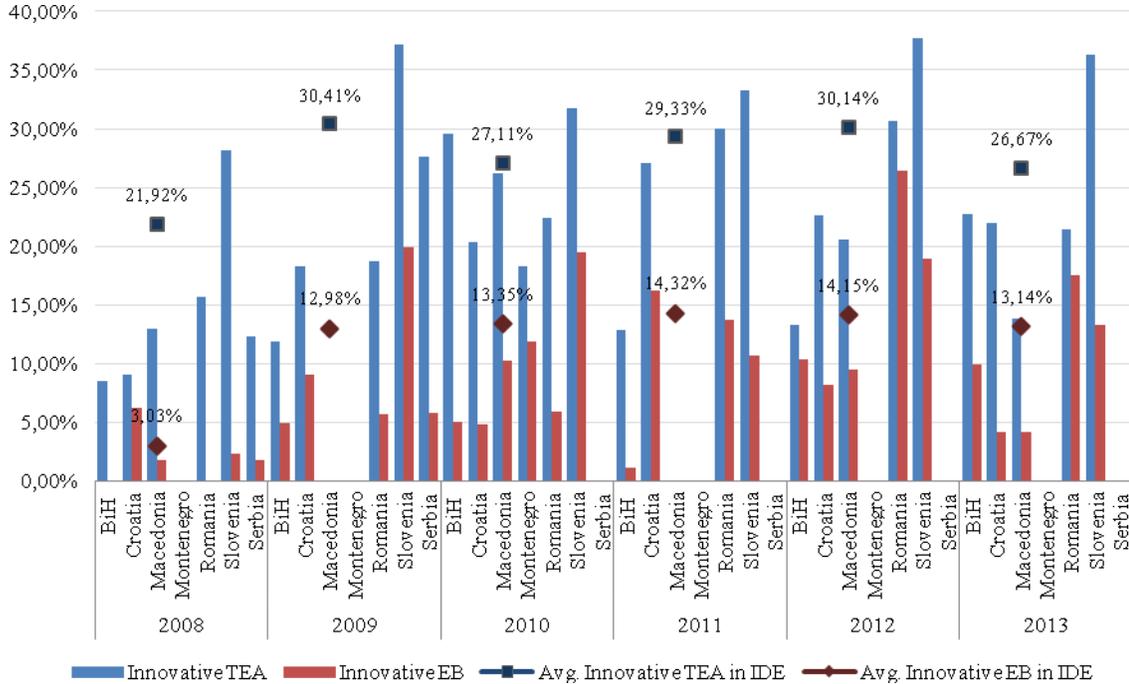


Figure 3. Innovation activity (new product-market combinations) of entrepreneurs in SEE countries, GEM data 2008-2013

No clear pattern of the innovation activity for the SEE region as a whole can be seen in the observed period. However, individual countries do show some patterns except Montenegro and Serbia since the data available only for one and two years. In Bosnia-Herzegovina percentage of innovative TEA entrepreneurs was quite stable (under 15%) during the period except in 2010 and 2013 (over 20%). There was also an increase of innovative EB from 0 in 2008 to around 10% in 2013. In Macedonia, Croatia and Romania the percentage of innovative TEA and EB entrepreneurs grew steadily from 2008 reaching the peak of around 30% for TEA and between 10 and 26% for EB in 2010, 2011 and 2012, respectively. In general, Slovenia has considerably higher rates of innovative TEA entrepreneurs than all the other countries (varying between 28 and 38%) and also higher rates of innovative EB entrepreneurs except Romania which had more innovative EB entrepreneurs in 2012 and 2013 than Slovenia.

Comparing innovation activity of entrepreneurs in SEE and in the most developed economies in the world - Innovation-driven economies (IDE), only Slovenia has higher rates of innovative TEA and EB entrepreneurs than the average of IDE throughout the observed period. The percentage of innovative EB entrepreneurs in most SEE countries (Bosnia-Herzegovina, Macedonia, Montenegro and Serbia) is less than the average of the Innovation-driven economies, while Croatia and especially Romania in the past few years have the higher percentage than the IDE average.

INTERNATIONALIZATION ACTIVITY OF ENTREPRENEURS IN SEE COUNTRIES

Unlike in the innovation activity, both TEA and EB entrepreneurs seem to be roughly equally engaged in internationalization activities - having more than 25% of customers from outside country. The exceptions are Romania and Croatia with the significant prevalence of internationalized TEA entrepreneurs in some years. Comparing 2008 to 2013, the percentages of internationalized entrepreneurs notably decreased in Bosnia-Herzegovina and Romania, somewhat decreased in Macedonia and Slovenia and notably increased in Croatia. The percentage of internationalized TEA entrepreneurs varies between 10 and 50% of all TEA entrepreneurs and the percentage of internationalized EB entrepreneurs varies between 6 and 35% of all EB entrepreneurs.

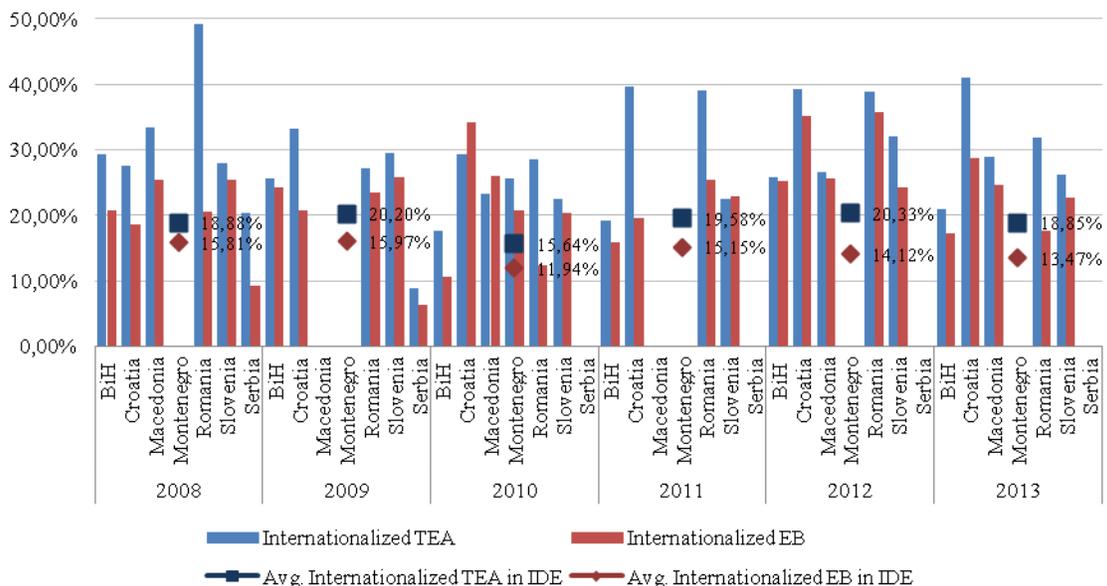


Figure 4. Internationalization activity (more than 25% of customers from outside country) of entrepreneurs in SEE countries, GEM data 2008-2013

Similar to the innovation activity, no clear pattern can be seen for the internationalization activity of SEE region as a whole. Again, individual countries do show some patterns of internationalization except Montenegro and Serbia due to scarce data. In Bosnia-Herzegovina internationalization was especially emphasized in 2008 and 2012. Generally, no more than $\frac{1}{4}$ of all EB entrepreneurs and $\frac{1}{3}$ of all TEA entrepreneurs in Bosnia-Herzegovina had majority of customers from outside country. In 2010 Croatia and Macedonia had more internationalized EB entrepreneurs (34% and 26%, respectively) than TEA entrepreneurs (30% and 23%, respectively) which is unique phenomena in the observed period. It seems entrepreneurs from both countries are increasingly exporting between 2011 and 2013. In 2008 Romania had half of its TEA entrepreneurs with majority of customers from outside country – the highest of all the countries in the observed period. However, these rates kept declining towards 2013, reaching 32% (TEA) and 18% (EB). Slovenia quite stable rates of TEA and EB entrepreneurs with more than 25% foreign customers varying between 20 and 32%. Biggest difference in internationalization of TEA and EB entrepreneurs in Slovenia is noted in 2012 with 32% internationalized TEA entrepreneurs and 24% of EB.

Comparing internationalization activity of entrepreneurs in SEE and Innovation-driven economies (IDE), all SEE countries except for Serbia have higher rates of internationalized entrepreneurs than the average of IDE throughout the observed period. There are more entrepreneurs from SEE countries (both TEA and EB) which have majority of foreign customers than in IDE countries on average.

INNOVATION AND ENTREPRENEURSHIP ENVIRONMENT – INTEREST FOR INNOVATION

Entrepreneurial environment in the GEM research is assessed by the national experts from the field of entrepreneurship on the scale from 1 to 5, where 3 is neutral score and 5 the best one meaning a certain condition enhances innovations and entrepreneurship.

It is clear that customers value innovation and are willing to try out new products and services more than the companies do in all SEE countries. Generally, the fact that the customers value innovation is assessed by the experts as a condition which enables entrepreneurship and innovation development (with 3+ points). On the other hand, only in Macedonia, Romania and Slovenia in past 4 years companies were ready to experiment with new technologies which experts assessed as favorable condition for innovation and entrepreneurship development.

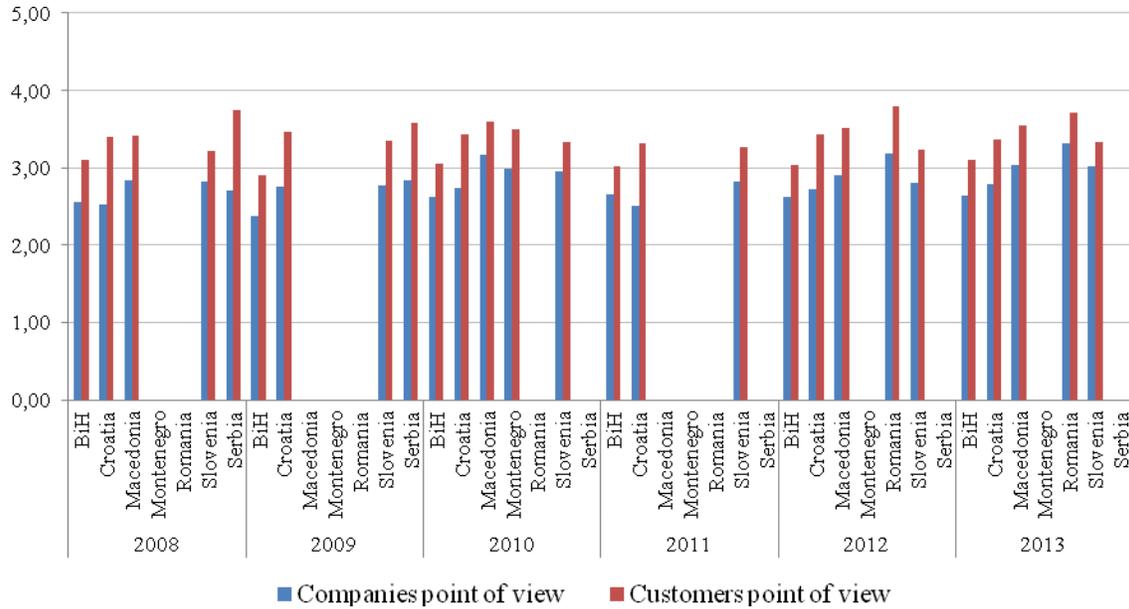


Figure 5. Valuation of innovation from the companies and customers point of view in SEE countries, GEM data 2008-2013

CONCLUSION

In general, innovative entrepreneurs are more and more present in the SEE. Some of the reasons could lie in the ever growing globalization and international competition and having three countries already joined the European Union where significant funds are aimed at innovation and sustainable development.

Having more innovative TEA than EB entrepreneurs implies that entrepreneurs in SEE countries use innovation as competitive advantage in the early stages of their business but find it difficult to maintain innovative and offer new products with no or few competitors, in later years. Slovenia has superior innovation performance among other SEE countries. According to WEF (and GEM) country development classification Slovenia is the only innovation-driven country while others are efficiency-driven (and less developed). In efficiency-driven economies, government focus is (or should be) on getting labor and capital markets working more properly, attracting foreign direct investment and educating the workforce to successfully adopt technologies developed elsewhere (Bosma et al., 2012). Countries whose economic development is primarily innovation-driven, innovate at the global technological frontier in at least some sectors (Porter et al., 2002).

All efficiency-driven SEE countries lag behind the average of innovation-driven countries and EU member states (Slovenia, Romania and Croatia) in innovation activity. It could be concluded that other SEE countries will improve their rates of innovative entrepreneurs along the process of joining the European Union by improving the entrepreneurship framework conditions (access to finance, government programs and policies, education, R&D transfer,...) in order to develop more innovative TEA and EB.

As for internationalization activity, both early-stage (TEA) and established (EB) entrepreneurs are roughly equally engaged which means there are less barriers for TEA entrepreneurs for internationalization than for innovation activities.

The fact that the percentages of internationalized entrepreneurs notably increased in Croatia and decreased for other SEE which joined EU earlier (Slovenia in 2004 and Romania in 2007) or are not EU members yet (Bosnia-Herzegovina, Macedonia, Montenegro and Serbia) suggest that recent (1st July 2013) Croatia's EU membership created a favorable moment for internationalization. The same fact has been beneficiary for Romania, which joined the EU in 2007 and also had outstanding internationalization performance among TEA entrepreneurs (49% innovative TEA entrepreneurs) in the following year of 2008 although these rates kept declining towards 2013.

Observing innovation and entrepreneurship environment, the fact that customers value innovation more than the companies is assessed by the experts as an enabling for entrepreneurship and innovation development and should be acknowledged by the entrepreneurs, along with the fact that it is necessary to develop other entrepreneurship framework conditions as well.

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ECONOMIC INEQUALITY-THE BITTER TRUTH RAISED OUT OF THE GLOBALIZATION SCENARIO

Andreaska Irena PhD¹

Abstract

"The process of globalization increasingly marginalizes the interests of the poor countries and most of the population, and increases the wealth and the power of the few developed countries - the protagonists of the coarse capital in the contemporary world. In this sense, the researchers rightly point out that the globalization scenario is contradictory because it produces different effects on centre and periphery, and because there are lots of hungry and malnourished people in undeveloped countries and a small number of rich people in developed countries. The globalization also produces chaotic and contradictory processes of deregulation and centralization and leads to a conflict of national and transnational interests.

The abovementioned contradictions could be considered as a relation between "economic freedom and slavery in the modern world²".

This paper discuss the issue of realistic interpretation of economic inequality in the countries as a result of globalization. The truth about global international institutions such as the IMF (International Monetary Fund), World Bank and the UN (the United Nations) will also be analysed.

Keywords: inequality, globalization, IMF, World Bank, United Nations

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²Mitrovic Lj. Ekonomske teme, Nis, 2001

INTRODUCTION

Inequality exists in all spheres of economic, political and social life. It expresses differences between individuals, households or social groups in a society and it is influenced by personal capabilities of individuals and inherited rights. Inequality inevitably exist in every social system, regardless of its ideological inclinations, but it particularly get a significance and is under special observation of the public in terms of transition, when the changes in economic and political spheres have the consequence of increasing inequality.

In this paper, the category “economic inequality” means inequality in the distribution of income of individuals or households, but for simplification, the mostly used term through the text is the term “inequality”.

In the times of globalization almost all nations become kind of exploited class and mass, with disrupted elementary living conditions. World poverty is real and wide social and existential category. On the opposite side, world capitalist class grows and unites the global control elite.

Because of these findings, in the UNCTAD analysis titled “Globalization and Development Strategies” it is insisted on finding new management models for world economy, the strategy which equates efficiency with equality and the concern for economic growth with concern for the social care progress. The conclusion of this analysis is that the time has come to shape a new consensus on the issue of development, in which center should be placed people as humans. It is also necessary a real democracy to be a part of that consensus³.

THE GROWTH OF INEQUALITY WITHIN COUNTRIES

During the last years of the 20-th century economies of many countries have experienced a debacle, immediately after their leaders were praised by the global political elite for keeping up with the right economical direction. Dramatic growth rates in these cases seems to have been led with speculative short term capital flow that has increased local assets, thus creating a great number of people feeling rich for certain period of time. However, that lasted for a short period of time, and later these countries were blamed for "partnership capitalism" by the political elite. Regardless the reason for these failures, the main concern is the evident growth in inequality within countries, especially non-developed ones. The increase of inequality in the developed countries is justified as a price that has to be paid for transition from stable rural society into dynamic urban society.

For those who represent faster deregulation of global economy- politics behind the etiquette “neoliberalism”, "Anglo-American model", "Washington consensus", continual and increasing inequality, until lately have been only a modest imperfection within one otherwise cute picture of market prosperity⁴.

Neoliberal consensus provides basis for salary reduction on behalf of development and economic stability. In order to achieve that, labor market liberalization is more than necessary. It can be done by labor price reduction, ban on salary adjustment towards productivity increase and costs of living, and abolishment on minimal income law. The aim is to stop “the inflation hit as a result of salary increase.”

³World Bank Annual Report 2004

⁴Daerty, E. Jon, WorldNet Daily, 1999

POLARIZED AND ANTAGONIZED WORLD

One of the dogmas of neoliberal theory which is the essential part of the economic globalization is that inequality in the gross domestic product division should not be limited, that it is a natural consequence of the market and that it provides bigger capital accumulation. However, these theses have never gained an empirical confirmation in a whole chain of cases for which they were set. As Stiglitz states⁵, South Korea, China, Taiwan and Japan prove that "high" accumulation of capital "... does not require dramatic inequalities among countries...".

The point is that in the world system, the most developed countries have the monopoly of directing the prices of raw materials and everything else imported from the undeveloped countries. Latter it is impossible to run away from their "debts" and from almost every kind of economical, technological and political dependence. Here prevails the logic that globalization does not reduce on the contrary, it increases the gap in development levels between the rich and the poor countries.

Where this deeply polarized and antagonized world is heading is second, but still very important issue. However, the question remains what these countries should do (more precisely three quarters in the world) if they were not in a this kind of a position for a long period of time, starting from the foundation of development politics till the moment of creating resistance towards the existence of the exclusive "club" of the most powerful and most developed countries.

Putting maximum efforts in using personal strengths, fertilizing personal resources and the effective development strategy, subjugate participation in globalization in a way which is the most suitable in the current, cruel context of the world power, and it is maybe the only possible path to get away from the obsolescence, inequality and poverty.

IDEAS FOR THE FUTURE

Global problems require global solutions. They could be found only in one real integrating process which strives towards transformation of the international financial and monetary architecture, a process where all world countries can participate. New regulatory construction needs to be developed. It should be based on the principles of equality, regularity and sustainability. According to this, UN is a unique existing legitimate forum that can solve financial crises. UN can put an effort all countries in the world to be strictly presented as democratic countries incorporated in the process of effective transformation.

European Union as a global player has an active role in recognizing deficiencies in the current economic system. In its acknowledged role as a leading judge for sustainable development and a fight against poverty in all parts of the world, it has the responsibility to provide the outcome of any change in global financial systems, to incorporate development liabilities completely, as well as the principles upon which it is based.

European Union must separately define the following crucial issues that will contribute to a better international financial architecture:

1. Providing respect, protection, prevention and fulfilment of the universal human rights and liabilities.
2. Providing public accountability and transparency in the working processes of the international financial institutions
3. Guaranteed participation of all countries in negotiations among international financial and monetary institutions, with UN as a mediator in the process for transformation of

⁵Stiglitz E. Dzozeff, Globalization and it's discontents, w.w. norton & company, New York, 2002

financial institutions, with the aim to implement an equal, sustainable, financial architecture with strong democratic prevalence and participation of developing countries in the process of decision making, including equal voting rights (i.e. through introducing a double majority in the World bank and IMF)

4. Stopping high hedge funds, funds for real estate investment and other similar financial products with high level of risk, with the aim to limit their negative macroeconomic effects
5. Closing secret jurisdiction, the system of shadow banking and offshore financial centers, as a way to eliminate border tax evasion and loss of capital. This will dramatically limit further tax evasion. Such practices raise excessive funds, necessary for sustainable development. Finally, an international tax organization needs to be formed under the auspices of UN for democratic control of taxing, i.e. for fighting against tax concealment and capital flight from countries

CONCLUSION

In purpose to overcome the debt, one of the measures which are necessary to be taken is encouraging the international institutions such as the World Bank and the International Monetary Fund to set conditions for the release of debts, because the basic human rights for a decent life are violated. It should not be required from "the poor countries" to privatize basic services or to reduce public spending as a condition for obtaining the desired debt relief.

The second measure that should be taken is fast, unconditional and irrevocable failure of all bad and unfair debt. "Bad debts" are the one which the respective countries can not pay, while getting out ahead of the basic needs of its citizens.

Other very important subjects that need to be discussed are:

1. Strengthening the new accounting and reporting procedures that are binding for private banks and corporations, or public disclosure of the corporate financial transactions.
2. Establishment of an internationally usable, transparent, objective and understandable process for resolving the crisis caused by the debt, identifying uncollectible or unfairly debt, and confirmation that the human needs and rights have priority over the payment of debts.
3. Further development of binding social and environmental standards for transnational corporations, which respect the international human rights and obligations.

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TRANSFER OF THE RIGHT FOR USING A PATENT – OPPORTUNITY FOR DEVELOPMENT AND INTERNATIONALIZATION OF THE BUSINESS

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Abstract

The right of industrial property, as a separate branch of the Law, regulates the social relations that are having the intellectual goods as their subject of interest, and there are two basic types: a state of their standby and a state of their movement, ie their ability to be transferred between the subjects in the world of business. From this arises the process of concluding various legal actions that are producing rights and obligations between the parties, i.e they are establishing certain obligatory legal relations.

In the modern economic circumstances of activity of the economic entities, the transfer of the right of industrial property is very widespread in the business operations.

This is result of one of the fundamental authorizations of the holders of the intellectual property, the right to dispose with their protected rights, which is very clearly defined in our Law on industrial property.

The right of disposal of the industrial property, that belongs exclusive to the holder of the intellectual property, allows that not only the holder of the right, but also and the people that will be authorize, to be able to transfer or deviate certain rights to third interested parties. The exclusive right of disposal in terms of its temporal validity shares the same fate and is linked to the lifetime of the legal protection of the right itself.

In terms of the territorial validity there are not any limitations on the exclusive right of disposal that allows the industrial property rights to be transferred outside the borders of our country.

Therefore, the legal trade or the transferability of the industrial property expresses the “dynamic state” of relations in the field of industrial property rights and is an important characteristic of these rights. Here we separate the so-called patent law, an also a subject of transfer may be and other intellectual property rights.

Keywords: patent, industrial, license, transfer, business.

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INTRODUCTION

If we analyze the protection of the industrial property rights, we can see that the best-known and most effective form of protection of the inventions is the patent. This is from the fact that because of "merit" of the patent, the invention receives its economic value, ie they are valued. With the protection of an invention with a patent, the invention gets its own social verification and as such represents a particular contribution to the technical field. The publication of the invention to the public the opportunity after a period of time to be used by all the members of society, freely and without compensation, determines the benefits of having such patent in the society.

With the patent the invention is protected in all fields of the technology, if it is new, if it contains an inventive step, and if it can be applied in the industry (Law on Industrial Property, Official Gazette No. 21/2009, 24/2011, 12/2014 and 41/2014, Article 25 paragraph 1). According to the legislations, it can be established three conditions for patentability of the invention, including: novelty, inventive step and its applicability in the industry.

The legislator foresaw and other opportunities for protection of certain inventions with patents, and is determined what can not be patentable, but that is not the subject of our interest now.

The invention is new if it is not covered by the current state of the technique. This means that the invention is new if it is not contained in the known states of the technique, which means everything that is available to the public in any way in terms of acquiring the patent.

The invention contains an inventive step, if for a person skilled in the subject matter by the invention it is obviously that the invention does not come from the current state of the technique.

The industrial applicability of the invention is determined on the circumstance that the invention can be made (produced) or used in any kind of industry, including the agriculture.

TANGIBLE RIGHT TO INTELLECTUAL PROPERTY

At international level, especially with the Paris Convention for the Protection of Industrial Property and the Berne Convention, and with the national legislation provides that the substantive rights of the intellectual property, by rule, are exclusive rights of the inventors - the authors - constructors, ie to the holders of the rights they guarantee certain exclusive rights, including:

- Right of disposal;
- Exploitation rights;
- Right to compensation;
- The right to ban unauthorized third parties to use the appropriate invention.

These rights provide to the authors and to the other right holders to exercise their property interest, ie the economic effects of the use of the invention.

The right of disposal which in its absolute nature is an exclusive monopoly right and is enjoyed by its inventors or creators, and also by the right holders. In actual sense, this right implies the right to transfer (fully or partially) and right of ceding (license of any kind) of the rights protected by law.

The right of exploitation, same as the previous, is with absolute nature and is an exclusive property right, which is time limited and is portable.

The right to compensation as exclusive and monopolistic right is the right that the holder can not give up. To this are indicating the positive norms under which is regulated the

annulment of the contracts with which a transfer or transfer of intellectual property rights is made, and which do not contain provisions for compensation.

The right to prohibit unauthorized third parties to use the invention is also a very important substantive right. This is especially due to the fact that in the contemporary social - economic relations, with the internationalization and globalization of the businesses is becoming increasingly important, because of the growing technology development and the opportunities for cheaper access to it, in practice there is an increase to the violation of the right of intellectual property. For these reasons, this right is often subject to regulation by the national legislation and the international conventions, treaties and other laws that are regulating the protection of the intellectual property rights and their implementation. This right allows the authors or to the holders of the rights to prohibit, by judicial and non-judicial way, of anyone who without authorization use their deed to do so in the future.

TRANSMISSION OF INDUSTRIAL PROPERTY RIGHTS

The transfer of industrial property rights of titles of the other users can be done in several ways, including:

- Contractual;
- Based on Law or coercive forms of transfer of industrial property rights, such as the compulsory license (which is subject to a specific elaboration in this paper) and
- By inheritance.

With the agreement for transferring the rights, the holder of the rights or the applicant may transfer their rights in full or in part. If it comes to a complete transfer of the right, in that case, the licensee is entitled to all property rights to the subject of the contract, while the transferor retains only moral rights.

If an agreement to transfer the right is concluding, then the general rules of the contract law are applying, ie the provisions for transferring of the claims (Law of Obligations, Official Gazette No. 18/2001, ..., 161/2009, Article 424-433). During this transfer of right, a particular attention deserves the issue of the liability of the transferor for the material and legal deficiencies in the contract, even in the case when there is included a clause for release from any liability of this kind. And in this section the provisions of the Law of Obligations are applied.

When is discussed about the transfer of the industrial property rights, and about their use we have into consideration the license agreement which is a legal basis for the use of those rights. The purpose of this contract is to provide an opportunity for the licensee who is not the holder of the intellectual property right to acquire the right to use that right during a defined period of time and within a specified territory, and the one that gives the license for the industrial property right still remains as a holder.

The regulation that is dedicated to the license agreement as an instrument of the legal operations of the right of the industrial property is very complex. However, three key legal segments can be distinguished that are containing special provisions that are important for the regulation of this agreement. This primarily refers to the right of intellectual property, contract law and antimonopoly law or against the restriction of competition.

Because of the opportunities that are offered for development of the businesses and their internationalization, the license agreement has great importance as on the domestic also and on international level in terms of the business and trade cooperation between the entities.

The massive application of the license agreement begins with the development of the productive forces with the entrance of the businesses into new markets and with the increasing development and application of the science into the industry. As a tool for legal trade of the industrial property rights and also as an international trade of goods and services

has great importance for improving of the creative and inventive work, which has stimulating effect of future creators and inventors. It allows to the creators their inventions (patented or non-patented) to be depreciated by that that they will give them to the interested parties with compensation.

This Agreement as a legal relationship is created with an agreement of the parties and in the market of industrial property rights is defined as an instrument for trade with those rights.

The definition of the license agreement is contained in the Law of Obligations in Article 742, according to which:

"With the license agreement the licensor commits to the licensee to relinquish, in whole or in part, the right to use the patent, knowledge, experience, branding, sample or model, and the licensee is obliged to pay a designated fee. With the license agreement, the licensor can commit to deviate from the potential right from the application of the patent, trademark, model, sample, and non-proprietary invention to the licensee."

In the scientific thought, authors can be find that are talking about the economic role of the license agreement that it has been compared with the distribution and advocacy and is characterized as an alternative way for a independently conducting a business in a given market (Nigel Jones, *Drafting International Licence and Transfer of Technology Agreements*, London 1996, p. 1, etc.). It must be borne in mind that in proportion to the increase of the protection of industrial property rights and their harmonization in global, is growing and the economic role of the license agreement.

For the role that this agreement has in the international trade speaks the fact that it has been subject to an extensive international regulation.

COMPULSORY LICENSE

Internationally is known the compulsory license in the public interest, which is regulated and in our law and it appears through the doctrine built from the activity in the British courts, British Patent Law, French Patent Law and the laws that are built on these models. Our law very accurately predicted cases when the protected invention is in the public interest, so, it is defined with the words "health, nutrition, protection and improvement of the environment, or of particular interest to a specific branch of the economy or is necessary for implementing judicial and administrative proceedings for the protection of the competition."

Previously it was noted that the holder of a patent may transfer it to another for a specified fee. The basis of such an agreement is the freely expressed will of the contracting parties. Besides this kind of voluntary transfer of the right in our Law of Industrial Property is defined a manner of issuing licenses without the consent of the patent holder or to a compulsory license. As grounds for granting a compulsory license (the right to use the invention to be given to another person), the Law provides that non-use of the invention protected by the patent holder or patent used in insufficient volume to meet the needs of the domestic market, or the refusing to sign a license agreement or setting a non-market conditions for the conclusion of that agreement. In these situations with a compulsory license, the right to use the invention may be given to another person, with the obligation to pay compensation to the patent holder (This right to compensation is arising from the exclusive rights of the patent holder that are defined in Article 89 of the LIP, and are: to use the protected invention in the production, to put into circulation items produced by the protected invention, and the dispose of the patent).

The compulsory license may be issued and if the use of the invention protected by the patent is necessary due to emergency situations in the country, protecting the public interest in the health, nutrition, protection and improvement of the environment or of particular

interest to specific branch of the economy or is necessary for the implementation of judicial and administrative proceedings to protect the competition. With these legal provisions is imposed an obligation on the holder of the patent to suffer restriction of his right, i.e. the use of the invention by a person to whom has been granted a compulsory license within its limits.

Taking into account the legal basis for a compulsory license, it can be noted that the legislator left to most of the space for the "non-use of the patented invention" by the patent holder. Although with various international documents and national regulations to the holder are granted series of exclusive rights, however for him there is also the obligation for exploitation of the patent.

With this issue in the scientific thought can be seen opposing views of individual authors. There are authors who are supporters of the obligation to use the patent, citing primarily the causes of an economic nature, while opponents of this requirement were objecting especially because of the need to protect the interests of the inventor, although also and they stressed reasons of an economic nature. Special note to the obligation to use the patent as a disadvantage is that it does not consider the need of the international division of the labor, the free exchange of goods and the international economic cooperation (Dr. Jadranka Dabovic – Anastasovska, Dr. Valentin Pepeljgovski, Intellectual Property Rights, Faculty of Law Justinian I - Skopje, 2008, p. 342). In any case, it can be concluded that the reason for granting the compulsory license in most cases is the non-use of the patent.

Although the Law on Industrial Property predicted a possible to issue a compulsory license, it does not mean that in any case such license would be issued, ie it must not be given if there are legal obstacles that are justifying the non-use of the invention protected by the patent. The legislator established and the deadline after which can be required a compulsory license, ie it may be required after passing four years from the date of filing the patent application or three years from the date of the approval of the patent, in case this deadline to expire later. The Paris Convention for the Protection of Intellectual Property Rights, in Article 5.A.4 sets the standards for the mentioned legal deadlines, which has a protective character. The reason for the introduction of these safety limits is located in the realization that from the holder of the patent can be required immediately start to taking exploiting his invention. Often, that is not possible even after some short or long term, in which will be formed new plants, will be trained staff, and capital will be invest etc. (Dr. Jadranka Dabovic – Anastasovska, Dr. Valentin Pepeljgovski, Intellectual Property Rights, Faculty of Law Justinian I - Skopje, 2008, p. 344).

SPECIAL COMPENSATION FOR COMPULSORY LICENSE

Compulsory license may not be exclusive and it is lasting until the reason for which it was issued is lasting, which justifies that it can be issued only for a definite reasons.

Once given a compulsory license may, if there are justifiable reasons, and upon a reasoned request by an interested person, to be revoked if the reasons for which it was issued ceased, and there is no chance for them to re-occur. In this case should be considered that the legitimate rights of the acquirer of the compulsory license are protected.

This license can not be transferred, unless the transfer is made together with the production capacity, ie with the part in which is used the invention for which it was issued.

In the case when a compulsory license is given, the patent holder has the right to an adequate compensation. The amount of this fee shall be agreed by the patent holder and the patent user to whom the license was granted, or who use the invention protected by a patent and is appropriate to the economic value of the license and the need to comply with the procedure for the protection of the competition. Failure to reach agreement on the amount of the compensation, it shall be determined by the competent court.

COMPULSORY LICENSE THE PATENT DEPENDENT

Compulsory license may be issued if the invention protected by a patent can not be used in whole or in part without using another invention protected by former patent, while the later invention, which represents more significant technical progress is crucial for the economy or for meeting the general needs. If a compulsory license is issued in this way, the former patent holder may seek a compulsory license to use the invention of the later patent for an appropriate fee.

This legal decision is justified and expedient because this way both parties (the holder of the earlier registered patent and the holder of the later registered patent) are put in an equal standing position with respect to the benefits that they can have from their invention. In this way it is disabled that one of the parties can obtain the material benefit without that to be given as an opportunity to the other party.

For the issuing a compulsory license it decides the court that is responsible for resolving disputes for industrial property rights in a civil proceeding, which proceeding is initiated by filing a complaint against the patent holder.

The interested party may request from the court to given to him a compulsory license if previously within 30 days before filing the lawsuit, he did not tried from holder of the right to get a consent to the use of the protected invention on reasonable market terms and conditions, and the attempt remained unsuccessful. This limitation shall not be applied in the case of a state of an emergency or other circumstances of extreme emergency in the country or in the case of a public non-commercial use, in accordance with Article 31 b of the TRIPS Agreement. When an application for issuing compulsory license is applied, the court shall promptly notify the holder of the right for the filed request and it will provide him an opportunity to speak.

The procedure for application for a compulsory license is provided in the Law on Industrial Property, which it is initiated by a request for a compulsory license. Before it will be decided on a compulsory license, previously it is required to be obtained an opinion from the state administration responsible for the affairs for the subject of the license. This means that when making the decision, the court should take into an account the situation in a particular area and the need for the patented invention, but in any case, the court does not have to accept the opinion of the state administration.

If the question of the compulsory license is analyzed, it can be concluded that compulsory licenses in the public interest generally fall into two groups, those that are given to the state, and to the people who work for the national interest. For example, for an involuntary compulsory license in the public interest for the benefit of a private party is the compulsory license on a dependent patent. This license is granted in order to resolve cases that are arising from failure, without any previous activities relating to a previous patent (dominant), to use the invention requested in another patent (dependent). In such a situation when the dependent patent holder can not conclude a license agreement with the holder of the dominant patent, the holder of the dependent patent may request a compulsory license to the dominant patent. This is because, the holder of the dominant patent with his negative behavior can prevent the use of the invention requested in the dependent patent.

In the relation to the granting a compulsory license three questions can be asked. First, it should be known that in case of "depending on the terms of the two patents" in consideration are two different patent holders. In this case the problem does not occur if we have a patented invention which was later supplemented and perfected by the patent holder, but the problem may arise in connection with the title of the compulsory license based on the patent that is using the invention that improves or supplements the basic patent. Second, there should not be only a relation of dependence between the two patents, but there should not be

disputed the contentious economic significance of the dependent patent, and the relationship of dependency to serve as a basis for granting a compulsory license. Third, in the case of a compulsory license in the public interest of the dependent patent is not opportune to wait to pass the waiting period, in accordance with the legal provisions in order not to slow down the technical progress and not to create any absolute monopoly right in within these time limits.

The court will deny the request to issue a compulsory license if it does not contain the elements necessary to decide or if the conditions for granting compulsory license provided in LIP are not met, the court shall, before making the decision, if is not previously called, to summon the same applicant of the request to plea about the reasons why the court could not have accepted his request, or may not issue a compulsory license.

CONCLUSION

In terms of a growing globalization and internationalization of the operations of economic entities, the transfer of the industrial property rights is increasingly popular in the business market. The same is a result of one of the fundamental powers of the holder of the intellectual property which is the right to dispose of his protected rights. This is due to the fact that right after the "merit" of the patent, the invention receives its economic value, ie they are economically valued. With the protection of an invention by a patent, the invention gets its own social verification and as such represents a particular contribution to the state of the technique.

At the international level, especially with the Paris Convention for the Protection of Industrial Property, as well as the national legislation it is provided that the substantive rights of the intellectual property, are usually exclusive rights of the inventors - constructors, allowing them, together with the other industrial property rights freely to transferred them from the holders to the other users.

When the transfer of the industrial property rights is mentioned, or their use, always should be considered the having of a license agreement which is the legal basis for the use of those rights. The purpose of this contract is to provide an opportunity for the licensee, who is not the holder of the intellectual property, the right to acquire the right to use that right in a accurately defined manner that is determined with a deadline within the specified territory.

At the transfer of the patent on international plan well known is the compulsory license in the public interest, which is regulated in our law. As grounds for granting a compulsory license (the right to use the invention to be given to another person), the Law provides non-use of the invention protected with a patent by the patent holder or if it uses insufficient volume to meet the needs of the domestic market, the refusal to enter into a license agreement or non-market setting conditions for conclusion of such agreement. In these situations a compulsory license, the right to use the invention may be given to another person, with the obligation to pay a compensation to the patent holder.

Compulsory license may not be exclusive and it is lasting until the last reason for which it was issued is lasting, which justifies that it can be given only for a definite reasons. Compulsory license may be issued if the invention protected by a patent can not be used in whole or in part without using another invention protected by a former patent, while the later invention, which represents significant technical progress is crucial for the economy or for meeting the general needs.

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SME DEVELOPMENT AND FDI: OPPORTUNITY OR NECESSITY

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Abstract

SMEs play an important role in economic growth and development. In this way, globalization and trade liberalization have ushered in new opportunities as well as challenges for SMEs. Only a small part of the SME sector is able to identify and exploit these opportunities and deal with the challenges. The majority of SMEs in developing and transition countries, has been less able or unable to exploit the benefits of globalization and, to add to the situation, are frequently under pressure on the local or domestic markets from cheaper imports and foreign competition.

Many transition and developing countries, in particular face a need to promote and strengthen the long term development of the SME sector, which requires access to market opportunities, as well as to new technology and management know-how, often in a situation of considerable resource scarcity.

This paper aims to focus on contribution for developing the strategies that could help to strengthen the SME sector. From one side it could be done through their promoting of integration into, and potential benefits from external markets. Implementation of the strategies should increase the attractiveness of the transition and developing countries for foreign investors which will improve the capacity of the SME sector. From the other side, the policies will strengthen the benefits from FDI to local economies through facilitation of SME trade and capacity building of local SMEs to use the opportunities from the external markets.

Key words: SME, foreign investors, strategy, globalization, trade

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INTRODUCTION

FDI has been seen to be the preserve of large firms, both in developed and developing countries. However, there is growing evidence of changes in patterns of foreign direct investment, involving a wider range of source and destination countries and the increasing involvement of SMEs as foreign investors. There is evidence that a growing number of medium sized firms, in particular, are internationalising their operations as a strategic response to increasing competitive pressure. In this context, internationalisation represents a means of reducing costs, as well as of opening up new market opportunities, thereby enabling them to combine greater flexibility with cost reduction (ACCA, 2012a).

This reflects the fact that globalisation is not exclusively a multinational or large firm issue, as a growing number of SMEs are looking to expand their markets internationally. In general, SME internationalisation is greater in smaller, open economies and less in larger economies. One of the best examples is Italy, where 70% of exports are contributed by SMEs (Meghana, Beck and Kunt, 2003). In addition, supply chains in sectors such as “high-tech” and component manufacturing are becoming increasingly global in character, contributing to the development of new business opportunities for SMEs as potential suppliers world-wide, and opportunities for local SMEs in developing countries as second or third tier suppliers to main contractors.

One reason why the growing involvement of SMEs in FDI is important is because there is evidence to suggest that FDI by SMEs has some distinctive characteristics in comparison with FDI by larger firms, with potential positive implications for destination economies. For example, a survey of SMEs involved in FDI showed that more than half of their investment involved some form of partnership between the investing company and a domestic SME (Dunning, 1992). This is because it can be attractive for a foreign investing SME to work with an existing firm, rather than starting from scratch with a greenfield investment, with positive implications for the local SME, in terms of spillover effects. There is also the phenomenon of medium sized companies from mature market economies following larger firms investing abroad, as suppliers.

Although the evidence base is limited, such trends offer potential opportunities, as well as threats, for local SMEs in transition and developing countries. Opportunities may exist for some local SMEs as suppliers to these inward investing medium sized companies, which for a few may represent a stepping stone into wider markets. By encouraging their existing suppliers to become global players, MNEs can help to raise the entry barriers for local SMEs, as potential suppliers, at least in the short term. There is evidence that when SMEs invest abroad independently, they tend to invest in geographically close regions. The reasons for this are limited information fields and greater resource constraints compared with larger firms.

THE EFFECTS AND GAINS OF FDI

Foreign direct investment is an integral part of an open, international economic system and a major potential catalyst for development. The potential benefits of FDI for host economies include (Lall, 2001):

- increasing the supply of capital;
- technology and knowledge transfer;
- the generation of employment and human capital;
- the effect on enterprise development, through linkages and spillover effects.

An additional source of capital is clearly important in countries where financial constraints act as a major barrier to development. The extent to which potential positive externalities from FDI are achieved in practice is likely to be affected by a variety of factors at the macro- and micro- levels.

Human capital spillovers from FDI in developing countries appear to be mainly indirect, occurring more as a result of government policies seeking to attract FDI through enhanced human capital, than directly from MNEs themselves. However, human capital spillovers can occur where FDI involves the acquisition of a local firm by a foreign company. As capital investment often follows acquisition in such cases, in order to upgrade equipment and machinery, many employees are likely to require training. Moreover, indigenous managers are likely to enhance their knowledge through interaction with foreign managers, with some possibly benefiting from spending working periods abroad.

There are example where FDI has also made a significant contribution to the development of the “high tech” cluster, through linkages between technology partners (Khalid, 1995). In this case, the role of policy was to enhance the development of an initial clustering of research centres by contributing to the attraction of the city as a destination for inward investment. This was achieved through a combination of establishing a consistent policy framework, offering a degree of predictability for foreign investors and an active promotion programme to attract FDI (OECD, 2002).

In this context, it is already known that in Ireland, the Irish firms focused on international supply opportunities which coincided with the establishment of a new agency i.e. Enterprise Ireland (Nilgün, 2002). Enterprise Ireland works with indigenous industry to improve sales, export and profitability through a range of support programmes, with a worldwide network of offices providing a resource through which international supply opportunities can be identified. Alongside the changes in multinational investment, the indigenous Irish sector has matured considerably, with the emergence of some Irish MNEs, which has led to a new role for Enterprise Ireland, in terms of assisting these Irish MNEs to achieve their overseas objectives.

HOW TO PROMOTE THE CONNECTION BETWEEN FDI AND SME

In literature is known that for developing and transition economies, FDI represents a potential means of growing and diversifying the SME base and achieving greater integration within global networks. In this way, if we thinking how to promote the connection between FDI and SME, the answer is creating effective policies which are based on seeking large number of locations in the world with similar characteristics, which clearly affect the bargaining position of individual governments with potential investors and represent key factors that policy makers need to consider for attracting and exploit the potential benefits of FDI. In the absence of other locational advantages, competition between places typically focuses on offering lower costs.

Key policy issues are related with creating conditions to attract foreign investors together with policies to encourage and facilitate different forms of cooperation between inward investors and domestic SMEs. In this way, defining the role for policy to attract FDI includes (Nilgün, 2002):

- promotional activities;
- creating an appropriate and effective legal and regulatory framework;
- capacity building programmes for potential suppliers that include training and quality assurance;

- wider role of business support services and other intermediaries, which might include partner searching facilities.

POLICY IN DEVELOPED COUNTRIES

In developed countries the main policy changes required to increase the economic development benefits of FDI need to be made in host countries. The extent of the market opportunities for SME exporters from transition and developing countries in their markets could be affected (Grilo and Thurik, 2008). Most governments in mature market economies have been involved in export promotion activity for some years, recognising the potential welfare gains for the economy as a whole of increasing foreign earnings.

In transition and developing countries the development of FDI-SME connection would be assisted if the provision of support for the internationalisation of domestic firms in developed countries included co-operation with business support agencies in transition and developing countries. This could help to facilitate partner searching and assisting firms to prepare to co-operate with local suppliers, including raising awareness and understanding of the local business culture; planning for co-operation; and training management and key staff.

Policy makers in developed countries also need to consider how overseas development aid might be better used to leverage FDI through, for example, technical assistance or infrastructure projects for local SMEs to develop supply linkages with inward investors. Another issue which policy makers in developed countries need to embrace is corporate social responsibility and its implications for supply chain management. This presents a global issue rather than confined to MNE activity in developing countries.

PROMOTION POLICY AND STRATEGY IN DEVELOPING AND TRANSITION ECONOMIES

To make a strong connection between FDI and SME, policies for encouraging this relationship need to be multidimensional. That is the reason why policy makers in transition and developing countries pay attention to the broader business environment that affects both SME development and their ability to attract FDI. Also they pay attention on making SMEs more attractive as business partners for inward investing enterprises. Their third aim is creation a strategy for encouraging this type of co-operation. In this context, there is need to implement reforms for increasing macroeconomic stability, democracy and a commitment to economic reforms. Another important issue is the importance of high profile publicity efforts, aimed at informing potential investors of improvements in the business environment. The means is that potential investors need to have an up-to-date and accurate picture of the contemporary business environment.

Development of connection between FDI and SME also seek a creation of a business environment that is conducive both to attracting FDI and to facilitating domestic entrepreneurship and SME development (Morriset, 2000). This includes measures like improvements to the general macroeconomic and institutional framework, to increase institutional predictability; creation of a regulatory environment conducive to attracting FDI; upgrading infrastructure, technology and human capital to a level where the potential benefits of a foreign corporate presence for the domestic economy can be realised through positive spillover effects, ect.

Developing effective programmes, agencies and instruments to promote individual transition and developing countries to foreign investors is an important corollary to policies designed to improve the general business environment. Key priorities in this regard are firstly

measures specifically focused on improving the attractiveness of the economy to FDI, such as upgrading infrastructure; removing restrictions on capital flows, and removing any restrictions on imports; and secondly, the establishment of FDI promotion agencies. International good practice suggests these should be at arms-length from government and focused on attracting and facilitating inward investment. There is also a role for specific policies aimed at encouraging and facilitating co-operation between local SMEs and foreign investors by improving the flow of information about suppliers to potential purchasers and about supply opportunities to potential suppliers. The penetration and success of such initiatives is likely to be enhanced if they are introduced in co-operation with appropriate business support agencies and actively disseminated through various channels.

Improving the flow of information about supply opportunities in some way underlines the importance of existing and persuading FDI enterprises to develop transparent programmes which aim to build the capacity of local SMEs. This refers to the need of assisting local SMEs to upgrade in order to meet the demanding quality standards of MNEs, with respect to products and service delivery. Another incentive designed to encourage the development of spillover benefits could include fiscal incentives to encourage training to be provided by MNEs for local staff.

Growth oriented small firms represent a potentially rewarding target group for capacity building initiatives. Capacity building programmes should include supply chain and cluster initiatives, which recognise the potential for developing tiers of suppliers to maximise trickle down effects, including to microenterprises as lower tier suppliers. Policy makers should work with inward investing enterprises, donor organisations and other appropriate intermediaries to develop capacity building programmes for local potential SME suppliers, in order to facilitate the development of backward linkages and other positive spillover effects. Such programmes will need to pay attention to quality management, training and management development programmes. It is important to recognise that a number of governments have adopted special policies and programmes to promote buyer-supplier relationships between MNEs and domestic SMEs, not all of which have been successful (World Bank, 2000). The role of government, is also to facilitate the actions of other actors, namely FDI enterprises, local SMEs, business support intermediaries and the various providers of technology, education, training and financial services.

Continued attention to the development of an effective business support system is an important condition likely to influence the success of a capacity building strategy. It requires business support agencies, which are customer-oriented and which have a demonstrated capability of penetrating the SME sector. Most governments in mature market economies recognise that the international competitiveness of SMEs depends in part on an effective business support system (Kemal et al., 2002). The general case for state intervention is often based on deficiencies in the markets for information, advice, workforce and management training and finance, as far as small firms are concerned. In a transition and developing context, it is typically necessary for government to intervene in order to contribute to the development of high quality business services, although the nature of the intervention should help to build market capacity in the longer term and not crowd out private sector service providers. An example is the use of accredited private sector consultants to deliver business advice, rather than government advisers. Continued attention also needs to be paid to improving access to finance for SMEs to enable them to undertake any upgrading.

STRENGTHENING SME COMPETITIVENESS IN TRANSITION AND DEVELOPING ECONOMIES

In the literature some authors argue that competitiveness is embodied in the characteristics of the firm like (IFAC, 2010):

- the current efficiency and effectiveness of the use of resources,
- the willingness and the ability to relate profitability to growth of capacity (i.e. the willingness to invest), and
- the ability to innovate to improve technology and organization and thus improve efficiency and effectiveness.

The authors state that competitive advantage, which must be measured in relation to rivals in markets, is determined by how efficient and effective the prevailing markets for products, labor and capital are. They further add that entrepreneurship; the introduction of new productive combinations, and innovation is the driving force that continually creates new competitive advantages and opportunities for profit and growth.

Each country will have its own challenges, opportunities and priorities for change when the question is development of SME strategies. Resources available for implementation will vary by country, so that results achieved will also be different. For example, in the 1980s and most of the 1990s, enterprise policy in European countries focused on employment creation, and initiatives supporting new business creation were prominent (White and Chacaltana, 2002). Then, emphasis changed to one of achieving international competitiveness and programs encouraging business growth, support for technology based businesses and creation of an enterprise culture within the society started to gain in importance.

Past and present experiences and practices of developed countries and scholarly assessments of results accomplished are of value and offer a menu of lessons and best practices for transition and developing countries. The responsibility rests with the transition and developing countries to make their choices based on sound assessments of their own context. OECD and other development partners can assist developing countries by building capacities in conducting such assessments, and when they make the choices, by providing capacity building assistance towards implementation (OECD, 2007).

COMPETITIVE SME BUSINESS PRACTICES AND STRATEGIES

It is up to the SMEs to implement competitive business operating practices and business strategies. However, the options available to SMEs are also closely related to the quality of institutions, markets and organizations that constitute the business environment. It is the efficiency and effectiveness of institutions, markets and organizations that encourage or discourage SMEs to take their cues for learning new ways of doing business, compare their own competitive characteristics with those of their rivals, and make their decisions to invest, including the introduction of innovations into their business strategies. If the environment is weak, SMEs' ability to detect market signals that would enable them to invest and grow will also be weakened (OECD, 2000).

Presently, transition and developing countries seem to have a plethora of policies and strategies that relate to the private sector in one way or another: private sector development strategy, SME development strategy, trade and investment policies and strategies, export strategy, and so on. Yet, the responsibility for implementing these various national strategies and programmes are disbursed throughout the public sector institutions, where both capacities and authority to coordinate are weak. Furthermore, there is need to establish dialogue and partnerships between the government, SMEs, the civil society and the academia to

appropriately assess and prioritize SME challenges and to implement remedial actions. Governments usually consult with the private sector, though mostly with large and foreign investors, when setting policies since public-private dialogue enhances ease of implementation, political credibility and sustainability strategies. However, there are also capacity deficiencies that must be overcome on the side of SME membership organizations as discussants.

ACCESS TO FINANCE

SMEs identify financing, especially medium to long-term finance, as their topmost obstacle to growth and investment. These obstacles come at two levels. In least developed economies, and in some transition and developing economies deficiencies in both the macroeconomic and microeconomic environments pose challenges: high budget deficits and unstable exchange rates and legal, regulatory and administrative environment poses major obstacles to access of SMEs to financing. In some economies, capital may just not be available, property rights regimes may not allow ownership of land, markets for transfer of immovable assets may be very underdeveloped, credit and collateral legislation may not allow certain assets that SMEs commonly have access to, to be used as collateral (e.g. future acquired property), absence of registries for mortgages and pledges may increase risks to lenders, contract enforcement and asset liquidation may be hampered due to weaknesses in legislation and in the judiciary. The second level of obstacles may be due to organizational capacity weaknesses: For example, in least developed economies, business services markets in accounting, auditing, financial management and legal counsel may be so underdeveloped that SMEs may not be able to access or afford such services: essential services they would need when they approach banks and other types of lenders.

In more advanced developing countries, where there is reasonable progress in the fundamental institutions, SMEs may still face challenges in accessing formal finance in the form of bank loans, guarantees, venture capital, leasing and so on. For instance, although SMEs are by far the largest group of customers of commercial banks in any economy, loans extended to SMEs are often limited to very short periods, thereby ruling out financing of any sizable investments. Moreover, due to high-perceived risks in SME loans, access to competitive interest rates may also very limited. Finally, in many developing economies, banks prefer to lend to governments, which offer less risk and higher returns, crowding out most of the private sector from the financial system (World Bank, 2003).

The World Bank's Doing Business database provides indicators of the cost of doing business in 133 economies (CIDA, 2003): it identifies specific regulations that enhance or constrain investment, productivity, and growth. Indicators are built on studies of prevailing regulations and cost estimates collected in the field directly from firms (small, independent, limited liability firms employing 5-50 employees), and interviews with organizations charged with administering institutions. The database differs from existing reports on the effects of the business environment on firms, in that; previous studies tend to rely on business perceptions surveys and analyst assessments.

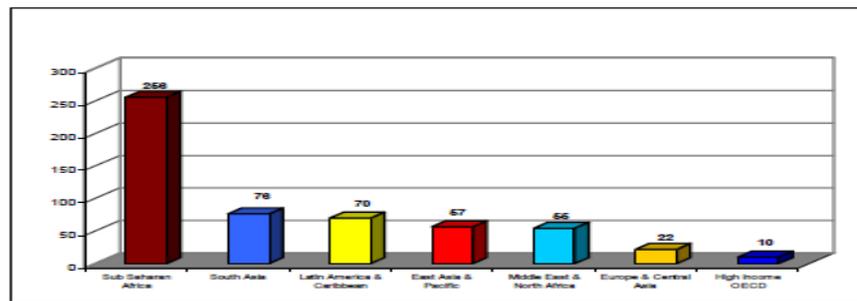


Figure 1. Cost of starting a domestic SME (% of GNI per capita)
Source: <http://rru.worldbank.org/doingbusiness>

Figure 1 shows that an entrepreneur in a Sub-Saharan Africa economy incurs registration costs amounting to 2.5 times that of GNI per capita, in cash, while the same start up in a high income country would need to spend only 10% of GNI per capita. While the same costs vary from 22% to 76% in transition and developing countries in the other regions of the world, they are still prohibitively high and discourage firms from setting up and formalizing.

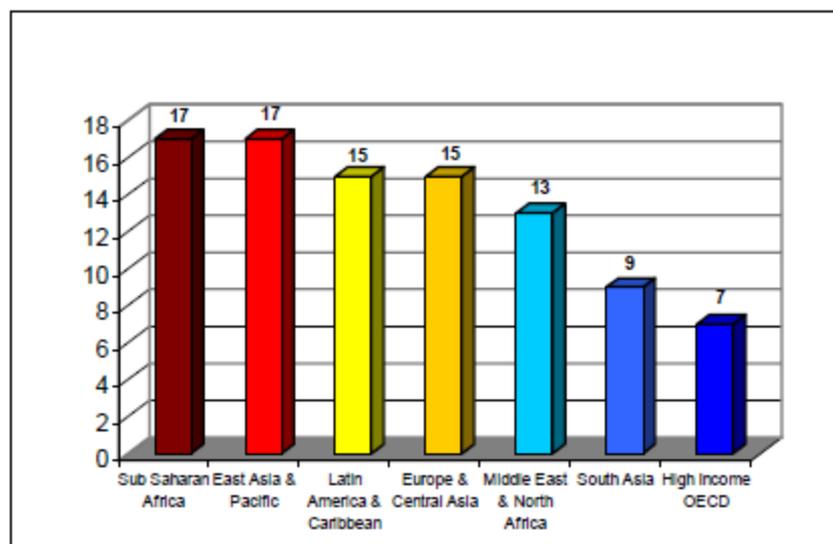


Figure 2. Cost of closing a domestic SME (% of estate)
Source: <http://rru.worldbank.org/doingbusiness>

Figure 2 shows that entrepreneurs in East Asia and Pacific would forego 17% of their estate when exiting, while the same cost would be 7% in high-income countries. It is also interesting to note that there is not much of a difference among developing countries with respect to exit costs. Market exit costs also influence the to-be-entrepreneur's decisions of entry: the higher the cost of exiting, the more difficult will be the decision to invest.

Access to finance can be critical to business growth and success, particularly for start-up enterprises. It can increase the speed at which company grows, fund additional product development, or simply provide enough capital to run the business until the break-even point is reached. Some authors, who take in account this situation in Croatia, analyzed that small businesses are extremely important and certainly most dynamic segment of Croatian

economy (Kolakovic, 2010). Its share of the total number of companies in Croatia is 99.4% and they account for 64.8% of the total number of employed persons in Croatia. Small businesses are one of the most important impetuses of the overall economic development which stimulates private ownership and entrepreneurship, employment growth and significantly contributes to increase of production and exports.

In this context, Table 1 shows use of future additional finance/equity of Croatian SMEs. Almost 1/3 of the respondents plan to invest additional finance into technology and equipment, while every fifth enterprise plans to finance purchase of land and buildings, which is favorable usage of additional finance. Slightly less than 17 percent of respondents plan to use additional finance for overcoming their cash flow constraints and maintain working capital. Very common problem of Croatian SMEs is non-payment between enterprises within payment date, which can cause difficulties with cash flow and working capital. Therefore, banks offer quickly available straight short term credit lines (up to 1 year) in order for enterprises to overwhelm those difficulties and ensure continuous usual business operations. Only 14 percent of enterprise plan to hire new employees.

Table 1. Use of future additional finance/equity Croatian SMEs

Consequences	No. of enterprises	%
Finance R&D	20	8
Update technology/equipment	68	29
Finance purchase of land and buildings	45	19
Invest in marketing and advertising	16	7
Hire new employees	33	14
Working capital and cash flow constraints	39	17
Investing in shares	2	1
Other	12	5
Total number of enterprises	235	100

Source: Bureau of Statistics of the Republic of Croatia

Croatian Employment Service has introduced measures for co-financing the employment of persons up to 25 years old with no work experience, no matter of their educational level. These measures also cover unemployed persons that are in its evidence at least for 12 out of last 16 months, as well as unemployed woman above 45 and men above 50 years old, no matter of their previous work experience and educational level if they are at least 6 months in the Croatian's Employment Service evidence (Kolakovic, 2010). Special co-financing measures refer to disabled persons, single parents of under aged children as well as parents with 4 or more children. Only 8 percent of respondents plan to use additional finance for financing research and development, while 7 percent of the surveyed enterprises plan to invest in marketing and advertising. Despite recent popularity in Croatia, only 1 percent of enterprises plan to invest additional money in shares.

Financing of early SMEs development phase include seed and start-up financing. Characteristics of seed financing are the necessity for small amounts of money necessary for finalizing business plan, forming managerial team and early product development. Start-up financing is aimed to be the support for the development of SMEs organizational structure. This financing is aimed towards enterprises that are ready to start their business operations.

Financing of the start-up phase includes financial support of different funds and state grants in order to ensure full production and investments in different marketing activities.

THE ROLE OF ENTREPRENEURS

Creation of effective policies to strengthen the connection between FDI and SME and implementation of reforms with aim to increase the attractiveness depends also from motivation, skills and expertise of the entrepreneurs. In developing and transition country this underlines the need to recognize the importance of inward investment that offer potential business opportunities. These opportunities should expire the suppliers in host country. Entrepreneurs should recognize the need and show willingness to upgrade their knowledge, skills, because if they want to success they must provide high quality product and service. These high quality products and services will bring the competitiveness and satisfy the need of multinational clients (Spanikova et al., 2012). The entrepreneurs also need to recognize any improvements they may be required to undertake as to invest the resources needed to achieve the required upgrading.

In the most of transition or emerging economies the collapse of the state owned enterprise sector and a lack of large privately owned enterprises results in fewer supply opportunities. In this context, inward investment should be seen as a source of potential market opportunities, which policy makers and other stakeholders in national and regional economic development should recognise.

An integrated economy development strategy should seek to increase the opportunities that come from the relation between FDI and SME, and use it in the best possible way to strengthen and diversifying the SMEs sector in the country.

CONCLUSION

Donors (like OECD) have much to contribute in a way that they can help to expedite the learning processes involved by sharing good practices. Also, they can technically and financially assist transition and developing countries in overcoming barriers, most importantly, they can ensure that improved market access complements improved competitiveness of SMEs. Improving the investment climate for SMEs, and strengthening their capacities to respond to trade and investment opportunities, does strengthen the economic performance of SMEs and this in turn has a positive impact on growth and poverty reduction.

Another important strategy to promote and strengthen the connection between FDI and SME is facilitation availability and access to loan and equity finance, particularly medium to long-term opportunities to improve trade and investment capacity of SMEs. Access to finance for development purpose may be enhanced by ensuring that contracts are easily enforceable; issues of collateral and security are managed competitively; financial institutions are managed prudently and are trusted by depositors; legal frameworks enable a sufficient number and type of financial instruments to be used; financial institutions other than banks are functioning; SMEs are encouraged to keep good accounting records. Without access to medium and long-term finance within the economy, SMEs would not be able to make the necessary investments in innovations and technologies to improve their trade capacity and act as partners to foreign direct investors.

Creation of effective policies to strengthen the connection between FDI and SME and implementation of reforms with aim to increase the attractiveness depends also from

motivation, skills and expertise of the entrepreneurs. In developing and transition country this underlines the need to recognize the importance of inward investment that offer potential business opportunities. These opportunities should inspire the suppliers in host country. Entrepreneurs should recognize the need and show willingness to upgrade their knowledge, skills, because if they want to success they must provide high quality product and service. These high quality products and services will bring the competitiveness and satisfy the need of multinational clients. The entrepreneurs also need to recognize any improvements they may be required to undertake as to invest the resources needed to achieve the required upgrading.

Nevertheless, a substantial amount of work has been done to assess the roles that SMEs play in driving GDP growth and sustaining employment. The evidence suggests that SMEs are vitally important in both high-income and low-income economies, worldwide. SMEs were adversely affected by the global financial crisis of 2008. Some have continued to struggle, with revenues and employment levels remaining subdued in the following years. Others have recovered relatively fast, indicating the resilience of the SME sector. Many have suffered from reduced access to finance and increased costs of credit. Governments around the world have responded in a variety of ways. To assist SMEs in particular, policymakers' attention has focused on supporting working capital, easing access to finance, implementing a better regulation agenda, and encouraging SME investment in new technologies or markets.

Evidence also shows that when SMEs become internationalised, particularly when they start exporting to foreign markets, their contribution to their home economy increases. For this to happen, substantial barriers need to be overcome. SMEs can face difficulties in financing international activity, identifying opportunities and making appropriate contacts in their target markets.

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HOW TO ACCELERATE EXPORT-LED GROWTH IN CONTEMPORARY WORLD?

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Abstract

Globalization brings the threat of a weakened SME sector, since its role in (direct) exporting is less than proportional to its size; this reflects the economies of scale characterizing big markets. But globalization can also increase the importance of a strong SME sector, either where direct SME exports are feasible or where SME subcontractors help keep the country's large exporters competitive. Many markets are too small to have enough large firms to curtail the use of monopoly/monophony and oligopoly/oligopoly power, so price-competition and quality-based competition tends to come from SMEs.

Prices of domestic products on international markets are often underestimated because of the poor reputation or ranking the products with a low degree of processing. Namely, it is necessary small and medium enterprises to make efforts in this domain to contribute in a way that they will make the promotion of domestic products, have organized a joint presentation on external markets, will exhibit initiatives for creation of distribution centers. In this regard, the entry of FDI in manufacturing is expected to contribute to the production of high quality products, and distinctive products, which would lead to higher absolute prices, higher productivity and lower unit labor costs of products.

So the recommendations are on building relationships with financial institutions, especially with banks, to facilitate funding to SMEs. In this context, it is useful to identify where SMEs are dealing in foreign currency and seek opportunities to provide value-adding advice in areas such as managing foreign exchange risks and forecasting currency needs.

In this context, the key factors for realization of these aims are innovation and knowledge that would help for increasing competitiveness as the role of FDIs for productivity and efficiency growth, with support of real exchange rate by stimulating the growth of export, too. The domestic industry by using knowledge, innovation development and upgrading the capacity of the small and medium enterprises can take the necessary changes for its output and increase export performance. All of this can contribute to sustainability of the economic growth and economic integration especially of small economies on which mainly this paper is focused with special emphasis on the Macedonian economy.

Key words: FDI, export, competitiveness, real exchange rate

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INTRODUCTION

Globalization has created new opportunities for SMEs. Progressive globalization has created a new international environment for SME exports from developing countries. The process of world economic integration has involved a broadening and deepening of inter-relationships between international trade and foreign investment flows. Several influences – falling trade barriers, increasing technological progress, migration of technical and professional manpower and highly mobile multinational corporations (MNCs) seeking out new investments – have combined to drive globalization. The end result has been the creation of an international marketplace for goods and services that seems indifferent to national borders and state regulation.

Globalization also brings new challenges. The new international environment provides new opportunities for SME exports from developing countries. It has the potential to offer SMEs in developing countries with access to a global pool of new technologies, skills, capital, markets and hence faster export growth and profits than ever before. At the same time, globalization brings a lot of trade challenges and increase in competition from imports and the entry of new foreign investors for SMEs in domestic markets. SMEs in developing countries have to adjust to the competitive strategies of MNCs in different countries, to public and privately set standard, to changes in international tastes, prices and competitive conditions.

Wignaraja (2003) suggests that globalization opens up new opportunities for export expansion and growth to about 5-10% of SMEs in developing economies. These dynamic SMEs have designed well-adapted marketing strategies and invested in their manufacturing capabilities to bring them up to world standards of price, quality and delivery, hence complying with new technical, environmental and labor standards in export markets. Some have even formed networks or industrial clusters with other SMEs or MNCs to stimulate the emergence of production networks among firms and increase value addition. Such SMEs have expanded their existing domestic market shares, broken into new export markets and continuously upgraded their products and processes. Experience of exporting SMEs from developing countries illustrates the fact that they have pro-actively upgraded themselves.

RER AS A CORNERSTONE OF SME'S EXPORTS PERFORMANCES

At the macroeconomic level, sound government policies and the ability to stabilize a competitive real exchange rate are the cornerstone of promoting exports. A competitive real exchange rate provides an incentive for exports. Moreover, an outward oriented, market-friendly trade regime, which emphasizes the dismantling of import controls and tariffs (permitting access to inputs at world prices), and streamlined bureaucratic procedures, *i.e.* export and import procedures, modern customs administration and efficient value added tax administration will facilitate exports, including from SMEs.

One of the instruments that are crucial for explaining the evolution of the exchange rates, but also an instrument that is important in predicting the development, exchange rate movements - is the balance of payments. In addition, the impact of exchange rates on trade in a given country, as in Macedonia, example for small and open economy, should be seen in the context of continued integration of supply chains. Exports generally include high import content and impact of foreign currency-exchange appreciation or depreciation on any finished product because it is complex. If the depreciation of the exchange rate makes its exports of finished products "cheaper", it makes imported components "expensive" for domestic producers.

Maintaining growth and reducing the unemployment in a small and open economy such as Macedonia depends from improved performance of exports. Improving the performance of exports can also help to preserve macroeconomic stability by closing the gap in the current account to avoid wasting supplies and to stop the growth of external debt. Improving performance requires improving export competitiveness. In the short term, competition may be related to the level of the real exchange rate, which provides internal and external balance. The appreciation of the real exchange rate with respect to its equilibrium level reduces the incentives and the ability of manufacturers to compete in foreign markets, since a significant part of production costs paid in local currency. In the long run, real exchange rates are assumed to converge to its equilibrium level, and competitiveness is more related to the productivity of the economy.

So, firm-level strategies are fundamental to development of exports by an SME. However, accomplishment of a pro-active upgrading menu, requires easy and cost-effective access to information on consumer demand and new technologies, training and advisory services to upgrade management practices, a skilled pool of labor in the country to select from, testing, quality assurance and certification institutions, and most importantly access to finance to upgrade technologies. In the context of pro-active upgrading, this means:

- systematically acquiring production and product design capability
- improving measurement, standards, quality and productivity
- recruiting qualified staff and training
- forging sub-contracting links with other firms
- making use of technology institutions and other business services
- actively seeking foreign buyers and marketing agents

Technical assistance in the areas of quality management, productivity improvement is needed to help SMEs comply with the product standards and regulations applied in export markets. While the advance of trade liberalization brings down tariffs and quantitative restrictions, new barriers to trade, such as the technical barriers to trade, TBT, and sanitary and phytosanitary standards, require disproportionate efforts from developing countries and are perceived to be unequally and sometimes unfairly applied by developed countries.

SME AND FINANCE ENCOURAGING

Access to SME trade finance at competitive interest rates can be strengthened through export credit guarantee schemes for SMEs and subcontracting and specialist soft loans for SME export activities. Government should encourage banks as well as private enterprises to provide financial services tailored to SME export-related needs.

The agribusiness sector is important in almost all developing countries, including the more developed ones. The sector is characterized by SMEs that have high backward linkages with the rest of the economy, contribute particularly towards poverty reduction, job creation and improved health and nutrition. Stability of the agribusiness sector also requires diversity of both products and markets and primary attention to sustainability of resources. Also, the agro-industry sector can in Macedonia provide a domestic basis for scaling up of enterprises to the point where they become capable of export. There are also practical difficulties involved in starting up an agribusiness enterprise targeting an international export market from the beginning. In many cases, the domestic and regional markets tend to provide a stepping stone from which SMEs can learn important lessons concerning product quality, timely deliveries and managing risk involved in international business. Where there is an inadequate domestic market, or the products are only attractive for export, considerable effort needs to be put into strategic positioning and reliable production so as to reduce risk of

failure. Such effort is obviously costly and requires capacity building of SMEs and export development institutions, including sectoral membership organizations.

The prospects of intensive competition have also given the stakeholders an impetus to assess the weaknesses and strengths of their garment industries. Developing countries having diversified product ranges, including high-end products and markets and countries that have invested in backward linkages and started developing forward linkages are in a better position. Strategies that would support diversification, differentiation and specialization within economies, sectors and at the level of firms appear viable and need to be given consideration in designing trade-related technical assistance. A value chain approach to identify bottlenecks and opportunities for designing strategies aimed at strengthening the competitive edge of firms may be appropriate.

Cluster development strategies are attracting more interest as local SMEs are linking to global value chains. In this respect, cluster development strategies serve both improving competitiveness and improving the ability of local SMEs to insert themselves into global supply chains through linkages with FDI and may be a useful tool for an SME export development and promotion agency, with or with a function in promoting linkages with FDI. Framework conditions for building up SME competitiveness include an SME enabling legal, regulatory and administrative environment, SME access to finance, a supportive SME institutional support structure, availability of appropriate skills and supporting infrastructure, mainstreamed into the national development framework. In this context it is also interest to analyze the particular group of SMEs that are exporting or have export potential and those that are able to insert themselves into the supply chains of FDI enterprises.

RELATIONSHIP BETWEEN FDI AND SME, EFFECTS AND GAINS

Foreign direct investment is an integral part of an open, international economic system and a major potential catalyst for development. The potential benefits of FDI for host economies include (Lall, 2001):

- increasing the supply of capital;
- technology and knowledge transfer;
- the generation of employment and human capital;
- the effect on enterprise development.

An additional source of capital is clearly important in countries where financial constraints act as a major barrier to development. The extent to which potential positive externalities from FDI are achieved in practice is likely to be affected by a variety of factors at the macro- and micro- levels.

Human capital spillovers from FDI in developing countries appear to be mainly indirect, occurring more as a result of government policies seeking to attract FDI through enhanced human capital, than directly from MNEs themselves. However, human capital spillovers can occur where FDI involves the acquisition of a local firm by a foreign company. As capital investment often follows acquisition in such cases, in order to upgrade equipment and machinery, many employees are likely to require training. Moreover, indigenous managers are likely to enhance their knowledge through interaction with foreign managers, with some possibly benefiting from spending working periods abroad.

There are example where FDI has also made a significant contribution to the development of the “high tech” cluster, through linkages between technology partners (Khalid, 1995). In this case, the role of policy was to enhance the development of an initial clustering of research centres by contributing to the attraction of the city as a destination for inward investment. This was achieved through a combination of establishing a consistent

policy framework, offering a degree of predictability for foreign investors and an active promotion programme to attract FDI (OECD, 2010). In literature is known that for developing and transition economies, FDI represents a potential means of growing and diversifying the SME base and achieving greater integration within global networks. In this way, if we thinking how to promote the connection between FDI and SME, the answer is creating effective policies which are based on seeking large number of locations in the world with similar characteristics, which clearly affect the bargaining position of individual governments with potential investors and represent key factors that policy makers need to consider for attracting and exploit the potential benefits of FDI. In the absence of other locational advantages, competition between places typically focuses on offering lower costs.

Key policy issues are related with creating conditions to attract foreign investors together with policies to encourage and facilitate different forms of cooperation between inward investors and domestic SMEs. In this way, defining the role for policy to attract FDI includes (Srinivasan and Archana, 2011):

- promotional activities;
- creating an appropriate and effective legal and regulatory framework;
- capacity building programmes for potential suppliers that include training and quality assurance;
- wider role of business support services and other intermediaries, which might include partner searching facilities.

IMPORTANCE OF ELGH IN DEVELOPING COUNTRIES

It is widely accepted among economists that economic growth is an extremely complex process, which depends on many variables such as capital accumulation (both physical and human), trade, price fluctuations, political conditions and income distribution, and even more on geographical characteristics.

The export-led growth hypothesis (ELGH) postulates that export expansion is one of the main determinants of growth. It holds that the overall growth of countries can be generated not only by increasing the amounts of labour and capital within the economy, but also by expanding exports. According to its advocates, exports can perform as an “engine of growth”.

The association between exports and growth is often attributed to the possible positive externalities for the domestic economy arising from participation in world markets, for instance from the reallocation of existing resources, economies of scale and variouslabour training effects. However, these mechanisms are frequently invoked without any theoretical support or any empirical proof.

A substantial amount of research concerning the ELGH in developing countries (DCs) has been carried out during the past 30years. In fact, during the 1990s a new series of empirical studies has been conducted on a number of divergent lines of research, methodologies, time periods and countries. A key aspect concerning early studies is related to both the methodology and the econometric technique used. The theoretical benchmark can be considered in general weak and based on bivariate and ad hoc production functions, while the empirical results derived from traditional econometrics have been highly criticized for being spurious. Therefore, early studies could have been misleading in that they advocated export expansion in an indiscriminate way. In fact, the evidence available is far from conclusive and this situation explains to some extent why this debate still exists in the economic literature.

LINK BETWEEN TRADE, EXPORTS AND GROWTH AND THEIR EFFECTS

Although the theoretical links between trade and economic growth have been discussed for over two centuries, controversy still persists regarding their real effects. In the last decade there has been a surprising and impressive resumption of activity in the economic growth literature triggered by the endogenous growth theory, which has led to an extensive inventory of models that stress the importance of trade in achieving a sustainable rate of economic growth. These models have focused on different variables, such as degree of openness, real exchange rate, tariffs, terms of trade and export performance, to verify the hypothesis that open economies grow more rapidly than those that are closed (see e.g. Edwards, 1998).

Many developing countries were forced to stimulate their export-led orientation even more because most of them had to rely on multilateral organizations to implement adjustment and stabilization programmes to correct imbalances in their basic macroeconomic indicators. The strategy was to encourage a free market through policies that relied heavily on the export promotion approach as one of the most suitable and trustworthy mechanisms. Promoting exports would enable developing countries to correct imbalances in the external sector and at the same time assist them in ensuring that their domestic economies made a full recovery. As part of an outward strategy, a new set of policies rapidly became a key component for policy makers in developing countries involved in adjustment and stabilization programmes.

According to the most authors as well as multilateral institutions would agree that promoting exports and achieving export expansion are beneficial for both developed and developing countries for many reasons, including the following (Rodrik, 1999):

- they generate a greater capacity utilization;
- they take advantage of economies of scale;
- they bring about technological progress;
- they create employment and increase labour productivity;
- they improve allocation of scarce resources throughout the economy;
- they relax the current account pressures for foreign capital goods by increasing the country's external earnings and attracting foreign investment; and
- they increase the TFP and consequently the well-being of the country (World Bank, 1993).

HOW EXPORT-LED GROWTH IS USED AS A DEVELOPMENT STRATEGY?

Export-led growth refer to a strategy comprising the encouragement of and support for production for exports. The rationale lies in the belief of many economists that trade is the engine of growth, in the sense that it can contribute to a more efficient allocation of resources within countries as well as transmit growth across countries and regions. Exports, and export policies in particular, are regarded as crucial growth stimulators. Exporting is an efficient means of introducing new technologies, both to the exporting firms in particular and to the rest of the economy, so exports are a channel for learning and technological advancement. Moreover, the growth of exports plays a major part in the growth process by stimulating demand and encouraging savings and capital accumulation, and, because exports increase the supply potential of the economy, by raising the capacity to import.

Opening up a country's market to the international markets allows a country more efficient production and allocation of resources as the country can concentrate on the production of goods in which it has a comparative advantage based on its factor endowments. Thus, world trade markets allow producers and consumers of the participating countries to

benefit from lower prices, higher-quality products, more diverse supply of goods, and higher growth.

Participating in trade, especially export production and promotion, exposes a country to the latest and most advanced production and marketing techniques, and a "learning-by-doing" process that brings about dynamic innovation and technological diffusion into the economy. It also drives a country to higher production and to economies of scale, which lead to increasing returns.

The investment-savings gap and the foreign exchange gap are major obstacles to the growth and development of many developing countries. Since countries need precious foreign exchange for their development needs (capital goods, industrial raw materials, oil, and food), export earnings are a more efficient means to finance these needs than foreign debt since the latter is vulnerable to adverse exogenous shocks and currency risks that may lead to debt defaults. A similar argument claims that large balance-of- payment deficits, spurred by large import propensities or elasticity's, may be a hindrance to growth for many developing countries. Thus, moderate trade deficits, or trade surpluses, are more desired. This, of course, implies that export growth should be in pace with, or ahead of, import growth.

Export-led strategies allow an expansion of aggregate demand without much inflationary pressure and without the danger of a wage-price spiral, compared with strong domestic demand injections. This partly stems from the real appreciation of the currency that result from large export earnings, which tame inflation and allow real wages to rise. It is important to mention that while the literature on growth and development considers the export-led growth strategy, the "domestic demand-led growth strategy" is not a term defined and used hence it has to be defined here, in particular for purposes of empirical implementation. Therefore, it is not straightforward to place the "debate" between export-led and domestic demand- led growth strategies in a theoretical context.

Export-led growth is an economic strategy which seeks to find a niche in the world economy for a certain type of export. Industries producing this export may receive governmental subsidies and better access to the local markets. By implementing this strategy, countries hope to gain enough hard currency to import commodities manufactured more cheaply somewhere else. Export-led growth is important for mainly two reasons. The first is that export-led growth can create profit, allowing a country to balance their finances, as well as surpass their debts as long as the facilities and materials for the export exist.

There are essentially two types of exports used in this context: manufactured goods and raw materials. The use of manufactured goods as exports is the most common way to achieve export-led growth. Many times these industries are competing against industrialised countries' industries, which often include better technology, better educated workers, and more capital to start with. Therefore, this strategy for export-led growth must be well thought out and planned. Not only must a country find a certain export that they manufacture well, that industry must also be able to make it in the world market competing with industrialised industries. Using raw materials as an export is another option available to countries. However, this strategy has a considerable amount of risk compared to manufactured goods. The terms of trade greatly affect this plan. Over time, a country would have to export more and more of the raw materials to import the same amount of commodities, making the trade profits very difficult to come by.

EXPORT-LED GROWTH IN SEE6

South East Europe's (or SEE) economy began recovering from the 2012 recession, growing by 2.2 percent on average in 2013, according to the World Bank's latest South East

Europe Regular Economic Report (SEE RER). The report says the region is projected to grow at 1.9 percent in 2014 and 2.6 percent in 2015 thanks to growing external demand, but significant risks cloud the outlook, including the expected impact of recent flooding in the region.

Table 1. SEE:Real GDP growth, in percent

	2012	2013	2014	2015
Albania	1.3	0.4	2.1	3.3
Bosnia and Herzegovina	-1.1	1.8	2.0	3.5
Kosovo	2.7	3.0	3.5	3.5
Macedonia	-0.4	3.1	3.0	3.5
Montenegro	-2.5	3.5	3.2	3.5
Serbia	-1.7	2.5	1.0	1.5
SEE6	-0.7	2.2	1.9	2.6

Note: GDP weight average. 2013 is an estimate. 2014 and 2015 are World Bank staff projections.
Source: World Bank.

Severe floods, in particular in Bosnia and Herzegovina and in Serbia, which occurred in mid-May due to unprecedented rains, have caused a humanitarian crisis with dozens of people dead and millions displaced or left without access to water or power. Housing, crops and livestock have been lost, and major transportation links have been disrupted. The floods will undoubtedly have a negative impact on growth in 2014, though it is too early to measure the full impact. Assessments of damage and reconstruction needs are being launched as initial relief operations continue. For Kosovo, the report noted that it remains the fastest growing economy in the region and that economic growth is projected to accelerate in 2014. Some economists say that Kosovo had a solid economic growth, but it did not create new jobs.

In 2013, each of the six countries of South East Europe marked positive growth rates, with growth at or exceeding 3 percent in Macedonia, Kosovo and Montenegro. In all countries, a good agricultural year and growth in industry supported the region's economic activity. In fact, from 2013, South East Europe began recovering from recession. Economic growth was possible thanks to the increased demand for regional exports from high-income countries, particularly those in the European Union (EU). The devastating floods in mid-May are a humanitarian disaster for several countries of Southeast Europe, and will impact economic recovery for the next few years in ways that have yet to be fully assessed. According to the report, exports grew by close to 17 percent in 2013, led by particularly rapid growth of Serbian exports. The major increase in 2013 came from the export of machinery and transport equipment, mainly from Serbia and Macedonia. Meanwhile, mineral fuels exports were quite significant in Albania and Montenegro, and base metals were around a quarter of exports from Kosovo in 2013.

The importance of access to international competitiveness as a concept is extremely important for employment and the degree of capacity utilization of Macedonia. It is undisputed that the successful realization of the international economic and financial relations necessarily be aware of what changes are expected in the future in exchange rates. Thus, the existence of the real exchange rate in Macedonia, the products whose price in the country is a low cost can be exported effectively and import products whose price is relatively higher in the country in terms of abroad. In addition to the events and challenges for Macedonia, membership in the EU can improve the industrial situation in Macedonia only if the access

largely makes Macedonia location from which foreign investors can serve EU markets if the domestic industry, with aid of FDI, can take the necessary changes to its output, an issue explored in greater detail in the section of the industry. These long-term structural shifts in employment and output, which can be accelerated through accession of Macedonia to the EU, sectoral change can be an important driver of change in aggregate factor productivity and income of workers in different sectors of the economy.

Given the large gap in prices and income per capita between Macedonia and the EU, the price will be accepting an important source of inflationary pressure, and also facing the existing price distortions in the energy, municipal services, etc.. Before access can move this later inflationary factor as driver for access around the time when the effect of inflation on real convergence is combined with the negative short-term effects of EU accession on fiscal balance, falling interest rates and so on. This will require careful management of the exchange rate. That is, if the Macedonian real growth accelerates, Macedonia will be more attractive candidate for EU membership, and it will faces with intense pressures on the exchange rate regime and macroeconomic policies.

The region's domestic demand contracted in 2013. Having this in consideration, some economists suggest Western Balkan countries to shift from an internal demand-driven growth model to one fueled by exports, leading to greater integration in European and global markets. With recovery underway, this moment should be focused on creating an investment climate conducive to export-led growth and enhancing connectedness. Domestic demand was further suppressed by declining remittances to the region in 2013, reflecting a still-sluggish economic recovery and prevailing high unemployment in EU countries. With few new jobs, falling remittances, and limited credit to the economy, household incomes and firms' profits were unable to boost domestic consumption or investment in the region.

Overall, while the recovery has brought growth, countries in the region are having limited success in translating the economic recovery into job creation. Unemployment remained very high in the region at an average rate of over 24 percent in 2013. Persistently high unemployment rates and chronic unemployment are particularly prevalent among vulnerable groups, such as youth, women, and the low-skilled. The report for SEE says that challenges remain and need action in the financial and fiscal sectors. Taming the high and still rising non-performing loans; resuming credit growth to viable corporate borrowers; pursuing decisive consolidation efforts to restore fiscal balance; and reducing public debt would help stimulate economic activity. To sustain growth in the region, the countries need to further strengthen their domestic macroeconomic fundamentals and policies that boost productivity and resilience to external turmoil. In addition, the recent economic recovery is an opportunity to re-launch long-overdue structural reforms. Priorities for growth and jobs creation include macroeconomic and fiscal stabilization, improved competitiveness and connectivity, enhanced skills and labor productivity, and strengthened governance and anti-corruption.

CONCLUSION

The main argument for favouring SMEs is that they are increasingly playing a strategic role in economic growth and development through their contribution to the creation of wealth, employment, and income generation. In more developed economies, the dynamic arguments for the existence of SMEs have been stressed in terms of their being more innovative and constituting a seedbed for the development of new firms.

SMEs are increasingly taking the role of the primary vehicles for the creation of employment and income generation through self-employment, and therefore have been tools for poverty

alleviation. SMEs also provide the economy with a continuous supply of ideas, skills and innovation necessary to promote competition and the efficient allocation of scarce resources.

The pre-crisis economic boom started somewhat later than in other emerging Europe countries and was notably more contained the growth pattern in the Republic of Macedonia shared many features with its country peers. Specifically, the non-tradable sector, which absorbed large FDI inflows, was also responsible for higher productivity and output growth during the pre-crisis period. The output growth in the Republic of Macedonia has been mainly explained by improvements in domestic financing conditions and risk premia, larger capital inflows (mostly FDI) and reforms in infrastructure. The main challenges for the Republic of Macedonia are to smoothly absorb FDI inflows and to improve the competitiveness and export performance of the domestic industry. These challenges – and the policy measures needed to tackle them – are very similar to those confronting other countries in the region.

According to this, the impact of exchange rates on trade in a given country, as in Macedonia, example for small and open economy, should be seen in the context of continued integration of supply chains. Exports generally include high import content and impact of foreign currency-exchange appreciation or depreciation on any finished product because it is complex. Maintaining growth and reducing the unemployment in a small and open economy such as Macedonia depends from improved performance of exports, from this point of view the exports of SMEs. On higher level, improving the performance of exports can also help to preserve macroeconomic stability by closing the gap in the current account to avoid wasting supplies and to stop the growth of external debt. Also, improving performance requires improving export competitiveness. In the short term, competition may be related to the level of the real exchange rate, which provides internal and external balance. The appreciation of the real exchange rate with respect to its equilibrium level reduces the incentives and the ability of manufacturers to compete in foreign markets, since a significant part of production costs paid in local currency. In the long run, real exchange rates are assumed to converge to its equilibrium level, and competitiveness is more related to the productivity of the economy. So, the importance of access to international competitiveness as a concept is extremely important for employment and the degree of capacity utilization of Macedonia. It is undisputed that the successful realization of the international economic and financial relations necessarily be aware of what changes are expected in the future in exchange rates. In this way, if the Macedonian real growth accelerates, Macedonia will be more attractive candidate for EU membership, and it will faces with intense pressures on the exchange rate regime and macroeconomic policies.

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THE IMPORTANCE OF INNOVATION INFRASTRUCTURE POLICY ON THE GLOBAL INNOVATION INDEX OF THE REPUBLIC OF MACEDONIA

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Abstract

Today innovation is the main driving force of economic growth and prosperity. European Union has a long tradition of good performance in research and innovation and each member state has its own policies and programs on research and innovation. The support and development of innovation performance is one of the priority tasks for the government of Macedonia. One of the most significant indicators for setting up a benchmark in the innovation ranking of nations across the globe is the Global Innovation Index (GII). The GII report discusses about country performance and what companies are doing and should be doing to incentive innovation. The GII relies on two sub indices (the Innovation Input Sub-Index and the Innovation Output Sub-Index) each built around pillars. Each pillar is divided into three sub-pillars and each sub-pillar is composed of individual indicators. Macedonia is on the 51 place in the last edition published in 2013 year. The main objective of this paper is to analyze the innovation performance of the Republic of Macedonian particular on the third innovation pillar - Innovation Infrastructure. So we will explain the significance of this important pillar for the Macedonian economy by determining the strengths and weaknesses of all sub-pillars and respective indicators. The research would make a comparative analysis between innovation infrastructure policies of Macedonia and other South-Easter Europe (SEE) countries. The final aim is to give directions on lowering the influence of the weaknesses and keeping and intensifying the strengths regarding innovation infrastructure.

Key words: innovation, Global Innovation Index, innovation infrastructure, SEE, economic growth

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INTRODUCTION

There is a widespread belief that innovation is a major source for competitiveness and growth of a country, region or enterprise. The concept of innovation and the methods for measuring it have been under constant dispute for decades. Without doubt, the measurement of innovation and its dynamics is of great importance for theoretical and empirical analysis of growth models and to support the decision-making process of potential investors.

Innovation has become a key factor to sustainable growth and knowledge economy creation, having impact on the national competitiveness in the regional and global economy.³ Innovation systems in small, landlocked developing countries are, inherently problematic, characterized by poor business and governance conditions, low educational levels and meritocratic infrastructure.⁴ This raises particular challenges for introducing structured innovative models in small developing countries such as Macedonia.

The main research assumption of this paper is one of the most significant indicators for setting up a benchmark in the innovation ranking of nations across the globe is the Global Innovation Index (GII). The GII report discusses about country performance and what companies are doing and should be doing to incentive innovation. Global Innovation Index (GII) provides an integrated metric based on carefully selected and weighted variables. It is the result of several years of improvement, a willingness to use official data where possible, and a desire to weight sub-variables in order not to penalize smaller or lower-income economies. It helps to create an environment where innovation factors are under constant re-evaluation, thus becoming a tool to assess relative positions and to refine national innovation policies.

THEORETICAL OVERVIEW OF GLOBAL INNOVATION INDEX

The GII is an evolving project, which builds upon previous editions of the Index while incorporating the latest research on the measurement of innovation.

The Global Innovation Index (GII) project was launched by INSEAD in 2007 with the simple goal of determining how to find metrics and approaches to better capture the richness of innovation in society and go beyond such traditional measures of innovation. The GII helps to create an environment in which innovation factors are under continual evaluation, and it provides a key tool and a rich database of detailed metrics for refining innovation policies. In the last year edition GII model includes 142 countries/economies that represent 94.9% of the world's population and 98.7% of the world's GDP (in current US dollars)⁵.

The GII relies on two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index each built around pillars (Figure 1).

³ Fagerberg, J., (March 1-2, 2006) "Innovation, technology and the global knowledge economy: Challenges for future growth". Paper presented at the "Green roads to growth" conference, Environmental Assessment Institute, Copenhagen: 90-119.

⁴ Aubert, J. E. (July 2004). "Promoting innovation in developing countries: a conceptual framework", *World Bank Institute*.

⁵ Dutta, S. & Lanvin, B (2013). *The Global Innovation Index 2013: The Local Dynamics of Innovation*, Geneva, Ithaca, and Fontainebleau.. pp 40.

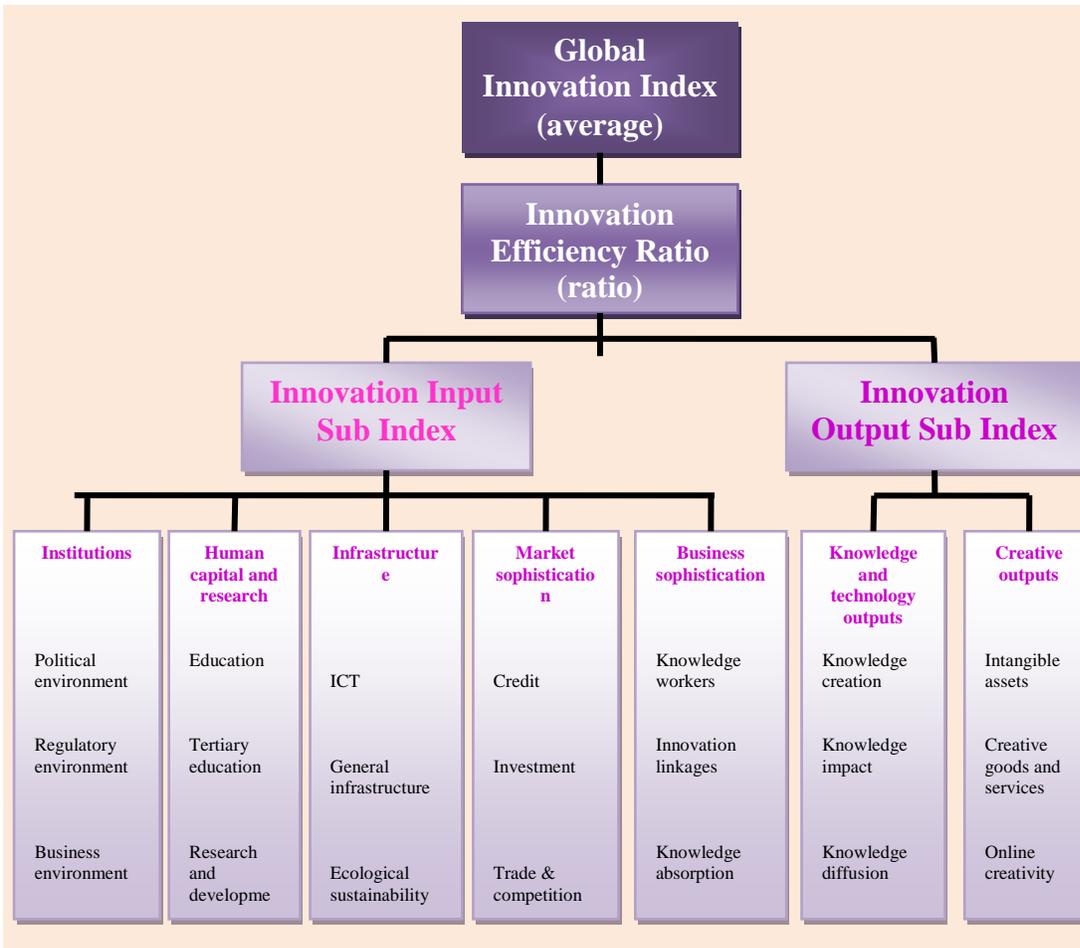


Figure 1: Framework of the Global Innovation Index 2013

The first Sub-Index of GII is the Innovation Input Sub-Index. It's the simple average of the first five pillar scores. Five input pillars capture elements of the national economy that enable innovative activities: Institutions, Human capital and research, Infrastructure, Market sophistication, and Business sophistication. Enabler pillars define aspects of the environment conducive to innovation within an economy.

Innovation outputs are the results of innovative activities within the economy. Output Sub-Index is calculated as the simple average of the last two pillars. Although the Output Sub-Index includes only two pillars, it has the same weight in calculating the overall GII scores as the Input Sub-Index. There are two output pillars: Knowledge and technology outputs and Creative outputs.

The overall GII score is the simple average of the Input and Output Sub-Indices. The Innovation Efficiency Ratio is the ratio of the Output Sub-Index to the Input Sub-Index. It shows how much innovation output a given country is getting for its inputs. Each pillar is divided into three sub-pillars, each of which is composed of individual indicators, for a total of 84 indicators. The GII pays special attention to presenting a scoreboard for each economy that includes strengths and weaknesses, making accessible the data series, and providing data sources and definitions and detailed technical notes.

Macedonia is ranked 51th (up from 62th in 2012 and 67th in 2011), 10th among upper-middle-income countries, and 32th in the region. Macedonia is one of the countries in the region that increased in the rankings this year. With a population of 2.1 million and a GDP per capita of PPP\$10,717.5 (PPP\$10,822.7 in 2012), Macedonia ranks 48th in the Input Sub-Index, 66th in the Output Sub-Index, and 96th in the efficiency ratio; it also shows relative strengths in Human capital & research (52nd), Market sophistication (41st) and Creative outputs (75th). Macedonia has relative strong position performance in few indicators: easy of starting a business (4th), education (13th), easy of protecting investors (20th), ISO 14001 environmental certificates (26th), venture capital deals (29th), Non-agricultural access weighted tariff % (22nd) and JV-strategic alliance deals (6th). Macedonia has weakness in the QS University ranking average score of top 3 universities (68th), total value of stocks traded, % GDP (84th), high-tech imports less re-imports, % (97th) and FDI net outflows, % GDP (110th).

IMPORTANCE OF THE GII SUB-INDEX-INFRASTRUCTURE

The third pillar Infrastructure includes three sub-pillars: information and communication technologies (ICTs), general infrastructure and ecological sustainability (Table 1). The ICT sub-pillar includes four indices: ICT access, ICT use, online service by governments and online participation of citizens. The ICT access index is a composite indicator that weights five ICT indicators (20% each):⁶

- ✦ Fixed telephone lines per 100 inhabitants;
- ✦ Mobile cellular telephone subscriptions per 100 inhabitants;
- ✦ International Internet bandwidth (bit/s) per Internet user;
- ✦ Percentage of households with a computer; and
- ✦ Percentage of households with Internet access.

The ICT use index is a composite indicator that weights three ICT indicators (33% each)⁷:

- ✦ Percentage of individuals using the Internet;
- ✦ Fixed (wired)-broadband Internet subscriptions per 100 inhabitants;
- ✦ Active mobile-broadband subscriptions per 100 inhabitants

ICTs continue to penetrate countries in all regions of the world, as more and more people are getting connected. The past year has seen persistent growth of ICT uptake worldwide, with an increase in all key indicators except the number of fixed telephone lines. Indeed, more and more countries are reaching a critical mass in terms of ICT access and use, which accelerates ICT diffusion and further boosts demand, driven by the spread of mobile Internet.

Government's online service covers four stages of government's online service development, with points assigned for:⁸

- ✦ an emerging presence, providing limited and basic information;
- ✦ an enhanced presence, providing greater public policy and governance sources of information, such as policies, laws and regulation, downloadable databases, etc.;
- ✦ a transactional presence, allowing two-way interactions between government and citizens (G2C and C2G), including paying taxes and applying for ID cards, birth certificates, passports, license renewals, etc.; and

⁶ International Telecommunication Union (2012). Measuring the Information Society 2012, Place des Nations CH-1211 Geneva Switzerland.

⁷ Ibid.

⁸ United Nations (2012), E-Government Survey 2012: E-Government for the People. New York, United Nations.

↳ a connected presence, characterized by G2G, G2C, and C2G interactions; participatory deliberative policy and decision-making.

To arrive at a set of online service index values, have to assessed each country's national websites, including the national central portal, e-services portal and e-participation portal as well as the websites of the related ministries of education, labour, social services, health, finance, and environment, as applicable. In addition to being assessed for content and features, the national sites were tested for a minimal level of web content accessibility. Governments have a duty to uphold the peoples' right to participate in public governance. At the national level, the right to political and civic participation is often guaranteed in the constitution. These indicators focus on the use of the Internet to facilitate the provision of information by governments to citizens ('e-information sharing'), interaction with stakeholders ('e-consultation'), and engagement in decision-making processes ('e-decision making'). A country's E-Participation Index value reflects how useful these features are and the extent to which they have been deployed by the government compared with all other countries. The purpose of this measure is to offer insight into how different countries are using online tools to promote interaction between citizen and government, as well as among citizens, for the benefit of all.⁹

The sub-pillar on general infrastructure includes two indicators related to electricity supply (the average of electricity output and consumption in kWh per capita); a composite indicator on logistics performance and gross capital formation, which consists of outlays on additions to the fixed assets and net inventories of the economy, including land improvements (fences, ditches, drains); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. The sub-pillar on ecological sustainability includes three indicators: GDP per unit of energy use (a measure of efficiency in the use of energy), the Environmental Performance Index developed by Yale University and Columbia University, and the number of certificates of conformity with standard ISO 14001 on environmental management systems issued. Good and ecologically friendly communication, transport, and energy infrastructures facilitate the production and exchange of ideas, services, and goods and feed into the innovation system through increased productivity and efficiency, lower transaction costs, better access to markets, and sustainable growth.

⁹ Ibid.

Table 1: Infrastructure pillar for Macedonia in the last three years

Republic of Macedonia							
		2011		2012		2013	
	Indicator	Score (0-100)	Rank	Score (0-100)	Rank	Score (0-100)	Rank
3	Infrastructure	26.2	72	35.1	62	33.2	67
3.1	Information & communication technologies (ICTs)	32.8	49	36.3	63	36.0	69
3.1.1	ICT access	52.6	47	55.7	49	57.3	53
3.1.2	ICT use	18.9	45	31.1	48	28.5	54
3.1.3	Government's online service	32.1	56	45.1	84	45.1	84
3.1.4	E-participation	21.4	53	13.2	83	13.2	84
3.2	General infrastructure	14.5	93	36.0	71	27.5	86
3.2.1	Electricity output, kWh/cap	16.0	55	3.327.5	57	3.523.3	58
3.2.2	Electricity consumption, kWh/cap	15.6	48	3.466.7	51	3.590.0	52
3.2.3	Logistics performance	22.8	72	38.8	68	39.0	98
3.2.4	Gross capital formation, % GDP	5.0	70	25.4	39	n/a	n/a
3.3	Ecological sustainability	31.2	92	33.2	60	36.2	45
3.3.1	GDP/unit of energy use, 2000 PPP\$/kg oil eq	38.8	56	5.4	68	6.6	59
3.3.2	Environmental performance	33.5	41	47.0	92	47.0	92
3.3.3	ISO 14001 environ. certificates/bn PPP\$ GDP	21.5	110	3.1	32	4.2	26

In the third innovation pillar - Innovation infrastructure, Macedonia is on the 67 place and compare to 2012 year (62) is down for 5 places. In the last edition in 2013 year this Innovation Input Sub-Index-Infrastructure has some constant level in two sub-pillars only in 3th sub-pillar has relative strength compare to 2011 and 2012 year (Table 1). Investments in ICT, general

infrastructure and ecological sustainability are crucial for all countries, but countries start with different capabilities.

We put the main focus of this innovation sub-index because ICT are the No.1 innovation motor and ICT drives the world. Macedonia is important to invest in ICT, because ICT is the future of technology. As we can see from the data of the past three years ICT rank is in some constant level. Number of users increased in 2011 year because Macedonia's mobile-cellular prices have dropped by 18 per cent from 2010 to 2011, following cuts in interconnection fees and the entry of the first mobile virtual network operator (MVNO) in 2010¹⁰, they remain relatively high in comparison with other countries in the region. And for that now ICT is on constantly level because the number is according to the number of citizens in our country. As ICTs become more available and affordable, there is growing evidence of their economic and social impact. The ICT sector has in itself become a major contributor to economic development. General infrastructure is also in some constant level because don't have same direct investment only is changing the price of electricity. Macedonia has made progress towards strengthening its energy supply security, developing sustainable energy supplies and integrating its markets into the SEE region. Macedonia is small country with big potential and nature resources.

At the sub-index ecological sustainability has improvement because in the last few years have paying a big attention on protection of human health from environmental harm and protection of ecosystems. Emerging economies, such as Macedonia are growing quickly and see the steepest increase in emissions over the last decade. In recent years in Macedonia is special attention to human health, air quality, water & sanitation, water resources, agriculture, forests, fisheries, biodiversity and habitat, climate and energy. This is important because global temperature rise as a result of climate changing with a number of natural phenomena. The role of the ecological sustainability has evolved over time not only to be responsive to the global policy agenda, but also to actively shape it.

COMPARATIVE ANALYSIS OF INFRASTRUCTURE IN SEE COUNTIES

Today, powerful new technologies can be used to advance sustainable development for all people across the world while including them in the process. In particular, infrastructure can be an engine of development for the people. The increasing role of infrastructure of promoting inclusive and participatory development has gone hand in hand with grooving demands for transparency and accountability in all regions of the world. Infrastructure has strongly shifted expectations of what world can and should do, using modern information and communication technologies, to strengthen public service and advance equitable, people-centred development.

This paper shows the rank of Macedonia compare to SEE countries with upper-middle income. The comparison shows that there are challenges to reducing the digital-divide and increasing access to public services by computing, e-service kiosks and other innovations of this sort must be nurtured and supported and made available to all segments of society. Therefore are good policymakers and public administrators everywhere to apply ICT as important tool in advancing sustainable development. Diffusion of ICT and the bringing of the digital divide can help empower all stakeholders to translate commitments into action.

¹⁰ <http://www.telegeography.com/products/commsupdate/articles/2010/11/12/macedonia-gets-its-first-mvno-in-wti/>

Chart 1: Rank of SEE countries

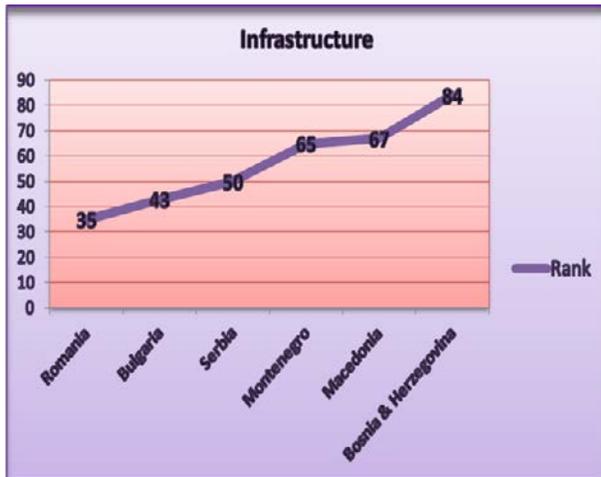


Table 2: Strength & weakness

	Macedonia	Bulgaria	Montenegro	Romania	Serbia	Bosnia & Herzegovina
Infrastructure						
Information & communication technologies (ICTs)						
ICT access						
ICT use						
service						
E-participation		○		○		○
General infrastructure						
Electricity output, kWh/cap						
Electricity consumption, kWh/cap						
Logistics performance			○			
Gross capital formation, % GDP				●	○	
Ecological sustainability		●		●		
GDP/unit of energy use, 2000 PPP\$/kg oil eq						
Environmental performance					○	○
ISO 14001 environ. certificates/bn PPP\$ GDP	●	●		●	●	●

○ weakness
● indicates a strength

Chart 1 shows ranking between SEE countries that belong to the group of upper-middle income economies. Countries with upper-middle income economies are 40¹¹, but countries which belong to SEE and have upper-middle income economies are 6: Macedonia, Bulgaria, Montenegro, Romania, Serbia and Bosnia & Herzegovina. Macedonia in the 3th sub-index between these 6 countries is on the 5th place.

Countries are ranked in accordance to the number of new technological and scientific inventions. Romania is best ranked in the region, followed by Bulgaria, Serbia, Montenegro, Macedonia and finally Bosnia & Herzegovina. They suppose to have strong support systems of innovation that will encourage creativity. Compare to other countries Macedonia doesn't have weakness in this sub-index, only has indicators that are strengths (Table 2). The strength indicator is ISO 14001 environmental certificates. ISO (the International Standards Organization)¹² established a new technical committee to develop international standards in environmental management. ISO is used to avoid trade barriers as well as the different approaches to legal requirements and their enforcement throughout the world demanded a generic approach. Macedonia in the last year with full steps implements this standard. The main reasons for implementation is to gain or retain market share via green corporate image, to attract more ethical investment, to reduce insurance risk, to reduce prosecution risk and reduce costs. The organization in Macedonia how implement this standard have major benefits especially cost saving. And also we can see that fifth from sixth SEE countries have strength in this indicator. That means that all countries see the benefit of use of this standard.

Based on this we can conclude that Macedonia has good performance in this index, has stability and continuously growth despite its on 5th place. The global economic crisis and the euro zone debt crisis caused a significant slowdown in Macedonia. However, in 2013, as the

¹¹ Dutta, S. & Lanvin, B (2013). The Global Innovation Index 2013: The Local Dynamics of Innovation, Geneva, Ithaca, and Fontainebleau.

¹² Ken Whitelaw (2004). "ISO 14001 Environmental Systems Handbook", Second edition, Elsevier Butterworth-Heinemann

global economy recovered, Macedonia increased. Although the global economic crisis has undoubtedly played a role in limiting funds available for investment, infrastructure and innovation. According to this report, innovation is considered to be one of the main pillars of economic development. One way of analyze would be through ICT innovation. The best method of doing this is through analyzes country development.

In upper middle-income countries the infrastructure sub-pillar attracted relatively more investment (including foreign investment) in comparison with the other sub-pillars of GII. Macedonia is liberalized and opened up to foreign investment; telecommunications achieved a high degree of business internationalization. The large number and high value of greenfield projects in telecommunications over the last two decades testifies of the quantity and value of investment dedicated to creating new productive assets.

Macedonia have proactively engage in international cooperation on energy policy, including technology and innovation, with a view to leverage the full potential from public energy R&D investment, notably in smart mobility and energy efficiency. Proactively engage in international co-operation on energy policy, including technology and innovation, with a view to leverage the full potential from public energy R&D investment, notably in smart mobility and energy efficiency. Develop an integrated energy and climate strategy based on robust demand and supply scenarios; a shared vision for the development of the energy system and new technology needs; and actions to be taken towards regional integration to reinforce the country's energy security. Macedonia has to make a resource efficient energy supply and made eco-innovation and clean energy technologies priorities for research and development. Macedonia is experiencing constrains in relation to science, technology and innovation policies, similar to those of other South Eastern European countries since gaining independence.

CONCLUSION

The economic importance of the ICT sector reflects the global increase in uptake and use of ICTs. Structure of the ICT sector varies greatly between countries. In Macedonia in some cases innovative ICT manufacturing and computer-related services make a significant contribution to economic growth. Hence the importance of designing comprehensive policy measures for the broader ICT sector with a view to fostering its development and its contribution to economic development. Despite the financial crisis that started in 2008, telecommunication revenue growth has continued at a steady pace in developing countries, whereas revenues have stagnated in developed countries. In relative terms, telecommunication revenues represent a higher percentage of GDP in developing than in developed countries, suggesting that telecommunications is a more important contributor to economic growth in the developing world. If policy-makers and operators in developing countries leverage the developments in mobile-cellular services to promote the uptake and use of other telecommunication services, such as broadband, an even greater and more extensive economic impact could be achieved.

A report shows that Infrastructure rank in 2013 was 67, compared to Romania 35, Bulgaria 43, Serbia 50, Montenegro 65 and Bosnia & Herzegovina 84.¹³ Although in the above mentioned countries this rank has been constantly increasing, Macedonia has experienced a constantly trend. The aim of this paper is not to give definite answers, but to touch upon certain anomalies of the Macedonian innovation system thru GII.

¹³ Dutta, S.& Lanvin, B (2013). The Global Innovation Index 2013: The Local Dynamics of Innovation, Geneva, Ithaca, and Fontainebleau.

We do believe that Macedonia has a lot to learn with respect to building sustainable innovation system from the developed countries. However, imitating other countries' "triumphant" systems in this respect would be a short sighted solution from a public policy perspective. The Macedonian innovation system has specificities on its own and these should be taken into account when analyze Macedonian infrastructure. Hence we have to devise a system on our own. In doing so we should rely upon the successful models developed by others, but not blindly.

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INTANGIBLE CAPITAL IN SMALL AND MEDIUM SIZE ENTERPRISES IN SERBIA

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Abstract

The paper presents initial analyses of the data from a survey that was conducted in a set of Serbian firms in 2013. Although initial, the results show some interesting tendencies within the Serbian firms and represent a broad picture on understanding the importance of intangibles in improving firms' competitiveness. In this paper we focus on small and medium size enterprises (SME) that appear in general, to be somewhat lagging behind larger firms in developing and making use of intangible capital. We shall particularly analyse the three segments of intangible capital: (a) internal relations within the firm and investments in human capital (b) innovation and competences and (c) marketing branding and external relationships as seen by the responders (responders are managers and/or owners of SME). The results will show that although acquainted with the notion and the role of intangible capital SME are still at the rudimentary level of its development. They are particularly lagging in developing sound internal relations with an over-valued role of the owners and poor treatment of labour. Regarding innovation and competencies there are mixed evidence – some firms claim good and probably over-estimated results while other do not recognise the importance of these practices and capabilities. SME are also behind the average level of marketing practices, which could be understood in small firms but have pretty irregular and sporadic relations with their customers, which could hamper their further development. In concluding remarks we give some practical policy advice regarding incentives aimed at upgrading knowledge and use of intangible capital in SME and suggest better connections with larger firms. The latter suggestion is in particular important since up to date stimuli for SME were directed predominantly to their start-ups with no policy engagement in developing proper surroundings of larger firms that can induce and make spillover effects while cooperating with SME.

Keywords: SME, Serbian economy, intangible capital, transition, competitiveness

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INTRODUCTION

The paper presents initial results of a broader analysis conducted in order to identify present state of investments in intangible capital in Serbian economy. We shall particularly present our findings regarding small and medium size enterprises (SME) aimed at discovering to what extent the notion of intangible capital has been recognised in these firms as a factor of improving their competitiveness.

The paper is organised in eight sections. After the introduction we briefly discuss the role of SME in a transition economy, particularly after the global crisis of 2008 (section 2). We continue with a discussion on intangible capital importance (section 3) and explain methodology of our empirical research (section 4). In section 5 we analyse internal relations in Serbian SME as a basis for social capital increase and some data on investments in human capital. Section 6 explores the state of affairs regarding innovations and competencies and in section 7 we analyse marketing, branding and external relations within Serbian SME. Main conclusions are summarised in the final section 8.

THE ROLE OF SME IN A TRANSITION ECONOMY

From the very beginning of transition the issue of SME was among the most important elements of expected structural transformations in transition economies. The importance of SME was being explained from two standpoints: (a) SME should facilitate structural changes particularly because there was a lack of smaller firms in state governed economies and (b) SME could ease sectoral change of economic structure that was overloaded by inert industrial enterprises. For these reasons an important part of transition schemes was directed toward fast privatisation of small firms and establishing of the new ones. Such course of transition programmes resulted in establishing of a huge and for years increasing number of SME in many ex-socialist economies. However, there were some differences among the countries in question since in some of them small and even privately owned economic units existed already before transition (e.g. small farms in Poland, a number of manufacturing and service firms in former Yugoslavia etc.). Nevertheless, the number of SME was in general relatively small in terms of factors engaged and revenues earned. For that reason already in early 1990s a large SME sector was established in almost all of these countries and was supported by a set of policy measures aimed at easing their further establishment.

Establishing of SME had indeed an important impact on sectoral structure change during transition. They have rapidly grown in services and together with closing and bankruptcies of industrial firms have considerably enlarged service sector that was undoubtedly deficient in transition economies. This was particularly supported by transition schemes including their inner though non-explicit growth pattern, which favoured services. Growth model was predominantly of an import led type and relied on foreign inflows (external savings) that were mainly interested to acquire local markets primarily in service sector (retailing, banking, telecommunications etc.). Eventually, it appeared that structural changes have biased structures of these economies: after the eruption of global crisis transition economies remained without foreign investments and yet were not able to offset this effect by exporting tradable goods, production of which became

deficient under the growth model applied.⁴ This has pushed almost all of these economies in enlarged budget deficits with rapidly increasing public debts.

Under these circumstances broadly recommended policies for economies of transition were based on austerity measures. The only counterpart to these measures that usually increase unemployment and reduce economic activity, became promotion (once again) of SME and building of a “favourable business climate” supposed to support their growth. Apart from the fact that the term “favourable business climate” in reality means that it should be established on the cost of workers rights (already weak and suppressed by high unemployment rates in Western Balkans) and a more “flexible” employment policy,⁵ a question could be raised on the effects expected. There is a general idea that SME under these provisions could employ redundant workers as well as those already unemployed and in that way should counterbalance negative austerity effects. To what extent this kind of policy could work?

It could be a realistic and promising option if certain conditions were fulfilled. The basic prerequisite concerns partners and/or customers of new SME. Their main partners and customers should be larger firms that can involve them in their programmes, but could also organise them and help them in technology, know-how, management etc. In turn, this suggests that governments cannot just incite investments in SME, but have to do something regarding the revival and/or establishing of *larger firms* that could make a promising market for SME, stimulating in this way local entrepreneurs to undertake investment and become part of larger economic structures. Moreover, this is possible predominantly in manufacturing and production of tradable goods (and not in services where the majority of SME has been founded since these SME usually are losing when faced with large service firms like retailers, hospitality chains etc.).

The above argument can be supported by the following data from EU countries. For example, in Germany 53% of employed people work in enterprises larger than 250 employees and in Finland around 51%, whereas in small firms (below 49 employees) there is 22% of total labour force in Germany and 25% in Finland. For comparison, in Greece some 59% of labour force is engaged in small firms while only 21% in larger firms (Herrmann & Kritikos, 2013). It seems unnecessary to recall what the economic results of these economies are and what their economic position is during and after the initial effects of global crisis. Following these examples it seems obvious that a vigorous and efficient SME sector emerges in surroundings of larger firms and act as their complement, but cannot be fully effective on its own. For such a development a sound business environment is necessary that is well institutionally designed and supported by an efficient state. Last but not least, this is usually achieved in compliance with traditional workers rights and even an active role of employees in understanding, promoting and finally, fulfilling firms’ objectives – which was the case in the two successful countries mentioned.

This side of SME establishment has been pretty neglected up to now. In sections to come we shall show that if left alone SME can rarely achieve good results in raising their capacities and competences in the field of intangible investments. Without a proper yet profitable support by the surroundings of larger firms they can hardly advance in all aspects of intangible capital

⁴ At the beginning of transition a group of authors in the World Bank (see de Melo et al. 1997) have predicted what should be an adequate share of industrial output in transition countries in regard to their level of development. It appeared that for example in the SEE almost every country has diminished its share of manufacturing output over an 18 year period of transition considerably more than it was predicted (see in detail Cerovic et al. 2014).

⁵ Flexibility is understood as temporary employment in particular, which is already in an excessively broad use: more than 70% of firms in our sample confirm this practice as the most frequent and/or as the second frequent among 7 offered possibilities (more about this and about workers rights in Serbia see Cerovic et al., 2013)

that is becoming more and more important for acquiring a considerable competitive advantage. In our view this is the first issue that should be addressed regarding any policy directed to ease establishment of the new SME. Even the barbers' shops, boutiques, restaurants and cafés could hardly be doing well if not surrounded by successful larger firms that will economically strengthen and/or become their customers and particularly tie, cluster and in other way involve SME in more promising economic undertakings.

IMPORTANCE OF INTANGIBLE CAPITAL IN TRANSATION

In modern business one can frequently encounter some newer terms connected with acquiring competitive advantage of the firms like innovation, brand, reputation and intellectual, relational and social capital. They describe various forms of corporate intangible assets that are becoming the major drivers of competitiveness and growth. Organisations are becoming aware that technology-based competitive advantage is just a temporary phenomenon whereas sustainable competitive advantage is being determined by intangible resources they possess (Johanson *et al.*, 2001). Consequently, intangible assets seem to impact competitive advantage more than conventional factors of production like land, labour and capital. This is a new phase of economic development characterised by soft, intangible, non-financial factors (Lev and Zambon, 2003).

As non financial assets that are source of future economic benefit and without physical embodiment (Lev, 2001) intangible capital is fairly specific. It usually (a) lacks physical existence, (b) is renewable after its use and (c) when in use it is capable to increase in quantity and especially in quality. Also, intangible assets are non-tradable resources, since there are no organised and/or transparent markets for trading these assets (Lev, 2005). When compared with tangible assets intangibles are less flexible and not easily transferable, so they are barely imitable by competitors (Perrini and Vurro, 2010).

Although difficult to measure, a number of empirical studies have shown that the effects of intangible capital increase are quite remarkable. According to Global Intangible Tracker (2007) around 65% of firms' value in the world refers to intangible assets though with great differences among different industries. World Bank estimates that 78% of world wealth owe to intangible capital (59% in developing and 80% in OECD countries; see Roth and Thum, 2010). Analyses show that intangible capital investments are at the highest level in the USA and Canada, reaching around 12% of GDP and in Europe in the UK, 11% (Roth and Thum, 2010 and Kuznar, 2012). In EU countries these investments are not that high as in USA and are the lowest in Mediterranean countries (Kuznar, 2012). According to the OECD data, total intangible investments range between 6% and 11% of GDP with higher rates in Scandinavian countries and France (Croes, 2000). In CEE and SEE countries higher rates are found in Czech Republic (6.45%) and Slovakia (4,53%) and are even higher than in Italy, Spain and Greece that has the lowest rate of intangible investments to GDP in the EU: 1.6% only (Van Ark *et al.* 2009).

All these data show that transition economies could make some use of intangible assets despite their lack of financial capital. For that reason it was challenging to investigate what state of art could be found in Serbia that due to extremely bad politics was lagging in transition and was for years practically cut off from major flows in investments, technology progress and businesses in international markets. Being short of capital endowments (as many other transition economies) it is reasonable to expect that the country could make an effort in developing more available resources such as social capital, internal relations, knowledge, management and

marketing skills as well as some other fields usually seen as intangible capital of a firm that could become an internal and accessible source of higher efficiency and competitiveness.

The possibility of such business orientation within the firms of transition economies is strongly supported by empirical analyses. Apart from studies dealing with more developed economies (positive relationship between intangible capital investments and labour productivity growth is confirmed in the EU 15 countries, Roth and Thorm, 2010, in eleven developed countries, Van Ark, *et al.* 2009, Corrado *et al.* 2013) there is a number of analyses concerning emerging markets. In these studies one can find strong empirical evidence regarding positive impact of intangibles on competitive advantage and company's performance (see for example, empirical evidence from Indonesia (Hidayati *et al.*, 2012), Taiwan (Tseng and Goo 2005), Albania (Prasnikar, *et al.* 2012), Slovenia (Prašnikar, ed., 2010), and Brazil (Dutz, 2012).

Therefore, it is evident that under any level of development intangible capital plays an important role in raising competitiveness of the firms in contemporary economic surroundings. The issue could only be more essential after the strike of global economic crisis since the level of financial investments is low and in transition economies FDI are decreasing. For all these reasons sound organisation, well structured internal relations as a foundation for increasing of social capital, knowledge acquiring and upgrading management and marketing skills, external relations development together with innovative practices, process innovation and competencies improvement could play a major role in rising the degree of firms' competitiveness even in transition economies. From this standpoint we shall present the results obtained and give a general assessment on intangible capital recognition in Serbian SME and shall propose some measures that could add to its development.

SAMPLE AND RESEARCH METHODOLOGY

During 2013 we have conducted a survey in a sample of 71 Serbian firms 48 of which were classified as SME (26 small, under 50 employed; 22 medium, 50-200 employed). The sample was formed using the "snow-ball" method due to the financial constraints but generally reflects major sectors of the Serbian economy. However, the sample was intentionally biased in favour of manufacturing and other producers of tradable goods (29 vs. 19 from services among SME; in total 46:25). It is important to highlight that among SME there are 14 firms (9 small and 5 medium) fully oriented to local market whereas 12 appear as larger exporters (7 small and 5 medium) that earn at least 33% of sales revenues abroad. All SME in the sample are privately owned of which a vast majority by domestic owners whereas 2 small and 3 medium sized firms are owned by foreigners.

The questionnaire⁶ consists of 8 parts 4 of which we shall discuss in the paper (internal relations; human resource management and organization; innovations, R&D and competencies marketing; sales and external relations).⁷ The questionnaire was responded by corresponding managers. All questions are grouped in regard to a certain topic and put in each group in a cascade order so that more general issues are followed by more detailed ones. The results will be reported predominantly by means of descriptive statistics though whenever possible we shall apply some statistical testing and refer to some of estimated probit models.

⁶ The questionnaire is developed by research group in University of Ljubljana, Faculty of Economics (see Prasnikar ed. 2010).

⁷ The remaining parts explore IT, environment protection, finance and sources of investments.

INTERNAL RELATIONS AND HUMAN CAPITAL

In analysing internal relations we use basically four groups of questions concerning following issues:

- (a) Management and decision making: (i) are strategic decisions recognized and separated from operative ones, (ii) whether strategic decisions are made in harmony between owners and managers (iii) is that harmony extended to the entire agency chain – owners, managers and workers.
- (b) Workers participation in decision making: (i) are workers properly informed about key decisions of the firm (ii) do they have right to propose and suggest (which is not necessarily to be approved by management) (iii) do workers have representatives in the board
- (c) Workers participation in risk taking: (i) are workers ready to “do something more” for the firm (ii) will they stay with the firm if offered a better (paid) job (iii) are they ready to financially invest in the firm
- (d) Trade unions (TU): (i) are there TU in the firm (ii) one TU or more (iii) are TU concerned with productivity in the firm and/or other objectives.

It appeared that owners of smaller firms in general neither do recognise differences between strategic and operative decision (77%) nor they are interested to achieve accordance with managers and workers. Moreover, we found several comments to this question stating that owners are and should be the only ones to decide in their firms. It is somewhat different in medium size firms, which usually separate strategic from operative issues (86%), are more frequently interested to involve managers regarding strategy of the firm but many of them (41%) still remain reserved concerning workers involvement.

In the table 1 below (section 1) we present all the results and for comparison the results for the entire sample of 71 enterprises. It is evident that despite better results for medium sized firms all mentioned practices depend on the size of a firm and are less developed in SME. When statistically tested highly significant differences were found in favour of larger firms: $F=26.970$; $p=0.000$ for the first issue, $F=16.323$; $p=0.000$ for the second one and $F=9.307$; $p=0.000$ for the third one.

Table 1: Internal relations

	Small	Medium	All SME	All firms (71)
1. Decision making				
Strategic and operative decisions separated	6, 23%	19, 86%	48%	65%
Owners-managers harmony	7, 27%	16, 73%	48%	62%
Owners-managers-workers harmony	6, 23%	13, 59%	40%	52%
2. Workers participation in decision making				
Right to be informed	13, 50%	16, 73%	60%	70%
Possibility to make proposals	12, 46%	11, 50%	48%	56%
Members of the board	3, 12%	4, 18%	15%	23%
3. Trade unions (TU)				
TU units exist	0	6, 27%	13%	34%
4. Workers risk participation				
Readiness to 'do something more'	15, 58%	19, 86%	71%	72%
Stay with the firm if offered better job	9, 35%	9, 41%	37%	45%
Willing to invest in the firm (financially)	7, 27%	2, 9%	19%	17%

In the section 2 of the Table 1 one may find the distribution of answers regarding workers participation in decision making. The lowest level that is necessary for workers' better understanding of firms' objectives and goals in fulfilling their tasks concerns proper information. However, there are only 50% of small firms that find this practice useful (actually the real percentage is even lower since several firms find information satisfactory if it is communicated by mail or attached to information board with no prior discussion with employees. The similar result was found regarding workers' right to propose and suggest. In medium sized firms some of these practices are slightly more developed but still stays well behind large firms (information 91%; suggestions 70%). Once again we find significant difference in regard to firm size (e.g. for information $F=5.624$; $p=0.005$). As to the representatives on the boards we found 7 examples but they are in some cases misleading: in at least 4 cases we identified that these representatives were actually owners' family members and/or co-owners employed with the firm.

Even less favourable state of workers rights was found concerning TU: there are no TU in small firms while only 6 medium sized firms have TU organisation. It is interesting to highlight that in the entire sample of 71 firms TU activity is rarely found and usually just in the "old" (though mostly privatised) firms that existed in pre-transition period – there are only two new firms (medium sized) with TU activity (one from services, one from manufacturing). If we add to this finding that firms usually do not know to answer whether their wages are above the level agreed by collective bargaining or give illogical answers (claiming that their wages are among highest in the economy but not higher than in collective agreements) we may realise that even traditional workers rights are well deteriorated in Serbian firms and in SME in particular.

Coming to the issue of workers risk participation we find a relatively high percentage of answers given by SME managers that their workers are ready to do "something more" for the firm. However in explaining what the term "more" means we find a few very specific answers like: ready to work more hours, to accept postponed pay or even no pay. These answers obviously have more to do with poor workers rights than with their voluntary risk taking and are typical for high unemployment, which is the Serbian case⁸. Such a conclusion is partially supported by responses to the second question of the group where we find a bit more than a third of firms believing that their employees will stay with the firm if offered a better job. Even less responses claim that their workers are ready to financially participate in their firms.

In pairing answers on workers rights and participation in decision making and their readiness to bear some of risks their firms may encounter we came to an interesting result. We have introduced an indicator on workers rights (WR) which is the sum of positive answers to the three questions dealing with workers participation and on TU existence. Consequently, WR may take values from 0 to 4. It is compared with another indicator on workers satisfaction and loyalty (WSL) which is a sum of positive answers to the three questions regarding their readiness for risk participation (values 0-3). We also added an extended indicator WSL1 that apart from positive answers to above questions takes into account positive answers given by managers to the question whether workers are at least as satisfied as workers in competing firms and responses to two repeated questions (for controlling purposes) about workers readiness to do "something more" and to stay with the firm when offered a better job. The results are presented in the Table 2 below.

⁸ In regard to this issue we can recall an already mentioned phenomenon that the most common way of employing new workers is part time employment (an issue frequently recommended for achieving an allegedly more flexible labour but already in an excessive use).

Table 2: Workers rights and satisfaction and loyalty to the firm (average values)

Indicator	Value		
	WR (0-4)	0	1-2 (1.75)
WSL (0-3)	0.79	1.3	2.22
WSL1 (0-6)	2.16	3.05	4.56

From the data presented it is clearly evident that workers satisfaction and loyalty depends on the level of their rights and more active position within a firm. The result is particularly important since it was obtained by managers and/or owners of SME: despite frequent negligence of workers rights they indirectly confirm – by assessing satisfaction and loyalty of their workers – the importance of these rights for strengthening of social capital of a firm. The simple data could confirm this statement – the most balanced assessments for WSL and WSL1 were given by managers from the SME with higher level of WR giving an impression that they better understand and recognise the attitude of their employees.⁹

At the end of this section we shall try to explore to what extent SME invest in human capital upgrading. We asked the firms to respond to two sets of questions:

- (a) Organised trainings: (i) are there organised trainings in the firm (ii) do you involve in this more than 50% of all employees per year (iii) do you follow and measure training effects
- (b) On job training: (i) are there forms of on job training (ii) do you incite transfer of knowledge among workers (iii) do you have prepared successors for key jobs.

Basic results are presented in Table 3.

Table 3: Investments in human capital, 2012; number of firms, in %

	Small firms	Medium firms	All SME	All Firms
Organised trainings	16, 62%	20, 91%	75%	80%
More than 50% workers	10, 38%	8, 36%	38%	41%
Measuring effects	9, 35%	7, 32%	33%	39%
On job training	16, 62%	19, 86%	73%	75%
Transfer of knowledge	17, 65%	18, 82%	73%	78%
Successors prepared	12, 46%	12, 55%	50%	58%

The data presented suggest that organised training is relatively a widespread activity in SME observed (in medium sized firms in particular). However, considering the scope of trainings one may realise that only a minority of employees has undergone some form of upgrading skills. The results are yet lesser regarding training effects measurement. This should make us cautious even about the primary claim on a broad use of organised trainings. This also suggests that SME are acquainted with the necessity of these practices but are still at the rudimentary level concerning the increase of human capital based on their own investments. Consequently, we found a significant difference in regard to firm size in favour of larger firms when organised trainings were observed ($F=6.226$; $p=0.003$). Finally, it is remarkable to note that SME with the highest results in organised trainings (score 3) report also the highest average level of WSL1 (3.56). It could be an indication that more satisfied workers are also keener to

⁹ In an earlier paper analysing the entire sample of 71 firms (see Cerovic and Nojkovic, 2014) we estimated several probit models that showed the importance of WR and of harmonious relations in decision making. It appeared that these two factors significantly impact the level of WSL whereas size of the firm, wage level – as a major factor of satisfaction in microeconomics – appeared to be insignificant.

participate in trainings or alternatively, that in well organised firms with sound internal relations one may expect the most developed training practices and higher investments in human capital.

In regard to on job training it is remarkable that small firms claim they incite transfer of knowledge among employees in a larger percent than when asked to only confirm existence of on job training. This means that they do not fully realise what are their factual possibilities for improving skills of workers employed and/or that they do not fully understand what forms could be applied for developing on job training in an efficient way. Usually they confirm transfer of knowledge considering only very rude forms such as just on job *learning* from more experienced workers, which has little to do with systemic efforts for professional skills upgrading through internal transfer of knowledge.

We also checked for some additional practices in human resource management. The firms were asked do they monitor workers results and can they distinguish good workers from less successful ones, do they reward good workers and warn less successful ones inciting them to work more efficiently. Surprisingly, all SME gave positive answers to the first question and 90% to the second one but only 60% express some concern about less successful workers. In our view this demonstrates that SME rely more on the temporary state of local labour market (high unemployment that threatens employees by layoffs if not sufficiently successful) than on improving performance by human resource management methods.

INNOVATIONS, R&D, COMPETENCIES

In exploring innovation practices in SME we asked the firms to answer to the following groups of questions:

- (a) In introducing new products, during last five years in your principal market, (i) have you been at least as successful as your competitors (ii) more successful than competitors (iii) have become leaders in your industry.
- (b) Assess the importance of new products forms in your firm (i) repositioning of existing products (ii) improvements of existing products (iii) upgrading existing product lines (iv) new product lines (v) new products in compliance with international standards.
- (c) Process innovations in last five years (i) have you applied some (ii) substantially improved production processes (iii) substantially improved input supply, logistics, distribution processes (iv) substantially improved secondary processes like accounting, maintenance, IT etc.
- (d) Do you invest in R&D; if yes (i) at least 1% of sales revenues (ii) at least 2% (iii) at least 3%.

Table 4: Innovations (number of firms, in %)

<i>In introducing new products, have you been</i>	Small E	Medium E	SME	All firms
As successful as competitors	20, 77%	19, 86%	81%	84%
More successful than competitors	14, 54%	12, 55%	54%	53%
Successful and become leaders	11, 42%	8, 36%	40%	43%
<i>Assess the importance of new products in your firm (all SME)</i>	High	Medium	Low	Not in use
Repositioning of existing products (45 answers)	15	20	7	3
Improving existing products (46 answers)	23	17	5	1
Upgrading existing product lines (44 answers)	18	16	7	3
New product lines (45 answers)	22	11	5	7
New products according to international standards (45 answers)	24	9	6	6
<i>Process innovations in last five years</i>	Small E	Medium E	SME	All firms

Yes, we had some	21, 81%	22, 100%	90%	86%
Substantial in production processes	19, 73%	19, 86%	79%	83%
Substantial in supply, logistics etc.	21, 81%	20, 91%	85%	82%
Substantial in secondary processes	15, 58%	21, 96%	75%	73%
Investments in R&D	Small E	Medium E	SME	All firms
At least 1% of sales revenues	16, 62%	12, 55%	58%	59%
At least 2% of sales revenues	8, 31%	3, 14%	23%	28%
At least 3% of sales revenues	5, 19%	2, 9%	15%	20%

From the data presented one may conclude that SME, in general, assess their business practices as very much oriented towards innovation. However, this could be a misleading conclusion for some over-estimation of their results. This particularly may apply to process innovation that seem more frequent within SME than in larger firms, which is a possible event in some cases but not that broadly as it appears in the data. For that reason all data on innovation should be analysed cautiously.

Thus, for example, we may conclude that a high number of SME confirms the importance of new products particularly those that are made in compliance with international standards but are less enthusiastic with other forms connected with upgrading existing or introducing new product lines. It seems that the most frequent practice in SME is improvement of already existing products and services but with uneven results. We may also remark that a certain number of firms (2-4) did not respond to these questions suggesting that none of the new product forms were in use in these enterprises. If added to those that explicitly stated that had no new product forms the overall result will be less optimistic.

Moreover, the given assessments can hardly be matched with the estimates on competitiveness of new products: in 39 cases SME claim to be at least as successful as competitors and 26 of them consider their products to be better than are those of competitors. Such estimates cannot be easily paired with the assessments on the importance of new product forms used in the firms leaving some doubts on the real innovations taken. Similarly, the data on investments in R&D seem to be over-valued particularly when small firms are compared with the medium and large ones. It comes out that small enterprises more frequently invest in R&D than larger firms, which is doubtful.

Finally, a conclusion can be derived that managers in SME do understand the importance of innovations and R&D, which however, should be followed by a less favourable one that they are not yet capable to practically introduce substantial innovative changes. In the same way one may understand answers obtained regarding information technology (IT) as a form of innovation: although 32 SME agree that IT is not only to simply support business there are only 20 of them to confirm and understand that it could acquire a competitive advantage for the firm.

The conclusion on a certain disparity between general knowledge on the importance of innovations and ability to practically apply that knowledge could also be found in a section that was dealing with the business competencies of SME. The firms were asked to assess their technological, marketing and complementary competences *vis-à-vis* their competitors. The assessments were offered in a 1-5 scale (1 substantially lower, 2 lower, 3 similar, 4 better, 5 substantially better in regard to competitors). In the table 5 below the results obtained are presented.

Table 5: Competencies *vis-à-vis* competitors

Assesments	Small enterprises					Medium enterprises				
	1	2	3	4	5	1	2	3	4	5
Technological										
R&D knowledge highly developed (41 answers)	3	3	8	4	4	2	6	6	5	-
We have high technological abilities in the firm or within strategic partnerships (40 answers)	-	1	7	11	3	1	3	5	7	2
We correctly predict technological trends (40 answers)	-	2	6	11	4	-	5	4	4	4
Marketing										
Acquiring information on consumers preferences (45 answers)	1	3	10	4	5	1	-	16	3	2
Acquiring information on competition (45 answers)	2	1	11	4	5	-	1	15	2	4
Long term relations with buyers (45 answers)	-	1	10	6	6	-	-	6	10	6
Long term relations with suppliers (44 answers)	-	-	9	6	8	-	-	6	7	8
Complementary										
Tasks of firm's units well defined (45 answers)	1	2	9	10	1	1	2	8	6	5
Good transfer of tech and marketing competencies among units (45 answers)	1	2	9	9	2	-	1	12	5	4
High intensity and quality of R&D knowledge transfer with strategic partner(45 answers)	2	1	11	6	3	5	-	6	7	4
Product development is cost efficient (44 answers)	-	2	6	10	5	1	-	6	8	6

From the table presented one may realise that small firms in many cases highly assess their technological competencies, which is surprising and can be attributed to an exaggerated self-confidence. Eventually, this kind of attitude could constrain a further development of the firms. Even in marketing competencies smaller firm better assess their knowledge than medium firms do. The only exception is for long term relations with buyers. This brings us to the issue discussed in section 2 that SME and smaller units in particular are left on their own without reliable long-term partners and stay outside broader production structures. As a result we may remark for example, that a majority of small firms highly assess their abilities for efficient development of new products in regard to their competitors but actually in doing so, they do not have a proper benchmark staying alone in the markets with no long term links with customers. On the other hand medium sized firms being more tied with buyers appear to be more cautious in assessing almost all of their competencies, which may be understood as a better incentive for further development.

Looking at the entire sample of 71 firms it appears that SME sometimes do assess their competencies with higher marks than large firms dare to do. Such estimates could be attributed to an already observed phenomenon of excessively high self-confidence frequently found among smaller firms and their owners and/or entrepreneurs in Serbia (see Cerovic and Petkovic, 2003).

MARKETING, BRANDING AND ECTERNAL RELATIONS

Analysis of marketing competencies and external relations we structured in two parts. In the first one we examined brand-related marketing activities:

- a) brand development activities: whether a company develops (i) products/services brands (ii) corporate brand (iii) brand architecture;
- b) brand value (explains how companies build up brand value):: (i) whether companies have legally protected their brands, (ii) how much they invest in brand development activities

- (investment as a share of sales), aiming to increase brand value and (iii) whether companies measure brand value;
- c) marketing innovations: (i) the introduction of new media and/or techniques for promotion, (ii) important changes in design and/or packaging of products/services, (iii) new methods of product placement or marketing channels and (iv) new forms of pricing;
- d) brand prospects: (i) whether a company has strategy for future development of company brands, (ii) what are possibilities for future development of brands in new markets, (iii) and for future leading market positions for company brands.

Table 6: Brand capital

<i>brand development activities</i>	Small E	Medium E	SME	All firms
whether company develops its own brands of products/services	53,8%	72,7%	62,5%	73,2%
development of corporate brand	46,2%	81,8%	62,5%	73,2%
whether company develops brand architecture	12,0%	27,3%	19,1%	31,4%
<i>brand value</i>	Small E	Medium E	SME	All firms
whether companies have legally protected their brands	69,2%	68,2%	68,8%	77,5%
whether companies invest in brand development activities aiming to increase brand value	32,0%	63,6%	46,8%	54,3%
whether companies measure brand value	4,0%	9,1%	6,4%	18,6%
<i>marketing innovations</i>	Small E	Medium E	SME	All firms
the introduction of new media and/or techniques for promotion	52,0%	50,0%	51,1%	61,4%
important changes in design and/or packaging of products/services	68,0%	68,2%	68,1%	67,1%
new methods of product placement or marketing channels	68,0%	59,1%	63,8%	65,7%
new forms of pricing	75,0%	76,2%	75,6%	75,0%
<i>brand prospects</i>	Small E	Medium E	SME	All firms
whether companies have developed strategy for future development of company brands	52,0%	63,6%	57,4%	65,2%
is there possibilities for future development of brands in new markets	76,0%	81,0%	78,3%	82,4%
is there possibilities for future leading market positions for company brands	44,0%	66,7%	54,3%	61,8%

Statistically significant differences are found between small, medium and large firms in many segments of brand capital, favouring large firms. They perform better in brand development activities: existence of products brands ($F = 6.158$; $p = 0.003$); corporate brand development, ($F = 10.256$; $p = 0.000$); brand architecture, ($F = 6.432$; $p = 0.003$) and brand value activities: brand protection ($F = 13.364$; $p = 0.000$); investment in brands ($F = 3.605$; $p = 0.033$); brand value measurement ($F = 8.565$; $p = 0.000$). Regarding brands prospects, large firms perform better in all three segments, with statistically significant differences in identified possibilities for establishing brand leadership ($F = 3.028$; $p = 0.055$). In the segment of marketing innovations there is an evident superiority of large firms concerning promotion ($F=3.432$; $p=0.038$). This result can be explained by larger promotional budget of large firms, which allow them to incorporate some new promotional techniques or to use new media. In the other segment, except for product design, large firms performed slightly better than small and medium ones.

It is non-surprising that SME lag behind large firms, especially small ones. Although small firms cannot follow exactly the same branding activities that larger firms can apply we nonetheless, suggest small firms to improve their marketing and branding knowledge, and integrate branding practice into their corporate strategy. Here we may refer again to the issue discussed in section 2 on long term relations of SME with larger companies. Since it is not

expected that SME can increase brand capital and penetrate new markets as the larger forms are capable it is particularly essential for SME to be incorporated into broader structures either in clusters or by co-operating with larger firms. However, in our sample it appeared that a majority of smaller firms act individually in the markets.¹⁰

The second part of research is dedicated to external relations. Relational capital includes firm's relations with its stakeholders, consumers, buyers, competitors, suppliers, government institutions, employees, etc. In this paper we shall address relationships with external stakeholders only. The analysis of relational capital includes four sections:

- a) relationships with business buyers: (i) do employees from different functional areas meet regularly to exchange views and observations about customers, (ii) do employees have regular meetings with business customers to determine their needs (iii) are business customers engaged in processes of developing new products and services;
- b) relationships with consumers: (i) is there a regular and detailed analysis of consumer needs, (ii) what amount of investments a firm has annually spent on market research and (iii) does a company employ CRM as a framework for consumer behaviour analysis;
- c) relationships with competitors regarding (i) defensive or (ii) offensive competitive strategy;
- d) relationships with suppliers, regarding origin of suppliers: (i) more than 50% of suppliers are from foreign markets and (ii) majority of suppliers comes from developed countries.

Table 7: External relations

<i>relationships with business buyers</i>	Small E	Medium E	SME	All firms
employees from different functional areas meet regularly to exchange views and observations about customers	69,2%	71,4%	70,2%	77,9%
employees have regular meetings with business customers to determine their needs	88,5%	81,0%	85,1%	88,4%
business customers are engaged in process of developing new products and services	65,4%	61,9%	63,85	65,2%
<i>relationships with consumers</i>	Small E	Medium E	SME	All firms
there is a regular and detailed analysis of consumer needs	53,8%	45,5%	50,0%	55,7%
does a company employ CRM as a framework for consumer behaviour analysis	3,8%	22,7%	12,5%	19,7%
<i>relationships with competitors</i>	Small E	Medium E	SME	All firms
defensive competitive orientation	65,4%	45,5%	56,3%	54,3%
offensive competitive orientation	34,6%	54,5%	43,8%	45,7%
<i>relationships with suppliers</i>	Small E	Medium E	SME	All firms
more than 50% of suppliers are from foreign markets	26,9%	45,5%	35,4%	42,0%
majority of suppliers comes from developed countries	19,2%	50,0%	32,6%	38,8%

Concerning relationships with business buyers, larger firms reported better results than SME in all segments, especially regarding internal meetings (employees from different functional areas meet regularly to exchange views and observations about customers) and meetings with business customers. It is interesting that medium firms expressed the lowest interest in regular meetings with their buyers, which is not consistent with results in section of

¹⁰ In support to this problem are the estimated results of a probit model where positive answers to the question on the possibilities of brand development in new markets were taken as a dependent variable and independent ones were number of employees (firm size), percentage of sales in local market, foreign or domestic ownership and training of employees. The only significant variable was firm's size indicating a necessity of SME clustering and cooperation in acquiring new markets.

marketing competencies regarding establishment of long term relationships with buyers (table 5). We may suppose that medium firms have already established long term relationships with their buyers having a clear picture on their needs and standards, while small firms are more frequently searching for buyers by using individual contacts.

Business relations with consumers we tracked in market research orientation and implementation of customer relationship management. The importance of market research for understanding consumer needs and adjustment of marketing strategy and development of new products is well known, especially by means of formally organised research processes. Song, Wang and Parry (2004) found that performances of small firms in emerging markets are positively correlated with formal processes of collecting market information. In general, identifying customers' needs through market research process improves innovation performance of firms and their competitiveness. Evidently, there is no serious commitment to market research in SME in Serbia, which should be the first step in the development of marketing programs and sincere relationship building with consumers. A majority of SME do not use marketing agencies in order to conduct market research. 53,9% of small firms and 68,2% of medium firms conduct market research internally, comparing with 47% of large firms. We can conclude that they rely more on informal research, due to their lower competencies in establishing and implementing formal market research design (table 5).

The highest recognised level of commitment in business to consumer marketing is customer relationship management – CRM. CRM represents an important system that enhances company's ability to track individual behaviour of consumer and to integrate this information and knowledge into marketing strategy and development of long term relationships with main consumers. That way, CRM and the ability of companies to use consumer information are crucial in sustaining a competitive advantage in many industries (Rollins and Bellenger, 2012). However, in the sample, only 21.5% of firms reported implementation of some elements of CRM, with statistically significant differences between small, medium and large firms. Large firms in this segment outperform small and medium firms ($F = 4.052$; $p = 0.022$), since just 3.8% of small firms implement CRM practice and 22.7% of medium firms (large firms 35%).

In analysing companies' relationship with competitors from the perspective of defensive and/or offensive competitive orientation we found better results in offensive marketing strategy among large firms (50%) than the small ones (34.6%), which is an expected result. However, a relatively high percent of medium firms reported offensive competitive orientation (55%). It could be a result of high share of service companies among medium firms, since service sector is characterized by a high level of competition.

When exploring the origin of suppliers it appears that imported inputs have positive effects on productivity, since they allow and push firms to adapt to the advanced technology from abroad and benefit from foreign R&D. This suppliers' effect is crucially connected with the level of development of a country of their origin. Thus, in the sample, 42% of companies report that more than 50% of suppliers are from foreign markets, while only 38.8% of companies state that majority of their suppliers comes from developed countries (which is e.g. substantially less than in Slovenian firms /73%/, Prasnikar, 2010). Also it is remarkable that 52.4% of large firms rely on suppliers from developed countries, some 50% of medium firms and only 27% of small ones ($F=3.662$; $p=0.031$).

CONCLUSIONS

Although the survey results analysed in this paper suggest that Serbian SME managers have a general idea and knowledge on the importance of intangible capital, their SME are remarkably lagging in investing in intangibles basically in all of their forms. Even though we assess the use of intangible assets in Serbian economy on the whole to be still at a rudimentary level as an important factor of competitiveness we find SME and small firms in particular well below the degree achieved in larger firms. Such a finding implies that intangible resources – while available in many forms – are pretty neglected in Serbian SME.

An insufficient use of intangible resources in acquiring competitive advantage is especially evident in internal and external relations as well as in the way innovations are treated in SME. Internal relations are frequently and in smaller firms in particular, underdeveloped concerning decision making processes and involvement of employees in fulfilment of firms' objectives and goals. We find that in many cases the role of owners is overvalued whereas the position of managers and workers in particular is underestimated.

Moreover, even traditional workers rights are ignored and/or suppressed (trade unions, collective bargaining etc.). On the other hand it was demonstrated that workers satisfaction and loyalty to the firm as a basis for increasing of social capital – strongly depend on a well structured decision making process at all organisational levels and on a more active and participating position of employees.

Innovative practices are overrated by SME while in reality they are at a low level except for some individual cases (usually among more exporting firms). There is a kind of overstated self-confidence in assessing competencies of a firm which is also connected with an exaggerated role of owners and their business capabilities. In reality it appears that innovations – if any – are typically performed in modest improvements of already existing products. Finally, we found a remarkable lagging in marketing activities and particularly in long term relations with SME customers. Small firms are especially acting individually in markets with very few stable relationships with buyers.

This brings us to an important though neglected issue in policy incentives for SME: government policies are more frequently oriented to start up incentives than in providing a inciting surroundings of larger firms that can contribute smaller enterprises in terms of spilling over better management practices, disseminating knowledge on newer technology, organisation and innovation and incorporating SME in larger structures, clusters etc. For that reason we suggest that policies should be much more oriented to establishing a more balanced business environment by attracting larger firms to invest in the country and cooperate with local SME. Secondly, establishment of SME should be incorporated as a part of a broader industrial policy that will be followed by policy incentives for entrepreneurial training and education in management, marketing and human resources and by policies that will promote and stimulate clustering of SME. Otherwise, simple policies aimed at assistance in starting up new SME could be suboptimal and eventually – counterproductive.

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THE IMPACT OF E-COMMERCE ON THE DEVELOPMENT OF SMALL AND MEDIUM BUSINESSES IN THE REPUBLIC OF MACEDONIA

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Abstract

The question of the role of small and medium businesses in technological innovation long period inspires. Statistics show that the SMEs are major sources of innovation and they are step forward compared to large companies. Their advantage is mostly related to the flexibility - adaptability to market changes. Thanks to the Internet, many SMEs utilize the opportunities that it offers for the development of their businesses and meeting the consumer needs. Mostly small and medium businesses use e-commerce for different types of activities that fall between sales and advertising. Today, e-commerce is booming and has a special place regarding of total worldwide trade. But the main goal of this paper will be to determine how the SMEs in Republic of Macedonia are familiar with e-commerce, the opportunities it offers for the business, and most importantly, how many of them use it as a basic strategic determination or addition to the core business. The facts that 51% of the population of our country are Internet users, 60% of sold phones of the mobile operators are „smart phones“ and the rise of the mobile Internet for 46.9% indicate the challenges that Macedonian companies are facing. We will explain the advantages of e-commerce for the SMEs in the Republic of Macedonia and how its application can improve the business performance as an innovative way to work. Therefore, managers of SMEs need to focus their efforts on innovation processes, looking ahead in the future, knowing that e-commerce is the future of enterprises.

Keywords: e-commerce, small and medium businesses, innovation communication technology

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INTRODUCTION

Information and Communications Technologies (ICT) are radically changing the competitiveness of organizations. For example, the Internet has revolutionized the way business is done due to the advanced technological developments in the area of ICT. Small and Medium-sized Enterprises (SMEs) have grown in importance in the global economy during the last couple of decades. There are even a growing number of examples of the use of ICT for e-commerce in developing countries. SMEs are critical to the economies of all countries, including development ones. The use of e-commerce in small medium-sized enterprises (SMEs) has become an important topic in information systems research. Recent research also found positive signs that SMEs can take advantage of electronic commerce (e-commerce), as a type of ICT, in helping their business to expand.

**LITERATURE REVIEW
DEFINING SMEs**

There are many definitions of SMES. One of them by European commission is that micro, small and medium-sized enterprises (SMEs) are the engine of each economy. They are an essential source of jobs, create entrepreneurial spirit and innovation in the EU and are thus crucial for fostering competitiveness and employment.³ During the last decade, there has been considerable growth of the number of SMEs in Republic of Macedonia too.

The main factors determining whether a company is an SME are:⁴

1. Number of employees and
2. Either turnover or balance sheet total.

Republic of Macedonia has adopted the official definitions from European commission with few modifications tailored to the situation of the country. The category of micro, small and medium-sized enterprises (SMEs) is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro.⁵

For the purpose of this research the number of employees as determination of SMEs will be adopted. The definition is described as follows (Table 1):⁶

Table 1: Defining SMEs by Employees

Company category	Employees
Medium-sized	< 250
Small	< 50
Micro	<10

According this classification the entities with less than 10 employees are micro enterprises, less than 50 are small and less than 250 employees are medium-sized enterprises.

³ European commission, (2005). *The new SME definition, Enterprise and industry publication*, p.3

⁴ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm (accessed 30.08.2014)

⁵ European commission, (2005). *The new SME definition, Enterprise and industry publication*, p.5

⁶ Official Journal of the European Union, 20.5.2003

DEFINING E-COMMERCE

This new technology has been put to use in almost every segment of human activity from e-commerce to education, medicine, transportation, tourism, the environment, and entertainment (Yasin, 2007). The concept of electronic commerce (e-commerce) grew up in the dynamism of information, technology and communication era. It is now widely stated that the Internet and e-commerce will transform traditional business and consumer life (Mannisto, 1999). The term e-commerce has various definitions. Some of them are the following: the buying and selling of products and services by business and consumers through an electronic medium, without using any paper documents. E-commerce is widely considered the buying and selling of products over the Internet, but any transaction that is completed solely through electronic measures can be considered e-commerce.⁷ Electronic commerce is defined as marketing - promotion, buying and selling products and services electronically, usually via the Internet. E-commerce includes different ways of using the Internet as follows:⁸

- E-tailing
- Electronic data interchange-EDI
- E-mail or computer fax
- Buying and selling
- Providing security of transaction processes

E-commerce is the use of Internet and the Web to transact business. Digitally enabled transactions include all transactions mediated by digital technology. For the most part, this means transactions that occur over the Internet and the Web. Commercial transactions involve the exchange of value (e.g., money) across organizational or individual boundaries in return for products and services. Exchange of value is important for understanding the limits of e-commerce. Without an exchange of value, no commerce occurs.⁹

There are many ways to classify e-commerce transactions, depending on the participants. The primary participants of e-commerce are: Businesses (B), Consumers (C) and Government (G). This research will focus on business to customer B2C. B2C is known as the act of doing commerce or business between companies and consumers. The basic elements of e-commerce are e-visibility, e-shop, online payments, delivering goods, after-sales service and internet e-commerce security. And the benefits of e-commerce are divided into benefits to organization, benefits to consumers and benefits to society.

ADVANTAGES AND DISADVANTAGES OF E-COMMERCE

The invention of faster internet connectivity and powerful online tools has resulted in a new commerce arena, E-commerce. E-commerce offered many advantages to companies and customers but it also caused many problems too.¹⁰

Advantages of e-commerce:

- Time saving, faster buying/selling procedure
- No need for a physical store

⁷ http://www.investorwords.com/1637/e_commerce.html (accessed 05.09.2014)

⁸ Suklev, B. (2006). *Small business management*, 4th edition, Faculty of Economics, Skopje, p.74

⁹ Gaspar, J. Bierman, L. Kolari, J. (2006). *Introduction to E-commerce*, New York, p. 10

¹⁰ <http://www.esalestrack.com/blog/2008/09/advantages-and-disadvantages-of.html> (accessed 28.08.2014)

- Consumers have an access to a wider range of products
- Allows small businesses to mix with the big business online
- Business is open 24x7
- More reach to customers, there is no theoretical geographic limitations
- Easy to start and manage a business

Disadvantages of e-commerce:

- Time lag, delay in receiving goods
- Many goods cannot be purchased online
- E-commerce does not allow to experience the product before purchase
- Anyone can set up an e-commerce website
- Security issues

E-COMMERCE AND SMEs

SMEs play a major role in the national economic development and have been widely recognized in many countries (Ghourri, 2011). SMEs have special needs because of their limited resources in terms of personal, finances, and knowledge pertaining to management, commercialization, or information technology. Globalization pressures arising from e-commerce operations often mean that SMEs have to acquire international trade knowledge. Some smaller supplier businesses have suffered because large customers have started buying online on a global basis or joined international purchasing portals, resulting in downward and sometimes unsustainable prices pressure (Brooks, 2001).

This research focuses on SMEs for two key reasons. First, they are important to economic development in developing countries. Clearly, it is critical for such businesses to be prepared for and take full advantage of any benefits offered by electronic commerce. The second reason to focus on SME's is that they are in a very good position to adapt to new technology; they may be able to adapt faster than larger companies that can be slowed by bureaucracy and stricter staffing hierarchies. E-commerce¹¹ it may offer them comparatively more advantages to find new customers and suppliers especially in markets they have not easily been able to reach before – either internationally or regionally. Markets everywhere are globalizing partially due to the widespread use of the Internet. Furthermore, it is important to emphasize that e-commerce is not entirely about technology. Instead, it is more appropriate to perceive e-commerce as a way for organizations and industry to gain value from and transform key business processes with the Internet and related technologies. The failure in ecommerce adoption can also be triggered if the owner/manager believes that the existing business process issues can be resolved simply by converting them into electronic form. In fact, applying technology without careful planning and justification frequently results in poorer performance.

THE CASE OF REPUBLIC OF MACEDONIA

According to the data from the State Statistical Office of Macedonia, the number of active business subjects in the Republic of Macedonia was 74.424 in 2012. The data for the structure of active business subjects according to the number of employees show that the biggest part of

¹¹[http://ecommerce.about.com/od/eCommerce-Basics/tp/Advantages-And-Disadvantages-Of Ecommerce.02.htm](http://ecommerce.about.com/od/eCommerce-Basics/tp/Advantages-And-Disadvantages-Of-Ecommerce.02.htm) (accessed 25.08.2014)

<http://www.webultimate.co.nz/advantages-and-disadvantages-of-e-commerce/> (accessed 30.08.2014)

82.0% have business subjects with 1-9 employees, then the business subjects without any employees (or the subjects did not present data for employees) with 9.6%, the next are subjects with 10-19 employees employed with 3.9%, the percentage of subjects with 20-49 employees is 2.4% and with 1.7% subjects taking part with 50-249 employees. In addition, SMEs had dominant part in the establishing of gross domestic product (GDP) (over 55% in the added value), and in the whole employment in the business sector (over 75%).¹²

The Internet market is dynamic and relatively new and the companies are getting used to the idea that success in business depends on a great scale on the presence on the Internet. Data show that E-commerce is used mostly for e-mail, for security of the needed information and for exchanging data, and less for buying and selling products and services. Last year 50% from the business subjects had their own web location, and 10% provided online purchases. Statistics says in 2013, about 6% from transactions were made online – which is five times increase in comparison to 2010.¹³ As a direct indicator of the development of e-commerce is also the availability of the Internet to people and companies. The research on the market shows that the increase of users of the Internet to 60% from the population is the main precondition for increase of this way of buying.

Last data from the State Statistical Office show that access to wide internet connection had 91.5% from the business subjects, which means the same number of companies have opportunities to sell their products or services on the Internet. Unfortunately, this number is reduced to only about 160 companies from 74 thousand companies as the State Statistical Office has declared. From the people's point of view the development of e-commerce is growing proportionally to the number of people who have access to a wide internet connection (that difference is huge and incomparable, but both segments are growing too.)

For example, the number of transactions in 2012 compared to 2013 is increased by about 100%, and the number of people who have Internet access is increased by about 8.9%. It is of particular significance the facilitated access to these internet shops which work on the basis of their own sale of the products or e-shops which consolidates several companies and sells their products, and also low prices in the e-shops are crucial. They are incomparable to those in the conventional shops and the fact that everything can be found in one place – from the home or office comfort to the delivery to the house. Currently Macedonia has about 300 online stores¹⁴ where Macedonian citizens can buy various goods. They sell from food, electronic equipment, and jewelry, clothing and household appliances to minutest products.

¹² State Statistical Office, Republic of Macedonia, State entities, New release, No: 4.1.13.13, (accessed 02.09.2014) <http://aprrm.gov.mk/webdata/dokumenti/%D0%9C%D0%A1%D0%9F%20%D0%9E%D0%BF%D1%81%D0%B5%D1%80%D0%B2%D0%B0%D1%82%D0%BE%D1%80%D0%B8%D1%98%D0%B0%20%D0%98%D0%B7%D0%B2%D0%B5%D1%88%D1%82%D0%B0%D1%98%202007.pdf> (accessed 02.09.2014)

¹³<http://mk.voanews.com/content/online-shopping-in-macedonia-advantages-and-dangers/1928751.html> (accessed 22.08.2014)

¹⁴<http://ekonomski.mk/2013/10/26/%D0%B0%D0%BD%D0%B0%D0%BB%D0%B8%D0%B7%D0%B0-%D0%BA%D0%BE%D0%BB%D0%BA%D1%83-%D0%BC%D0%B0%D0%BA%D0%B5%D0%B4%D0%BE%D0%BD%D1%86%D0%B8%D1%82%D0%B5-%D0%BA%D1%83%D0%BF%D1%83%D0%B2%D0%B0%D0%B0%D1%82-%D0%BF/> (accessed 20.08.2014)

METHODOLOGY

This study aimed to provide empirical evidences about the impact of e-commerce on the development of SMEs in Republic of Macedonia. A structured questionnaire was the main instrument used to collect all the data for this survey. The questionnaire was consists of nine questions including: choose from a list, checkbox and multiple choice question. The questionnaire was filled out by managers who understand the nature of the issues investigated by this survey. Our intent was to study 'local' business firms operating in Prilep's region, so in total, we have surveyed 44 (micro, small and medium) firms from this area. For the needs of the survey we used purposive sample.

Through this study, our goal was to find answers to some of the following question:

- What is the type of ICT used by SMEs?
- The stage of E-commerce developing? Only promotion, advertising - low level adoption, or ordering, buying and selling goods-high level of e-commerce adoption?
- What are the motivations for E-commerce investments?
- Which are the benefits gained by E-commerce?
- Does E-commerce adoption help Macedonian SMEs to developing their own business performance?
- Understanding the barriers and challenges faced by the SMEs in adopting technologies
- Does Macedonian SMEs follow the world trend of Facebook commerce?

DATA ANALYSIS

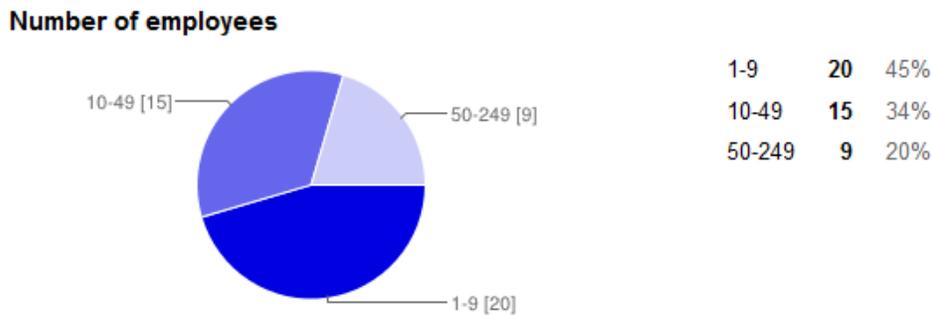


Figure 1: Number of employees

The first question refers to the number of employees; three responses were offered by which enterprises select micro enterprises from 1 to 9 employees, small businesses with 10 to 49 employees and medium-sized enterprises from 50 to 249 employees. According to the results survey 20 or even 45% of the respondents businesses, operate in micro enterprises, 15 respondents or 34% of respondents work in small enterprises, and 9 and 20% are business subjects in the third group medium companies. From the graph presented above can be concluded that the majority of respondents are business entities in micro enterprises with number of employees from 1 to 9 only.

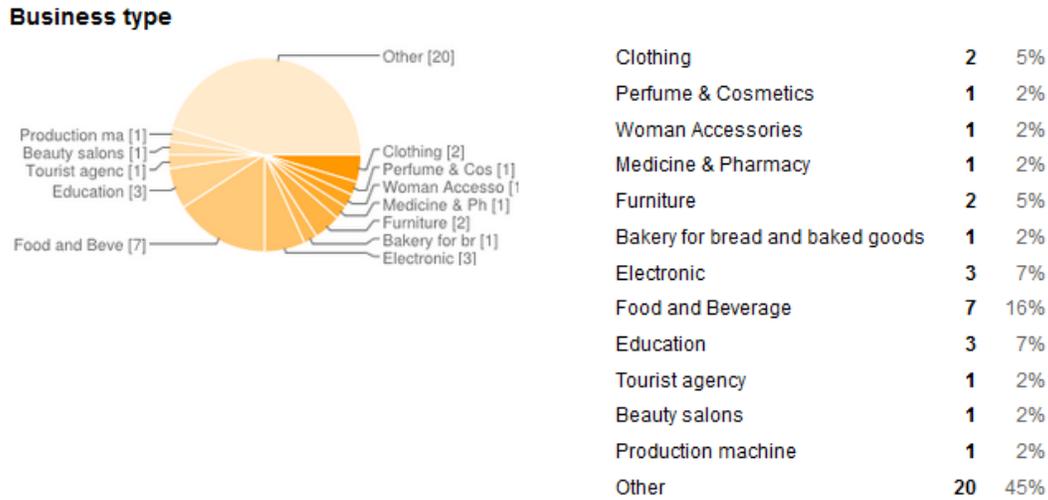


Figure 2: Business type

The next question was to determine the business type or business sector where they operate. Few categories were offered, as follows: clothing, perfume & cosmetics, women accessories, medicine and pharmacy, furniture, bakery, electronic, food and beverage, education, tourist agency, beauty salons and the last category was opened where respondents could write their business type if it was not included above in the offered categories. All of the offered business types were almost equally distributed. The “other” 20 or 45% of the companies that we have surveyed are motor vehicles and driving school, printing company, book shops, tailor's shops, bedding company, stone processing company, transportation firms, butcher's shop, sanitary and wedding store. All of these companies are from Prilep's region.

What kind of ICT have you got adopted?

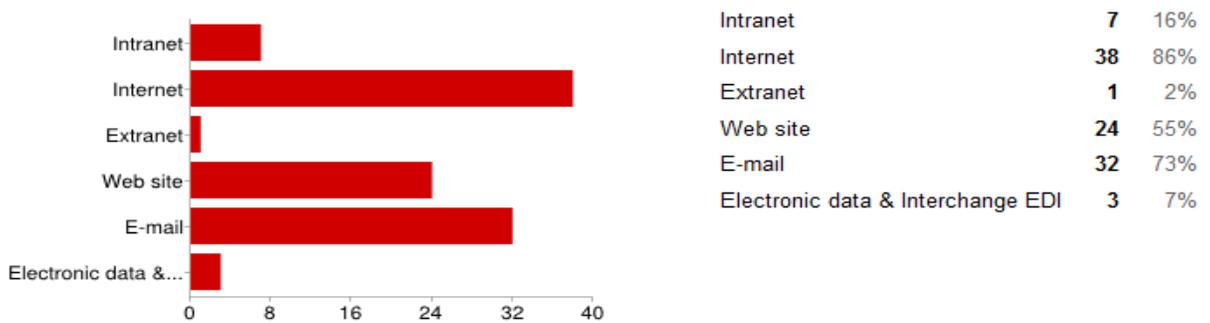


Figure 3: What kinds of ICT have you got adopted?

The third question was: What kinds of ICT have you got adopted? There were offered six answers. Respondents were able to choose their type of ICT they have been adopted such as: intranet, internet, extranet, web site, e-mail or Electronic data & Interchange EDI. It can be seen from the graph above that most of the respondents had given more answers and most of them use the internet, even 86% or 38 respondents chose this type of ICT, then 73% or 32 respondents use

email and 55% or 24 respondents have their own web location. This speaks to the fact that most businesses use the internet, email and web site as information, communication technology.

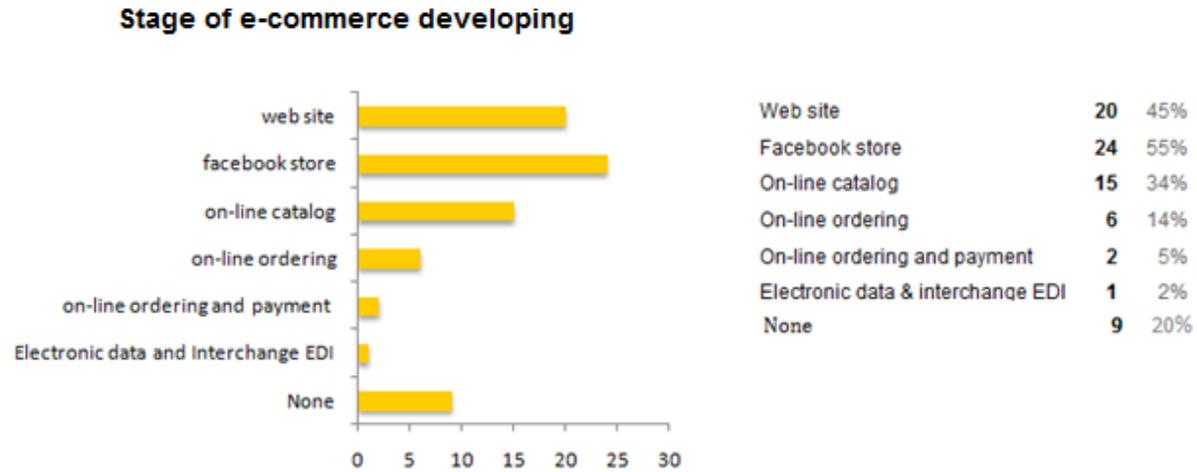


Figure 4: Stage of e-commerce developing

More to the point, the next question locates the stage or level of E-commerce developing. The E-commerce adoption is divided into two stages: only electronically promotion, advertising-low level adoption, or on-line ordering, buying and selling goods and services-high level adoption. Respondents had seven possible answers from which they could chose one or more of the choices or none. If any of the respondents chose the last answer “None”, then they continued to the seventh question. It can be seen from the presented graph that 45% or 20 of respondents have a web site, then 55% or 24 of the respondents have facebook store, 34% or 15 respondents have on-line catalog, only 5% or 2 respondents perform on-line ordering and payment, then only 2% or 1 use electronic data and interchange EDI, while 9 respondents answered that use any type of e-commerce. It can be concluded that the majority of respondents have facebook store or they practice facebook commerce.

Motivation for ICT/E-commerce Investment

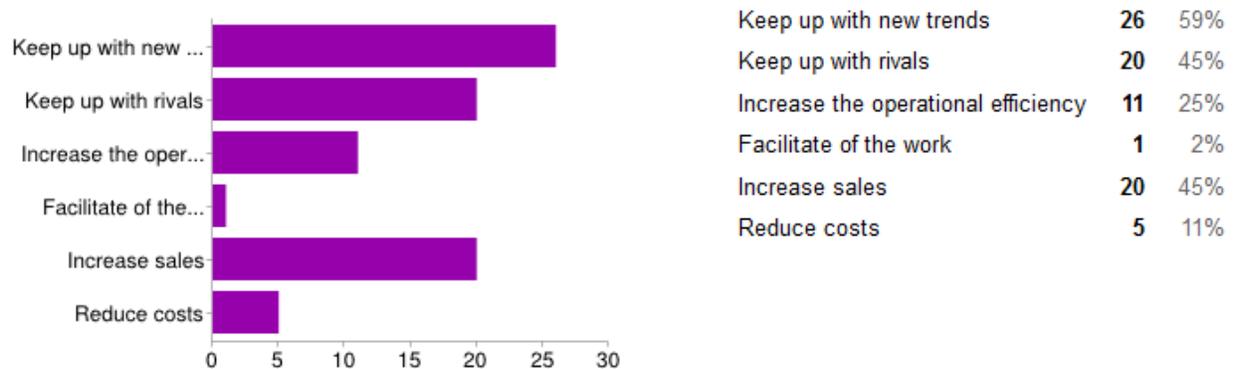


Figure 5: Motivation of ICT/E-commerce Investment

Moreover, the fifth question was about the main motivation factors for ICT and E-commerce investment. Respondents were able to choose one or more of the six possible answers, so 26 of them said they want to keep up with trends and that it was the basic motivation for the use of this type of trade, then keep up with rivals for 45% of respondents, as well as for 45% of respondents the biggest motivation to invest in ICT and E-commerce is to increase sales, then increase the operational efficiency-25%, reduce cost for 11% of respondents and for only 1 respondent facilitate of the work is the motivation for this type of investment. It can be concluded from the graph that the biggest motivation among small and medium enterprises for the use of e-commerce comes of reasons to be updated with the latest trends.

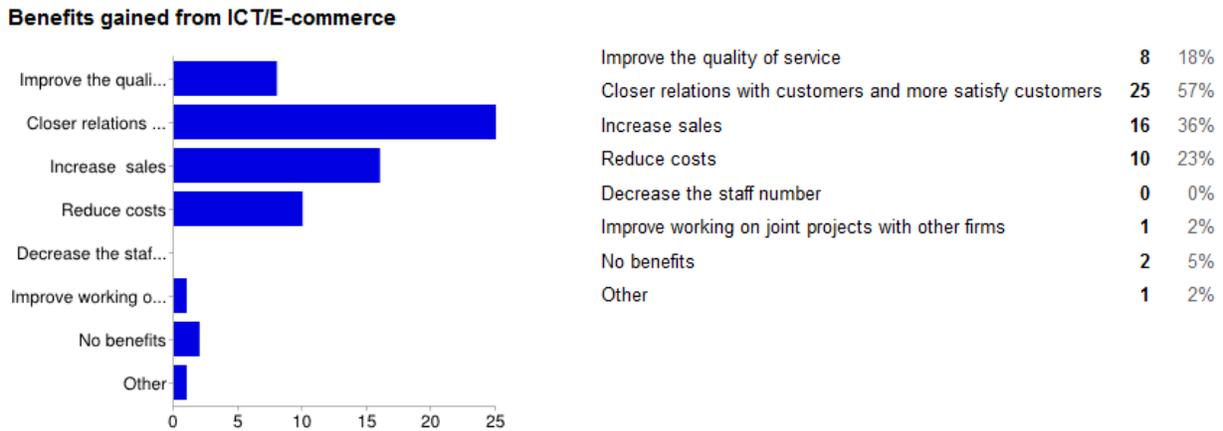


Figure 6: Benefits gained from ICT/E-commerce

We aimed to find out the benefits which companies have gained of ICT and E-commerce application. For the purpose of that we impose this question where the following benefits were listed: Improve the quality of service, closer relations with customers and more satisfied customers, increase sales, reduce costs, improve working on joint projects with other firms, no benefits and “other” like additional free option for respondents. The graph shows that the majority of respondents (57%) said that the greatest benefit they have gained from this type of trade is having a closer relationship with customers and more satisfied customers, then increase sales as benefit for 36%, reduce costs for 23%, while none of the respondents didn’t reply that the decreased number of staff is benefit for them.



Figure 7: Challenges and barriers in E-commerce implementation

Also, it is good to know the challenges and barriers that these companies face with during the process of E-commerce implementation. At this issue four answers were offered. The graph shows that for the first 18 respondents or 41% the biggest obstacle is lack of qualified personnel, then 36% or 16 respondents said that the biggest obstacle for them is the refusal or resistance from consumers, 18 respondents or 41% of respondents said the biggest challenge they represented security concerns, while 32% or 14 respondents said that they are concerned about the cost of e-commerce implementation. From the gained results can be concluded that the major obstacle for companies is lack of qualified personnel and at the same time the biggest challenge for them is to offer save transaction to customers.

What kind of advertising do you practice?



Figure 8: What kind of advertising do you practice?

The next question was about what kind of advertising use surveyed companies. From the graph can be concluded that 41% of respondents advertise through radio and television, 15 respondents answered that advertise through newspaper or brochure, as well as 15 respondents advertise on the web site, and while most of the respondents – 31, or 70% answered that they advertise through social networks such as: Facebook, My Space, Twitter and only two of the respondents said their company does not advertise.

What do you use your Social company profile for?



Figure 9: What do you use your Social company profile for?

The last question had offered five responses including: advertising and increasing awareness of customer, linking visitors to a web site for selling goods, meeting more customers, social monitoring and measuring Tweets, Facebook likes and last-choice answers referred to it if enterprises do not have profiles on social sites-14%. All of the rest respondents have company profile on social network – Facebook and most of them even 34 or 77% said that their social profile is used in order to meet more consumers.

CONCLUSION

From conducted survey are gained indicative results which show that e-commerce operations of SMEs in Prilep are not enough represented and are still on low level. Qualitative and quantitative results indicate that E-commerce is used mostly for e-mail, promotion the company- meeting more customers and increase their awareness and less for buying and selling products and services. For the companies the biggest problems in implementation e-commerce are lack of skilled staff and then security concerns. Also they think that customers show resistant for e-commerce, but what is evidential is that almost all respondents (no matter with low or high level adoption) experienced benefits of e-commerce implementation; as closer relations with customers, increase sales, reduce costs and improve quality of service. The biggest motivation for companies to use e-commerce is to follow the newest trends, increase sales and to be on same level with rivals. On our market, really there are companies that invest in E-commerce, a great part of them do this because it is trendy and it is a lot spoken about by the media, but rarely a company does this without beforehand set strategy and goals. In fact applying technology without careful planning and justification frequently results in poorer performance.

Electronic commerce, as innovative process can give SME's a better chance to compete in their markets and, indeed, in some cases, is or will soon become a competitive necessity for survival.

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MODELS FOR MEASURING OF E-BUSINESS SYSTEMS SUCCESS IN SME`s

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Ćirić Ivana⁵

Abstract

There is a lack of empirical evidence to gauge e-business usage and its impact on SME`s performance, partly because of the difficulty of developing measures and collecting data. A related issue is the lack of theory to guide empirical research. Although showing recent signs of advancement, the linkage between theory and measures is still weak in the e-business literature. Clearly, there is a need for a theoretically rigorous and empirically relevant framework for examining the use and value of e-business in SME`s.

Today more than ever, information system research face strong pressure to answer the question of whether and how e-business investments create business value. Although innovation diffusion represents a complex process, much of the existing research has focused on the adoption decision and on measures. We need to view e-business diffusion as a multistage process that starts at adoption and extends to usage and value creation.

We investigate whether innovation theories can be generalized and empirical findings are applicable in different economic contexts. To achieve this, we study e-business experience of SME`s in developed and developing countries that might represent different stages of e-business transformation, for results in Vojvodina.

The gaps in the literature limit our understanding of the process of e-business innovation and consequently of e-business value. Key research questions that motivated our work are: (1) What framework can be used as a theoretical basis for studying e-business use and value? (2) Within this theoretical framework, what factors can be identified as key antecedents of e-business use and value? (3) How would these factors vary across different economic environments like Vojvodina?

To better understand these issues, we developed a conceptual model for e-business use based on the technology-organization-environment (TOE) framework. We also analyzed e-business value creation, from a resource-based perspective, that stems from the unique characteristics of the Internet.

Keywords: knowledge management of SME`s, quality, competences, e-economy

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INTRODUCTION

A theoretical model for e-business use needs to take into account factors that affect the propensity to use e-business, which is rooted in the specific technological, organizational, and environmental circumstances of an organization. The TOE framework identifies three aspects of a firm's context that influence the process by which it adopts, implements, and uses technological innovations: (a) *Technological context* describes both the existing technologies in use and new technologies relevant to the firm. (b) *Organizational context* refers to descriptive measures about the organization such as scope, size, and the amount of slack resources available internally. (c) *Environmental context* is the arena in which a firm conduct its business-its industry, competitors, and dealings with government.

There are three types of innovations: Type I innovations are technical innovations restricted to the IS functional tasks (such as relational databases, CASE); Type II innovations apply IS to support administrative tasks of the business (such as financial, accounting, and payroll systems); and Type III innovations integrate IS with the core business where the whole business is potentially affected and the innovation may have strategic relevance to the firm. We consider e-business a Type III innovation, in the sense that e-business is often embedded in a firm's core business processes (e.g., making use of the open standard of the Internet protocol to streamline information sharing among various functional departments); e-business can extend basic business products and services (e.g., leveraging Internet-enabled two-way connectivity to offer real-time customer service); and e-business can streamline the integration with suppliers and customers.

E-business is a new Type III innovation and warrants investigation along with these innovations. In particular, the migration toward the Internet and the transformation of traditional processes require firms and their subunits to orchestrate the coevolutionary changes to their technologies in use, business processes, and value chain structures to successfully assimilate the Internet technologies into their e-business initiatives.

The TOE framework is appropriate for studying e-business usage. Based on the TOE framework, the use of e-business in organizations will be influenced by three types of antecedents: *technological* factors, *organizational* factors, and *environmental* factors.

The Internet is characterized by *open standard* (versus proprietary standard), *public network* (versus private network), and *broad connectivity* (back end and front end). These characteristics may have very different impacts on customer reach and richness of information. The global reach of the Internet enables cost-efficient means of reaching out to new markets, attracting new customers, and delivering products and services, as well as improving coordination with suppliers and business partners.

E-BUSINESS VALUE AND THE RESOURCE-BASED THEORY

The resource based view (RBV) provides a theoretical basis for linking e-business use and value. Rooted in the strategic management literature, the RBV of the firm posits that firms create value by combining heterogeneous resources that are economically valuable, difficult to imitate, or imperfectly mobile across firms.

The value hierarchy depicts the unique characteristics of the Internet and how these characteristics enable value creation via e-business. In contrast to e-business, less

connectivity, and a private network configuration – creates business value mainly through improving transactional efficiencies and reducing costs in procurement (Figure 1).

We examined the unique characteristics of the Internet and linked them in three ways through which e-business may create value-transactional efficiencies, market expansion, and information sharing. Combining them with the RBV, we developed an e-business value hierarchy, as shown in Figure 1.

Open-standard information exchange can results in a more synchronized information flow will make materials move efficiently along the supply chain, thereby reducing the bullwhip effect.

Such e-business value may lead to improved firm performance in sales, procurement, and internal operations, as shown in the top layer of the value hierarchy in Figure 1.

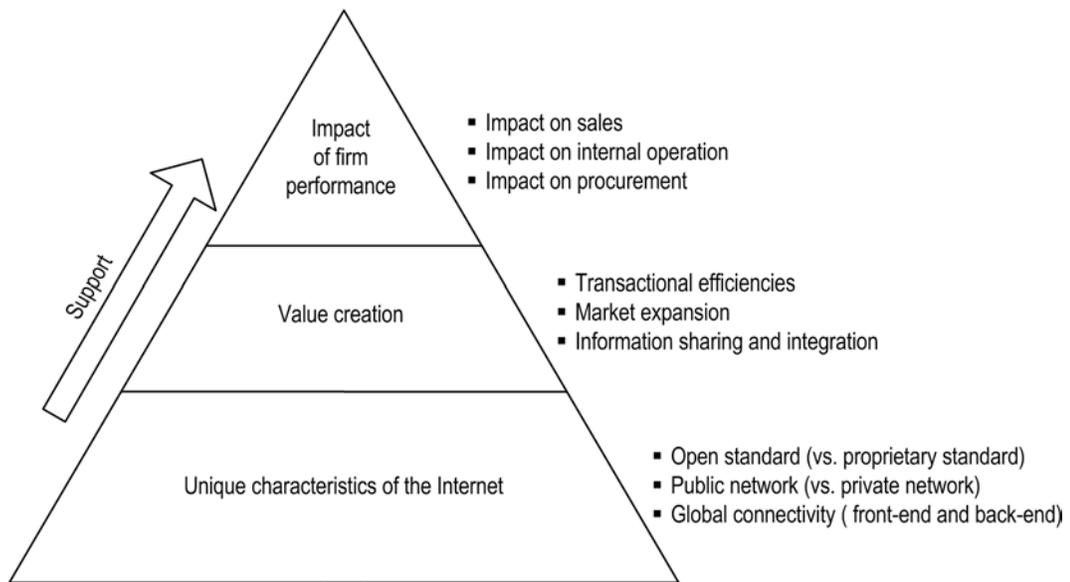


Figure 1. E-Business Value Hierarchy

BASIC ELEMENTS FOR DIFFUSION OF E-BUSINESS

Technology Context. The literature suggests that IS capabilities consist of infrastructure, human resources, and knowledge. Firms with a higher degree of technology competence tend to enjoy greater readiness to use e-business in their value chain processes. As a result, they would be more likely to achieve a greater extent of e-business usage. This leads to the following hypothesis.

H1. *Firms with greater technology competence are more likely to achieve a greater extent of e-business use.*

Organization Context. Firm size is commonly cited in innovation diffusion literature, yet different opinions exist as to the role that firm size plays in the process of innovation diffusion, due to the tension between resource availability and organizational inertia. On one hand, large firms generally possess slack resources that can facilitate implementation and usage. On the other hand, firm size is often associated with inertia; that is, large firms tend to be less agile and flexible than small firms. The possible

structural inertia associated with large firms may slow down organizational usage and may therefore retard e-business value creation. Because our model has controlled for technological and financial resources that large firms may possess, the notion of structural inertia leads us to expect that large firm size may deter e-business usage and value creation. This leads to the following hypothesis.

H2. *Controlling for resource availability effects, larger firms tend to achieve a lesser extent of e-business use.*

Firms conducting business in multiple markets have to manage demand uncertainty in all segments simultaneously, which requires a high degree of integration, flexibility and responsiveness in their information systems, as well as the broader information infrastructure linking the firm with its customers, trading partners, and distributors. As documented in the literature and consistent with our value hierarchy in Figure 1, e-business may help to create these capabilities within the firm and with its trading partners as a result of common standards, lower cost, and greater ease of implementation of Internet-based applications. In sum, retail companies that expand globally would have a greater incentive to use e-business to leverage their existing IT capabilities for a competitive advantage. This leads to the following hypothesis.

H3. *Firms with greater international scope are more likely to achieve a greater extent of e-business use.*

Financial resources constitute another important factor recognized in the innovation literature. In this study, we tailor this factor to financial resources specially committed to e-business. Implementing e-business requires investment in hardware, software, system integration, and employee training. Sufficient financial resources dedicated to e-business helps companies to obtain these necessary resources and develop them into superior e-business functionalities. Thus, firms with greater financial commitment are more likely to achieve successful e-business implementation and thus tend to achieve a greater extent of usage. Hence, we have the following hypothesis.

H4. *Firms with greater financial commitment are more likely to achieve a greater extent of e-business use.*

Environment Context. *Competitive pressure* refers to the degree of pressure that the company feels from competitors within the industry. The use of e-business may induce changes of industry structure through disintermediation and reintermediation, offer new means of competing and altering competition rules through lock-in, electronic integration, and brick-and-click synergy. Thus, competitive pressure plays a significant role in pushing firms toward using e-business.

H5. *Firms facing higher competitive pressure are more likely to achieve a greater extent of e-business use.*

Regulatory support is another critical environmental factor that tends to affect innovation diffusion. This concept is similar to government policy theorized to affect IT diffusion in Umanath and Campbell (1994) and empirically tested in Dasgupta et al. (1999). The latter found that companies operating in an environment where government policies are restrictive have low IT adoption.

H6. *Firms facing higher regulatory support are more likely to achieve a greater extent of e-business use.*

Linkage from E-Business Use to E-Business Value. We draw on the RBV to explain the connection between usage and value. RBV suggests that the greater the extent

of IT use, the greater the likelihood that organizations will create IT capabilities that are rare, inimitable, valuable, and sustainable, thereby contributing to value creation (along with organizational compliments). Through deeper usage in organizations, IT creates asset specificity, which provides a competitive advantage. A classic model for general IS success developed by DeLone and McLean (1992) suggested that there tends to be a strong link between system use and system impact.

H7. *Firms with greater e-business use are more likely to generate higher e-business value.*

E-Business Value. The ultimate goal of using e-business is to improve the business performance of the organization. As shown in the value hierarchy of Figure 1, e-business helps companies develop appropriate functionalities to leverage the Internet's characteristics. E-business functionalities are categorized into two groups: *front-end functionality* and *back-end integration*. Back-end integration helps firms achieve technology integration and enables information sharing within the firm and along the value chain. Thus, one would expect that superior front-end functionality and back-end integration help firms improve business performance. This leads to the following hypothesis.

H8. *Greater e-business capabilities, including both front-end functionality and back-end integration, are positively associated with higher e-business value.*

Although both have the potential to create e-business value, front-end functionality and back-end integration may vary in importance, as suggested by the resource-based theory. Front-end functionality is public and open on the Internet, and thus could be easily observed and imitated by competitors. As a result, front-end functionality could become commodity-like as more competitors adopt e-business. In comparison, the process of back-end integration is far more difficult to imitate, because its success requires quality complementary resources. In addition, the integration process is often tailored to a firm's strategic context and woven into the organization's fabric, which is not transparent to competitors. Therefore, we propose the following hypothesis.

H9. *Back-end integration will have a stronger impact on e-business value than front-end functionality.*

International Effects: Differences between Developed and Developing Countries. Given that the Internet is an open platform with global connectivity, we believe it is important to incorporate an international dimension in this study.

H10. *The strength of the antecedents of e-business use and value will differ for developed and developing countries.*

MEASUREMENT MODEL

The development of the measurement model included successive stages of theoretical modeling, statistical testing, and refinement (Straub 1989). Measurement items were developed on the basis of a comprehensive review of the literature as well as expert opinion. We then tested multi-indicator constructs using confirmatory factor

analysis (CFA)¹. Based on the assessment of CFA, the measurement model was further refined and then fitted again.

Several constructs deserve further explanation. First, technology competence is instrumented not only by physical technologies, but also by IT human resources that possess the knowledge and skills to implement e-business. Such a design is consistent with the theoretical rationale discussed. Our study used the major items in the first three dimensions to instrument front-end functionality, and the fourth dimension corresponded to our back-end integration.

To empirically assess the constructs theorized above, we conducted CFA using structural equation modeling. We assessed construct reliability, convergent validity, discriminant validity, and validity of the second-order construct. The measurement properties are reported in Table 1.

Table 1: Measurement Model: Factor Loadings, Reliability, and Convergent Validity

Measurement Model: Factor Loadings, Reliability, and Convergent Validity			
Constructs (reliability)	Indicators	Loadings	Convergent validity (<i>t</i> -start)
Technology competence (0.81)	TC1	0.79***	46.76
	TC2	0.79***	37.10
	TC3	0.71***	24.90
International scope (0.81)	FS1	0.64***	36.65
	FS2	0.86***	160.80
	FS3	0.78***	52.66
Financial commitment to e-business (0.83)	FR1	0.86***	29.07
	FR2	0.82***	15.84
Competitive pressure (0.86)	CP1	0.87***	74.04
	CP2	0.87***	73.89
Regulatory support (0,80)	RE1	0.68***	21.30
	RE2	0.69***	24.87
	RE3	0.71***	22.91
	RE4	0.74***	30.76
Back-end integration (0.86)	BI1	0.87***	80.53
	BI2	0.86***	79.54
E-business use (0.78)	EU1	0.64***	18.44
	EU2	0.50***	6.67
	EU3	0.46***	4.85
	EU4	0.83***	35.95
	EU5	0.75***	13.55
Front-end functionality (0.80)	FF1	0.63***	15.92
	FF2	0.65***	25.76

¹ For the purpose of testing the robustness of our measurement model, we also ran exploratory factor analysis on all indicators. Principal component analysis with equamax rotation yielded a consistent grouping with CFA.

Impact on sales (0.88)	FF3	0.67***	26.00
	FF4	0.72***	24.31
	FF5	0.68***	20.46
	IS1	0.86***	76.46
	IS2	0.84***	51.62
Impact on internal operations (0.90)	IS3	0.81***	41.92
	II01	0.89***	81.85
	II02	0.91***	123.42
Impact on procurement (0.87)	IP1	0.85***	50.11
	IP2	0.85***	74.50
	IP3	0.79***	37.90
* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$. Insignificant factors are dropped (FS4 and FS5).			

(1) *Construct Reliability*: Construct reliability measures the degree to which items are free from random error and therefore yield consistent results. In our measurement model (Table 1), all constructs have a composite reliability over the cutoff of 0.70, as suggested by Straub (1989).

(2) *Convergent Validity and Discriminant Validity*: Convergent validity assesses the consistency across multiple operation. As shown in Table 1, all estimated standard loading are significant ($p < 0.01$), suggesting good convergent validity. To assess the discriminant validity-the extent to which different constructs diverge from one another-we used Fornell and Larcker's (1981) criteria: average variance extracted for each construct should be greater than the squared correlation between constructs.

Table 2: Measurement Model: Second-Order Construct

Table 2 Measurement Model: Second-Order Construct				
Second-order construct	First-order construct	Loading	<i>t</i> -stat	Composite reliability
E-business value	Impact on sales	0.865***	77.68	0.88
	Impact on internal operation	0.805***	44.08	
	Impact on procurement	0.844***	55.52	
* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$				

(3) *Validity of the Second-Order Construct*: Table 2 shows the estimation of the second-order construct, e-business value. The paths from the second-order construct to the three first-order factors are significant and of high magnitude, greater than the suggested cutoff of 0.7. Our model has a very high *T* ratio of 0.99, implying that the relationship among first-order constructs is sufficiently captured by the second-order construct. Therefore, on both theoretical and empirical grounds, the conceptualization of e-business value as a higher-order, multidimensional construct seems justified. In summary, our measurement model satisfies various reliability and validity criteria. Thus, constructs developed by this measurement model could be used to test the conceptual

model and the associated hypotheses proposed earlier. Empirical tests are on the Integrated Model of E-Business Use and Value.

Our model has a very high T ratio of 0.99, implying that the relationship among first-order constructs is sufficiently captured by the second-order construct. Therefore, on both theoretical and empirical grounds, the conceptualization of e-business *value* as a higher-order, multidimensional construct seems justified. In summary, our measurement model satisfies various reliability and validity criteria. Thus, constructs developed by this measurement model could be used to test the conceptual model and the associated hypotheses proposed earlier.

INTERPRETATIONS OF THE RESULTS

We tested the conceptual model by structural equation modeling using both the full sample and the sample split between developed and developing countries. Although theory and prior research led us to expect differences, we did not know a priori that there would be differences between the full and split samples; therefore, we needed to do the analysis for both. It also enabled us to relate our finding to the broader IT literature.

The strong statistical power enhanced our confidence in the result of hypotheses retesting, which is based on the examination of the standardized paths shown in Figure 2. For e-business use, five of six TOE factors-technology competence, size, financial commitment, competitive pressure, and regulatory support- have significant paths leading to the dependent construct. Size has a negative path, while the other factors have positive paths. The path associated with international scope is positive but statistically insignificant ($p > 0.10$). E-business value is also shown to have significantly positive associations with front-end functionality and back-end integration. Hence, Hypothesis 8 is supported. To test hypothesis 9, we compared the standardized path from front-end functionality to e-business value with standardized path from back-end integration to e-business value. Back-end integration is found to have much higher magnitude than front-end functionality (0.239*** versus 0.141***). Thus, Hypothesis 9 is supported.

1. *Within the TOE framework, technology competence, financial commitment, competitive pressure, and regulatory support are found to have significant influence on the extent of e-business use. Among these, technology competence appears to be strongest factor.*

As indicated by their significant and positive paths in Figure 2, firms with higher levels of technology competence tend to achieve greater extent of e-business use, as do firms facing competitive pressure and regulatory support. Among all the TOE factors, technology competence is the most significant factor, as indicated by its path loadings and significance levels ($p < 0.01$), followed by regulatory support. Within the organizational context, our study reveals a negative effect of firm size on e-business use. While it has been commonly believed that large firms have more slack resources for committing required investments, our results show that large firms are also burdened by structural inertia, possibly due to fragmented legacy systems and entrenched organizational structures. Our model has controlled for technological and financial resources, and thus the net effect of firm size in our model might be dominated by structure inertia. These results suggest that the proposed research model in Figure 2 is a useful theoretical framework for explaining factors that affect the use of e-business by companies.

2. *The linkage from e-business use to e-business value is found to be significant, suggesting that use would be a "missing link" if not included.*

As theorized earlier, firms with higher e-business use tend to achieve greater value from e-business use. Our results from both the full sample and the split sample consistently show a significant and positive linkage from e-business use to e-business value. This means that higher degrees of e-business use are associated with improved business performance. This also confirms the earlier postulation that actual use may be the "missing link" to IT payoff. This significant linkage also supports our research design, in which use and value are evaluated together in one model.

3. *Both front-end functionality and back-end integration contribute to value creation of e-business.*

Using a large dataset, our analysis has identified two ways in which e-business creates value—front-end functionality and back-end integration. This finding is supported by the significant and positive linkages from front-end functionality and back-end integration to e-business value. Front-end functionalities help firms provide timely information to customers, facilitate personalization and account management, expand existing channels, and improve transactional efficiencies; back-end integration enables technology integration within the organization and facilitates information sharing with suppliers and business partners. As a result, these two types of e-business capabilities help firms improve performance by affecting intermediate achievements such as customer intimacy in the front end and operational excellence in the back end; both are critical for firms to achieve performance improvement.

4. *The importance of two factors—competitive pressure and regulatory support—differs across developed versus developing countries. This finding confirms that economic environment shapes e-business use.*

This result might be explained as follows. First, *competitive pressure* is statistically significant for developed but not for developing part of the country. Such a difference could be explained by the distinct market environments of developed and developing part of the country. Prior research has shown that information asymmetry exists in less-developed markets, and market imperfections and inefficiencies may weaken the pressure from competitors. In developed area of the country, however, markets have evolved into mature stages over time, characterized by more transparent information flow and more stable legal frameworks and government policies. Therefore, firms in developed countries can obtain more information about competitors' e-business development, which may force them to adopt e-business to avoid competitive decline. Second, although the path loadings of *regulatory support* appear to be significant in both subsamples, more sophisticated analysis (group analysis) reveals that it is relatively more important in developing countries. This finding is related to the above discussion, that markets in most developing part of country are characterized by information asymmetry and immature institutional structure. As a result, government regulation (e.g., legal protection of online transactions), or the lack thereof, tends to be a greater force in developing countries. In light of these varying behaviors across the two subsamples, we have learned the significant role that economic environments play in shaping the extent of e-business use. This finding further confirms the usefulness of the proposed conceptual model for

studying e-business, as economic environment is an important factor within the TOE framework.

These results have several important implications for management. First, they offer a useful framework for managers to assess the *technological* conditions under which e-business is launched to better pursue business value. It is important to build up technology competence includes tangible technologies, intangible managerial skills, and human resources. Further, IT managers have struggled for ways to create value from Internet technologies. Our study sheds light on ways to realize value from e-business—greater breadth and depth of use, customer-facing Web functionalities on the front end, and tight integration on the back end.

In particular, our empirical results highlight the importance of *back-end integration* among various back-office databases and enterprise systems, and information sharing with business partners. Our analysis has identified this as a major source of e-business value. It will become even more important as e-business develops into deeper stages, as suggested by the results that the significant of back-end integration is more pronounced in developed countries that seem to be at deeper stages of e-business development. These findings could serve as useful guidelines for firms to develop their e-business capabilities. This is especially important in the retail industry, where firms have been building various legacy systems and using multiple IT platform over the years.

Furthermore, managers need to assess the appropriateness of e-business to certain *organizational* characteristics (e.g., size scope), as suggested by our empirical findings. This implies that potential value of e-business investment could be affected by structural differences. Effective e-business programs rely on necessary organizational reconfiguration and business processes reengineering. As Internet technologies diffuse and become necessities, these organizational capabilities and structural differences will be even more critical. In particular, managers in retail firms with a wider scope should pursue e-business usage more proactively, given the greater potential to achieve benefits from e-business. This implication should be of special interest for retailers seeking global expansion into different regions and market segments. Such expansion means that retailers would face greater coordination tasks and could leverage e-business initiatives to facilitate coordination and achieve resource integration.

Finally, our study also offers implications for *policy makers*. Regulatory support has emerged as an important factor for e-business use and value. This is even more important for developing countries. During our study, companies frequently cited significant obstacles to doing e-business, including inadequate legal protection for online transactions, unclear business laws, and security and privacy concerns. While this was important for all countries, it was a much more significant factor for developing countries. It also pointed to the need for establishing a broad legal and institutional framework that supports e-business. Governments, therefore, could accelerate the diffusion of e-business by establishing supportive business laws to make the Internet a trustworthy business platform (e.g., dealing with transaction fraud, promoting credit card use). This is particularly important at early stages of e-business development in an economy. Technological innovations are considered the primary driver of improvements in industrial productivity. Yet if promising innovations cannot be widely deployed, then the benefits resulting from their invention will be curtailed.

CONCLUSIONS

Grounded in the innovation diffusion literature and the resource-based theory, this study has theoretically developed and empirically evaluated an integrative research model incorporating technological, organizational, and environmental factors, for assessing e-business use and value at the firm level. While these issues were typically studied separately in the literature, our results suggest that usage and value are closely link, indicating that this unified perspective helps us gain a more holistic picture of the postadoption diffusion and consequence of e-business. To realize e-business value, firms need to facilitate the usage of e-business in various value chain activities.

For e-business use, our study has examined six factors, within the TOE framework, as drivers of e-business use. Some of these factors play different roles across different economic environments. This finding shows that, while e-business is a global phenomenon, its use is moderated by local environments. For e-business value, our study has demonstrated that the extent of e-business use and e-business capabilities, both front-end functionalities and back-end integration, contribute to value creation of e-business, but back-end integration has a much stronger impact.

In summary, this study has developed an integrative theoretical framework for assessing e-business use and value, beyond initial adoption.

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**STIMULATING THE COMPETITIVENESS OF THE MACEDONIAN ECONOMY
THROUGH THE PROCESS OF STIMULATION THE INTERNATIONALIZATION
OF THE COMPANIES**

Damoska Sekuloska Jovanka ¹

Abstract:

The research in this paper is to be focused on examining the internationalization of the Macedonian companies as a prerequisite in improvement of Macedonian competitiveness. Internationalization as a process of integration in international economic activities contributes to overcome limited size of national markets. So, according to the World Economic Forum (WEF) the size of the market is one of the pillars of competitiveness and it is revealed as one of the limitation of the competitiveness of Macedonian economy. The contemporary theories of competitiveness recognize the necessity of quantitative and qualitative improvement of the process of internationalization of the companies. Quantitative improvement means involving not only trade but also outward FDI and the new quality signifies the necessity of restructuring the economic activities towards employing and creating innovation based processes, because as Porter says (1990) “a nation’s competitiveness depends on the capacity of its industry to innovate and upgrade”. Using data of some target Central European economies, will be examined interrelationships between the internationalization and competitiveness and policies that influence the improvement and stimulation of internationalization process.

Keywords: competitiveness, internationalization, export, outward FDI

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INTRODUCTION

The internationalization process is important as an enabler of national competitiveness and as a strategic option for business. As a process of integration in international activities internationalization enables the companies to expand their operating activities across the border of their national markets on the one hand and on the other, it determines and influences the market size of an economy as one of the determinant of the competitiveness of economies. Internationalization is beneficial from a macroeconomic and a microeconomic perspective. In other words, it is beneficial for the national economies and individual firms as well.

Firms often decide to build new markets by offering their products outside national boundaries and may enter through the modes of exporting, joint ventures and alliances, licensing or foreign direct investment (Johnson et al., 2007). By expanding its markets internationally a firm can bypass limitations in its home market (Johnson et al., 2005). Internationalization through the exports and foreign direct investment can be thought as a substitute for domestic demand in determining the size of the market. But as Porter emphasized “a new theory must recognize that in modern international competition, companies compete with global strategies involving not only trade but also foreign investment” (Porter, 1990). That means, the success in international trade is determined by employment of both, export and direct investment, as two parallel strategies.

In the era of globalization, international markets have become a substitute for domestic markets, especially for small countries. The interdependency between internationalization and competitiveness of today contemporary economies is verified in practice where the internationalization is treated as one of the determinant and enabler of the market size as one of the pillars of competitiveness according to the World Economic Forum (WEF). The market size is proportionally dependent on the level of internationalization of the economy.

Based on the necessity to stimulate and encourage the internationalization of Macedonian companies, this paper aims to study the actual involvement of Macedonian economy in the process of internationalization through the export and OFDI performance and to offer some measures and activities in enhancing the internationalization.

INTERDEPENDENCY BETWEEN INTERNATIONALIZATION AND COMPETITIVENESS

Globalization process contributes the companies to be exposed to new economic environment, so the internationalization becomes a crucial and essential part of success in today's international economy. At the same time internationalization is one of the key engines for competitiveness, but on the other hand the competitiveness is one of the key enabler of internationalization.

In order to be successful in international market the companies should create and upgrade competitiveness at home. Business that focus primarily or even exclusively on the domestic market have to be competitive internationally in order to secure long

– term survival and growth (Karagozodlou, N., and M. Lindell, 1998). Although the competitiveness is a central concern in today's economies, on national and international level, there is still no agreed definition upon it. Some of them use single measures like: firm ability, productivity, standard of living, trade performance, price and non-price based criteria, others take a multidimensional approach. But as

Porter states “the competitive advantages must reflect a rich conception that includes segmented markets, differentiated products, technology differences and economies of scale...based on quality, features and new product innovation” (Porter E. Michael, 1990). Survival in today's more competitive and dynamic environment is connected with the continual renewal of competitive advantage through innovation and the development of new capabilities (Cho, H.J., & Pucik, V., 2005). When the national environment pressures companies to innovate and invest, companies both gain a competitive advantage and upgrade those advantages over time (Porter E. Michael, 1990). Existence of a national environment that supports and encourages the creation and upgrading of competitive advantages is a precondition for efficient internationalization. Particularly, innovation represents a source of competitive advantage that positively affects firms' internationalization (Kylaheiko, K., et al., 2011). The need of competitiveness is associated with a higher commitment to innovation (Hitt et al., 1997). The ability to create and sustain innovation and sophistication based competitiveness is a condition that lead to internationalization.

On the other side internationalization can contribute to acquire new technological knowledge that may increase firm innovation reflecting positively to national competitiveness. Internationalization through the access to other markets provides opportunities to reduce costs associated with development of new products and services. Foreign affiliates and domestic exporters were more likely to invest in innovation and furthermore that they were more likely to be more successful in terms of innovation output and higher productivity than firms that served only the domestic market (Siedschlag Iulia, Zhang X., Cahill B., 2010). Engaging in international activities could also have more positive impact on the competitiveness offering opportunities for acquiring new knowledge not available in the home market that may increase firm innovation. Once the companies develop activities abroad, acquire knowledge about foreign markets and competitors and can become more competitive themselves (Golovko & Valentini, 2011). This is useful for engaging in further innovative activities through investments in technology, since constant innovations is required to sustain competitiveness (Zhang et al., 2010).

Access to new and larger markets as one of the main reasons for internationalization lead to wider market size of a national economy. Market size enhances growth by raising the intensity of product market competition (Aghion et al., 2002), it has a pro-competitive effects. The size of the market affects productivity since large markets allow firms to exploit economies of scale (World Economic Forum, 2010). Globalization of international economy cause international markets to become substitute for domestic markets. So, trade openness is positively associated with growth. The general sense is that trade has a positive effect on growth, especially for

countries with small domestic markets (Sachs and Warner, 1995). By including market size as one of the pillars in the set of 12 pillars of competitiveness, World Economic Forum emphasizes the positive role of internationalization to competitiveness creation.

INTERNATIONALIZATION PATTERNS OF MACEDONIAN ECONOMY

The Republic of Macedonia is a small, open economy for which involvement in international relations through the process of internationalization should represent a major source of growth and development. The internationalization performance of a country depends on its competitiveness and competitiveness is directly associated with the internationalization performance of the country. Within the Global competitiveness report (GCR) on the scale from 1 to 7 Macedonia advanced from 3.87 points in the 2008-2009 assessment to 4.1 points according to the 2013-2014 assessment. Although it means the improvement of the general level of competitiveness of the Macedonian economy, the low intensity of this improvement has not contributed to higher dynamism and growth of the economy.

We examine the impact of countries' internationalization on competitiveness using OLS model (Hayashi, 2000):

Thus applied to our research has the following shape:

- is dependent variable,
- EXP and OFDI are independent variable
- is a intercept coefficient
- is the error term

According to the regression model where we have estimated the coefficient of correlation R square equals to 0.515 shows that only 51% of the variation of GCI is explained by internationalization process. Compared with some former countries in transition from Central Europe and Baltic (CEB) that achieved correlation index higher than 0.8, Macedonian economy express lags in dependency between internationalization process and competitiveness.

Table 1: *Comparison of correlation index of internationalization and competitiveness*

<i>Regression Statistics</i>				
	Macedonia	Slovenia	Estonia	Poland
Multiple R	0.717794479	0.891941	0.908933	0.880528
R Square	0.515228915	0.795559	0.826159	0.77533
Adjusted R Square		0.693339		
Standard Error	0.100587599	0.055219	0.040178	0.055219
Observations	7	7	7	7

According to Table 2 we obtain the regression line shows positive correlations between OFDI and competitiveness while we find negative correlations between export and competitiveness. The negative correlation with export can be explained with the lack of dynamism in export performance of Macedonian economy caused as a result of lack of transition in structure of Macedonian production during the whole period of transition.

Table 2: *OLS analysis of internationalization and competitiveness of the Macedonian economy*

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	0.37032154			0.00062177	2.57953555	4.63589044
t	3.607713001	7	9.742109341	4	5	7
		0.21129677		0.10882559	0.15202215	1.02128563
OFDI	0.434631741	5	2.056972908	1	5	7
		-0.00840083	-		0.02534352	0.02130541
Export	0.002019053	9	0.240339507	0.82188216	2	5

EXPORT PERFORMANCE

Exporting is the initial step in the internationalization process. Macedonian economy is essentially oriented towards international trade. Trade openness as an indicator of trade involvement of an economy remarks increase and positive trend reaching the highest level of 110.5% of the gross domestic product (GDP) in 2008. Except the crisis year 2009, export start increasing and showing positive trend from 2010 reaching the level of 110% of GDP. Compared with the former transition economies of Central Europe and Baltics (CEB), the Macedonian economy significantly lags in trade openness. In CEB economies the trade openness amounts to an average of 135.6% of GDP. In some economies, such as in Slovakia it reached 176.2% of GDP, in Hungary 158.3%, in Czech Republic 152%, in Estonia 151.3%.

Table 3: Trade in goods between Macedonia and the rest of world during the period 1999-2013

	Export	Import	Trade openness	Trade deficit
1999	32.4	48.3	80.7	15.9
2000	36.8	58.3	95	21.5
2001	33.6	49.2	82.9	15.6
2002	29.4	52.6	82	23.2
2003	28.7	48.4	77	19.7
2004	30.3	53.1	83.5	22.7
2005	34.1	53.9	88.1	19.9
2006	36.8	57.1	94	20.3
2007	41.6	64.7	106	23.0
2008	40.5	70	110.5	29.4
2009	29	54.4	83	25.3
2010	35.8	58.5	94.4	22.7
2011	43	67.6	110	24.5
2012	41.6	67.7	109	26.0
2013	41.8	64.6	106.5	22.8

Source: National Bank of the Republic of Macedonia (NBRM)

During the analyzed period export and import have gradually increased. The value of export increased by 29% while the value of import by 33.7%. Such movements had negative effect resulted on increasing the trade deficit which in 2012 reached 26% of GDP. Although the export shows increasing trend it misses more dynamic quality which will lead to higher growth of Macedonian economy. The main reasons that limit the growth of Macedonian export are: the unfavorable structure of Macedonian export and the low level of domestic and foreign investments.

Based on the economic purpose, export in 2013 exposes increasing in all components, with the exception on energy.

Table 4: Structure of the Macedonian export based on economic purpose in %

	2011	2012	2013
Industry	52.8	51.5	53.1
Household consumption	32.7	33.98	34.2
Investment	6.0	8.3	10.31
Energy	8.3	6.1	2.2

Source: According to data from NBRM

Although the data shows positive trend in export of all groups, the structure of export according to the level of manufacturing and added value is unfavorable. Primary goods with low level of added value dominate in export structure. The highest deficit is caused by the overflown import of higher level manufactured industrial goods, food and beverages, investments goods and motor vehicles. While the export overflown import in primary goods.

Table 5: *Structure of the export based on level of manufacturing (million USD)*

	Export	Import	Balance
Food and beverages (primaries)	150.2	125.8	24.4
Food and beverages (manufactured)	313.64	626.4	-312.7
Industrials (primary)	429.57	206.74	222.83
Industrials (manufactured)	1,800.60	2,759.03	-958.43
Investments goods	440.30	849	-409
Motor vehicles	1.36	136.64	-134
Consumer goods	941.4	669.1	272.3

Source: *According data of NBRM*

According to the Standard International Trade Classification (SITC), the structure of exports has shown a high degree of concentration of several product groups in which iron and steel, clothes, unprocessed fresh fruit and vegetables, tobacco and cigarettes dominate. The exports are concentrated in products with low added value, unprocessed raw materials or intermediate products that can not cause acceleration of exports. Deficiency of greater product diversification, made the exports sensitive to instability of market demand and commodity prices. The low value-added export is manifested also in the absence of high-tech products in the export structure. Although their participation is increasing in recent years from 0.7% in 2007 to 2.9% in 2012, it still lags far compared to former economies in transition: Hungary 17.3%, the Czech Republic 16.2%, Estonia 14.1% Slovakia 8.2%, Croatia 7.4%, and Slovenia 5.2% (EUROSTAT). Due to the entry of FDI, in the last few years, in the export structure emerges products from chemical industry, electrical and industrial machinery.

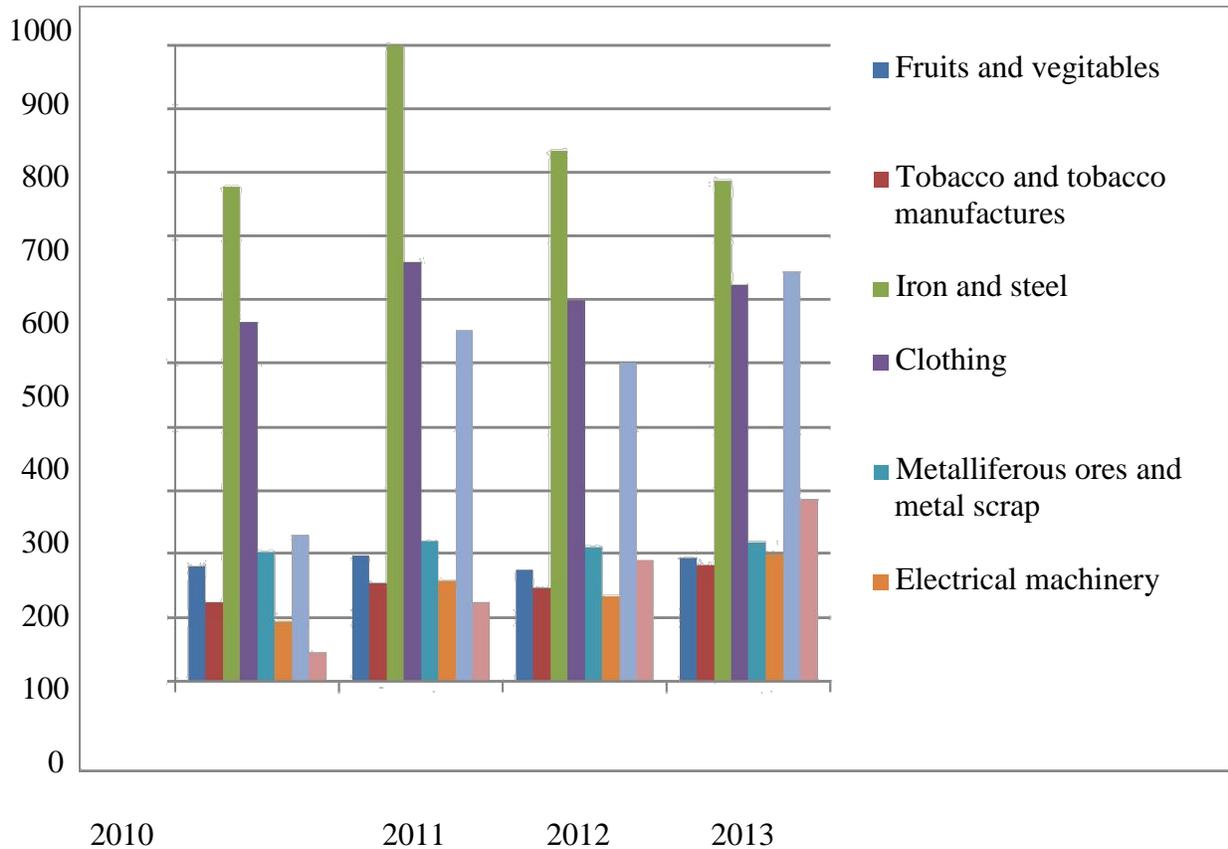


Figure 1: The goods with greatest share in Macedonia's export - in million USD

Source: According to data of NBRM

The crucial factor for uncompetitive export structure is low level of quantity and quality of domestic and foreign investment in Macedonian economy during the whole period of transition. Scarcity of domestic and foreign investment limits the quantitative and qualitative improvement of production structure. The low level of investment in the Macedonian economy was not able to create preconditions for “transition of the production”. Although statistics show an increase in domestic investment in the country reached 28.6% of GDP in 2012, " the business community as major weaknesses that constrain production have stressed: the lack of quality infrastructure, lack of equipment, availability of cheap energy and a lack of skilled labor"

The second part of investments that shows very poor results in quantity and quality is the inflow of FDI in Macedonian economy. Until the 1998 the level of FDI inflow in the economy was averagely moving to 20 million USD amounted to less than 10 million USD in some years. Since 1998, the inflow of FDI showed variable trends reaching the highest inflow of 699 million USD in 2007. According to UNCTAD low level of FDI inflows in the country was due to the weak FDI potentials of the economy. Numerous weaknesses were identified in many international reports as: inefficiency and lack of transparency of institutions, lack of a transparent legal framework and high level of corruption, lack of strong competition between

domestic and foreign entities, lack of proactive system of activities, policies and measures to stimulate the inflow of FDI. In terms of the quality it prevails FDI in activities with low added value, without higher level of knowledge and skills and which production varies according to the changes of price in the world market. These features of FDI have not led to restructuring, diversification and technological improvement of export production.

In recent years so-called "green field" investments in manufacturing parts for the automotive industry were established within the Technological Industrial Development Zones (TIDZ) that cause inclusion of goods with higher level of manufacturing and added value in export structure. But the effects of these investments would be higher if their production involve more local producers as suppliers of products and services in the production chain.

Except the production structure, a significant constraining factor of Macedonian export are so called non-tariff barriers, like sophisticated and rigorous technical, sanitary, phyto-sanitary standards and requirements.

INTERNATIONALIZATION THROUGH OUTWARD FDI

The main strategy of economic growth of Macedonian economy is focused on attracting FDI. But as modern theories of competitive advantages suggest the integral part of growth and improvement of nation's productivity is putting into practice exports of goods and services and export of capital in the form of FDI outflow as a parallel approach to foreign market. Global FDI outflows in 2013 rose by 5% to 1.41 trillion USD, up from 1.35 trillion USD in 2012. Outward FDI from developing and transition economies shows continual expansion abroad. In 2013 these economies accounted for 39% of world outflows, 15 years earlier their share was only 7%. The Table 1 shows a positive correlation of OFDI with the competitiveness although Macedonian economy manifested great lag in exports of investment abroad compared to the former transition countries from CEB. Outward FDI are one of the primary factors in the development of the former transition economies which greatly contributed to the restructuring and development of both large and SMEs.

Table 6: *Outward FDI in Macedonia and CEB economies*

- millions USD

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Macedonia	39	42	54	62	38	67	85	95	99	122	95
Slovenia	1.505	2.350	3.025	3.300	4.547	8.032	8.841	9.055	8.175	7.802	7.796
Estonia	677	1.030	1.417	1.933	3.598	6.172	6.630	6.632	5.775	4.740	5.791
Poland	1.456	2.144	3.351	6.308	14.392	21.317	24.094	29.307	44.444	49.657	57.525
Hungary	9.001	12.337	13.791	13.602	22.418	31.650	17.592	19.736	20.489	24.048	34.741
Czech Republic	1.473	2.284	3.760	3.610	5.017	8.557	12.531	14.805	14.923	13.214	15.176
Slovakia	758	1.144	1.084	747	1.520	2.081	2.940	3.152	3.334	4.210	4.413
Latvia	59	115	238	282	476	926	1.054	891	886	864	1.104
Lithuania	60	120	423	721	1.041	1.570	1.990	2.300	2.086	2.079	2.521

Source: NBRM, UNCTADstat

In Macedonia, foreign investors receive a lot of fiscal, financial and regulatory incentives, while domestic investors are not covered with any measure that will support their investment abroad. There are small number of Macedonian companies that have invested abroad as a result of lack of financial capacities to invest and develop new products and processes, lack of differentiation strategies, lack of managerial knowledge and international experience about the foreign markets. Outflow of FDI in Macedonia relies on pharmaceutical sector, food industry, construction sector and few companies in higher technology. Although the quantity of Macedonian OFDI is modest and insignificantly, according to Table 2 they have a positive impact on competitiveness because they are driven by ownership advantages or firm specific competitive strengths and location factors. Some of domestic investors look investment abroad as a way to overcome many technical obstacles like certification in EU, so by investing in some EU member country they obtain origin of products from the EU. Market-seeking and strengthening position in EU market is becoming main goals of investments abroad for the pharmaceutical industry. The key determinants of outward FDI in higher technology relate to ownership specific advantages like innovation, the quality of products, knowledge about foreign markets, personal contacts, international experience, skilled personnel and management.

The process of growing liberalization and global competition will pressure Macedonian firms to internationalize through outward FDI to improve their competitiveness. According to UNCTAD small economies invest relatively more abroad on the base of their ownership advantages and small size of their home markets which drive them to expand abroad.

Slovenia is a positive example of internationalization through outward FDI. Although Slovenia has early experience of outward FDI within the former Yugoslavia, it is approved as one of the main factors in improving competitiveness and the size of market. Slovenian enterprises realized that without internationalization, they would not be able to maintain their competitive positions. (Jaklic and Svetlicic, 2003, p.114). The small domestic market and relatively high labor costs in Slovenia are key drivers of outward FDI. Maintaining and expanding foreign market shares and need to operate close to customers has encouraged outward FDI. Although Slovenian outward FDI is concentrated in the former Yugoslavia, far destinations like China and Brazil have been rising as locations for Slovenian outward FDI. Their outward FDI motives included gaining new customers overseas, e.g through a focus on key foreign market niches, and cost reduction. Investments abroad allow even reduce the negative effects of the crisis by expanding their share of foreign markets, close to the customers, by constantly innovating and introducing new products and further expansion into new markets (Jaklic, 2011, p.6). Good management was considered a very important source of competitive advantages together with the quality of products and services provided by these firms. (Ruzzier, 2005, p.155,163). The Polish economy exercise remarkable increase in the quantity of OFDI from 1.456 million USD in 2002 to 57.525 million USD in 2012. The success of foreign expansion by Polish companies enables firms to benefit from firm specific advantages in different foreign location and on macroeconomic level, is of vital importance to the development of the home economy (Gorynia et al. 2014).

ENHANCING INTERNATIONALIZATION OF MACEDONIAN ECONOMY

During the whole period of transition Macedonian economy was focused on the promotion of exports and inward FDI as the main tools for economic growth, but it is recognized that the economy has not succeeded in achievement extraordinary economic progress. Quantitative and qualitative improvement of the process of internationalization is a crucial element for enhancing competitiveness and growth of the Macedonian economy.

Quantitative improvement refers to increasing of export and involvement of outward FDI as two important parallel drivers of the process of internationalization. Although exports and outward direct investment have often been characterized as alternative strategies, recent economic research suggests that outward direct investment is a complementary of export causing benefits to the home country. The expansion of process of internationalization by including OFDI as a parallel mode is associated with the ability of the companies to overcome own limitations and proactive role of the government to promote support measures. In Macedonia a small number of domestic investors are considering investing abroad. The lack of experience, the capacity to manage risk, the lack of cross - cultural management knowledge required for expanding business outside are emerging as general weaknesses. Although there is no common experience with the process of internationalization in CEB countries, the existence of realistic internationalization strategy, management with excellent training, adapted technology and their

own R&D efforts have proved to be the key success factors in most cases.

Internationalization still has a relatively low priority in Macedonian firms' general strategies, but global competition will increase pressure to internationalize through outward FDI to improve their competitiveness. The main preconditions in achieving successful internationalization are investment in creation and absorption superior marketing, production, technology and management skills and to upgrade their capability through technology advancement and product differentiation. A number of case studies have shown that the management of companies have played a crucial role in outward FDI decision (Jaklic and Svetlicic, 2003, p.p.181-276).

The evidence suggests that except the bilateral agreement on the elimination of double taxation, the lack of government support is obviously. But whether the instruments such as subsidies, loans and insurance should enhance the firm-specific advantages of firms in the short run or whether they should rather focus on long term development of the overall country competitiveness (Gorynia 2013). Gorynia (2003) argues that in the context of a transition economy's internationalization, the effectiveness of direct support measures for exporters and outward investors might be questionable if the fundamental conditions of the home economy's competitiveness, including the reduction of transition costs or creation of a high-quality labor market are not satisfied. Economic policy should seek to stimulate both competitiveness of domestic firms in foreign markets and their competitiveness in the open home market where they also face foreign rivals (Gorynia, 1998).

Qualitative improvement of process of internationalization is connected with overcoming the structural competitiveness problems. The nature of the competitive advantages of the Macedonian economy which is based on the low-cost resources, shortage of unique and sophisticated products and processes and low level of added value is reflected negatively on enhancing the export competitiveness. That means that serious structural changes are required in order to gain competitiveness and remain competitive at national and international level. Key factors in achieving necessary structural transformation are domestic private investment and foreign direct investment which depend on the national and international business environment. Engagement in international markets requires creating capacities to innovate and differentiate management skills and availability of high skilled and trained human resources.

Improving internationalization should be integral part of the policies for competitiveness and growth. Internationalization is becoming to be merged with the other policies, particularly innovation policy as a way to enhance sustainable long term competitiveness (European commission, 2007). So the innovation policies together with the education and technology policies should empowered competitiveness and growth of the economy. Important part of the process of internationalization is standardization. It is identified as one of the main obstacles of Macedonian companies in their internationalization but at the same time it is a key element that enables access to market abroad and involvement in the global value chains.

Since internationalization is about enhanced competitiveness (European commission, 2007), the economy should focus on the set of programs to support

internationalization. They should cover the process from the same beginning, giving consultancy and informative support, providing financial support, access to information, network etc.

CONCLUSION

This paper examines the influence of the process of internationalization through export and outward FDI on the competitiveness of Macedonian economies. The results have shown that the actual process of internationalization has an intermediate impact on the competitiveness of Macedonian economy, compared to some CEB countries that indicate high level of correlation of their competitiveness and the process of internationalization.

With 51% dependency of competitiveness on internationalization we can realize that the level of internationalization of Macedonian economy is not corresponded with the abroad oriented strategy of development characterized for an open small economy.

Due to the analysis we find out the positive pressure of outward FDI on the competitiveness, against their low quantitative level. It also suggests that actual condition of export activities does not contribute to higher level of competitiveness of economy as a result of structural weaknesses of domestic production.

So increasing the competitiveness of Macedonian economy is function of measures, activities and policies that will enhance and promote the export and the outward FDI as the drivers of process of internationalization. Indeed, improvement of this process should be a combination of investment, measures and activities which enables the companies to create capacities and advantages as a way of empowering with differentiation capabilities on the market on the one hand and on the other policies that empower companies to diminish barriers to internationalization.

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**IMPORTANCE OF THE CONCEPT OF SOCIAL CAPITAL FOR
MULTIDISCIPLINARY RESEARCH OF THE ROLE OF SMALL AND MEDIUM
ENTERPRISES IN SUSTAINABLE ECONOMIC DEVELOPMENT**

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Abstract

The paper provides suggestions for a multidisciplinary conceptual framework that links social capital to entrepreneurship of small and medium enterprises (SMEs) in the context of a deeper questioning of the nature of their relationship. In a large number of discussions concerning social capital, defined in a number of different but mutually close meanings, detailed arguments have been presented that social capital is one of the important conditions for sustainable economic development. However, it is evident that some economic discussions on the role of social capital in economic development do not provide detailed explanations of a multidisciplinary approach. This is primarily due to insufficient discussion of a sociological dimension of this concept that has strongly developed in the last two decades. Namely, social capital is not only an economic concept, but above all a sociological or socio-economic concept that has significant economic and non-economic, that is, social implications. This is proved by the fundamental outline of the history of this concept, introduced by the sociologist Robert Putnam and further elaborated by other sociologists and economists that fostered a multidisciplinary approach in understanding the notion of sustainable development. The conceptual insight that social capital, which includes trust, norms, and networks that enable collective action, is directly related to entrepreneurship and economic development of SMEs, needs to be further expanded by socio-economic and socio-epistemological arguments. A significant potential of the concept of social capital is evident precisely in its multidimensional characteristics indicated by new economic sociology (Richard Swedberg) and sociology of globalization. The conclusion is that by a multidisciplinary discussed concept of social capital it is possible to improve our understanding of mutual relationship between SMEs, entrepreneurship and recent concepts of sustainable development.

Keywords: social capital, entrepreneurship, small and medium enterprises (SMEs), sustainable development

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INTRODUCTION

In the past two decades the concept of social capital became very popular in mainstream economic science. Although it is not purely an economic concept, since its importance advances previously rigid multidisciplinary boundaries in social sciences, the biggest symbolic capital of a social capital concept can be attributed to economics i.e. mainstream economic science. The mainstream became the most visible in symbolic, discursive and narrative politics, practices and logic of promoting and self-legitimizing institutional and development programs, as well as international lucrative projects, rhetoric and scientometric techniques in resources of new economic knowledge. Therefore new individual works that were created after year 2010 are focused on that phenomenon of the surprising *popularity* and *outspread* of the concept in the economic vocabulary and practice of self-quoting. A concept at stake is the one that has been written a lot about. Therefore, the social capital has become a very popular concept and a universal cure for all worries that economic theory and development politics are dealing with. Taking it into account, we can speak about phenomena of excessive popularity and complacency with economic and social (in)effectiveness of the concept, especially in the former socialist countries based on the economy of the big publicly owned enterprises that were gone after the war and replaced with the mantra of small and medium enterprises. Especially worrying is that the social capital in economic practice and politics is not effective either in the field of national or international public and ecological politics connected with the sustainable development. Therefore it is not surprising that idea sociologists, on the one hand, are starting to analyse more carefully that interesting phenomenon of the concept's vast popularity, and on the other hand to explore its deficit. The deficit of the social capital in all economic domains and democratic politics is attempted to be replaced or concealed by hyper production of texts that speak about the need of increasing layers of social capital. It is not clear that it can happen by itself without other mechanisms, such as legal and criminal political and social capital; therefore it is interesting to conduct research in a broader context that relates to a field of production and reproduction of favourable ideas in economic theory and development politics. Although a hyper production of written works on social capital is present, there are few researches pointing to its dark sides. Most theses are focused only on its positive and progressive dimensions. We are trying to reach hidden, or at least less visible, reasons for its popularity and, at the same time, reasons of real economic concept inefficiency of the social capital. Especially in transitional development politics of the Balkan countries that became poor, whose large enterprises, suddenly "perished", "were destroyed" or "stumbled". They stumbled like a pupil on a slippery slope who, in its immaturity and desire for glory, finally stumbles on his leg not managing to kick a ball in an empty net. It is indicative that there is a bigger number of similar economic works about social capital that are not contributing towards anything new. An interesting production of reductionist works connected with management of public politics is dealing with only one positive side of social capital. The question at stake is "Why is that the case?". Did the mainstream economic science and development politics give up on *critics* as the most dynamic element in economic thought, methodologically very important qualitatively and self-evaluating instrument in economic analysis? It is interesting that the biggest number and works in projects and social capital is promoting faith in sovereign scientometric efficiency of the social capital. Interest is turning into wonder if we know that in the year 1993 with the pioneer of the concept, Robert Putnam, in the book *Bowling Alone*, on decay of the social capital in the USA, chapter 22 (number of chapters is 24), is dedicated to analysis of *dark sides of social capital*.

Many sources are recommending that the social capital is necessary for development of enterprises and for the promotion of general enterprise culture. The importance of enterprise culture is going beyond narrow boundaries of individual cultures and regions, in addition to an adequate level of social capital that is often called in to help stumbled enterprises, is becoming the bases of the global and regional economy and cooperation. New global economics can be analysed as a sequence of interconnected processes resulting in large changes in ways we notice, define, measure and evaluate general economic and social development. It is noted that those processes are complex, accelerated, unpredictable, chaotic, economics and other social sciences cannot research them in one dimension, in a disciplinary bounded and methodologically simplified way. However, this is not the case in reality. Scientists are bounded by their specialised social domain in the same way as pets bounded by their cages. We are not able to create actual knowledge about the economic and social world, but we are working in boundaries of a scientometric defined world that is drifting apart and that is disturbing us more and more. In the past decades, instead of lineal concepts of development, economists and international institutions that are suggesting global, regional and local development politics are using syntagma “sustainable development”. Accordingly, the *World Bank* has recognized the importance of social capital for economic development; it developed a special instrument for measuring social capital of various social communities, such as countries, institutions and business organizations. The World Bank developed *The Integrated Questionnaire* which was used in numerous empirical researches of social capital. It contains questions that try to identify the level of social capital in six fields/dimensions (which are representing occurring shapes of social capital): (1) groups and networks, (2) trust and solidarity, (3) collective action and cooperation, (4) information and communication, (5) social cohesion and integration and (6) empowerment and political act. (Meštrović, 2002)

Comparatively it can be described as over emphasising progressive and scientometric dimensions of the social capital and neglecting its dark sides. All that is taking place in spite of the fact that we live in an age of “world society at risk”, in the time of ecological, economic and other created catastrophes in the atmosphere of total spiritual misery, illiteracy and lack of knowledge? How can it be a clarified procedure neglecting the 22nd chapter of Putnam’s book and insisting only on progressive dimensions of social capital? How can we, in former Yugoslavian countries (with the exception of Slovenia, which is a different case), explain several decades of strategic and lucrative dominance of ethno-cero-neocapitalist structures of power and government? These strategic alliances are, in the name of the development of small and medium enterprises (which are also completely undeveloped) have wiped out large enterprises from the face of the earth. These alliances have also wiped out even a concept of large production enterprises, thrown it out with theory and wide spread “improved” vocabulary of new economics based on knowledge and information. An answer to that question is not possible to deliver in narrow boundaries of economic sciences. (Those who are amazed with the penetration of ICT in our lives - blinded by information mantras and infantile novelties, it is clear that one cannot live from information alone. One cannot eat information. One cannot sleep on it. One cannot live in it.). By the end of this work it should be clear why. Later on it will be clear that there is not even a gradual approach to the answer without an institutional and critical analysis of “a new economy of knowledge and information” – from the concept that was introduced into economic discourse in the year 1993: the same year when Putnam published his extensive programme, 'work on the decay of social capital in the US', continuing, according to his confession, to work on the same programme for twenty years.

Crucial importance of the popularity of the concept “social capital” and with its connected concept of “new economy of knowledge” is seen in newer interdisciplinary

works in which excel_ the whole constellation of so called post economic thinkers. Furthermore, authors like Manuel Castells, Hardt or Negrij did not give enough attention to strategic neglecting of dark sides of social capital in economic development politics. The only correction of progressive interpretation and application of a social capital concept was development of a “sustainable development” concept (ecologically worthwhile), but even that concept, due to the lack of an holistic approach to development_ in economics, is often understood as an obstacle to economic and technological development, and not as its condition. It is also important to point out that the concept of sustainable development was not initially developed by economists, but activists and critics of the neoliberal knowledge paradigm as well as socially engaged researchers of the multidisciplinary connection of economic, ecological and ethical paradigm of knowledge. Those authors promoted different knowledge paradigms in economics and general social sciences, as well as different global programmes_ of regional and local public politics development and sustainability. In other words, as Krugman said in the last sentence of his book *Povratak velike depresije*: “We live in a world that is led by the economy of depression – and understanding economic depression logic, in which virtue can be a flaw and common sense can be stupidity, is our only defence from economic downfall.” (Krugman, 2010).

The future of economics as a science, and maybe the future of economics as a practice and profession, perhaps, will mostly depend on the future of economic methodology and the social legitimacy of its knowledge. If it is true that nobody is surprised that the new economics of knowledge – in spite of every day ecologic and other catastrophes managed to survive as new metaphysics, i.e. as a new fundamental ontology of the 21st century which time turns into money, space into market, thought into calculation, and a man and nature into resource – then we should not be surprised that we as human beings are even alive. Often it is said that there are no problems in economics, but that there are only challenges. According to that logic, even collective disasters, wars, floods and different catastrophes, in which human beings are hurt, can or/and should, observe, analyse, explain, name and mark them as *chances* or *challenges* and never and under no circumstance as *problems*. It could be pointed out that without more responsible and discursive and critical analysis of background assumptions taking away meaning from economic vocabulary (that happens with the application of different, subtle and less subtle, strategies of masking, erasing or suppressing social and emotional consequences of the neoliberal globalization of the world), we cannot know what we are actually talking about when we speak about economic challenges. Sometimes, indeed, it is not clear if all problems can be seen as challenges or transformation of problems into challenges is hiding real social and theoretical problems in the new economics of knowledge. Similarly, the decay of large socialist enterprises that marked enterprises of the Soviet Union or former Yugoslavia, as well as a chain of unsuccessful or non-transparent privatizations, small and large, are rarely driven by questions (of crucial) importance, the politics of naming (and marking) of such processes. Therefore it is not clear for what reason those enterprises “decayed”, and how? Did they really “stumble” (such as a clumsy pupil who falls down after kicking the ball and the ball ends in the net in the school yard) or did they intentionally, perhaps with the help or knowledge of institutions, get robbed. It is important to know that the right of naming, right of owning, and most scientific questions are entangled or untangled in the presence of methodological questions. Omnipresent analytical, positivist methodology shaped our spirit enabling us to achieve what we have achieved, but it stopped a holistic view on which we could base ethos, morals, ideals, institutions and politics for one interdependent world. We have to acknowledge an inner connection and interaction of problems which are multiplying. Only then will we be able to see more clearly our complex situation; if we

perceive all problems together as one general meta problem or meta system of problems (Ozbekhan, 1976).

METHODOLOGICAL LIMITATIONS

As a result of negative experiences connected with consequences of non-transparent privatization of ownership in the Soviet Union and considering obvious social consequences of the growing world economic crises that started in the year 2008, connection between economic, ecological and ethical questions should be viewed starting from a methodological deficit that exists in conventional economic science. Of course, it is not possible to do it in this work. After the year 2008 economic science cannot keep quiet about its own cognitive deficit. It is impossible to explain holistically the structure and functioning of the social world if it does not take into consideration the capital in its own forms, human, cultural and social, and not in the shape it is used by transitional economic theory. Today it is clear that from the 90's of the 20th century economic science should not have non-critically gone over its own categorical deficit. Existence of such a deficit is masked by manufacturing a range of seductive categories. Hence Drucker's pretentious diagnosis stating that after the 90's we live in a "post capitalist society of knowledge". Such an attractive diagnosis, which is trying to normalize the "knowledgeable spreading of ignorance" and the promotion of self-satisfaction and goodwill in business schools across the world, is more confusing than pointing to the possibility of explaining real causes of the depressive condition of "new economics based on knowledge" as well as in new "cognitive capitalism". Recently economists like Sena, Stiglitz, Krugman and a smaller number of others managed to point out (but even then only partly) that the main cognitive deficits of knowledge in the new cognition (and "information economy") are due to the strategic avoidance by economic scientists and economic methodologists to more seriously and responsibly deal with the social-epistemological dimensions of the activities of economic institutions of knowledge in a post-colonial and post-democratic social context, which, is in the name of the free market, replaced by directed. Epistemological questions which orthodox main stream economists avoid asking themselves (avoiding patently working on them due to *public good* as the most important resource), are above all connected with questions of legitimacy, justification and verifying total social value and range of dominant economic knowledge in relation to reality and the lives of real people and communities. Accordingly, new economics, in the name of science, only nominally, is pleading to that knowledge. Economic dubieties that we are facing speak a lot about economics that keeps repeating that it is based on knowledge. What is the problem (or challenge)? It is in the fact that the new economics of knowledge is denying its responsibility for crises of legitimacy of its econometric, anticipated and explanatory paradigms of knowledge, and as a consequence liability for the world economic and financial crises. Why? It is a fact that it did not anticipate the coming of the crises and did not stop it with its rational exact measures. It is clear that it should have done it if it is true that the new economics of knowledge is based on knowledge. New economics (knowledge) should have firstly *anticipated* the arrival of a world economic crises (if it is true that economics is a homothetic, explanatory and anticipating science), and later on it should have *explained* why it did not explain what it should have known and not known. Therefore universalization of the "law" of market economy is only an optical illusion. The "Scientific" character of economics has not been confirmed, and power of predicting economic theories is disputable (Rist, 1996). Nevertheless, it is still exposed and examined, often in a very dogmatic way. Dogmatism is the death for knowledge. Knowledge can grow and develop only in places where there is the possibility for freedom of individuals and groups of people who respect each other's dignity. With this in mind, it is not possible to have knowledge without love toward knowledge, love towards truth and learning by

mistakes. In knowledge is encouraged freedom of thinking and researching. Research and science should be in the service of man and his whole development, and not in the service of profits and violence in any form, including techno-science or corporative science.

Speaking of Post-Dayton Bosnia and Herzegovina, it can be pointed out that multidisciplinary researches of social capital are only starting. There is no research on social and economic consequences of destructive geopolitics of “humane moving of nation”, “ethnic cleansing” and “genocide”. The list of problems is too large: autonomic country’s system formed in Dayton; symbolic and real destruction of Bosnian-Herzegovina multicultural society; dominance of ethno mathematics democracy and ethno politics over citizen politics, culture and education; suspicious privatization of public goods, unsuccessful economic transition; “stumbling” enterprise and “stumbled” economic vocabulary, ethno nationalist misuse of religion and public goods; poorly developed civil society; low level of social and emotional intelligence towards others; clear deficit of political justice, deficit of ecological literacy; lack of corporative and social responsibility; excessive talk on rights with complete lack of conciseness regarding human responsibility; institutional neglecting of theoretical, critical and qualitative research in educational institutions in Bosnia and Herzegovina which are placed in huge corporative and covetousness ethno-clero-neo-capitalist associations and knowledge politics, as well as an unmerciful “knowledgeable spreading of ignorance”, with general lack of interest in multicultural epistemology of social sciences – are only several problems or reasons for insufficient interest of home researchers for systematic research of social capital. Spitting on the proletariat, on striking workers, insulting theoretical works, apotheosis of snobs and blazed common fiction of self-promoting “projects”, are a desirable piquant addition to fast food in a new collective cauldron in which are found many people and communities after the downfall of socialism.

SOCIAL CAPITAL AND NEW KNOWLEDGE ECONOMY

Social capital is used as an analytical means for elaborating how culture, trust and cooperation among people can be unified to the benefit of the common good, the development of the economy and the general society. It is assumed that cooperation among people, religions and community is better than isolationism; that trust is better than distrust and that the common good of all people is more important than the egocentric interest of individuals. From this point onwards when referring to the concept of social capital generally it is understood as a system of norms and networks (inside of community/society) which are simplifying collective action. In other words, the social capital is social (common) resource which simplifies an individual’s access to other social, economic or natural resources. However, what happens if the social capital, common interest trust and interest networks develop only among privileged structures of power and government which excel in, so to speak, corrupted political parties and corrupted post-war businesses? It looks like it is exactly what happened in Bosnia and Herzegovina in its symbolic and political surroundings which in many ways is predatory after “humane relocation of citizens”, genocide, culturcide etc.

New knowledge economy, unfortunately, completely neglects such situations. It strategically avoids thematizing dark sides of the social capital, such as marketing, for example, strategically avoids adaptation of death. Death is taboo for marketing. Similarly, clans, mafia, grey economy or organized crime represent taboo subjects for a new cognitive economy based on knowledge. From Castells research of various mafia groups, Russian, Japanese or others, it is clear that mafia’s are almost always organized in networks and that they especially care about honour and conduct norms. In addition, they have elaborate

mechanisms of testing trust. The very trust, in all social capital theories, represents the heart of the concept. Nevertheless, there is no systematic research about it and it is the reason why in social sciences, especially in countries of former socialist knowledge regimes, there is no research about dark sides of the social capital. The riddle is more complex if one knows that Putnam in the 22nd chapter of his book *Bowling Alone* gives special attention to such phenomena, but unfortunately, he did not elaborate it in great detail.

What are the consequences on economic science and society if new knowledge economy speaks in the name of harsh, exact science denying that it has any connection with politics? The consequences are, first of all, elimination of trust in what economists are conveying daily and elimination of trust in what politicians are communicating on a daily basis, especially prior to elections. That is the main problem which Ivan Krastev deals with in his book *S vjerom u nepovjerenje: Može li demokracija da opstane kad ne vjerujemo svojim liderima?*

Therefore, what is it that capitalism without boundaries needs even more than the capital itself? It is obvious, that, for global capitalism, and for the new knowledge economy, which is in the service of this system, from the 90's something else was needed in order to believe in the whole project of creating a global knowledge society. That is *trust*. Trust in what economists are conveying (when speaking about politics), and trust in what politicians are convincing us (unskilfully speaking about economics). Perhaps out of this, from this "black box", originates two decades of writing mania about the social capital. It is mania which one can view in retrospective, and in which one can speak with contempt? Perhaps Bologna mania of the overall "enhancement", "advancement" and "improvement" of various things; as Ziaudin Sardar writes in his text "Sistemi znanja", the text included in the almanac "*Budućnost znanja i kulture*". After two decades of the use of a social capital concept, it is possible to look back and ask him if its usage was useful for anyone. The social capital was, after the collapse of socialist knowledge regimes, mostly needed in global capitalism. New knowledge economy was useful – and it is useful today – to legitimate, support and to reproduce the capitalist system. That would not be possible without new knowledge economics. Therefore, it is possible to prove that it is the case that economics is highly ideological.

A cognitive deficit inside of the corpus of economic knowledge was not possible, at least temporarily, to replace without reaching toward normative and non-economic categories. The social capital, as a popular concept in new knowledge economy, had a task to humane an inhumane capitalist system. The time will show how successful it was.

There are authors who think that to clarify and popularise the social capital concept one should look in a three dimensional frame: academic, political and overlapping points of those two spheres (Ignjatović, 2011). Most people think that such clarification is cognitively deficit.

THE MOST INFLUENTIAL THEORISTS OF THE SOCIAL CAPITAL

Robert Putnam is one of the originators of the social capital concept. He decided to research the longitudinal dynamic of institutional development which lasted for two decades and it included use of numerous and various qualitative and quantitative methods. The results of his initial observations were published in articles *Bowling Alone: Americas Declining Social Capital* (1995) and *The Strange Disappearance of Civic America* (1996), and he completed the analyses in the book *Bowling Alone: The Collapse and Revival of American Community* (2000). One of his main conclusions points out that, in the past several decades, there is a significant and worrying erosion of the social capital in the United States. The key words from Putnam's books - erosion of social capital,

disappearance of civil America, collapse of American community - were more than indicative for many interpreters. From various sides, many writers wrote about *collapse – warning, destruction* of social capital. Downfall of social connections (networks), Putnam symbolically illustrates on an example of one, not excessively demanding, recreational sport – bowling: “The most unusual, but also the most embarrassing evidence of social networks downfall in contemporary America is this: the number of Americans bowling today is higher than ever in our history, but at the same time the number of people bowling in organized leagues is decreasing (Putnam, 2000).

In the 90’s social capital *destruction* was expressed in multicultural, hybrid societies – which is the case with the society in Bosnia and Herzegovina. Putnam, in his main works, focuses on social capital erosion in the United States and Italy. He did not deal with destruction taking place in Bosnia and Herzegovina, which was strategically destroying its multicultural social capital. A possible reason for this is its distinct complexity in its surrounding. Furthermore, he did not either deal with its symbolic or real violence against the Socialist Republic of Bosnia and Herzegovina in the war (1992-1995), nor organized robbery of post-war public goods in Bosnia and Herzegovina. It would be of great importance to conduct multidisciplinary research of the social capital dark sides presented in different organized crime forms. Several large enterprises in Bosnia and Herzegovina were literally robbed. As a result, it was not possible to develop trust in small and medium enterprises since promoters of such enterprises participated in the destruction of public goods with a purpose of creating fast profit and in that process running over the disempowered working class. Furthermore, the post-war installation of enterprise and management, as a replacement for earlier Marxism, could not produce anything other than total institutional, economic and social chaos. Through the process of enforcing state of emergency and normalizing chaos, non-transparent privatization of common goods is concealed. *Working class* (villainous remains of socialism), in transition knowledge economic vocabulary, in other words in the language of the new enterprise class – does not exist anymore. It does not exist even as a general noun. – Why? Hence, in the war against the multicultural citizens of Bosnia and Herzegovina, workers are transformed into warriors, and later on to invalids, victims or redundant people. In new knowledge economy these people and their skills, are not needed anymore. As a result of that, how should one, in such surroundings of redundant people, in a rational matter speak about human, social or cultural capital? The overall culture is turned into lucrative ideology connected with the same interests of ethno-clero neo-capitalist structures of power and government. These structures are inter-connected through institutions, politics and parties. Oligarchs are threatened, those who are enforcing their own private interests by destroying common public goods. Private interests are more important than public, actually the interests of the biggest number of those who do not have rights, as well as mad people (who lost all common sense through war and privatization). Through what means can we measure the level of social capital in the geopolitical surrounding of Bosnia and Herzegovina? It is wrong to think that we can do it with the same scientometric methods imposed by the World Bank and other international financial institutions.

Sociologist James Samuel Coleman (1926-1996) was a sociology professor at Chicago University from 1973, as well as the president of the American Sociology Society from 1990 to 1993. He gave an important contribution to the interdisciplinary research of public politics, education and equality. Furthermore, he researched the relationships between education, parenthood and culture. Later on in his career, he was known for his contributions in the ‘Theory of rational choice’ and his contributions to math sociology. He was an often quoted author in economics while he was working on the socioeconomic enhancement theory of social capital. In economic sociologist’s and economic scientists’

recent works great importance is attributed to his connection of sociological and economic problems.

Pierre Bourdieu (1930-2002) is the most influential French sociologist in the last third of the 20th century. From 1975 he edited the interdisciplinary magazine *Actes de la Recherche en Sciences Sociales*. In 1981 he was given the professorship of *Collège de France*, which is the most prestigious academic institution in France. After he graduated in philosophy he studiously explored economics, and actually dedicated himself to anthropology and sociology. Bourdieu represents an example of the true multidisciplinary approach which is today, in Bologna universities, unfortunately, hard to imagine yet alone to implement in intellectual practice. In international circles he became famous by introducing social sciences, or re-actualizing, “practice” concepts, *habitus*, “capital” and “research field”.

The problem, that one can notice today, and Bourdieu did not realize it, is that *reproduction of class inequality* is enabled through new knowledge economy with the help of symbolic and institutional power owned by global cognitive capitalism. How is that possible? It is possible due to the fact that new economics has a vast symbolic, institutional and educational power. Therefore, it has the power of scientific defining and describing economic and social reality. Our thesis, therefore, states that the new economics (knowledge), in the Balkan version, unavoidably contains a certain dosage of *symbolic* and actual violence. It is horrific violence towards society, humans and nature. According to Bourdieu the term *symbolic violence* implies *power* in order to impose certain knowledge, certain *meanings* and *values* as official and legitimate, while at the same time relationships between the powers, which are at the centre of power, are hidden. What is it that new knowledge economics is hiding? A lot of things. Firstly, it hides a huge gap between rich and poor in the world. In symbolic axis it hides its intention to become the fundamental ontology of society, moreover, nature.

Research of various capital shapes, on the trail of Bourdieu, point out the importance of understanding the way a society functions. For us, for example, it would be important to research the transaction of economic and cultural capital after the fall of former Yugoslavia in the sector of higher education. In other words, it is possible to analyse the way in which economic capital was invested in starting low-quality business schools of management or starting unregistered universities in shopping centres. The only goal of starting a college in a shopping centre would be a motivation to become rich in a short period of time for a small number of individuals and entrepreneurs in education. The result is not only a catastrophic poor quality of higher degrees, but also delegitimization of all other state institutions which are observing it and not doing anything about it. It is possible to point out that the consequences of such an exchange will be catastrophic for the economy, society and the values of young people. To clarify, when young people lose *trust* in a system's crucial institutions one can expect irrational consequences. The irrational consequences, however, are not possible to measure with standard econometric means. Therefore it is possible to defend the thesis that sustainable creation of small and medium enterprise clusters, in such sociopathic circumstances, is not possible without the institutional and moral recovery of the whole society. In close connection, sustainable development is also not possible.

CONCLUSION

The intension of this work, in the broader socio-economic context, was to explore the importance of the concept of social capital in a multidisciplinary research of the role of small and medium enterprises in a sustainable economic development. Although there are vast semantic differences among interdisciplinary, trans-disciplinary and multidisciplinary concepts in economic and social theories, this work did not deal with theoretical debates

about the similarities and differences of terms and meanings. On the contrary, the intention was pragmatic, and perhaps to a certain extent epistemologically enlightening of the unfortunate condition of the contemporary economic theory, especially in former socialist knowledge regimes. The intention was focused toward improvement and advancement of the cognitive and deontological capacities of economic and social science, especially during excessive use of the social capital concept. The main problem is that social capital became popular in the field of administration and public development politics before scientists had a chance to examine how it works. Unanswered questions remain, how is it possible that such a concept (one that connects the word “capital” and the word “social”), became so popular. It is popular not only among economic scientists, but also among sociologists, political scientists and other experts, as well as in the scientometric vocabularies of the most important institutions in the world dealing with global, regional and local development politics. Understanding of the cognitive and social consequences of an unclear use of the social capital concept, which was often suggested (and is still being suggested) as a universal cure for all economic and society development problems, as a salutary formula for theoretical and practical deficits in theory and practice in economy, was the primary task in this work. It is pointed out that it is necessary to additionally extend up to date debates on the role of social capital in economic development with socioeconomic, socio-epistemological and institutional arguments.

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THE ROLE OF INNOVATIONS ON THE SME'S COMPETITIVENESS

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Abstract

Small and medium-sized enterprises are particularly important for the national economy. In order to maintain or improve their market position in a changing and competitive environment, SMEs must be constantly innovative. Innovation is a key factor for improving SMEs performances, for increasing their competitiveness and for their survival on the market. Innovation is a multifaceted concept and it can be classified according to the object, the field, their relevance and their origin. As a result of innovation, SMEs improve product quality, reduce production costs, increase the range of products, replace outdated products, improve their performances and thus enhance their competitiveness.

This paper treats the complex problematic of the innovation impact to the SMEs performances and their competitiveness, with special review for the territory of the Republic of Macedonia.

Key words: innovation, SMEs performances, competitiveness, Republic of Macedonia

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INTRODUCTION

The challenge of the 21st century for SME-s is global competitiveness. Globalization of markets and the uncertain business environment have increased the level of competitiveness, which is putting increasingly greater pressure organizations to acquire and to increase their competitive advantages. This means that customers need to be provided with constant and reliable products and services of a recognized quality, while the market environment is characterized by global competition. An SME is able to cope with the global challenge if it realizes reliable, balanced and high-standard operation in its business. Innovation has been identified by different authors as the principal driver of competitiveness. In a changing and competitive environment, innovation is a key factor for any business survival.

DEFINING SME'S

There is no universally agreed definition of an SME across all academic disciplines. The term SME covers a wide range of definitions and measures varying from country to country and between the sources reporting SME statistics. Some of the commonly used criteria are the number of employees, total net assets, sales, investment level, shareholders funds and even paid up capital. Thus, depending on the criterion selected, the same firm can be classified as "small" under one criterion and as "medium" under another criterion. As such, broad comparisons of SMEs across different countries may not be entirely appropriate because of the varied operational definitions employed. As there is no uniform definition of a SMEs in the global economy, different countries have defined SMEs in different ways. However the most common definitional basis used is employment, and here again there is variation in defining the upper and lower size limit of an SME. A large number of sources define an SME to have a cut-off range of 0-250 employees.

Peterson et al. (Sultan, 2007, p.47) explain that both quantitative and qualitative measures are used in defining the SMEs. These definitions vary according to the geographic area and the purpose of the study. Quantitative measures are the most popular tools to define the SMEs such as the number of employees and the annual turnover.

Gunasekaran et al. (Sultan, 2007, p.47) suggest that the SMEs need to be defined within the context of the country in which they operate, as typically, the concept varies by the change of country.

Story (Sultan, 2007, p.48) defines the SMEs as follows: (a) enterprises with a relatively small share of their market; (b) managed by owners or part-owners in a personalized way, and not through the medium of a formalized management structure; and (c) acting as separate entities, in the sense of not forming part of large enterprise or group.

Innovative SMEs are defined as small and medium enterprises which create value through 'innovation,' or seek innovative activities continuously.

Innovative SMEs are those companies which play a leading role in creating jobs and added value by improving existing products or services, or producing and distributing new ones. They have potential to drive economic growth and create quality jobs through continuous innovation activities.

THE CONTRIBUTION OF SME'S

SMEs are the engine of the national economy playing a very important role in the overall economic development of each country. These enterprises are also known as foundation enterprises. SMEs are a major source of technological innovation and development of new products. Moreover, SMEs, with their high turnover and adaptability, play a vital role in addressing regional and sectoral imbalances in a country's economy. Furthermore, SMEs' easy access and exit to markets renders economies more flexible and competitive.

Compared to a large enterprises, SMEs employ more workers per unit of capital, contribute to total savings and equal income distribution in the economy, have formidable impact on regional economic development, serve as "training platform" for upgrading and developing the skills of industrial workers and entrepreneurs, contribute significantly to forward and backward linkages and finally play an important complementary role to large firms in the economically diverse sectors.

Tolento (Sultan, 2007, pp.47) summarizes some of the potential economic and social benefits of the SMEs to their capacity as follows: (a) create jobs at low cost of capital; (b) contribute positively to the Gross Domestic Product (GDP); (c) provide an opportunity to expand the entrepreneurial base; (d) provide the required flexibility to adapt to market changes; (e) provide support to large scale enterprises; (f) enter into market niches which are not profitable for larger enterprises; and (g) contribute to development policies that are more oriented towards decentralization and rural development.

The importance of innovative SMEs has been recognized by various regional and international organizations. In this context, due to the considerable importance of SMEs in job creation as well as economic growth and development, policies and approaches to enhance their competitiveness have become an important part of developmental policy making.

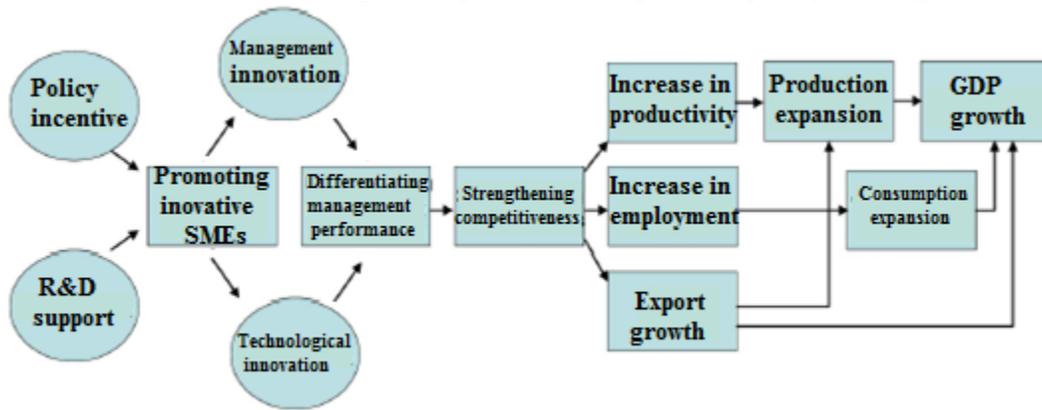


Figure 1: Flow chart on economic impacts of innovative SMEs (Tiwari and Buse, 2007, pp.)

Levy et al. (1999) emphasize the extreme importance of the existence of SMEs and their performance for the economic development of most of the less-developed countries.

SMEs also play a crucial role in the developing countries because of their contributions to poverty reduction, export growth of manufactured products and development of entrepreneurship, manufacturing industry and rural economy.

The importance of SMEs in developing countries is because of their characteristics, which include the following (Tambunan, 2009, pp.2-5):

1. Their number is huge, and especially small enterprises (SEs) and micro enterprises (MIEs) are scattered widely throughout the rural areas and therefore they may have a special “local” significance for the rural economy.

2. As being populated largely by firms that have considerable employment growth potential, their development or growth can be included as an important element of policy to create employment and to generate income. This awareness may also explain the growing emphasis on the role of these enterprises in rural development in developing countries. The agricultural sector has shown not to be able to absorb the increasing population in the rural areas. As a result, rural migration increased dramatically, causing high unemployment rates and its related socio-economic problems in the urban areas. Therefore, non-farm activities in rural areas, especially rural industries being a potentially quite dynamic part of the rural economy have often looked at their potential to create rural employment, and in this respect, SMEs can play an important role.

3. Not only that majority of SMEs in developing countries are located in rural areas, they are also mainly agriculturally based activities. Therefore, government efforts to support SMEs are also an indirect way to support development in agriculture.

4. SMEs use technologies that are in a general sense more “appropriate” as compared to modern technologies used by large enterprises (Les) to factor proportions and local conditions in developing countries, i.e. many raw materials are locally available, but capital including human capital, is very limited.

5. Many SMEs may expand significantly, while the great majority of MIEs tend to grow little and hence do not graduate from that size category. Therefore, SMEs, especially medium enterprises (MEs) are regarded as enterprises having the “seedbed Les” function.

6. Although, in general, people in rural areas are poor, existing evidence shows the ability of poor villagers to save a small amount of capital and invest it; they are willing to take risks by doing so. In this respect, SMEs thus provide a good starting point for the mobilization of both the villager’s talents as entrepreneurs and their capital; while, at the same time rural SMEs can function as an important sector providing an avenue for the testing and development of entrepreneurial ability.

7. SMEs, especially SEs and MIEs finance their operations overwhelmingly by using the personal savings of the owners, supplemented by gifts or loans from relatives or from local informal moneylenders, traders, input suppliers, and payments in advance from consumers. These enterprises can therefore play another important role, namely as a means to allocate rural savings that otherwise would be used for unproductive purposes. In other words, if productive activities are not available locally (in the rural areas), rural or farm households having money surplus might keep or save their money without any interest revenue inside their home because in most rural areas there is a lack of banking system. Or, they use their wealth to buy lands, cars, motorcycles or houses and other unnecessary luxury consumption goods which these items are often considered by the villagers as a matter of prestige.

8. Although many goods produced by SMEs are also bought by consumers from the middle and high-income groups, it is generally evident that the primary market for SMEs’ products is overwhelmingly simple consumer goods such as clothing, furniture and other articles from wood, leather products, including footwear, household items made from bamboo and rattan and metal products. These goods cater to the needs of local low income consumers. SMEs are also important for securing the basic need goods for this group of the population. However, there are

also many SMEs engaged in the production of simple tools, equipments, and machines for the demands of farmers and producers in the industrial, trade, construction, and transport sectors.

9. As a part of their dynamism, SMEs often achieve rising productivity over time through both investment and technological changes; although different countries within the group of developing countries may have different experiences with this, depending on various factors (the level of economic development in general and that of related sectors in particular; accessibility to main important determinant factors of productivity, particularly capital, technology and skilled manpower; and government policies that support development of production linkages between SMEs and Les as well as with foreign direct investment or multinational companies).

10. One advantage of SMEs is their flexibility, relative to their larger competitors. In Berry et al. (2001), these enterprises are construed as being especially important in industries or economies that face rapidly changing market conditions, such as the sharp macroeconomic downturns that have bedeviled many developing countries over the past few years.

DEFINING INNOVATION

Many authors consider that the innovation is the principal driver of competitiveness as well as a key factor for any business survival especially when the enterprises are operating in a changing and competitive environment. It encompasses a wide research field that analysis multiple aspects. There are different terms to refer to it and to explain the complexity of the concept.

The origin of the word “innovation” comes from the Latin words “innovatio” or “innovo.” Both words mean to “renew or to make something new” (Norrman 2008, p. 9).

The term “innovation” was used for the first time by Schumpeter at the beginning of the 20th century. Schumpeter defined innovations as “product, process and organizational changes that do not necessarily originate from new scientific discoveries, but may arise from a combination of already existing technologies and their application in a new context” (Urbancova, 2013, pp.83).

Innovation is defined as “the implementation of a new or significantly improved product (goods or services) or process, new marketing methods, or a new organizational method in business practices, workplace organization, or external relations” (U.S. Census Bureau 2006).

“Innovation is a complex process that brings ideas to market in the form of new or improved products or services. This process consists of two parts, which are not necessarily sequential to each other, although they are linked paths between them in a back and forth direction. One part is specialized on the known-how and the other part is devoted primarily to the application as a process, a product or a service. In both parts, they incorporate new advantages to the market”. (Castro, E., & Fernandez de Lucio, I., 2001).

The process of innovation comes from different sources and it can be classified according to a range of criteria. Referring to product innovation, it can be applied to a good or service, it involves changes in working methods or production functions. Innovation is not limited only to the product or its manufacturing process, but it involves many other aspects that affect the company decision-making. Table 1, presents the multifaceted concept depending on the direction applied.

Table 1: Innovation as a multifaceted concept

Depending on the object Product Process	Depending of their relevance Incremental Radical
Depending on the field Technology Organizational Marketing	Depending on their origin R&D Incorporation Imitation Experience

Source: Rojas et al., pp.76

The literature is full of attempts to categorize different levels and types of innovation. Some of the types of innovation are following.

Marketing innovation is concerned with improving the mix of target markets and how chosen markets are best served. Its purpose is to identify better (new) potential markets and better (new) ways to serve target markets.

Organizational innovation means innovation of business models, management techniques and strategies, and organizational structures.

A process innovation is the implementation of a new or significantly improved production process, distribution method, or support activity for goods or services. Thus a pure process innovation simply changes the way in which a product is made, without changing the product itself. The literature has identified a variety of different forms of process innovation: organizational innovation, supply chain innovation, marketing innovation and business model innovation.

Product innovation is defined as: goods or services which is either new or significantly improved with respect to its fundamental characteristics, technical specifications, incorporated software or other immaterial components, intended uses or user friendliness. A pure product innovation creates a new or improved product for sale without any change in the production process.

Radical innovation mean significantly different changes to product, services or process – “do what we do differently”. Radical innovation describes improvements that fundamentally alter the character of a product or process. This type of innovation establishes a new dominant design and hence, a new set of core design concepts embodied in components that are linked together in a new architecture. Radical innovation creates unmistakable challenges for established firms, since it destroys the usefulness of their existing capabilities.

Incremental innovation is known as small improvements to existing products, services or process – “doing what we do but better”. Incremental innovation describes the steady stream of improvements to a particular product or process which do not change the character of that product or process in any fundamental way. This type of innovation refines and extends an established design. Improvement occurs in individual components, but the underlying core design concepts and the linkage between them. This tends to reinforce the competitive positions of established firms since it builds on their core competencies.

Discontinuous innovation – radical innovations which change the “rules of the game” and open up a new game in which new players are often at an advantage.

Modular innovation changes the core design of one or more components but does not change the overall product architecture. This type of innovation will require new knowledge for one or more components, but the architectural knowledge remains the same. This is a

competence destroying innovation since new knowledge of a new component has to be acquired and the knowledge of the replaced component is no longer a valuable asset.

Component innovation – changes at the level of components in a bigger system.

Architecture innovation – changes in the whole system. The essence of an architectural innovation is the reconfiguration of an established system to link together components in a new way. Architectural innovation does not mean that components remain unchanged, but they are changed in such a way that it opens up for new ways of linkage between the components. This change is so small that the core concept behind the changed component is the same and the associated scientific and engineering knowledge remain the same.

Position innovation mean changes in the context in which the product/services are introduced.

Paradigm innovation mean changes in the underlying mental models which frame that the organization does.

According to Verworn et al. (Tiwari and Buse, 2007, pp.5) a simplified innovation process has several systematic steps such as requirement analysis, idea generation, idea evaluation, project planning, product development, product testing, and product marketing which may overlap each other.

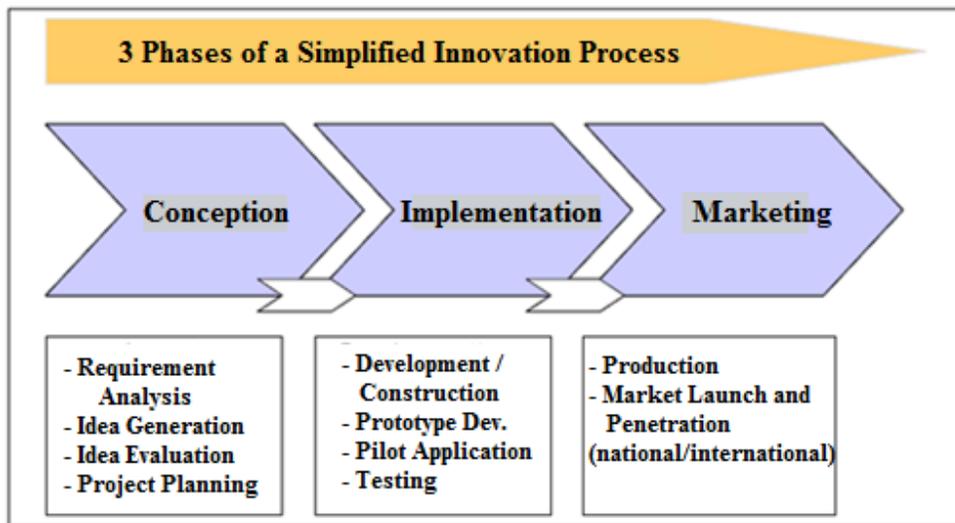


Figure 2: Three phases of a simplified innovation process (Tiwari and Buse, 2007, pp.5)

Innovative products will help firms to strength their competitive position in home as well as international markets. This necessitates innovation efforts to bring new and/or better products into the market enable more efficient and cost-effective production, distribution and after-sales services. That is a “goal model” for innovation activities in SMEs which may be referred to as a “BCF model for innovation”, (BCF = better, cheaper and faster).

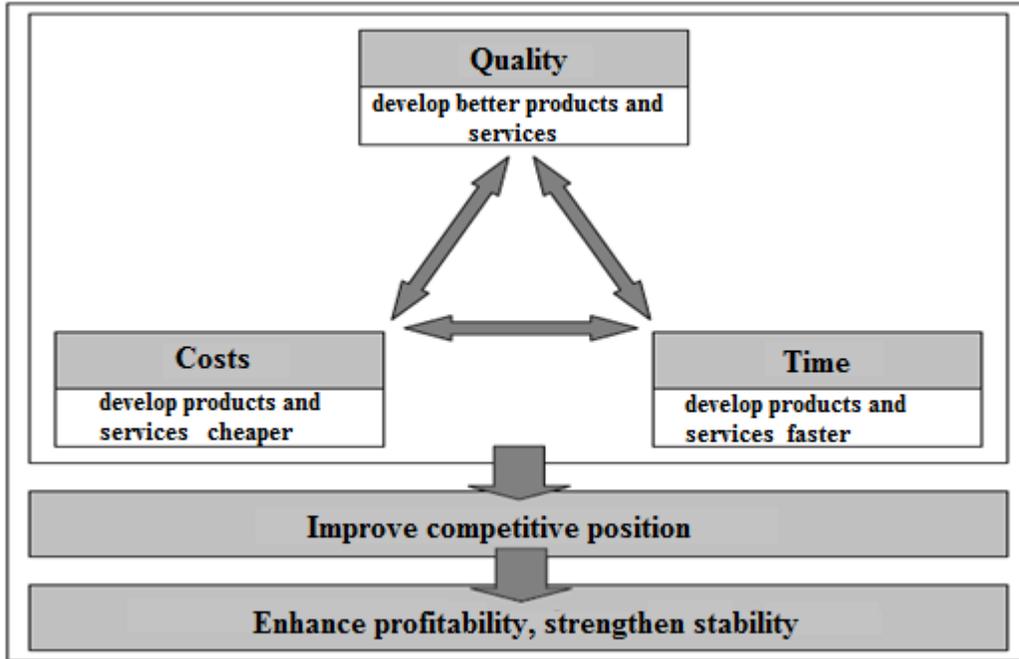


Figure 3: The “BCF” model for innovation in SMEs (Tiwari and Buse, 2007, pp.7)

Various factors encourage an organization to innovate. These factors can be summarized as follows: (Sullivan, 2008, pp.12)

- Emerging technologies
- Competitor actions
- New ideas from customers, strategic partners, and employees
- Emerging changes in the external environment

SMEs have direct contact to customers thereby potentially gaining valuable impulses in the form of customer feedback.

Acting often in a more informal manner and confronted with fewer intra-firm hierarchy levels than large firms, SMEs seem to be, in many respects, better placed for innovations than their large counterparts. This potential edge, in normal course, should enable them to develop products better suited to market demands and thus bring more success.

In practice, however, the resource constraints coupled with market uncertainties (and a few other factors) limits the ability of SMEs to indulge in dedicated R&D and to experiment with the purpose of new product development (table 2).

Table 2: Previous studies on barriers to innovation in SMEs

Barriers to Innovation in SMEs	Studies (amongst others)
Financial bottlenecks hindered access to external finance high innovation cost (and therefore) high economic risks	Acs and Audretsch (1990), Baldwin and Gellatly (2004), Rammer et al. (2006)
Shortage of and hindered access to qualified personnel	Ylinenpaa (1998), FES (2004), Rammer et al. (2005), Rammer et al. (2006)
Limited internal know-how to manage the	Mohnen and Rosa (1999), Rammer

innovation process effectively and efficiently (e.g. missing project management know-how)	et al. (2005), BMBF (2006)
Missing market know-how to meet customer's needs to enter foreign markets	Ylinenpaa (1998), Friedrich Ebert Stiftung (2004), HWWA (2004)
Bureaucratic hurdles long administrative procedures restrictive laws and regulations	Acs and Audretsch (1990), HWWA (2004), Rammer et al. (2006), BMBF (2006)
Lack of intellectual property rights	Baldwin and Gellatly (2004), BMBF (2006)

(Tiwari and Buse, 2007, pp.8)

SME'S COMPETITIVENESS

Competitiveness is a complex, multi-dimensional, multi-faceted, relative and very confusing concept. There are numerous definitions and models for this term, but still no universally agreed or widely accepted definition can be found, neither a universal model for competitiveness. Since early 1990s until today, various authors, depending on the width and aspect of their research, offer different definitions for the competitiveness and continually expand their models for competitiveness.

According to Waheeduzzaman and Ryabs (1996) the competitiveness concept involves different disciplines like comparative advantage and/or price competitiveness perspective, strategy and management perspective, as well as historical and socio-cultural perspective.

Competitiveness, as explained by Porter (1990), can be defined at three levels: firm, industry and nation. Measures of the competitiveness at the firm level include firm's profitability, firm's exports, and market share.

Ramasamy's (Rojas et al.) stated that competitiveness is the ability to increase market share, profit and growth in value added and to stay competitive for a long term.

According to Barney, competitiveness of a firm is its capacity to achieve its targets, expressed in a variety of terms depending on the context.

Within a macroeconomic perspective, a competitive firm develops and sustains a level of performance that contributes to the Gross Domestic Product (GDP), employment opportunities, and the wealth of the people. From an entrepreneurial perspective, a competitive firm needs to survive in the market and to achieve market share and profitability. The success of a competitive firm can be measured by both objective and subjective criteria. Objective criteria include return on investment, market share, profit and sales revenue, while subjective criteria include enhanced reputation with customers, suppliers, and competitors, and improve quality of delivered services. Barney discusses four approaches to measure the firm's competitiveness: firm's survival, stakeholder approach, simple accounting measures, and adjusted accounting measures.

Feurer and Chaharbaghi measure competitiveness quantitatively by profit, ability to raise capital and cash flow in terms of liquidity status.

Soliman adds cost, quality, delivery dependability, flexibility and innovation as factors formulating such a competitive position.

According to M. Porter, a firm experiences a competitive advantage when "its actions in an industry create economic value and when few competing firms are engaging in similar actions."

De Wit and Meyer (1999), Buffam (2000), and Christensen (2001) indicate that a firm has a competitive advantage when it has the means to edge out rivals when competing for the favor of customers.

There are four conditions necessary for firm’s competitiveness: (Man, 2004, pp.3)

- competitiveness calls for sustainability, which focuses on long term performance;
- controllability is a necessary condition related to the various resources and capabilities of a firm rather than simply the favorable external conditions leading to superior performances;
- competitiveness requires relativity, concerning how competitive a firm is when being compared with the rest of the industry;
- dynamism (dynamic transformation of competitive potentials through the competitive process into outcomes i.e. ability of companies to continually create new forms of competitive advantages).

The factors influencing competitiveness of SME-s can be divided into two groups, into external and internal factors.

Table 3: Influencing factors of competitiveness

External factors:	Internal factors:
Employment	Marketing
Productivity	Innovation
Capital supply opportunities	Productivity
Globalization	Knowledge-based development
EU	Capital supply
Business relations	Management, organization, structure
Alliances	Cost-efficiency
Networks	Compliance

Source: Kadocsa and Borbas, 2010, pp.108

THE ROLE OF INNOVATIONS ON THE SME’S COMPETITIVENESS

Globalization of the markets and increasing international competition force SMEs to search for new, innovative, flexible and imaginative ways to survive. Therefore, the above statement provides a relationship between innovation and SME survival.

According to Tushman & Nadler (Urbancova, 2013, pp.82) “organizations can gain competitive advantage only by managing effectively for today while simultaneously creating innovation for tomorrow”. They suggested that “there is perhaps no more pressing managerial problem than the sustained management of innovation”. According to them, visionary leadership and also people, structures and values are important factors that affect whether an organization realizes benefits from innovation. Innovation is still seen as a critical drive of economic performance.

In the World Bank report (2009) innovation has been viewed as vital in ensuring competitive advantage by organization and long term loyalty.

An important issue facing SMEs worldwide is continuous improvement. In today's markets the inputs of customers and their fast changing needs are imperative for enterprises forcing them to continuously improvement of their business. SMEs need to consider continuously improving

production costs, delivery schedules, manufacturing skills, supplier relationship and productivity in all practices. SMEs constantly experience shortages in capital to employee skills to improve production capacity, which makes it necessary to continuously improve their production strategies with customized products and process-focused operations. Moreover SME operations function should embrace competitive priorities of low production costs, fast on-time deliveries, high quality products and customer services. SMEs that have adapted their production systems to be flexible and their costs and prices competitive will be able to compete and capture increased market share. This signifies the importance of innovation in enhancing loyalty and long term customer value. The innovation output is determined by the innovative input, i.e., the transformation of input into output. The innovative output is related to the firm performance. Innovative output, via firm performance, would affect the innovation expenditures. The overall economic performance of a firm would affect all three stages of the innovation process of a firm. The growth of total sales would be higher for innovating firms than for non-innovating firms, etc. Innovation boosted competitiveness of SMEs.

Innovations enable SMEs to bring new and / or improved products and services in the market and thus to meet customers' needs better and fully, to gain loyal customers, to increase sales of products and services, to substitute outdated products, to increase their income, to improve their market share, to increase their competitive advantage, to conquer new market segments and new markets, to improve their performance, and as a result positively to affect on the economic development of the country in which they operate.

SMES AND INNOVATION IN THE REPUBLIC OF MACEDONIA

SMEs are crucial for the economic development of the Republic of Macedonia. They represent 99.395 % of the total number of enterprises in Macedonia in 2013 and employ 78% of the total number of employees.

The structure's data for active business entities by the number of employees indicates that the largest share of 85% belongs to the enterprises with 1-9 employees. Then follow businesses without employees or entities with an unspecified number of employees (excluding data for employees) with 6.2%. On the third place with share of 4.2% are enterprises with 10-19 employees, followed by subjects with 20-49 employees whose share is 2.5%. Next are entities with 50-249 employees with 1.8% share and only 0.3% of active business entities have over 250 employees (table 4).

Table 4: Active enterprises in Macedonia by size, by year

Enterprises	2009	2010	2011	2012	2013
Micro	38 107	39 999	46 322	53 117	49 935
Small	31 873	34 702	25 984	20 341	20 241
Medium	533	584	607	631	683
Large	197	212	205	335	431
Total	70 710	75 497	73 118	74 424	71 290

Source: State Statistical Office of the Republic of Macedonia

According to data of the State Statistical Office of the Republic of Macedonia, only 42.8% of companies in Macedonia have implemented some kind of innovation in their work during the period from 2010 to 2012. The others 57.2% did not dare to do it. The highest percentage of the

innovators is for large companies, or 75.8%, while the smallest percentage is for the small firms - only 39.9% (table 5).

By sectors, the most firms that have introduced innovations are from the sector Financial and insurance activities - even 89.1%.

Table 5: Enterprises according to innovativeness, by sector and size

	All sectors	Innovators	Not Innovators
Total	4 818	2 060	2 758
Small	3 967	1 583	2 384
Medium	719	337	342
Large	132	100	32

Source: State Statistical Office of the Republic of Macedonia

From the total number of innovative enterprises in the Republic of Macedonia, 24.7% have introduced innovation of products and processes, 46.4% have introduced organizational and marketing innovations, and only 18.2% have introduced a product and process as well as organizational and marketing innovation (table 6).

Table 6: Enterprises according to the type of innovation

	2010-2012		
	Innovators in product or process	Innovators in the organization or marketing	Product/process and organizational/marketing innovators
Total	509	956	374

Source: State Statistical Office of the Republic of Macedonia

CONCLUSION

Globalization of the markets and increasing international competition force SMEs to search for new, innovative, flexible and imaginative ways to survive. Therefore, the above statement provides a relationship between innovation and SME survival.

Innovation is viewed as vital in ensuring competitive advantage by organization and long term loyalty. In a changing and competitive environment, innovation is a key factor for any business survival.

Innovations enable SMEs to bring new and / or improved products and services in the market and thus to meet customers' needs better and fully, to gain loyal customers, to increase sales of products and services, to increase their income, to improve their market share, to increase their competitive advantage, to conquer new market segments and new markets, to improve their performance, and as a result positively to affect on the economic development of the country in which they operate.

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INTERNET PURCHASES IN SOUTH-EAST EUROPEAN COUNTRIES: CLUSTER ANALYSIS APPROACH

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Abstract

The goal of the paper is to describe the recent increasing dynamics of the Internet purchases by individuals, as the main variable under study, in selected European countries, EU28, and three official EU candidates, the Former Yugoslav Republic (FYR) of Macedonia, Serbia and Turkey, is describe. The South East European (SEE) countries and those from the Western Balkan (WB) are put into the focus.

The first research hypothesis implied that selected four independent variables, expressed as economic and Information and Communication Technology (ICT) development indicators, are positively correlated with Internet purchases by individuals in selected European countries. The hypothesis was confirmed using Eurostat data for four carefully chosen independent variables for 2013. The best fitted multiple linear regression model developed using All Possible Regressions approach and Mallows' Cp index shows that two variables: (1) GDP per capita in Purchasing Power Standards (PPS), Index, EU-28=100, and (2) Internet penetration rate, given as Percentage of individuals using the Internet, are statistically significant in the model.

The second research hypothesis was that the SEE countries (SEECs) resemble each other concerning analysed variables, and they might belong to the same cluster. The cluster analysis for 30 countries based on all five variables resulted with several solutions, but usually showing that there are two groups of SEECs. One group of the SEECs contains five less developed SEECs (EU members Bulgaria and Romania, and EU candidates, the FYR of Macedonia, Serbia and Turkey), comprising the cluster of their own. The other group includes four more developed SEECs (EU members: Greece, Cyprus, Slovenia and Croatia), which join the cluster containing several other EU member states.

Keywords: Internet purchases, ICT development indicators, South-East European countries; Cluster analysis; Multiple linear regression modelling

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INTRODUCTION

Since widely used Internet changed shopping habits of individuals all over Europe making them more comfortable with possibility of on-line searching and selecting both goods or services, on-line ordering and paying, checking their assets etc., the authors considered challenging to investigate are there any diversities among European countries considering the extent of Internet purchases adoption by people. Firstly, after data exploration, this paper is mostly focused on studying impacts on percentage of individuals who purchased goods or services via Internet in the last 12 month using the correlation and linear regression analysis. Secondly, the paper deals with the cluster analysis of countries, based on five variables especially focusing the clusters that gather the South East European countries (SEECs) and the Western Balkan countries comparing it to other clusters of countries.

In this paper impact of new Information and Communication Technologies (ICT) use on purchasing that might imply clustering of similar European countries, making the local markets without borders, is analysed. It is assumed that the new ICT possibilities, higher level of broadband and Internet penetration, i.e. increased computer use and Internet literacy and skills together with an increased GDP per capita might influence increasing trends of Internet purchase.

According to the Eurostat definition, e-commerce is defined generally as the sale or purchase of goods or services, whether between businesses, households, individuals or private organizations, through electronic transactions conducted via the internet or other computer-mediated (online communication) networks. The term covers the ordering of goods and services which are sent over computer networks, but the payment and the ultimate delivery of the goods or service may be conducted either on- or off-line. For the Community survey on ICT usage in households and by individuals (2013), e-commerce by individuals or households via the Internet is defined more specifically as “the placing of orders for goods or services via the internet”, with e-mails orders excluded. The main variable under study here is named by Eurostat as “the Internet purchases by individuals, expressed as the percentage of individuals who purchased goods or services through Internet in the last 12 month”.

THE LITERATURE OVERVIEW

In 2012, Flash Eurobarometer 358 (2013), shopping via the Internet continues to grow throughout the European Union (EU). More than half (53%) of European consumers have made at least one online purchase in the twelve months preceding September 2012. This proportion has almost doubled since 2006.

Global Trends in Online Shopping (2010) describes the survey research conducted in 2010 polled over 27,000 Internet users in 55 markets from Asia, Europe and America to look at how consumers shop online: what they intend to buy, how they use various sites, the impact of social media and other factors that come into play when they are trying to decide how to spend their money. This report emphasises that getting information on goods and services on-line, Internet banking, Internet booking for travel and accommodation, buying tickets, etc., the ability to do so online has made the purchasing much easier and more efficient. Digital Agenda for Europe Scoreboard (2012) gives a lot of details about Internet use by individuals, households and enterprises.

Wijn and Jongen in E-commerce– New Opportunities, New Barriers, A survey of e-commerce barriers in countries outside the EU (2012) stated that Eurostat figures show that e-commerce in Europe is booming, but that there is still much to be done before European e-commerce reaches its full potential. There are huge opportunities, but also there are still many barriers that inhibit the growth of e-commerce, due to the differences in legislation, payments and logistic systems in Europe. More uniformity is crucial, in order to avoid restrictions

related to European digital boundaries. The development has only just begun, and the coming years will be incredibly important.

According to Šimičević, Jaković and Ježovita (2013) socio-economic differences within a country are more important than differences between countries in explaining Internet access. Differences in access are explained by differing levels of GDP per capita. However, when they turn to Internet usage, given access to the Internet, they find differences in individual characteristics to be less important than differences between countries. Research in Šimičević, Jaković and Ježovita (2013) gives an insight to what extent Internet sales by individuals is influenced by the barriers people perceive to buying/ordering over the Internet, using of Internet, and level of computer/Internet skills they poses.

According to survey on “ICT usage in households and by individuals“ (2013), e-commerce is the most common form of distance shopping and has been growing steadily since it was first measured in 2004. Even 43% of EU consumers have purchased goods and services over the Internet in the 2011 year, which is 3 percentage points increase compared to 2010.

In Dumičić, Pavković, Palić (2013) developed three regression models that show that an increase of GDP per capita in PPS and Share of GDP for education, as well as an increase of Percentage of households with Internet access and Broadband penetration rate, influenced an increase of the Internet banking in a statistically significant way. Cluster analysis based on seven variables resulted with four clusters of similar countries. Dumičić, Čeh Časni, Palić (2014) examines economic and ICT development indicators influence on recently increasing Internet purchases by individuals for European Union member states in 2011. Regression models developed showed that the GDP per capita and the ICT development level are essential for explaining the Internet purchases by individuals.

DATA DEFINITION

Variables impacting the dependent variable Internet purchases by individuals, $Y_{IntPurch}$, defined in Eurostat as “the percentage of all individuals who purchased goods or services through Internet in the last 12 months”, included in this research for 2013 are:

- $-X_{GDPpc}$ -Gross Domestic Product per capita in Purchasing Power Standards (GDP per capita in PPS), Index, EU28=100, 2013;
- $-X_{ExpEduc}$ -Public expenditure on education as percentage of GDP, data from 2010 are taken by the authors as the estimates for 2013 with the exceptions for Denmark (estimate based on 2009), the FYR of Macedonia (estimate based on 2002), Greece (estimate based on 2005), Luxembourg (estimate based on 2001), Romania (estimate based on 2009, and Turkey (estimate based on 2006);
- $-X_{IntUse}$ - Internet penetration rate (Internet use) given as Percentage of individuals using the Internet for 2013; and
- $-X_{IntSkill}$ -Individuals' level of Internet skills, percentage of the total number of individuals aged 16 to 74 for 2013, with the exceptions for the FYR of Macedonia (estimate based on 2010), and Serbia (estimate based on 2007).

The research goal is to recognise the position of the South-East European countries (SEECs) versus the rest of the Europe regarding the impacts of four development indicators taken on the main variable under study. But, since only those countries with data available might be included in the analysis, it should be said that the geography operationally covered in the initial analysis included 31 countries, 9 of them belonging to the SEE: 28 European Union countries (EU28), that include 6 SEE countries (Bulgaria, Croatia, Cyprus, Greece, Romania and Slovenia); and 3 SEE countries that are official EU candidates, the Former Yugoslav Republic of Macedonia (FYROM), Serbia and Turkey. Unfortunately, data for the

rest 4 SEE countries (two EU candidates, Albania and Montenegro, and two potential EU candidates, Kosovo and Bosnia and Herzegovina) are not available, so they have to be omitted from the analysis. According to Europedia (2012) 6 countries: Albania, Bosnia and Herzegovina, the FYR of Macedonia, Kosovo, Montenegro and Serbia comprise the group of Western Balkan countries (WBCs). It should be mentioned that sometimes Croatia and Turkey are added into WBCs' group of countries, too.

**EXPLORATORY DATA ANALYSIS
EXPLORATION OF RECENT TENDENCIES OF INTERNET PURCHASES DATA**

As it is shown in Figure 1, in 2013 the percentage of individuals who purchased via Internet in the last 12 months, $Y_{IntPurch}$, was in EU27 countries with data of 47% more than 135% higher than in the base year 2004 (20%). In EU15 countries (15 countries forming the EU before the enlargements of 2004 and 2007) the increase from 27% in 2004 to 53% in 2013, with the index of 196 (2004=100) shows a dramatic increase of Internet purchases of 96%, being nearly doubled, too.

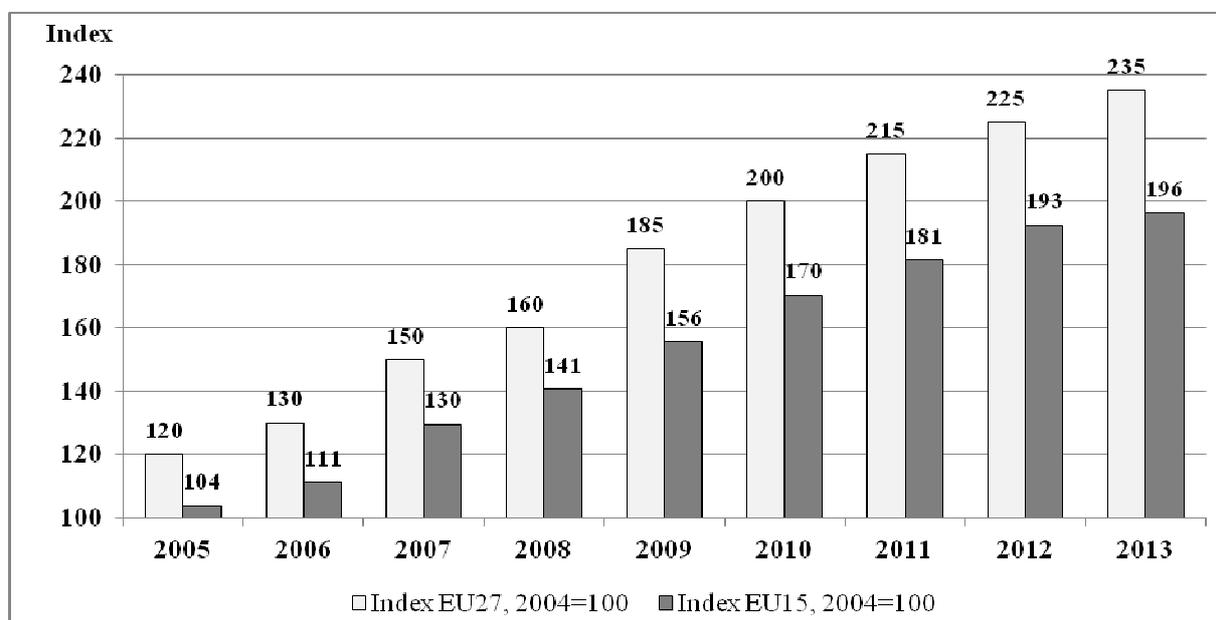


Figure 1: Index numbers for Internet purchases by individuals in the last 12 months, percentage of all individuals, $Y_{IntPurch}$, 2004=100, for EU15 and EU27 countries, 2005 - 2013
Note: Data for EU15 for 2011 and 2012 are interpolated based on linear trend for the period 2004-2010

(Source: Eurostat, Authors' creation)

The analysed dynamics of the Internet purchases by individuals in the last 12 months, for the EU15 (15 countries forming the EU before the enlargements of 2004 and 2007) and for the EU27 countries, from 2004 to 2013, as given in Figure 2 and Figure 3, shows a yearly absolute increase of the linear trend with the slope of 3.1% for EU27 and 3.2% for EU15, being in both cases statistically significant at 5% significance level. Both linear trend models, calculated using ordinary least square estimators, are representative with high coefficients of determination, explaining 99.22% of total variation in Internet purchases for the EU27, and 98.64% for the EU15 model.

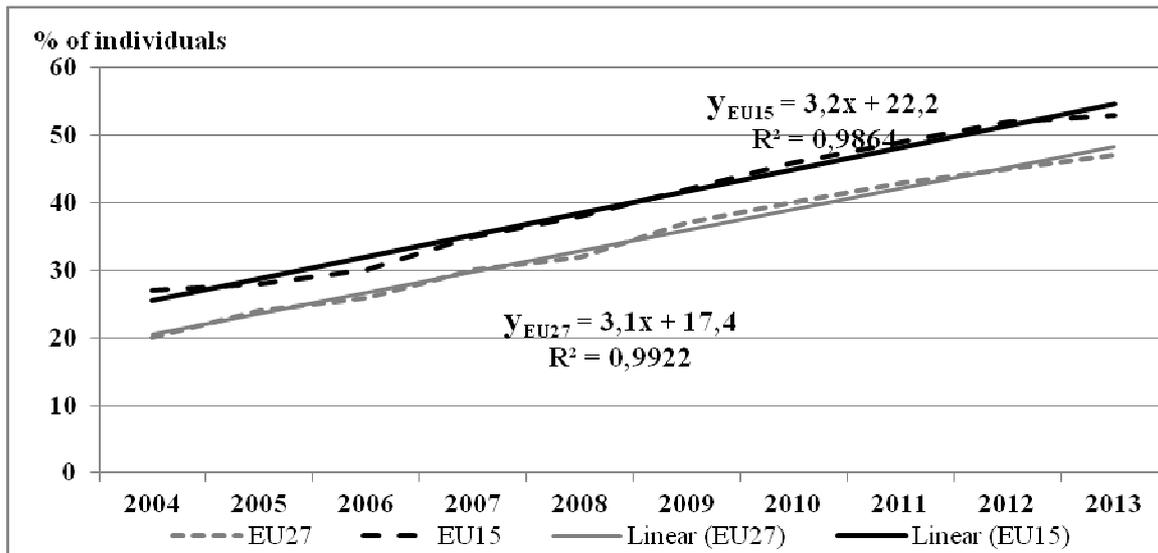


Figure 2: Estimated linear trends for $Y_{IntPurch}$, for EU15 and EU27 countries from 2004 to 2013

Note: Data for EU15 for 2011 and 2012 are interpolated based on the linear trend for the period 2004-2010

(Source: Eurostat, Authors' creation)

EXPLORATION OF GDP PER CAPITA

Graphical comparison using Dot Plots of GDP per capita in PPS (Index, EU28=100) for EU28 countries and the FYR of Macedonia, Turkey and Serbia for 2013, with and without the outlying Luxembourg index for GDP per capita, which equals $I_{LU}=264$, with standardised value $Z_{LU}=4.05$, is given in Figure 3.

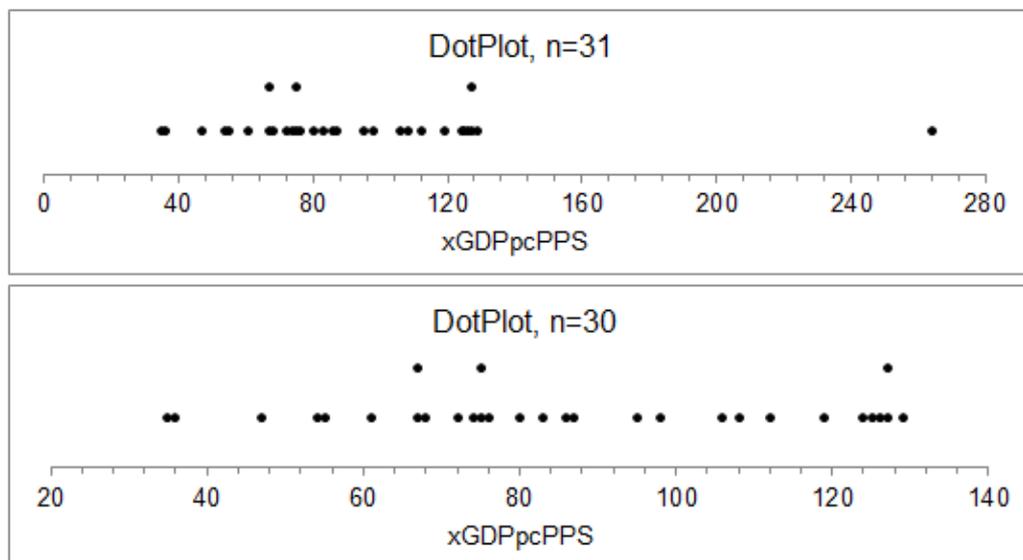


Figure 3: Dot Plots for GDP per capita in PPS (Index, EU28=100) for EU28 countries (with and without the Luxembourg), and the FYR of Macedonia, Turkey and Serbia for 2013, (Source: Eurostat, Authors' creation)

In Figure 4 the bars for GDP per capita in PPS (Indexes, EU28=100) are shown. The Luxembourg data, being an obvious outlier, will be omitted from the regression and cluster analysis that follow.

The 6 SEE countries: the FYR of Macedonia (35), Serbia (36), Bulgaria (47), Romania (54), Turkey (55), and Croatia (61), are found at the bottom of the level, as could be seen in Figure 4.

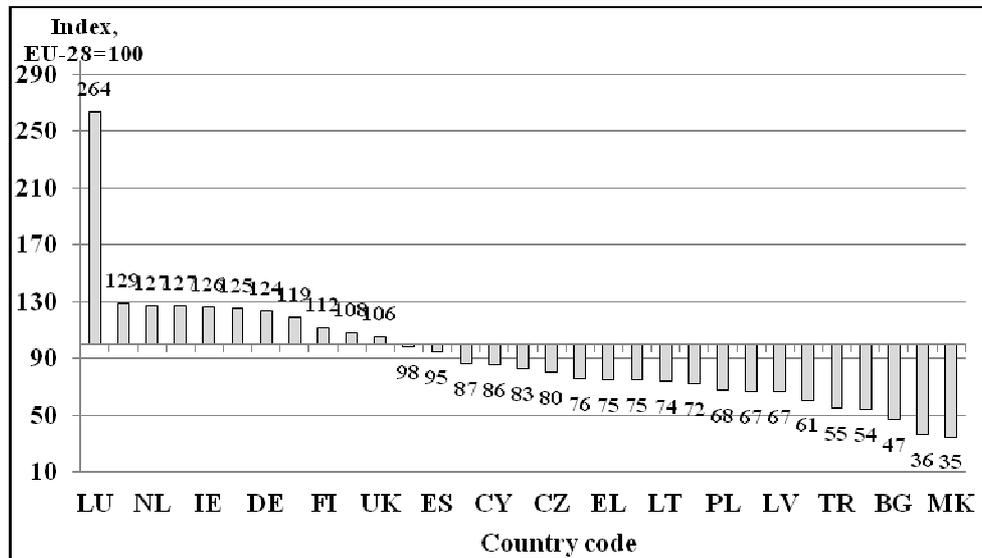


Figure 4: GDP per capita in PPS (Index, EU28=100) for EU28 countries and the FYR of Macedonia, Turkey and Serbia, with (n=31) for 2013 (Source: Eurostat, Authors' creation)

COMPARISON OF DATA VARIABILITY

The Box-Plots and Dot-Plots for data for the variables $Y_{IntPurch}$, X_{GDPpc} , $X_{ExpEduc}$, X_{IntUse} and $X_{IntSkill}$, in 2013 for n=31 countries are shown in Figure 5.

When detecting the outliers in all variables included in the analysis, it should be noticed that only Luxembourg data for GDP per capita in PPS, with standardised value of higher then 4, should be excluded from the analysis, and that is why the data set is reduced from 31 to 30 countries. Box-Plots displayed in Figure 6 and Figure 7, show what happened in data variability based on standardised variables, with and without Luxembourg data.

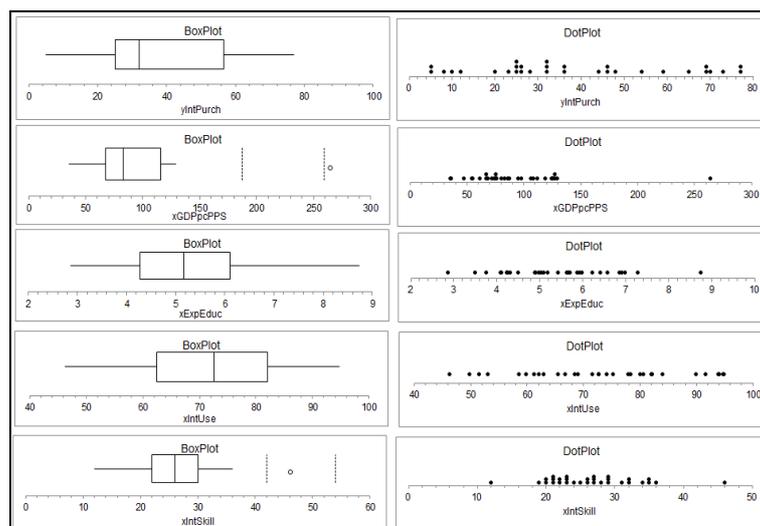


Figure 5: The Box-Plots and Dot-Plots for the variables $Y_{IntPurch}$, X_{GDPpc} , $X_{ExpEduc}$, X_{IntUse} and $X_{IntSkill}$, in 2013 for n=31 countries (Eurostat, Authors' creation)

*Note: Data for the variable $X_{ExpEduc}$ are taken as estimates for 2013 based on 2010

Figure 6 compares data variability for all 31 countries using the multiple Box-Plot, showing one serious outlier for GDPpc in PPS, X_{GDPpc} , for Luxembourg, and one mild outlier for Internet skills, $X_{IntSkill}$, for Germany, $Z_{DE}=2.9$, but it's data is kept for the further analysis. So, descriptive and inferential analysis is made for 30 countries only, Table 1.

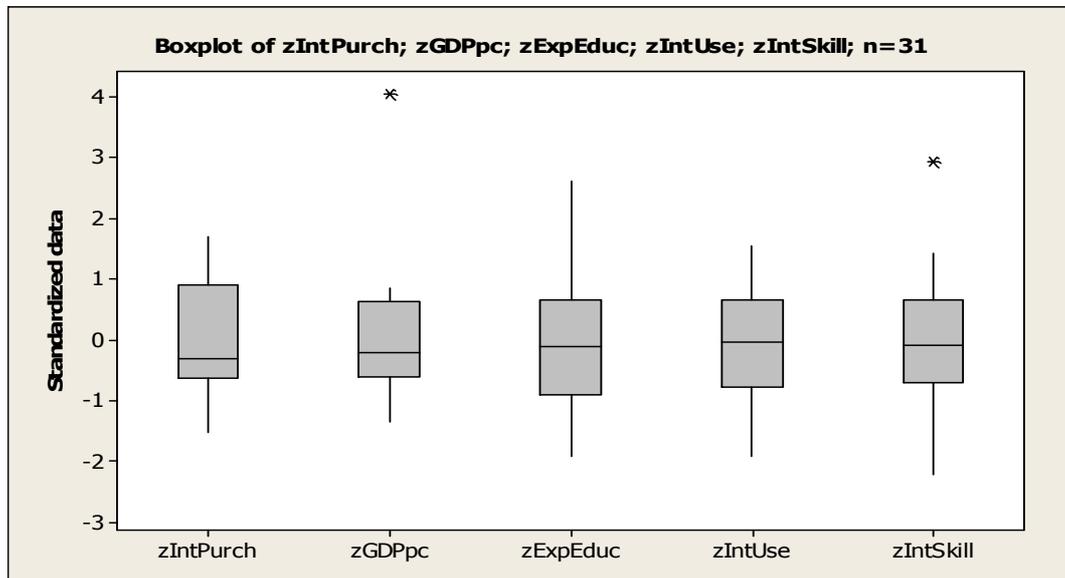


Figure 6: The Box-Plot of standardized values for $Y_{IntPurch}$, X_{GDPpc} , $X_{ExpEduc}$, X_{IntUse} and $X_{IntSkill}$, in 2013 for $n=31$ countries (Eurostat, Authors' creation)

*Note: Data for the variable $X_{ExpEduc}$ are taken as estimates for 2013 based on 2010

Figure 7 gives graphical comparison of data after omitting the Luxembourg data for X_{GDPpc} . Data for $X_{IntSkill}$ for Germany, with standardized data below 3, is kept for the further analysis.

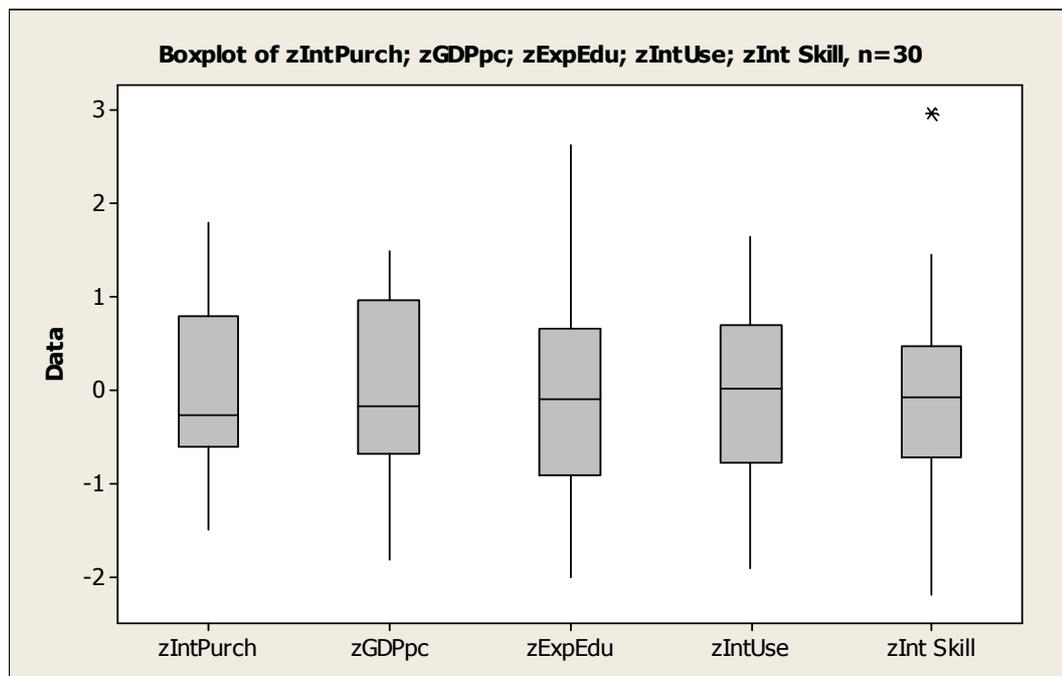


Figure 7: The Box-Plot of standardized values for $Y_{IntPurch}$, X_{GDPpc} , $X_{ExpEduc}$, X_{IntUse} and $X_{IntSkill}$, in 2013 for $n=30$ countries (Eurostat, Authors' creation)

*Note: Data for the variable $X_{ExpEduc}$ are taken as estimates for 2013 based on 2010

The further statistical analysis is made for 30 countries only, and Table 1 presents the main descriptive indicators.

Table 1: Descriptive statistics, n=30, 2013

<i>Statistics</i>	$Y_{IntPurch}$	X_{GDPpc}	$X_{ExpEduc}$	X_{IntUse}	$X_{IntSkill}$
count	30	30	30	30	30
mean	37,77	86,47	5,41	72,35	26,43
sample variance	481,91	815,50	1,59	187,58	43,84
sample standard deviation	21,95	28,56	1,26	13,70	6,62
minimum	5	35	2,87	46,25	12
maximum	77	129	8,74	94,78	46
range	72	94	5,88	48,53	34
skewness	0,37	0,02	0,41	-0,06	0,72
kurtosis	-0,88	-1,03	0,41	-0,753	1,61
coefficient of variation (CV)	58,13%	33,03%	23,33%	18,93%	25,05%
1st quartile	25,00	67,25	4,36	62,28	22,00
median	32,00	81,50	5,30	72,66	26,00
3rd quartile	52,50	111,00	6,17	81,60	29,00
interquartile range	27,50	43,75	1,81	19,31	7,00
mode	25,00	75,00	#N/D	#N/D	29,00

(Source: Eurostat, Authors' creation)

Based on 30 countries' data analysis for 2013, Table 1, the main variable under study, $Y_{IntPurch}$, with the range of 72, has the average of 37.77% and the coefficient of variation of 58.13%. There are 12 over averaged countries, and at the top there are: United Kingdom and Denmark (77%), followed by Sweden (73%), The Netherlands and Germany (69%), and Finland (65%). At the bottom, there are the SEECs: the FYR of Macedonia and Serbia (5%), Romania (8%), Turkey (10%), and Bulgaria (12%). Cyprus and Greece, both with 25% of individuals purchasing on-line in the last 12 months, are a little bit apart. Croatia has 26% and Slovenia 36%, which is close to the 30-countries average (3.77%), but a little bit away from the EU28 average (47%), and even more from EU15 average (53%).

Further analysis shows that X_{GDPpc} in PPS, Index, EU28=100, for 30 data in 2013 has the average 86.47, deviating relatively from the mean by 33.03%. The highest data for X_{GDPpc} in 2013 has Austria (129). Looking at the ranges, the SEECs are gathered at the bottom: the FYR of Macedonia (35), Serbia (36), Bulgaria (47), Romania (54), Turkey (55) and Croatia (61). Greece is a little bit apart with data 75, but the highest is the value of Cyprus (86), even better than Slovenia who has GDPpc of 83 (all in PPS, index, EU28=100).

The analysis of $X_{ExpEduc}$, Public expenditure on education as percentage of GDP (these data from 2010 are taken as estimates for 2013, because there are no fresher data available), shows the average of 5,41% , and relative deviation being moderate with CV=23.33%, and the range 5.88. At the top are Denmark (8.7%), and SEE country Cyprus (7.3%), followed by Sweden (7.0%). At the bottom there is Turkey (2.9%), followed by the FYR of Macedonia (3.5%), Greece and Bulgaria (4.1%), Slovakia, Romania and Czech Republic (4.2%), Croatia (4.3%), and Serbia (4.9). Slovenia is with 5.7% above the average.

Internet penetration rate (X_{IntUse}) has the average of 72,35% of people using the Internet, with coefficient of variation of 18.93%, which shows moderate dispersion of data. The range is 48.53%, being quite large. Countries with the highest Internet penetration rate, X_{IntUse} , are Sweden (94.8%) and Denmark and the Netherlands (94.65%). For Y_{IntUse} on the

bottom there are the SEE countries Turkey (46%), Romania (50%), Serbia (52%) and Bulgaria (53%), but a little higher values belong to Greece (60%), the FYR of Macedonia (61%), Cyprus is 61%, Croatia 67% and even 73% to Slovenia, which equals to the average for the variable X_{IntUse} and which is the maximum among the SEECs.

The mean value for the variable Individuals' level of Internet skills, given as percentage of the total number of individuals aged 16 to 74 who have carried out 1 or 2 of the 6 Internet related activities, $X_{IntSkill}$, for 2013 is 26.43%, with the coefficient of variation 25.05%, showing a moderate data variability, and with the range 34%. The highest value for $X_{IntSkill}$ belongs to Germany (46%), the Netherlands (36%), and Austria and Ireland (35%). The lowest values are found for Lithuania (12%) and Italy (19%). Among the SEE countries Serbia has the lowest value for $X_{IntSkill}$, 20%, followed by the FYR of Macedonia and Greece (21%), and Bulgaria and Cyprus (22%). Turkey has over-average data, 27%, and Croatia and Romania have the highest values among the SEECs, 29%. Slovenia is with value 28% for $X_{IntSkill}$ a little bit below Croatia and Romania, but still over-averages (26.43%).

All the analysed variables have skewness coefficients close to zero, from -0.06 X_{IntUse} to 0,71 for $X_{IntSkill}$. The Anderson-Darling normality test was conducted for all the variables for 30 analysed countries in 2013, and it shows that the main variable under study $Y_{IntPurch}$ with the p-value=0.12, as well as other variables: X_{GDPpc} (p-value=0.16), $X_{ExpEduc}$ (p-value=0.82), X_{IntUse} (p-value=0.91), and $X_{IntSkill}$ (p-value=0.22), might be considered not to be significantly apart from the normal distribution at the 1% significance level.

CORRELATION AND REGRESSION ANALYSIS

The correlation coefficients for pairs of variables in correlation matrix, Figure 8, show that the main variable under study, $Y_{IntPurch}$, called the dependent one, is positively correlated with each of the independent variables. The strongest positive correlation exists with X_{IntUse} , with $r= 0.918$, followed with the correlation with X_{GDPpc} , $r=0.875$. The variable $X_{ExpEduc}$ is with $r=0.692$ moderately correlated with $Y_{IntPurch}$. The weakest correlation of $Y_{IntPurch}$ exists with $X_{IntSkill}$, $r=0.548$.

Table 1 Correlation matrix, n=30, 2013

	$Y_{IntPurch}$	X_{GDPpc}	$X_{ExpEduc}$	X_{IntUse}	$X_{IntSkill}$
$Y_{IntPurch}$	1.000				
X_{GDPpc}	.875	1.000			
$X_{ExpEduc}$.692	.692	1.000		
X_{IntUse}	.918	.810	.691	1.000	
$X_{IntSkill}$.548	.561	.100	.438	1.000

All Possible Regression analysis with the dependent variable $Y_{IntPurch}$, and four ($p=4$) independent variables, X_{GDPpc} , $X_{ExpEduc}$, X_{IntUse} and $X_{IntSkill}$, was conducted. It resulted with altogether $m=(2^p-1)=(2^4-1)=15$ possible models. Because the strongest correlation between the dependent variable $Y_{IntPurch}$ arose to be with X_{IntUse} ($r=0.918$) and X_{GDPpc} ($r=0.875$), these two independent variables are put into the special focus when building the multiple regression model. Fortunately, these two independent variables gave the multiple regression model with the best value for the Mallows' C_p index=3.513, compared to all other regression models which had C_p values between 5 and 154. So, it was decided to choose these two variables as the regressors for building the appropriate regression model which will be tested for diagnostics, too. The coefficient of determination of such a model equals $R^2=0.8936$ indicating that this model might be highly representative.

The multiple regression model with two regressors (p=2) estimated with ordinary least squares (OLS) estimators is, Wooldridge (2013) is:

$$\hat{Y}_{IntPurch,i} = \hat{\beta}_0 + \hat{\beta}_1 X_{GDPpc,i} + \hat{\beta}_2 X_{IntUse,i}; \quad i = 1,2,\dots,30.$$

Substituting the calculated estimates and giving the main indicators of the respected regression model, it follows:

$$\begin{array}{llll} \hat{Y}_{IntPurch} = -58.2029 + 0.2945 \cdot X_{GDPpc} + 0.9745 \cdot X_{IntUse} & n = 30 & R^2 = 0.8936 \\ (7.9630) \quad (0.0822) & (0.1714) & \hat{\sigma} = 7.4211 & \hat{V} = 19.65\% \end{array}$$

Based on the overall F-test the whole model is statistically significant at 1% significance level (p-value ≈ 0.0000). The regressors X_{GDPpc} , with t-ratio=3.5834 and p-value ≈ 0.0013, and the regressor X_{IntUse} , with t-ratio=5.6862 and p-value ≈ 0.0000, are both statistically significant at the significance level of 1%. The linear regression model diagnostics results confirmed that in the regression model given above there is neither heteroskedasticity (White test statistics=6.2722, p-value=0.2806), nor non-normality of residuals (Ch-square test statistics=1.6574, p-value=0.4366) problems. Since the Variance Inflation Factor, $VIF=2.901 < 5$, the multicollinearity does not exist, so there is no violation of model assumptions at all. The coefficient of determination indicates that two regressors, X_{GDPpc} and X_{IntUse} , explain 89.39% of the total variation in $Y_{IntPurch}$. The regression coefficient of variation which equals $\hat{V} = 19.65\%$ indicates that the representativeness of the regression model is quite high.

When interpreting regression coefficients estimated for the multiple regression model developed for 30 countries in 2013, it should be said that the regression coefficient $\hat{\beta}_1$ shows that if X_{GDPpc} , Gross Domestic Product per capita in Purchasing Power Standards (GDP per capita in PPS), Index, EU28=100, would increase by one, without changing the level of the variable X_{IntUse} , the regression value of $Y_{IntPurch}$, percentage of all individuals who purchased goods or services through Internet in the last 12 months, would increase by 0.2945. The regression coefficient $\hat{\beta}_2$ shows that if X_{IntUse} , Internet penetration rate (Internet use), given as Percentage of individuals using the Internet, would increase by one, without changing the level of the variable X_{GDPpc} , the regression value of percentage of all individuals who purchased goods or services through Internet in the last 12 months, $Y_{IntPurch}$, would increase by 0.9745.

HIERARCHICAL CLUSTER ANALYSIS

After deleting the outlier, a seriously high value for X_{GDPpc} for Luxembourg, non-hierarchical and hierarchical clustering, based on different linkages, similarities and distances, using standardized values of five analysed variables ($Y_{IntPurch}$, X_{GDPpc} , $X_{ExpEduc}$, X_{IntUse} , $X_{IntSkill}$) for 30 countries in 2013 was conducted. According to the rule of the thumb, the optimal number of clusters is $k=(n/2)^{1/2}$, so the four cluster-solution is adopted.

In the hierarchical clustering with the complete-linkage and the squared Euclidian distances, the dendrogram with four clusters of countries is created, as shown in Figure 8. In the four-cluster solution the countries (cases) are clustered as follows:

- *1st cluster*: the “developing” EU countries (considering five variables under study) with 15 cases (Lithuania, Portugal, Poland, Italy, *Greece (SEE)*, Malta, *Cyprus*)

(*SEE*), Latvia, Hungary, Estonia, Spain, *Slovenia (SEE)*, Slovakia, Czech Republic, *Croatia (SEE)*)

- 2nd cluster: the part of the SEE region that belongs to the Western Balkans with 5 cases (*Bulgaria (SEE)*, *Romania (SEE)*, *FYR of Macedonia (SEE; WBC)*, *Serbia (SEE; WBC)*, *Turkey (SEE)*), two of them being the EU member states, and three being the EU official candidates;
- 3rd cluster: the Scandinavian countries with 3 cases (Sweden, Finland, Denmark), and
- 4th cluster: the “developed” North and Central European countries with 7 cases (Germany, United Kingdom, France, Belgium, Netherlands, Ireland, Austria).

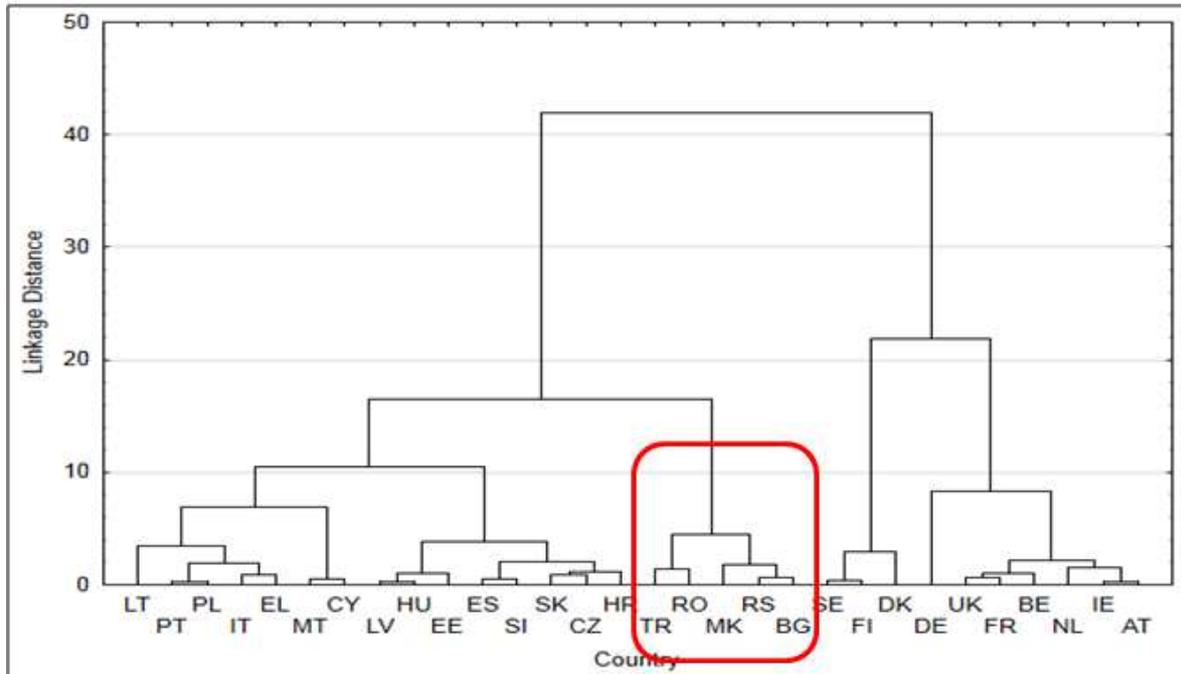


Figure 8: The dendrogram (complete-linkage method, squared Euclidean distances), based on five variables and n=30 countries, 2013
(Source: Eurostat, Authors’ creation)

Clusters 1 and 2 include here analysed nine SEE countries. In the 1st cluster of the EU countries (cluster with “developing” countries concerning variables under study), there are four SEE states: Greece, Cyprus, Slovenia and Croatia. In the 2nd cluster there are the SEE countries, only (five of them): Bulgaria, Romania, the FYR of Macedonia, Serbia, and Turkey.

CONCLUSIONS

Economic and Information and Communication Technology (ICT) development results with an increase of Percentage of individuals who purchase by Internet in countries all over Europe, and so it is true for the South-East European countries (SEECs), too.

Purchasing on-line plays a vital role for both businesses and individuals in European countries over the last decade. The analysed dynamics of the Internet purchases by individuals in the last 12 months, for the EU15 and for the EU27 countries, from 2004 to 2013, shows a yearly absolute increase with the slope of about 3% for both groups of countries.

It might be concluded that all the considered variables have great variability over 30 analysed countries, showing inequality among them. The greatest variability appeared to be

for the main variable under study, Y_{IntPurch} , with the coefficient of variation of $CV=58.13\%$. The second highest variability with $CV=33.03\%$ is shown for X_{GDPpc} . The coefficient of variation for X_{IntSkill} , $CV=25.05\%$, for X_{ExpEduc} it is $CV=23.33\%$, being moderately high. The less variable is the indicator X_{IntUse} with $CV=18.93\%$. In the same time, all the analysed variables have distributions that are close to the normal, with skewness close to zero, from -0.06 X_{IntUse} to $0,71$ for X_{IntSkill} . The A-D normality test proofs that there is no significant deviation from the normality.

Based on 30 countries' data analysis for 2013, the main variable under study, Y_{IntPurch} , as it is given in Table 1, with the range of 72, has the average of 37.77% and the coefficient of variation of 58.13% , which shows that the variability of the percentage of the Internet purchases users over the analysed countries is quite large. There are 12 over averaged countries, and at the top there are United Kingdom and Denmark (77%). At the bottom, there are the FYR of Macedonia and Serbia (5%), Romania (8%), Turkey (10%), and Bulgaria (12%), all being the SEECs. Cyprus and Greece, both with 25% of individuals purchasing on-line in the last 12 months, are a little bit apart. Croatia has 26% and Slovenia 36% , which is close to the 30-countries average (37.8%), but a little bit away from the EU28 average (47%), and even more from EU15 average (53%).

Further analysis shows that X_{GDPpc} in PPS, Index, EU28=100, for 30 data in 2013 has the average 86.47 , deviating relatively from the mean by 33.03% , showing moderate to large dispersion of data. 10 countries are above the EU28 average. The highest data for X_{GDPpc} in 2013 has Austria (129). Focusing the ranges, the SEECs are gathered at the bottom: the FYR of Macedonia (35), Serbia (36), Bulgaria (47), Romania (54), Turkey (55) and Croatia (61). Greece is a little bit apart with data 75 , but the highest is the value of Cyprus (86), even better than Slovenia who has GDPpc of 83 (all in PPS, index, EU28=100).

The average Internet penetration rate (X_{IntUse}) is $72,35\%$ of people using the Internet, with relative deviation of 18.93% , and the range 48.53% , showing moderate to high dispersion of data. Countries with the lowest Internet penetration rates are in the SEE countries Turkey (46%), Romania (50%), Serbia (52%) and Bulgaria (53%). A little bit higher values are in Greece (60%), the FYR of Macedonia (61%), Cyprus is 61% , Croatia 67% and even 73% in Slovenia.

The variable Y_{IntPurch} is positively correlated with each of the independent variables. The strongest positive correlation exists with X_{IntUse} , with $r=0.918$, followed with the correlation with X_{GDPpc} , $r=0.875$.

When studying Internet purchases, the cluster analysis conducted here gave the four-clusters solution. SEE countries gathered more or less together. Two clusters include here analysed nine SEE countries. In the 1st cluster of the EU countries (cluster with “developing” countries concerning variables under study), there are four SEE states: Greece, Cyprus, Slovenia and Croatia. In the 2nd cluster there are the SEE countries, only (five of them): Bulgaria, Romania, the FYR of Macedonia, Serbia, and Turkey. The 2nd cluster might be called “the part of the SEE region that belongs to the Western Balkans”. Croatia, Slovenia, Greece and Cyprus are a little bit apart. As expected, the most developed EU countries are gathered in the cluster of their own.

The limitation of this research lies in the fact that Albania, Montenegro, Kosovo, and Bosnia and Herzegovina, being all part of the SEE and WB region, are not analysed because their data are not available. Researches do hope that this disadvantage will be overcome soon.

Acknowledgment:

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**THE SOURCE OF INNOVATION UNDER THE CONTEXT OF NEW ECONOMIC
MODEL AND DATA ANALYSING FOR SME IN ALBANIA**

Duro Enton, Phd.¹

Abstract

In Albania, TFP is the greater contributor in long run growth. During the last three years growth is decreased rapidly marking only 1.3% in 2013 compared with 7.5% in 2008. For this necessary to find other sources of TFP growth in the future. Innovation is one of the most elements recommended by literature and evidence. Anyway, absorptive capacity and human capital should be fundamental in innovation for developing countries.

Economic activity in Albania is dominated by SME. They are 99.8% of the total of enterprises employing 241.684 persons and realize 70% of the total of GVA from enterprises. In terms of productivity for 2005-2012, the index GVA/Employees has a positive trend for all groups, excluding the group "1-4". Large enterprises indicate large variation than others for 2008-2010. This situation is given in figure 2. Average rate of growth for GVA/Employees is higher for the group "250+" with the total of 12.4% following by the group "10-49" with 11.8% and the group "50-249" indicates 9.6%. The productivity for the group "4-9" is increased only 6.2% for the same period and the group "1-4" results with 0%.

Keywords: TFP, Innovation, absorptive capacity, SME.

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THE CONTEXT OF THE NEW ECONOMIC MODEL IN ALBANIA FOCUSING SME

Frequently and continuously different actors, expert and representative government officials, are discussing an idea of a new economic model (Government Program, 2013 p.28). A short overview of economic situation help to understand what are the arguments and what does it mean.

In the 23 years past, the Albanian economy has passed through strong changes. Until 2010, TFP² was the main contributor in economic growth due to factor reallocation towards more productive sectors and openness (IMF, 2008, 2011). Few contribution has occurred in growth from stock of capital and less from labor. Table 1 shows contribution of capital, labor and TFP in growth for Albania.

Table 1 Contribution of Capital, Labor and TFP in growth for Albania

<i>Period</i>	<i>Growth</i>	<i>Capital</i>	<i>Labor</i>	<i>TFP</i>
1997-2001	7.1	0.3	-1.2	8.0
2002-2007	5.6	1.6	-0.7	4.7
2008	5.4	2.0	0.1	3.3
2009	4.7	1.5	0.2	3.0
2010	3.9	0.8	0.3	2.7

Source: IMF

During this period, growth was supported permanently by different circumstances of demand side i.e. remittances, privatization accompanied by FDI, aid from abroad etc, but this situation comes to the end for the last three years. Referring to WB, growth for 2013 was 1.3%, which is six times lower than 2008, meaning bad signal for the catch-up process even though the effects of global crisis was not negligible. These few but inherent arguments, compress a need for new economic model by the supply side orientation.

Endogenous growth models (Romer, 1986; 1990; Lucas, 1988) offer a vast understanding how R&D sector and human capital can influence economic growth embodied in TFP. Enterprises, in order to achieve profits and larger market share, use the best techniques investing in stock of capital formation and manufacturing products by incorporating technological innovation, as a source of R&D and human capacity. Innovations could create additional value added in horizontal way offering new products (Romer, 1990) and in vertical way by “schumpeterian creative destruction” (Aghion & Howitt, 1992).

To continue, supply side in Albania is represented in a large scale by SME³ dominating 97.8% of the total number of enterprises for 2012. They realize 70% of GVA⁴ created by enterprises, employ more than 81% of the total and realize 68% of enterprise investments. These data are represented in table 2.

²Total Factor Productivity

³Determinative indicator is considered “number of employer” for firm size. Up to 249 employers are SME.

⁴Gross Value Added

Table 2 Economic data of Enterprises for 2012⁵

	Enterprise		GVA		Employees		Investment	
	Number	Share	Million	All Share	Number	Share	Million	All Share
SME	106.615	99.8%	274.104	70%	241.684	81.5%	97.468	68%
Large	222	0.2%	118.842	30%	54.238	18.5%	45.419	32%
Total	106.837	100%	392.945	100%	295.922	100%	142.886	100%

Source: INSTAT 2014

SME seems to be an important pillar in economic development of the country due to their contribution in employment and GVA. This confirms Duztet *al*, (2011) concluding that⁶, firms with not more than 200 employees represent a significantly positive effect of TFP innovation and employment.

Furthermore, a decline of TFP contribution in growth need other sources and innovation is a opportunity to catch-up technological frontier of developed countries. In innovation for development issues, OECD (2012) cite: Innovation capacity has to build early in the development process in order to possess the learning capacities that will allow catch up to happen (OECD, 2012, p.4). For this is necessary to understand innovation, its sources and applications in Albania as a small developing country.

CONCEPTUAL FRAMEWORK ON INNOVATION, R&D AND ABSORPTIVE CAPACITY

There is no unified definition of innovation but, maybe, more appropriate (Hall, 2011) is OSLO definition: An innovation is the implementation of a new or significantly improved product (good or services), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations (OECD, 2005, p.46).

In many cases researchers identify innovation as a source of R&D within firm. In fact, R&D has a considerable contribution in innovation but is not the only. According to Frascati Manual, OECD borrows R&D definition as: Research and experimental development (R&D) comprise creative work undertaken on systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications (Frascati Manual, 2002, p.30). R&D would be devised in three fundamental activities: basic, applied and experimental. The first two are oriented in new knowledge creation, and the third is oriented in new process or procedure creation based on the current stock of knowledge.

Seems clear the differences between innovation and R&D by the definitions. Innovation is based on implementation role of something “new”, while R&D cover creative role of something “new”, especially in product and process. Furthermore, R&D is fundamental in invention. To pursue, innovation is closely linked to invention; even so a clear distinction exists. If invention is the first occurrence of an idea for a new product or process, innovation is the first commercialization of the idea (Fagerberg, 2003, p. 3).

⁵The number of Enterprises used “Business Register” as a source. GVA and Employment used “Structural Survey of Enterprises”. BR used an exhaustive population, while SSE used a sample for enterprises by 1-9 employers.

⁶In developing countries, including Albania and other Balkans countries.

R&D firm activity is the source of new knowledge but cannot include that innovation is not possible without. For example, based on absorptive capacity, firms can use external knowledge incorporated in software, machinery and equipment (Som, 2012; Som *et al*, 2013). Large size firms are more likely to invest in R&D and consequently creating more invention/innovation in products. They can afford the large fixed cost of R&D by increasing the variety and benefited from demand price elasticity (Desmet and Parente, 2010). Microeconomic studies confirmed empirically how R&D expenditure is closely linked with product innovation, while innovative investment (new machinery and equipment) are related to process innovation (Vivarelli, 2012, p. 12). However, the tendency to invest more in process innovation coming from no-leader businesses under the influence of external and internal firm factors (Mc Elheran, 2013). In distinction between large and small firms, seems that large firms use frequently R&D in innovation, anyway small firms can do it without. Both of them could have complementary effect in country innovation through specialization (Baumol, 2002). Based in this argument, OECD (2000) offers an overview by SME participation in innovation system. The SME population is represented by three groups:

- Technology developers, which make 1 to 3% of the total.
- Leading technology users, which include a absorptive capacity of the firm, make 10 to 15% of the total.
- Technology followers are about 80 to 85% of the total.

Is opportune to underlie that technology followers should exploit absorptive capacity in understanding and benefit technology innovation.

ABSORPTIVE CAPACITY IN MICRO AND MACRO LEVEL, UNDER CATCH-UP PROCESS

Cohen and Levinthal (1989) find out how firm invest in both ,R&D to create new knowledge and in the stock of prior knowledge. They are the most determinants in firm's absorptive capacity defined as: the firms' ability to identify, assimilate and exploit knowledge from the environment (Cohen and Levinthal, 1989, p. 569). In the later research, they precise the nature of intangible asset of absorptive capacity (Cohen and Levinthal, 1990). Firms are not confident about an appropriate level of absorptive capacity investment because of indirect benefits.

So, absorptive capacity is not R&D exclusively. In micro level, skill employment and organization/stimulation knowledge transfer within a firm seems to be an important building block (Schmidt, 2005). Other factors are (a) firm formalization by procedures, rules and instructions, (b) social integration mechanism which reduces barriers of information exchange within the firm (Vega *et al*, 2008).

R&D affects technological change through based research, applied research and experimental development, but in developing countries it is less likely to happen. Addressing to the macro level, primary source of technological change in developing countries could come from international trade through imports in machinery and equipment (Acemoglu, 2003), FDI although spillover effects are relative to well-functioning markets (Keller, 2004), and business environment such as enforcing contracts, registering property and access to credit are positively correlated to innovation (Dutz *et al*, 2011). Especially, in small-size market countries, where large enterprises find fewer opportunities, SME-FDI linkage are essential (Smallbone, 2007). SME-s are a fundamental tool in development, anyway, without participation of other actors (i.e. government, international actors), they will not solve transition problems by own self (Dagallo,

2004). Furthermore, Fagerberg and Srholec (2007) conclude that independently from domestic market size, openness and FDI does not matter much for development if a given country lacking in absorptive capacity.

Under absorptive capacity not only underdeveloped country, but also developed country can create innovation. For example, Ulku (2004) find a strong relation between innovation output (patent stock) and GDP per capita for OECD and non-OECD countries. Furthermore, only larger market countries (i.e. G-7) were able to increase innovation by R&D. In other countries innovations seem to be promoted by technology spillover.

Teixera and Fortuna (2010) conclude that the catch-up process is influenced significantly by human capital rather than local R&D effort basis. An increased technological absorptive capacity under the indirect impact of human capital comes explained by the strong relationship between TFP growth and machinery and equipment imports. The TFP growth in a given country comes not only from the internal R&D capital stock or what else, but also by R&D capital stock from trading partners. Coe and Helpman (1995) show that the second effect was more significant in smaller countries.

Arnold and Bell (2001) theorize the catch-up process for development. They underline that: creative imitation is the central process in capitalist economic development. In economic terms, science is much more significant as a source of trained people than as a generator of new knowledge, invention and innovations (Arnold and Bell, 2001, p.315). Should not be economic distinction between innovation and creative imitation, where both are mostly based in existing knowledge with or without a little new thinking⁷. Imitation should be an important key feature of innovation in the first stage of firm's start-up. It contributes in higher productivity accumulating existing knowledge and make functional signal for firms to invest in skill-employees (Agenor and Dinh, 2013).

In developing countries, with appropriate level of skills and human capital, absorptive capacity affects the acquisition of knowledge for the firm by spillovers effects making possible technological change and growth, the main reasons why catch-up happen. This does not exclude the possibility of R&D contribution because of close interaction between them.

INNOVATION, COMPETITION AND FIRM SIZE

Competition is the boost of market efficiency. From competition benefit not only costumers but firms also, in increasing productivity. Competition in theory is seen as promoter of market prosperity and development. Furthermore, innovation creates possibility to increase sells, economize costs and realize profits for a given firm. Innovation may create higher market size and in the same time market size could be an incentive for innovation.

Substantial influence in innovation field comes from Schumpetian (1942) hypothesis. The main idea is that technological change thought innovation, especially with R&D investments, comes from large firms in concentrated market. To consolidate the dominant position, they have stronger incentives to innovate i.e. by "creative destruction". Aghion *et al*, (2005) evidence an inverted-U shape between innovation and competition. Under the behavior "escape from competition", while competition is not high but increasing, neck-and-neck⁸ firms

⁷A representative example, even not in economic sphere, should be the adaption of Acquis Communautaire by candidate countries in EU. This process should be more creative imitation than innovation.

⁸Operating at the similar technological level.

have more incentive in innovation. From the other side, when competition is so high, laggard firms have not enough incentive to invest in innovation, meanwhile the leader never innovates.

Perhaps not entirely acceptable by Arrow (1962). He suggests that monopolist incentives in pre-innovation stage are weaker than in competitive market. In this focus, Nickell (1996) find out the importance of competition in economic performance and TFP growth suggesting a positive impact in innovation. Symeonidis (1996) does not approve Schumpeter hypothesis even in some cases where mergers are inevitable, meanwhile conclude that differences between firms in innovation and growth are randomly.

Gilbert (2006) makes a distinction between Schumpeter and Arrow monopoly states. The first one considers as temporary situation meanwhile, the second as status quo. Also, regarding to innovation promoting from competition, make sense if competition index is proximity of technological frontier and non market concentration. Shapiro (2011) suggests that under “contestability”⁹ principle”, there is no conflict between two insights. If innovation does not carry out profitable sales because costumers are not convinced in achieving greater value innovation are poor.

The nature of transition economies could be different. Whatsoever, Carles *et al*, (2001, 2004) using a survey from transition economies, evidence the positive effect of market power in new product restructuring and productivity. Such firms, under competitive pressure from abroad, present strongly and robustly enhance performance. Among others, they find a negative effect of prices competition in innovation.

Waheed (2011) emphasizes the lacking in research on competition, firm size and innovation in developing countries. However, there is no evidence of Schumpeter hypothesis because the effect of competition and R&D are the same, independently by the size of firm. Other conclusions for developing countries are:

- First, market competition affect product innovation without influencing R&D expenditure of the firm, probably by the imitation impact.
- Second, firm with international trade linkages, contribute better in R&D activities and product innovation.
- Third, education of workers influence pozitively in innovation.

In the opposite side, in the survey of 40 developing and transition countries, Alder (2010) suggest that relation between innovation and competition depend on the level of competition and the level of technology. In the low level of competition, innovation is associated with an increase in competition and firms with more advanced technology innovates more than firms with less advanced technology. These conclusions confirm an inverted U relationship between innovation and competition.

INNOVATION, HUMAN CAPITAL AND COMPETITION IN ALBANIA

Is not easy to find official national data for innovation or R&D in Albania¹⁰, anyway, there are different international reports about innovation which make possible comparison of a country with other similar. Western Balkan Countries (WBC) could be a target point of view for

⁹The prospect of gaining or protecting profitable sales by providing greater value to customers spurs innovation, p. 364.

¹⁰INSTAT has launched a R&D survey in 2013 but is still in elaboration.

Albania to understand the level and eventually innovation performance as a small developing country. In this focus, Global Innovation Index (GII)¹¹ seems an appropriate indicator.

Table 3. GII and IER for Weastern Balkans Countries by Score and Rank for 2014

Indexes	Albania		B&H		Macedonia		Montenegro		Serbia	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
GII_2014	30.5	94	32.4	81	36.9	60	37	59	35.9	67
Inn_Output_Sub_2014	20.4	117	25.5	92	30.4	66	28.4	74	31.7	59
Inn_Input_Sub_2014	40.5	71	39.4	82	43.4	57	45.6	46	40.1	75
IER_2014	0.5	131	0.6	101	0.7	82	0.6	106	0.8	46

Source: Global Innovation Index

Referring to Table 3, Albania has the last position of GII compared to other WBC, with score level 30.5 point and ranked at 94 positions. In the better position of WBC is Montenegro with score level 37 point and ranked at 59 positions. Also, Albania has weak efficiency in input used innovation to realize output innovation, represented by Innovation Efficiency Ratio (IER)¹². Its score level is 0.5 and ranked at 131 positions. The better IER has Serbia with 0.8 score level and ranked at 46 positions. Compared to the two previous years by GII, Albania has lower position and none considerably changed in score level which means that other countries perform better.

Table 4. NRI for WBC for 2013 and 2014

Year	Albania		B&H		Macedonia		Serbia		Montenegro	
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value
2014	95	3.7	68	4.0	57	4.2	80	3.9	52	4.3
2013	83	3.8	78	3.8	67	3.9	87	3.7	48	4.2

Source: Global Information Technology Report

Information Communication Technologies (ICT) usage and readiness of individual country, seems to be good prediction of innovation opportunities. In this line, Networked Readiness Index (NRI)¹³ sheds light on a country level evaluating environment supporting and economic/social impact. Referring to Table 4, Albania has worsen its situation compared to 2013 and is worse off compared to other WBC.

¹¹Global Innovation Index is a simple average of two sub-indexes, Innovation *input* sub-index and Innovation *output* sub-index. The first one include five pillars which make possible innovation in a level country: Institutions, Human capital and research, Infrastructure, Market sophistication and Business sophistication. The second one use two pillars which represent innovation output in economy: Knowledge and technology outputs and Creative outputs. In total GII include 84 indicators and is in line with our innovation definition.

¹²Innovation Efficiency Ratio is represented by report of Innovation Input sub-index over innovation output sub-index.

¹³NRI, as an output of World Economic Forum data, is composed by four sub-indexes: environment; readiness; usage; impact. There are 10 pillars and 54 individuals' indicator in total, which constitute NRI conceptual framework and its estimation.

This situation could find eventually explanation in some persistent problems. In all WBC including Albania, start-ups firms have lower levels of innovation and incumbent firms are limited in absorptive capacity as a result of lower contribution of R & D, graduate skill-level and policy support (Roper, 2009). Moreover in Albania, the lack of private sector collaboration with universities as a source of research does not help in creation of such capacities (IDRA, 2011; Preci *et al*, 2013). This situation is associated with low R & D demand, brain drain, weak R & D Investment business (WB, 2011) creating a vicious circle. In a WB project report is cited: Albania is lagging in many measures of R&D and innovation, and faces the critical challenge of enhancing human capital and reversing brain drain of highly-skilled workers (WB, 2013, p. 12).

Until 2011, is a noted lack of policy market adaption for innovation where mostly are lack of technological transfer and exploitation, lack of entrepreneur education and overall lack of absorptive capacity (IDRA, 2011). As a measure of innovation and skill embodied into the firm, SME participation in EU funded research in Albania is only 1.6 compared to 20.95¹⁴ of the average in EU, showing the huge distance from technological frontier. During 2009-2015 government was planned to increase public spending in R&D from 0.2 to 0.6 percent of R&D that is inferior of 1.9 percent in EU for 2009, but referring to GII, the situation is not improved. Furthermore the composition of R&D fund source for 2008 is represented in 80.8% by government, 8.6% by higher education, 7.4% from abroad, and only 3.3% from business enterprises (UNESCO, 2014) which can be interpreted as a weak interesting of business in R&D. Regarding to the competition, Gruda and Melani (2010) show that contestability principle is not a generalization. There are different cases where collusions bring up prices and reduce product quality. Small dimension of market create a strong trends for the presence of oligopoly. In such situation, bigger firms under collusion, exhibit pressure against small companies (Gruda and Milo, 2010). By this argument for 2004-2012 there is an increasing evidence of worse off competition by dominant position, concentrations, etc (Mancellari *et al*, 2013). This situation means that entrepreneurs tend to realize profits not by innovation increasing productivity but, to speculate customer surplus by higher prices by unfair competition.

ALBANIAN SME DATA AND ESTIMATIONS ON WAGES AND PRODUCTIVITY

In SME classification it is used appropriate criterion due to the number of employees¹⁵. Using BR data, Table 5 represent a composition of active enterprises in each sector. They are 110.083 active enterprises in total and could be noted the large number of enterprises by “1-4” employees and they concentration in “Trade Hotel Restaurant” and “Other services”.

Table 5 The number of active enterprise by sector

Sector	1-4	5-9	10-49	50-249	250+	Total
Agriculture fishing	1585	53	41	11	0	1690
Industry	8296	789	863	328	57	10333
Construction	3190	723	777	122	7	4819
Trade Hotel and Restaurant	59279	2175	1124	110	15	62703

¹⁴Per 100.000 SME.

¹⁵Make sense using “1-4” and “5-9” in micro enterprises due to large number of enterprises by 1-4 employees. Other classification is: “10-49” small enterprises and “50-249” medium enterprise. More than 250 are classified large enterprises.

Transport	7738	127	127	26	6	8024
Post Communication	2217	150	95	24	9	2495
Other Services	17477	1218	1633	536	155	21019
Total	99782	5235	4660	1157	249	111083

Source: INSTAT

Anyway, during the 2005-2013, the greater increase has occurred by the group “10-49” with 127.5%, followed by the group “5-9” with 103.6%. The group “1-4” has increased by 75.8% followed by the group “50-249” with 69.4%. Large enterprises (the group “250+”) have increased by 114.7% but still with 249 enterprises in total for 2013.

During the period 2005-2012 employment is increased in each group but higher rate is represented by “250+” with 124%. Figure 1 shows the effect in employment by each group.

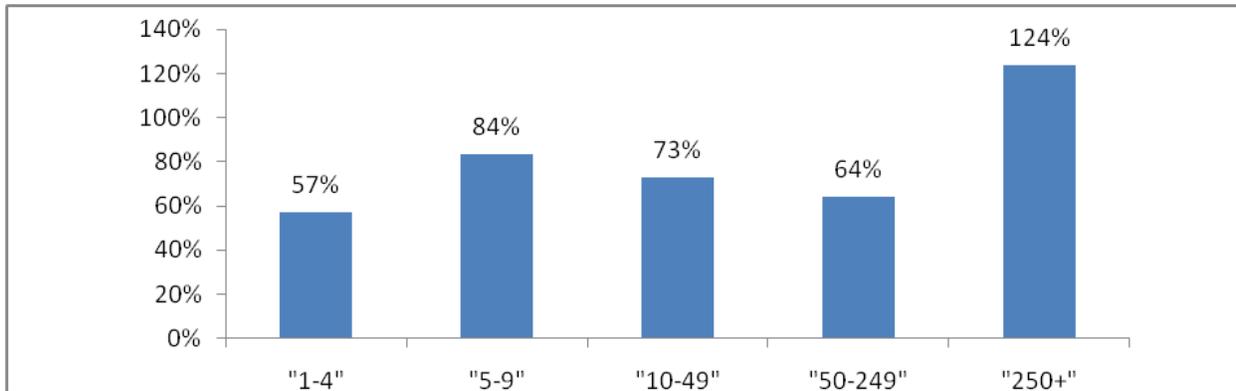


Figure 1 Employment growth for 2005-2012

In terms of productivity for 2005-2012, the index GVA/Employees has a positive trend for all groups, excluding the group “1-4”. Large enterprises indicate large variation than others for 2008-2010. This situation is given in figure 2. Average rate of growth for GVA/Employees is higher for the group “250+” with the total of 12.4% following by the group “10-49” with 11.8% and the group “50-249” indicates 9.6%. The productivity for the group “4-9” is increased only 6.2% for the same period and the group “1-4” results with 0%.

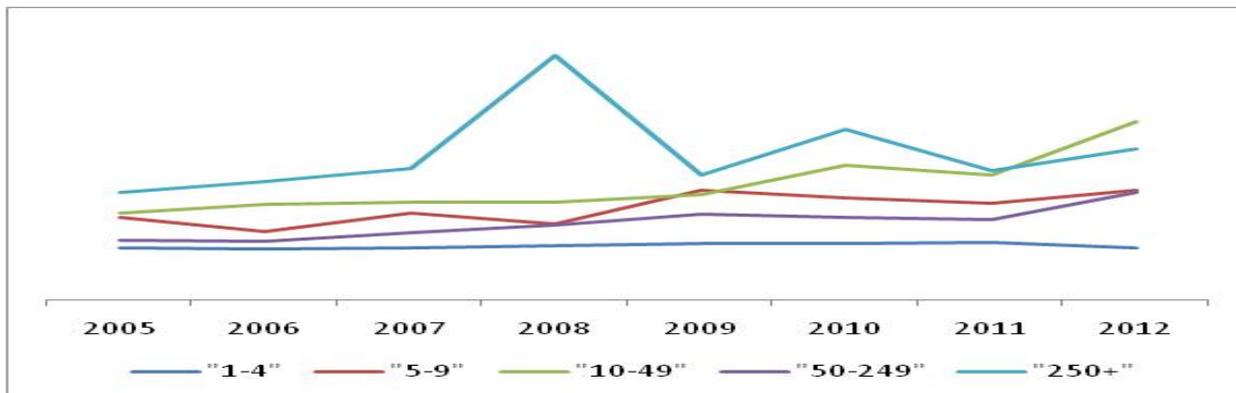


Figure 2 The trend of GVA/Employees for each group during the period 2005-2012

There is a higher correlation between employment and nominal wages in each group for the period 2005-2012. In the presence of lower skill and innovation this situation could be a consequence of overall economic trend. For 2012, the group "50-249" pays higher wages like 15% on average wages, following by "250+" with 9% on average. The other groups are lower than average. Respectively the group "10-49" has -7% on average, the group "5-9" has -13% on average and in the last position is the group "1-4" with -18% on average.

Table 6 Correlation coeff. between employment and wages for the period 2005-2012

Group	Coef. Correlation
"1-4"	0,919
"5-9"	0,850
"10-49"	0,961
"50-249"	0,816
"250+"	0,932

Source: Own estimation

Analyzing the index GVA / Investment and GVA / Employees find that for the group "1-9" have a negative correlation (-0.737), while for the other groups taken together the value of the correlation coefficient is positive (0.466). This result shows that the group "1-9" used as a substitute in production factor labor and capital while the other groups use as complementary. This conclusion is better understood if we look at GVA/Enterprise index trend. Figure 3 represents the differences from average of GVA/Enterprise. The group "1-9" is stable in average.

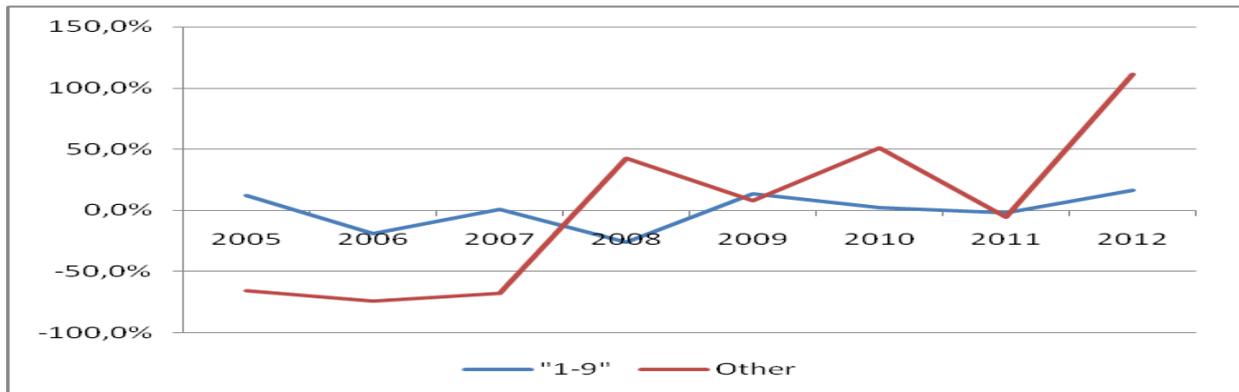


Figure 3 Differences GVA/Enterprise index from average for 2005-2012

An increased number of enterprises by this group, probably to the market response, do not reflect an increased GVA per enterprise in average. These enterprises, probably, operate in more competitive market with lower innovation and human skills, elements they make differences in GVA and productivity.

CONCLUSION

In the contest of new economic model SME should be playing a fundamental role for policy makers in Albania due to higher participation in GVA and employment. They can increase overall TFP focusing in innovation implementation and human capital embodied.

Following this line, is necessary to understand the source of innovation in a specific way for a small developing country, as Albania it is.

In small developing countries more than R&D, absorptive capacity seems a key element for innovation. The role of absorptive capacity does not exclude the role of R&D in innovation, furthermore, adaption and creative imitation of existing knowledge has a better approach with absorptive capacity. Fundamental in absorptive capacity are skill or in more general human capital formation. Both can raise the speed of catch-up process in development.

There is not clear position on the correlation between innovation competition and firm size, anyway, is necessary to understand the influence of other elements in this point of view. For example, make sense find a response if monopoly is a status quo state of temporary or, the market is in pre innovation stage or not. Some evidence for developing countries represents a incentive for innovation due to abroad competition, and others find an inverted U-shape.

In Albania, competition harms by bigger firms in form of collusion. This situation creates pressure to small ones. Also, according to GII index, innovation is not in satisfactory level compared to other Balkans countries. Albania is in the last position in all records of innovation. This can be understood because of lower lever of: absorptive capacity, human capital, collaboration between business and institutional researches, and so on. In level of allocated funds for R&D, Albania is far way from EU, considering as technological frontier in catch-up process. Looking into MSE data for Albania there are some indications. In term of productivity, all group of enterprise has rise GVA/employees index, excluding the group “1-4”. Testing for correlation between GVA/investment and GVA/Employees, the group “1-9” has a negative coefficient(-0.737), while for the other groups the coefficient is positive (0.466). Probably, the first one uses as substitute such factors and the second as complementariness. With lower level of absorptive capacity and skills this group does not have the possibility to increase GVA per enterprise.

As a recommendation for policy makers, SME offer a big opportunity for development in Albania but not only. Under the program “Horizon 2020” EC offer incentives for innovation in SME because of their contribution in growth and employment. (European Parliament, 2013). Based on this, more attention of innovation under absorptive capacity and human capital will create new sources of TFP and growth in Albania approaching to catch-up process.

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BOSNIA AND HERZEGOVINA`S HOTEL TOURISM AS AN INCENTIVE FACTOR FOR INTERNATIONAL MARKET ENTRANCE

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Abstract

The trend of globalization dominates for a long time on the world stage through which liberalization is closely relating, as well as the acceleration of global economic flows. As one of the activities in which this kind of dynamics can be noticed the most and at the same time multiplied on other economic activities is certainly a service industry. To the research of hotel tourism has been devoted very little attention. Actually, in this area not too many research have been carried out, compared to the other sectors of the service industries. The hotel tourism in BiH due to numerous comparative advantages in relation to other activities, can serve as one of the most reliable and efficient "channels" for entering international markets. There is more and more a need to be familiar with the basic indicators of the hotel industry, as the main assumptions for the purpose of encouraging the future development of entire tourism sector of Bosnia and Herzegovina. In this paper it will be discussed current and future development of tourism in Bosnia and Herzegovina, a statistical analysis of hotel tourism indicators and the role of the tourism sector in the national economy.

Key words: tourism sector, hotel tourism indicators, international market, statistical analysis

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INTRODUCTION

Service systems of accommodation in hotel tourism include a number of organizations such as hotels, restaurants, catering companies, transportation firms, travel agencies and other tourism organizations. Hotel tourism in countries which are in transition, like our country is, only recently started to meet with the new business terms, which are a consequence of the globalization of the world market, as well as the increasing use of modern technologies in the hotel business. Under the pressure of competition, hotels are more and more facing with the new form of competition in the international market, actually with the quality of service. Therefore, it is important to note that the improvement of Bosnia and Herzegovina hotel tourism is based on improving the quality of hotel services, and it is basic precondition for a successful business, both on domestic and international market. The quality of services in the hotel tourism is viewed from the guest aspects and their expectations. In the hotel tourism providing more quality services than the competition is one of the main ways to differentiate the hotel. The key of success is to accomplish and exceed the quality of service that guests are expecting.

Services in the hotel tourism should have a function of satisfying the needs of tourists and due to that it needs to be synchronized territorially and timely in order to ensure the unity of entire process when it comes to meeting the needs of all tourists [Unković and Zečević, (2007), p. 70].

STRATEGIC MANAGEMENT OF THE SERVICES IN A HOTEL TOURISM

Strategic management of the hotel program of accommodation, like management of every other company in the tourism supposes decision making of three important factors: elements, levels and forms of the services. It is necessary to bear in mind that hotel program of accommodation consists of all touchable and untouchable elements of the service. Touchable and untouchable elements of the service are offered in various forms in the market. The more hotels offer diversity in the field of tourism (e.g. a huge travel corporations have also and a significant hotel and other accommodation capacities); the more it is harder to achieve synchronization of touchable and untouchable elements and their control in the process of providing services. The level of service is primarily related to the quality, where it is very important how tourists see and receive it. Quality needs to ensure their satisfaction and to create new demand.

The above-mentioned facts, Powers indicate with one term as a “style of service” and state the following [Powers (1990), pp. 94-101]:

- elements in the service, for example whether it is a full board service or a service with not so many content in hotel tourism; the scope and structure of the food and beverage services are changing with the construction of apartment hotel, while electronic cash registers and automation of the work at the hotel reception reduces not only the number of employees, but also the scope of services which are provided in this unit;
- at the level of service it is essential ranking of the quality, for example in hotel restaurants there are different categories of equipment and decor, and it is even more apparent difference in the quality and in the level of services in the accommodation objects that offer fast food also in the superb, exclusive restaurants, etc.;
- when it comes to form, that is to say the type of services, it can be provided examples of services *McDrive*, which is actually a possibility to access by car and buy food without leaving the vehicle at McDonald's restaurants; there are similar examples of hotels that

have only apartment accommodation, then there are examples of taking food in the hotel restaurant and its preparation in a hotel room, etc.

Changes in the elements of a hotel service are strategically adapted to the market and its requirements. However, in all of this it is crucial that the hotel carries out a classification of its guests as follows [Čačić (2010), p. 320]: an individual business guests (business travelers), business groups, groups that attend various meetings (conferences), tourists and travelers on vacation, local residents who are temporarily living in a hotel, military officials or guests and those segments from the wider region (e.g. those guests that spend a weekend at the hotel).

However, this is only a part of the possible segmentation. For example, business travelers can be divided by gender, women's segment – a business travelers is significantly increasing, and it has special requirements to travel and duration of the stay in the hotel (in terms of security, type and quality of services, accommodation of the hotel rooms, etc.). The segment of tourists on vacation is set very wide, and it is clear that it is about combination of multiple segments, e.g. in terms of age, family status, arrangements of arrival (individual or through travel agencies), the average consumer preferences related to the contents available at the hotel, incentive trips, and many others. The so-called frequent guests are strategic goal of all businesses in the tourism industry. They are frequent guests largely due to the promotion effects which they make as satisfied customers. They, as satisfied customers, recommend hotel to friends, relatives and acquaintances (assuming that they return to the hotel because the services were previously satisfied with the quality). On the other hand, guests who use hotel services for the first time are no less significant than other guests because of the efforts that they become possible frequent guests.

Large hotels have developed special programs for frequent guests to get them tied up for themselves and provide a powerful influence which they have on the environment in which they live and work. *Hilton, Holiday Inn, Marriott* and others have been known for decades for such programs. Their guests are rewarded, when they gather a certain number of stays, with special status and VIP treatment, which brings privileges in the scope and structure of services, prices and other contents for all hotels in the chain. [Ilić, (2007), pp. 90-96].

A loyalty of the guests is achieved with high quality of service, while total satisfaction of its customers is the result of a strategic quality management, and also it is a important a competitive advantage of the hotel, whereas loyal guests with their recommendations wide a range of potential users and which their positive experience has greater impact than the promotional activities of the hotel.

THE ANALYSIS OF THE HOTEL TOURISM INDICATORS IN BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina represents a very interesting tourist destination which is a result of geographical location, unique natural beauties, cultural and historical values and favorable climatic conditions. On the area of Bosnia and Herzegovina for centuries different cultures, religions and traditions were crossing, which adds an extra value to the creation of a specific tourism product and enriches the offer. Thanks to all this, Bosnia and Herzegovina has many natural and by people's hard work and activity created opportunities for the development of different types of tourism. As a result of all this, there is the fact that tourism in Bosnia and Herzegovina is one of the most important branches of the economy. According

to the World Tourism Organization in 2008, Bosnia was in the top of this list as a country with increase number of tourists by 20%.²

In 2012 the arrival of 737.214 tourists have been registered, which is an increase of 9.4%, and it had been 1.627.847 overnight stays, which represents an increase of 9.6%. 56.7% of these numbers are foreign tourists. Travel guide Lonely Planet has marked the Sarajevo as the 43rd best city in the world, while in December 2009 Sarajevo was placed as one of the 10 best cities to visit in 2010 and that is how Sarajevo was positioned in front of Dubrovnik, which was ranked at the 59th place. Also it was positioned in front of Ljubljana which was on 84th place, Zagreb at 125th place and Belgrade at the 143rd place.³

Bosnia and Herzegovina, as a tourist destination, is at the stage where it is necessary to directly and effectively involve tourism offer in European and world developments, from the creation of conditions in order to attract foreign capital and its investment in the development of tourism, development of small and medium entrepreneurship, raising quality of service, and all the way to the conservation of nature and other resources, as the fundamental assumptions of tourism prosperity.

In order to integrate Bosnia and Herzegovina hotel as soon as possible offer into the European and even global tourism offer and satisfy more and more demanding demands of tourism countries it is indispensable necessary to see and apply experience tourism in developed countries, with the aim of bridging the gap between the diversity of supply of developed countries and their poverty offers. Tourism in Bosnia and Herzegovina due to a number of comparative advantages in relation to other activities, can serve as one of the most reliable and efficient "channels" for entering international markets. The World Tourism Organization (WTO) for the purpose of monitoring the tourism industry in the early nineties offered methodological pattern SICTA (Standard International Classification of Tourism Activities), which represents a supplement of the earlier classification, where all national activities are defined depending on their participation in the supply of tourist products and services. Apart of the SICTA methodology, for the research of economic function of tourism, the WTO in cooperation with the OECD and the United Nations has developed a methodology for tourism satellite accounts (Tourism Satellite Account).

Tourism Satellite Account based on the balance between the demand for goods and services by tourists and their offerings, with the aim to investigate how the offer affects all other economic activities [Jelušić, (2002), pp. 90-96].

If we examine the statistics about the tourist offer, it is important to note that the BiH Statistics Agency performs the testing of certain specimens of tourist facilities (especially hotels). However, it is about small part of the total number of hotels. The questionnaire includes questions about the number of beds, their availability, citizenship of the guests, etc.

However, questions employment, wages, investment, prices, etc., which are relevant for the purposes of analyzing, a tourism statistics are not included. Information about the main characteristics of the tourism industry (transport, travel agencies, tourism operators, etc.) does not exist. It can be said that the statistics of tourism in BiH is at the most basic level of presentation. It should be noted that the identification of the characteristic tourism activities and tourism products of BiH according to the recommendations of the World Tourism Organization are not possible. Statistical balance information of payments in BiH tourism also encounters the same problems. [Jelušić, (2002), p. 9]:

² http://www.unwto.org/facts/eng/pdf/highlights/UNWTO_Highlights08_en_HR.pdf, accessed: 06.05.2014

³ <http://www.news.com.au/news/photos-e6frflw0-1225794915428?page=2>, accessed: 06.05.2014.

Taking into consideration the state of the statistical system of tourism in BiH, in the study of tourism satellite accounts is concluded that BiH needs to undertake significant efforts to improve its statistical system of tourism, and this improvement must be achieved before proceeding with any other project. In order that creation of Satellite Account tourism is possible it is necessary to fulfill two conditions [Jelušić, (2002), p. 13]:

- existence of a system of national accounts, because the satellite account must be linked to a central national accounting framework and include it in the main part of the integrated micro-economic statistics and
- availability of statistical information (about the system of national accounts, especially production accounts by economic activity, the institutions manufacturer of tourist goods and services - hotels, restaurants, travel agencies, etc.; on domestic tourism, with overnight stays and visitors, to identify at least the following: volume of travel, the reasons for going on a tourist trip, the existing demand tourist destinations, demographic, social and economic profile of visitors etc.)⁴.

It is necessary to mention that the improvement of tourism statistics is a very complex process, because tourism is a unique service industry which defines itself through consumers or visitors. During its stay in one of the tourist destination near the tourist services such as accommodation, meals, tours, etc., they buy goods and services which are not included in a direct tourism spending (such as public transport, clothing, theater, etc.). For this reason it is necessary to establish as soon as possible BiH Tourism Satellite Account that would allow monitoring and measuring the consumption of all goods and services, which are directly or indirectly involved in the provision of tourism services. In an effort to emphasize the dynamics of tourism activities, especially the hotel tourism in BiH, which is the main aim of the study, performed the analyzes of hotel tourism.

ACCOMMODATIONS ANALYSIS

Bosnia-Herzegovina's tourism is characterized by very limited capacities, inadequate structure and location, the lack of unsatisfactory level of comfort and by low levels of service. As a consequence of the lack of solid controlled standards in the construction and accommodation, hotel facilities in BiH have low levels of comfort. They are becoming increasingly uncompetitive and correspond mainly to mass tourism, and it is largely contributed to obsolete types of facilities, also equipment accommodation is outdated and there is a lack of application of modern information resources, resulting in a lack of quality in the tourist industry. In order to change process we must started as soon as possible, because it is necessary to harmonize standards in the hospitality industry with the standards of countries with which we intend to cooperate and compete in the international market. When looking at the dynamics of accommodation, and offers, in the period from 2003 – 2010. (table 1), we can conclude that they have a development trend. In the F BiH, the total number of beds increased from 10.457 in 2003 to 16.215 in 2010, i.e. 55.06%, while the RS has been an increase of 65.96%. Number of beds at the state level has increased from 15.872 in 2003 to 25.202 in 2010, i.e. to 58.78%. The low number of accommodations at the state level in 2012 to 9.99% compared to the year 2011.

⁴(Interesting details about necessary statistics for the satellite account of tourism can be found in Diaz G., Duran C., *Pokretanje nacionalnog satelitskog računa: meksičko iskustvo*, Enz o Paci Papers, svezak I, Svjetska turistička agencija, Madrid, 2001.).

Table 1. Review of the number of the accommodated capacities in BiH

Years	Accommodated capacities (number of beds)		
	FBiH	RS	BiH
2003	10.457	5.415	15.872
2004	11.116	6.178	17.294
2005	11.586	6.578	18.164
2006	12.118	7.818	19.936
2007	13.667	8.357	22.024
2008	14.206	8.424	22.630
2009	15.760	8.545	24.305
2010	16.215	8.987	25.202
2011	16.877	8.888	25.765
2012	14.008	9.183	23.191

Note: Taking into consideration that it has taken from a several sources, all of them are mentioned in the footnote⁵

THE ANALYSIS OF THE TOURIST TRAFFIC OF BOSNIA AND HERZEGOVINA

As indicators of the hotel service realization most commonly it has been used tourist traffic and incomes that have been achieved on the basis of tourist overnight stays and actual tourism. Besides income, it is possible to use and expenditures related to tourism, as an indicators of investment in tourism. However, for many reasons of the resource availability, as indicators of hotel service realization we list tourist turnover on the basis of arrivals and overnight stays in BiH (table 2).

Table 2. Tourism traffic in Bosnia and Herzegovina from 1971 – 2012.

YEARS	TOURIST ARRIVALS			TOURIST OVERNIGHTS		
	Domestic tourists	Foreign tourists	Total	Domestic tourists	Foreign tourists	Total
1971	774.246	203.262	977.508	1.550.262	306.780	1.857.042
1981	1.456.183	248.788	1.704.971	3.063.997	452.589	3.516.586
1984	1.600.793	330.380	1.931.173	3.617.504	782.221	4.399.725
1986	1.664.024	367.095	2.031.119	4.015.020	697.675	4.712.695
1987	1.588.180	389.481	1.977.661	3.986.619	807.309	4.793.928
1988	1.480.282	425.296	1.905.578	3.744.282	1.012.145	4.756.427
1989	1.375.588	394.156	1.769.744	3.587.816	974.828	4.562.644
1990	1.157.000	321.000	1.478.000	3.018.000	776.000	3.794.000
1991	842.000	50.000	892.000	2.191.000	147.000	2.338.000

⁵FBiH;

<http://www.fzs.ba/god.htm#TURIZAM%20I%20UGOSTITELJSTVO> (accessed 15.07. 2011.)

<http://www.fzs.ba/Podaci/Federacija%20u%20brojkama%202010.pdf> (accessed 15.07. 2011.)

<http://www.fzs.ba/Podaci/FedBrojke2013.pdf> (accessed 05.06. 2014.)

RS;

Ugostiteljstvo i turizam, Statistički bilten no. 1 and no. 2, 2006., no. 7, 2011., Republički zavod za statistiku, Banja Luka.

Statistički godišnjak Republike Srpske, Republički zavod za statistiku, Banja Luka, 2013.

1997	152.878	115.466	268.344	478.786	298.839	777.625
1998	188.927	147.925	336.852	535.176	355.323	890.499
1999	220.712	146.964	367.676	602.496	345.536	948.032
2000	224.381	170.937	395.318	560.280	389.233	949.513
2001	191.856	138.528	330.384	451.531	329.833	781.364
2002	200.995	159.763	360.758	495.830	392.354	888.184
2003	214.100	166.719	380.819	494.469	407.066	901.535
2004	219.351	190.359	409.710	511.221	458.782	970.003
2005	211.827	212.611	424.438	520.821	473.840	994.661
2006	236.232	250.243	486.475	565.816	584.738	1.150.554
2007	277.000	642.000	919.000	306.000	695.000	1.001.000
2008	289.000	678.000	967.000	322.000	719.000	1.041.000
2009	262.000	597.000	859.000	311.000	671.000	982.000
2010	291.000	644.000	935.000	365.000	773.000	1.138.000
2011	286.405	387.389	673.794	657.531	826.938	1.484.469
2012	303.239	433.975	737.214	705.204	922.643	1.627.847

Note: Taking into consideration that it has taken from a several sources, all of them are mentioned in the footnote⁶

From the previous table it is evident that BiH before the war had a very strong increase in the number of tourist arrivals and tourist overnight stays. The largest turnover on the basis of realized tourist arrivals was in 1986 when the number of tourists increased to 2.031.115 compared to 977.794 tourists in 1971. which is higher for 107.72%. When it comes to the number of tourist overnight stays in Bosnia and Herzegovina, the largest turnover was recorded in 1987. (4.79.928), that is compared to 1971. (1.857.042 overnight stays) more than 158.09%. The nineties of the twentieth century were due to the socio-political developments in Bosnia and Herzegovina and its region left their mark on the Bosnia and Herzegovina tourism. This fact is mostly visible by the inspection of arrivals and overnight stays by foreign tourists in BiH. That is how, in the 1991. the number of tourist arrivals in Bosnia decreased by 39.64% compared to 1990. while the number of foreign tourist arrivals have been only 50.000 which is 84.42% less of arrivals compared to 1990. Number of tourist overnight stays was also reduced from 3.794.000 in 1990. to 2.338.000 in 1991. which was 38.37%. In the postwar period (1997-2010.) the number of tourist arrivals and nights is continuously increasing. That is how in 2010. the number of tourist arrivals has increased by 248.43% compared to 1997. while the number of tourist overnight stays during the same period increased by 46.34%. However, in 2011. and 2012. there was recorded a drop in tourist arrivals in BiH compared to 2010. In 2011. the number of tourist arrivals in Bosnia has decreased by 27.93% compared to 2010. When it comes to the number of tourist overnight stays in the specified period there is a continuous rise.

⁶1971 – 1991., 1999., Čatović A., *Turističko-ugostiteljska djelatnost faktor privrednog razvoja TK*, Bosnia ARS, Tuzla, 2005., str. 83.

1997 – 1998. Statistički bilten no. 2, Agencija za statistiku BiH, Sarajevo, 1999.

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If we compare the tourist trade based on the number of arrivals and overnight stays of domestic and foreign tourists in BiH in the period of 1997-2012. we can observe the following [Fazlić (Dedić), (2012), p. 122]:

- the number of tourists in 1998 has increased by 23.58% compared to the previous year, while the number of foreign tourist arrivals in the same period has declined by 6.54%. Number of domestic tourists' overnights in 1998. has increased by 11.77% compared to the previous year, while the number of foreign tourists' overnights in the same period has increased by 18.90%.
- The highest percentage of growth based on the arrivals of domestic tourists was realized in 1998. as previously mentioned, 23.58% more than in 1997. and on the basis of foreign tourist arrivals in 2007. it has increased up to 156.55% compared to 2006. The largest percentage growth on the basis of domestic tourists overnights was realized in 2010. with an increase of 17.36% compared to 2009. while the percentage of growth on the basis of foreign tourists, is the highest in 2006. even for 23.40% higher when it is compared to the previous year.
- Number of foreign tourist arrivals from 2005. to 2010. is higher than the number of arrivals of the domestic tourists. If we look at 2006. the participation of foreign tourist arrivals in the total number of arrivals is 51.44%. Number of foreign tourist's overnight stays, with a share of 50.82% in 2006 is higher than the number of domestic tourists overnights.
- In 2006. our country was visited by 250.243 foreign tourists with the number of overnight stays of 584.738. If we compare this figure with the 1997, we will notice an increase of 116.72% of arrivals, or up to 95.66% when it comes to foreign tourist's overnight stays.
- The average tourist overnight stay in BiH in 2006. is two nights (two domestic, two foreign overnights). The highest average tourist overnight stay in the post war period was realized in 1997. and it was three days. If we look at the period before the war, we can point out that the average number of tourist overnight stays was highest in the period from 1988. to 1991. which was also three days. As a new trend in the foreign tourist market there is a demand for arrangements with only a few overnight stays at destinations. These arrangements are so- called "short-breaks" vacations.
- As a result of the global economic crisis in 2011. and 2012. there was an evident decline in tourist arrivals in BiH compared to 2010. As it was pointed out, there is a decline in tourist arrivals up to 27.93% in 2011. compared to 2010. However, the number of overnight stays in 2011. has increased by 30.44% compared to 2010. which implies to the conclusion that tourists stay in BiH on average one day more.

When it comes to arrivals and overnight stays during 2013-2014. We need to emphasize the following⁷:

- in Bosnia and Herzegovina in February 2014. tourists have made 38.594 visits, which is higher by 3.7% compared to January 2014. and by 6.1% less compared to February 2013.

⁷ http://www.bhas.ba/saopstenja/2014/TUR_2014%20M%2002_001_bos.pdf (accessed 07.06.2014.)

- Tourists made 77.275 overnight stays, which is lower by 3.3% compared to January 2014. and by 17.2% less compared to February 2013. The total number of overnight stays of domestic tourist's participation was 48.2% and 51.8% of foreign tourists.
- The number of domestic tourists increased by 17.3% compared to January 2014. and 11.5% lower than in February 2013.
- The number of foreign tourists has decreased by 16.8% compared to January 2014. and decreased by 22% compared to February 2013.
- According to the type of object the largest number of overnight stays in the framework of activities Hotels and similar accommodation with a share of 94.2%.
- In the structure of foreign tourists in February 2014 most realized overnight stays were by tourists from Serbia (21.7%), Croatia (20.3%), Turkey (6.8%) and Slovenia (6.1%), which is in total of 54.9%. Tourists from other countries realized 45.1% of overnight stays.
- As far as the length of overnight stay of foreign tourists in our country, on the first place is India, with an average stay of 9.2 nights, Iran with 5.5 nights, Portugal with 4.3 nights and Lithuania with 4.2 nights.
- In the period of January - February 2014. Tourists have made 75.878 visits, which is lower by 2.4% and 157.283 overnight stays, which is lower by 14% compared to the same period in 2013.
- According to the type of accommodation object the largest number of overnight stays was recorded within Hotels and similar accommodation with a share of 94.1%. In the structure of foreign tourists the most overnight stays in the same period were realized by tourists from Croatian (27.2%), Serbia (20.9%), Slovenia (7.0%) and Turkey (5.5%) which is in total up to 60, 6%. Tourists from other countries realized 39.4% of tourist overnight stays.
- As far as the length of foreign tourists stay in the same period, in the first place is Iran with an average stay of 5.5 nights, India and Cyprus with 4.7 per night and Kuwait with 4.2 nights.

We should note that as a part of this work would be interesting to add and some other data related to the arrivals and overnight stays, such as ways (whether in terms of travel agencies, individual arrivals, etc.) and the motives or reasons of tourists arrivals (rest, entertainment, new experiences, etc.), but we were limited because official statistical agencies in BiH do not publish those data in their statements.

POTENTIAL OF HOTEL TOURISM AND ITS CONTRIBUTION TO ECONOMY ACCORDING TO THE FORECASTS OF WTTC

In their study, the World Trade Organization defines Bosnia and Herzegovina as one of the countries with the strongest growth of incomes of tourism, with the annual growth rate estimated at more than 10% (the average growth rate in the past ten years was 5.85%, with negative growth rates in 2009 and 2010 due to the global economic and financial crisis). WTTC, as one of the leading travel organizations, has also developed its own methodology for the assessment of the real economic impact of tourism through the so-called direct, indirect and induced impact of tourism. The difference in the economic impact of tourism in Bosnia and Herzegovina is significant, as shown in the latest annual survey for Bosnia and Herzegovina which is issued by WTTC for the year 2012. Furthermore, the estimate of the WTTC indicates that the total contribution to the travel and tourism sector in relation to BDP is much stronger and bigger than it is shown in the "official" data. Therefore, the overall

impact and importance of BiH tourism sector on BiH economy in 2011 is estimated at 7.4% of BDP, as opposed to direct or officially estimated impact of 2.1%. Therefore, indirect and induced impacts of tourism sector make additional 5.4% of BDP. In addition, according to estimates by the WTTC the other two main indicators of the importance of the tourism industry, and its impact on employment and export earnings were 6.7% of the total contribution to the employment, and it had 9.6% share in total exports in the 2011. (compared to the official data of direct influence, according to which the share of employment was 4%, while the share of total incomes from exports of goods and services were 8.6% in Bosnia and Herzegovina). The direct contribution of Travel and Tourism sector to GDP in 2011 was 530 million KM or 2.1% of BDP, which is in line with the official data from national accounts of BiH which is issued by the Agency for Statistics of BiH for 2011. This primarily reflects the economic activity which is generated by activities such as hotels, travel agencies, airlines and other passenger transportation services (excluding computer services). However, that also includes activities such as, for example, restaurants and entertainment, which are directly supported by tourism.

It is expected that the direct contribution to BDP in 2012 will rise by 1.8% which is actually 542.9 million, whereas the long-term estimates of the WTTC expects that the direct contribution of travel and tourism to BDP will grow by 5.9% which is actually 963.7 million KM up to 2022. (or up to 2.2% of BDP).⁸

PERSONAL TRAVELS AND TOURISM

Formally known as a personal spending on traveling and tourism, this indicator includes all personal spending of the one state population to travel and tourism services (accommodation, transport, entertainment, food, financial services, etc.) and goods which are used for tourist activities. Spending might happen before, during or after the trip and it covers all traveling and tourism, as well as foreign and domestic travels.⁹

When it comes to forecasting for 2016, category of personal travel and tourism should according to the WTTC report reach 578.4 million U.S. \$ (whereby BiH will fell down to 114 position) or 4.3% of total spending, at an annual rate of real growth of 3.9%, which would lead BiH to 130 place out of 174 surveyed countries. Forecasts for Bosnia and Herzegovina in 2016. and countries in its neighborhood are given in table 3.

Table 3. Personal travelling and tourism – forecast for 2016.

RANK	COUNTRY	AMOUNT (mil. US \$)
7.	Italy	158.669,30
19.	Turkey	44.210,00
21.	Austria	42.949,10

⁸ Looks of BiH industry in 2013– sector tourism, Fostering interventions for rapid market advancement (FIRMA), USAID, Sweden
http://www.google.ba/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CBsQFjAA&url=http%3A%2F%2Fwww.firmaproject.ba%2Ffile.aspx%3FrepDocumentID%3D1146%26Title%3DIzgledi%2520bh.%2520industrije%2520u%25202013.%2520godini%2C%2520sektor%2520turizma%26Type%3D.pdf&ei=Gtv1U464E6rY4QS0w4Fo&usg=AFQjCNErTWGw-ss15_1HAmHh6B7U5wpTvg&bvm=bv.73231344,d.bGE (accessed 21.08.2014.)

⁹ Central and Eastern Europe, *Travel & Tourism Climbing To New Heights*, The 2006 Travel & Tourism Economic Research, World Travel & Tourism Council, str. 8

39.	Hungary	12.781,10
50.	Croatia	6.625,60
67.	Slovenia	3.177,00
97.	Serbia	1.062,20
114.	Bosnia and Herzegovina	578,40
129.	Macedonia	372,70
140.	Montenegro	243,30

Adjusted to: League tables, *Travel & Tourism Climbing To New Heights*, The 2006 Travel & Tourism Economic Research, World Travel & Tourism Council, p.4

If we compare BiH with the countries of the former Yugoslavia, we can say that our country is in last place with an annual increase rate of 3.9%, while Croatia is in the first place (7.1%), Montenegro on the second (6.4%), Serbia in the third (5.9%), Macedonia in fourth (4.8%) and Slovenia in fifth place (4.5%).

THE TOTAL DEMAND FOR TRAVEL AND TOURISM

In his research, WTTC predicts that the travel and tourism in the country for a total generates 1.392 million U.S. \$ of economic activity (total demand) with a nominal increase to 3.113,20 million US \$ in 2016. which would put us in the 110 place (Table 4). The total demand for travel and tourism according to forecasts will grow with a real annual rate of 6.2% in the next ten years.

Table 4. Total demand of tourism and travelling – forecast for 2016.

RANK	COUNTRY	AMOUNT (mil. US \$)
8.	Italy	369.300,10
17.	Turkey	124.632,10
21.	Austria	110.899,60
45.	Hungary	33.416,20
48.	Croatia	30.058,70
67.	Slovenia	13.027,40
110.	Bosnia and Herzegovina	3.113,20
114.	Serbia	2.649,40
126.	MONTENEGRO	1.786,40
136.	Macedonia	1.259,40

Adjusted according to: League tables, *Travel & Tourism Climbing to New Heights*, The 2006 Travel & Tourism Economic Research, World Travel & Tourism Council, p. 35.

At the end lets emphasize that BiH should take a series of measures and actions in order to be positioned in the table of world tourist leaders at the tourist places forecasted by the WTTC. BiH has potential, but in order to achieve this goal BiH should be shaped in an appropriate tourism development policy.

On the basis of the analysis of the tourism sector in BiH it is possible to determine which decisions about the directions and guidelines of the hotel tourism development should be made, which is subject of exposure in the next section of the paper.

DECISION MAKING ABOUT DIRECTIONS OF DEVELOPMENT OF BIH HOTEL TOURISM ON THE INTERNATIONAL MARKET

As a priority objective it imposes the adoption of a unique methodology for collecting data on hotel tourism, as well as taking concrete steps towards harmonization and publishing data about all tourist movements in the BiH. Reliable statistical data represent fundamental basis of economic policy regarding the location of the hotel tourism in the economy of a country, as a key measure for its development and improvement. In addition to it, it is necessary to establish basic marketing, environmental, cultural and educational policies which would be to a much greater extent a function of the overall reconstruction of the tourism sector. In the context of the previously mentioned, a basic directions of development of hotel tourism in BiH would be treated to: creating a distinctive and high quality hotel services, creating own identity, destination reflection of tourism as a basis for tourism prosperity, reconstruction, thorough assessment and conservation of tourism potential, market positioning and interest destinations that would fully meet the needs of tourists.

The priority activities and recommendations which are in the function of achieving all the previous directions in would involve following guidelines [Fazlić (Dedić), (2009), p. 337]:

- Decision making related to activities of promoting tourism in Bosnia and Herzegovina as soon as possible, which may include and financing of making various publications and professional journals. It is necessary to ensure the availability of information in cultural promotional materials, brochures, internet etc. The way on which it will be made promotion depends primarily on the expected tourist traffic.
- Development of transport infrastructure in order to led BiH up to the standards of other Mediterranean countries.
- Make a decision about creating plans of the areas which will identify tourism zones in order to ensure sustainable development, reduce unplanned construction, and reduce conflicts of interest of the local people and tourist development.
- Education of employees and raising the levels of specialized knowledge in order to solve the deficit of knowledge and skills.
- Modernization of the overall tourism offer, actually a construction of quality supplements of existing supplies (increasing the level of utilization of the existing accommodation capacities and construction of the new golf courses, wellness, fitness, theme parks).
- Decisions making about environmental standards that would ensure efficient protection of natural tourist resources of BiH.
- To encourage the development of selective forms of tourism (medical, congressional, cultural, religious, etc.) in order to extend the tourist season.
- Decisions making about the new classification and categorization of tourist attractions objects.
- To simulate the development of small entrepreneurship, primarily due to the elasticity of tourism demand.
- In the shortest period possible provide public services to tourists (public beaches, walking trails, bike paths, parking, first aid, etc.).
- Supporting events for tourism development in order to promote tourist destinations.
- Giving favorable credit lines to encourage the development of tourism.

Development guidelines should encourage the development of tourism in both the short and long term and to show that high-quality tourism offers cannot exist without joint efforts of tourist community, local government, state government office, cultural and scientific

institutions, tourist agencies and other entities eminent to tourism. So, without real defined objectives and guidelines it is not possible to expect an actual success of development strategies. To each hotel it is a goal to attract more guests, to keep them as long as possible and convince them to come back again. That will be done only in one way, and that is to make an overall quality of service at the desired level and that the guests are filled with all the expectations with which they came to a particular destination. In order to make all together function in the organizational hierarchy, hotels are divided into smaller units that have different offer and they have different ways of work from one another, they also have a great deal of autonomy, but also a great responsibility. Of course it is important to the employer that each of these components works with a lot of quality and that provides services as best as possible to its guests, because even the slightest negative score from any part may undermine the overall impression that should be perfect.

The quality of service means that all those actions that will result with a thrill of the guests. Therefore the following aspects are the key [Berry, Parasuraman, (1991), p. 8]:

- culture of the services - the company must live and radiate with explicit culture services outward and inward, and control management in particular needs to lead as an example of the realization of cultural services.
- Kindness to the guests - all employees need to have it, especially those who are in direct contact with the guests; kindness will be greatly assisted if the staff can put themselves into the role of the guests.
- Standard - processes and performance must be carried out in accordance with the expectations of guests.
- Expertise - service staff must be competent; it is equally applied to their professional know-how, and their attitude towards guests.
- Complaints - they are the starting point for the improvement and must therefore be understood in good faith.

Feedback from the guests is a vital factor in the efforts of the hotel, to improve the level of service they provide. The guest who complains is a gain. The guest who complains is an important customer. To the guest who complains we should be grateful. American professor Cats-Baril emphasizes that even 92% of guests decide to visit us again if a mistake is quickly and successfully corrected, and 94% of them in that case will recommend that hotel to others (Perko, (2005), pp. 99-105).

In order to improve quality in the sector of hotel tourism in BiH it is necessary to form a national committee for the quality of the tourism sector, whose aim would be to analyze the needs, quality and standards, and its implementation within the various tourism products and services. Also, the role of the committee would be an establishment of basic standards in an organized way, also the creation and implementation of a rewards system that will allow guests to identify marks for quality and standards, as well as their promotion, controlling the execution of the defined procedures and quality marks, which should be compatible with an existing certificates: EFQM, ISO, EMAS, etc. The situation with the knowledge of the needs and opinions, especially on the side of a domestic demand in recent years has led to significant changes. The disintegration of the former Yugoslavia and its markets, also war environment, contributed to the visual impoverishment of the population, and the rapid decline in the purchasing power of living standards and process of deep social stratification, to the almost complete disappearance of the former middle class, which was the largest segment of the tourist demand. These changes brought an alienation of tourism from everyday citizens, and the entire primary link between the holders of tourist demand and tourism have been lost. In such circumstances, much more are known a demands of foreign tourists because they had

all these years a stable tendency of their movement and they had parallel legislation which protected them when choosing any arrangements, regardless of whether it was a world known travel tour operator, or some smaller, or their sub agent or a travel agency itself. With a development of tourist movements evolved and legal regulations that protected the interests of each passenger. Respecting the attitude that the world of the future is a world of services, users of these services must understand the importance of the quality and the conditions of a harsh competition in the international market, and apply it as the main competitive tool for further development. The need for quality services is bigger and bigger because the demands of the consumers are more and more sophisticated, and the quality is very important criterion because mostly consumers of these services, are choosing those destinations that provide quality service at a reasonable price, where competition is increasing and the number of companies that provide quality services are significantly increasing.

In order to resist the competition it is necessary to maintain high standards of quality service, with the aim of continuous quality improvement. The need for independent verification of quality (certification, national ranking, etc.) is also increasing. It is obvious that these certificates and national schemes must be internationally accepted and fully effective. (Lazić and Hamović, (2007), p. 9).

CONCLUSION REMARKS

In the work, we analyzed different indicators of the hotel tourism, whereby we concluded that indicators consistently show an upward trend. However, it is likely that the number of both foreign and domestic tourists would be higher if more effort were invested in the development of this sector. Specifically, hotel tourism in BiH is determined by an insufficient levels of service quality, unfavorable infra structure and a low level of accommodation unity usage. Hotels in Bosnia largely meet the needs of mass tourism, but the unsatisfactory level of quality hotel services is the result of the lack of standards in the design, construction and accommodation of the hotel, which implies that hotel capacities in BiH are becoming increasingly uncompetitive in the international market.

Bosnia and Herzegovina's tourism industry if it wants to contribute to the overall economic development of the country and hotel tourism as one of its important segment must actively get involved in all forms of international flows. The quality of tourism services and respect of passengers represent a precondition that our tourist destinations could be found in the programs of large foreign tour operators and in that way make them available to foreign guests.

It is necessary that our hotel companies align their business requirements with applicable European Union standards. Thus, the quality of the hotel tourism should be determined with hotel standards, which are defined by as certain category of the hotel, actually with a number of stars, an internal standards of a hotel chain or ISO standards, and as well with some another award for excellence.

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ADOPTION OF A NEW INNOVATION POLICY IN SERBIA-NECESSITY FOR COMPETITIVE AND EXPORT ORIENTED ECONOMY

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Abstract

Development of modern economy in most depends on its capabilities to produce, transfer and implement new knowledge through technology development and innovations. Key role in this process has Small and Medium size enterprises (SMEs) and especially high growing innovative companies that are the main source of new value added. Importance of effective Innovation Policy is already recognized and implemented by EU and OECD countries where this policy is one of the key elements for their competitiveness. Innovation Policy has become important element of development strategies in the EU (like Lisbon strategy and Europe 2020). Through stimulant innovation policy EU countries tries to upgrade business environment, to rise number of new companies and to commercialize innovations at the market. New European industrial innovation policy has the goal to improve and speed up commercialization of new products and services and to better use technologies that enables radical improvements of production and management, so that global competitiveness of European market could be also improve.

In Serbia, in spite the fact that some of documents has been adopted (like Strategy of scientific and technology development 2010-2015, Strategy of development of competitive and innovative SMEs 2008-2013 and adopted Law on innovation) there is still no effective innovation policy.

New innovation policy in Serbia needs to be based on systematic approach that includes favorable environment for creation of innovations and better framework for new instruments and measures for implementation of policy, defining of priorities, bringing key – strategic decisions and coordination with other development policies (regional development, export promotion, improving competitiveness...). New innovation and complete development policy of Serbia also needs to be coordinated with EU policies as Serbia could equally be integrated in unique economic, research and political European territory.

Keywords: Innovations, Policy, SMEs, Competitiveness, Development

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NEED FOR DEVELOPMENT OF THE EFFICIENT INNOVATION POLICY

Science and technology are the basic source, initiator and the most significant resource of the development of contemporary economy based on innovations and entrepreneurship. Speed and possibility of economic development greatly depends on ability to create, transfer and apply the new knowledge through the development of technology and innovations. Nowadays, knowledge is the main economic category, both regarded as the goods being traded with on the market, or through its transformation into the innovative products and services and other types of innovations representing the source of further technological changes. Innovations create new possibilities for solving the most significant challenges of the contemporary society. Innovation is a complex procedure, which is required to be supported by public policies in order to provide the full scope of social benefits. The aim of these policies is to increase the innovation capacity of the company and economy. After innovation, the companies are more dynamic, flexible and competitive, they create the new value and they meet better the requirements of individual consumers and society as a whole. The governments bring and implement the innovation actuating policy (setting the goals, defining priorities and providing finance), and the companies produce, innovate and invest conforming to the events on the market, basic political aims and development courses worldwide.

The importance of innovation policy has been recognized in countries of the EU and OECD where represents the significant part of the development policy. Through this policy, the governments are trying to improve the surrounding for opening of new innovative companies, development and commercialization of innovations. According to OECD, innovation policy aims to promote the commercial exploitation of new ideas, both products and services, as well as processes and organizational techniques.³ Innovation policy starts from innovative performances of new and already existing companies, factors which are making it easier and faster, as well as factors disabling and limiting successful innovation. The member states of the European Union can successfully provide assistance to the companies until "the existing market failures are neutralized, and the identified gains exceed disbalances regarding competition between the companies occurring after assistance provision."⁴

The traditional approach to defining the innovation policy, which has been based on innovation encouragement through investments in R&D, was replaced with wider approach considering all factors affecting innovation. The position of the companies in the innovation system is considered, their role as the innovation initiator, as well as the impact of innovations on business and development performances of the companies and economy. The obtained information provides implementation of measures aiming at innovation in companies and economy as a whole.

Within innovation policy, there is a difference between various company groups considering diverse methods in which they innovate and issues and limitations they face. Emphasis is given on development of highly innovative rapidly growing companies with high innovative performances which make breakthrough after implementation of innovations

³ OECD, (2007), Framework for the Evaluation of SME and Entrepreneurship Policies and Programmes

⁴ Commission of the European Communities, (2006), Framework for State Aid for Research and Development and Innovation (2006/C 323/01)

compared to other companies which have less innovative potential and contributes less to increase of economic competitiveness. Furthermore, there is often close attention paid to establishment of new companies because the companies face more difficult issues than the companies which have been already placed on the market and developed their business activities. The newly established and young companies have fewer possibilities to outsource funding, which affects mostly rapidly growing high tech companies. Therefore, one of the innovation policy aims is a development of private capital market which is ready to finance rapidly growing high risk companies during early stages of their business activities and/or to establish the public funding mechanisms for this company group (during lack of private funding).

For defining the innovation policy, there are other important issues such as: what is the share of new and young companies within global and local knowledge courses; whether, and in which areas, there is a need for education and training; what are the most significant obstacles limiting innovative activity and how much the institutionalized frame is encouraging for development of innovative companies; what is intellectual property rights protection; how much the innovative companies can access new markets; engagement possibility for hiring quality professionals, etc.

The innovation policy must conform to real happenings and solve the greatest challenges that the contemporary society faces (climate changes, environment protection and new energy sources development, nutrition of increasingly numerous population and social protection off increasingly older population, greater people mobility, economic migrations, availability, safety and IT networks protection, etc). Therefore, the innovation policy should be directed towards development of innovations solving complex issues, not only manufacture of high technology products. Actually, the basic goal of innovation policy is not creation of new innovations per se, but creation of more successful economy which meets existing and creates new requirements and develops the society as a whole, which is possible to do only by using new innovation solutions.

The effective innovation policy implies: setting priorities and making strategic decisions, protection measures against leniency of certain companies or regions and disturbing the healthy competition, solving deadlocks and repair of imperfections (bottlenecks) on the market, reduction of transaction expenses, etc. The innovation policy should result in new innovation strategy enabling merging of state policy and interests of company.

An effective innovation policy requires a systematic approach that implies the creation of encouraging environment for innovation development and defining of clear frame for creation of instruments and measures for policy implementation. Approximate conditions should provide environment that encourages companies to innovate. This approach implies conformity of innovation policy with other development policies, for example economic development policy, equal regional development policy, encouraging SMEs development, competitiveness improvement, encourage exports, etc. as well as continuous dialogue between various political participants which improves connection and conformity of innovation policies. The inclusion of a wide range of interested parties is positive because a dialogue and partnership between diverse participants, besides better definition of innovation policy, makes its implementation easier and provides greater political credibility and feasibility. A need for inclusion of a greater number of participants is a result from the fact that the social well-being is an explicit goal, and not only the consequence of innovations.

For creation and implementation of the efficient innovation policy, an appropriate institutional and physical infrastructure is required, as well as a good inter-sector and inter-regional

coordination which improves the control and evaluation of the results and the application of the best experiences of the existing innovative policies worldwide is enabled.

The benefits of efficient innovation policy, due to the overflow effects, also have the companies from the traditional sectors and rural areas, which were not sourcefully innovatively oriented. A good innovation policy is important because it strengthens the economic, social and territorial cohesion. How much the innovation policy shall be efficient greatly depends also on the method of its monitoring, control and evaluation of the effects. The quality of effect evaluation of the innovation policy greatly affects legitimacy and credibility of the government intervention into the innovation process. However, majority of the existing indicators evaluating innovations are oriented towards the input elements of the innovation process with the effect that the obtained results do not indicate complexity of innovation process sufficiently, i.e. connection and correlation of the great number of participants in the development of innovations.

INNOVATION POLICY OF OECD AND EUROPEAN UNION

A good example of the systematic approach to innovation policy creation is an innovation strategy, which was prepared in 2010 by the Organization for Economic Cooperation and Development. The OECD innovation strategy proposes the new management model by cooperation within the field of international science, technology and innovations in order to meet the global challenges.⁵ Unlike innovation policies which are vertically directed and whose goal is to encourage innovation in certain area, sector, technology or geographic area, OECD innovation policy includes wider innovation vision implying also horizontal and vertical policy coordination. This approach demands mutual efforts of numerous participants in order to provide equilibrium between the supply and demand and meet the expectations of the consumers and society as a whole. OECD innovation strategy recognizes various challenges that the countries meet, depending on their economic structure, development level of business culture and institutions, as well as the need to connect the innovation policies brought at the national, regional and local level. The basic strategy message is that connection of public policies and their efficient coordination with innovation policy may assist the governments worldwide to use innovations as a means to enhance economic results, meet the social challenges and increase the society well-being.

The improvement of knowledge and innovations through development of science and technology, as well as a development of other knowledge based society elements, is the basic strategic direction of the EU development. In order to achieve these goals, there have been taken numerous activities (development strategies were brought with corresponding measures and activities for their implementation, numerous initiatives and programs were initiated, etc) and significant funds were invested, both at the EU authorities and within individual member countries.

The basics of the European innovation policy were established by formulation of the Green Paper on Innovation (1995), bringing the “First action plan for Innovations in Europe (1996)” and the implementation of innovation policy into the development strategies of the European Union. The Green Paper on Innovation indicated the existence of „European paradox”

⁵ See more: OECD, (2010), The OECD Innovation Strategy - Getting a head start on tomorrow, Paris, p. 26

comprising the strong research but weak economic and innovation performances. The observed issue was characterized as «innovation deficit» and it indicated the need for wider observation of innovations, as well as the need to bring the policy which shall support development of the total innovation system and innovation process, not only R&D activities.⁶

Based on the Green Paper on Innovation, in 1996, the “First action plan for Innovations in Europe” was adopted, which created a common analytical and political framework for implementation of the innovation policy in the EU. Its basis is a systematic approach implying that the innovation occurs as a result of a complex mutual relation between individuals, company and other participants from the surroundings. Based on the action plan, in 1999, a practical mechanism for innovation policyholders and managers in Europe was created which was named Trend Chart on Innovation in Europe. The program goal was to collect, update and analyse the information on innovation policies at the EU level and member countries and inform the policyholders on movements within the area of innovation development and results of taken innovation policy measures.⁷

Innovation policy has become a significant part of development strategies of the European Union: Lisbon strategy and strategy Europe 2020. The Council of Europe 2000 adopted *Lisbon strategy* with the aim that the European Union becomes the most competitive and dynamic world knowledge based economy until the year 2010 able to perform sustainable economic growth with a higher number and more quality work positions and stronger social cohesion which would correct economic imbalances within the EU.⁸ The basis of Lisbon strategy is development and improvement of knowledge through greater investments into education and professional development, scientific and technological researches and converting knowledge into the new value through innovations. The strategy tried to: enable faster and stronger development of entrepreneurial and innovation companies, better connection between companies and scientific-research and educational institutions, create better business, scientific and innovation infrastructure, provide initiative assets and improve funding of scientific and R&D activities and motivate creative individuals to provide contribute more to the economic and innovation development. Within the strategy, there were taken actual measures through establishment of new administrative and professional authorities, activities for spreading awareness of requirements and importance of development of science, technology and innovations, the dialogue between science, economy and wider social community is supported, strategic vision is developed, innovation planning is established, etc.

The Council of Europe in 2005 redefined the original widely set goals from Lisbon. As the development priorities, growth and employment were pointed out, and priority action directions were defined (support to development of knowledge and innovations, creation of better conditions for investment and business activities and increase in employment, i.e. strengthening social cohesion in Europe). After two years, the Council of Europe, as one of priorities in the EU development represents increase of investment into knowledge. Based on the aforementioned, the same year, the European Commission initiated the idea of creating *Unique European Research Area (ERA)* so that the defragmented research capacities would become more attractive

⁶ See more: http://europa.eu/documents/comm/green_papers/pdf/com95_688_en.pdf, accessed: 24.7.2014. 17:05

⁷ <http://www.trendchart.cordis.lu>, accessed 28.7.2014. y 17:40

⁸ See more: European Council, Presidency conclusions, Lisbon, 23-24 March, 2000

for investment into R&D and overcome the major obstacles, which complicate research efforts in Europe. In December 2008, the Council for the EU competitiveness adopted in the year 2020 the vision for ERA enabling: free movement of researchers, knowledge and technology within the European area; creation of attractive conditions for carrying out researches and investment in R&D dynamic sectors; establishment of competitions within the science field across Europe, etc. Clear strategic selections and adopted operational goals significantly contributed to strengthening of financial and other support to the science development, R&D and encouraging innovations in the EU countries. However, besides significant advancement, no basic planned goals specified in the Lisbon strategy were met. The recommended level of contributions for R&D is only partially reached, and the total investment in R&D on average in the year 2010 did not exceed 2% GVA. Furthermore, there were no required defragmentation of the capacities for R&D, nor their better connection and integrity with other sectors. The connection between R&D sector, universities and, faculties and economy remained loose. Everything aforementioned resulted in delay in scientific and innovation capacities compared to the USA, Japan and other technologically progressive countries.

A majority of EU member countries obeyed the recommendations specified in the strategy and developed their own measures for support to the private R&D activities, but with neglect of priorities in allocation of public assets. The occurrence of financial crisis affected the significant reduction of funding into the science and new technology development, the available budgets for R&D public finance were reduced which greatly slowed down further knowledge based society development. As an answer to the financial crisis and deadlock in realization of goals specified in Lisbon strategy in the EU in the year 2010, a new innovation strategy was adopted, called Europe 2020 in order to provide scientific and technological competitiveness of Europe at the global level.

Strategy Europe 2020 represents the vision of European social market economy development in XXI century through exercising the smart, sustainable and inclusive growth.⁹ The basic strategy goal is that the EU in the year 2020 continues to develop the knowledge-based economy and become the most competitive economy worldwide. The need for stronger development of science, technology and innovations is emphasized as the significant pillars of the total development. The basis of strategy is that the development of knowledge and innovations strengthens competitiveness, creates new business opportunities and provides new work positions. Investment into technology, R&D and innovation contributes to: development of rural and other insufficiently developed areas, transformation of traditional activities and rapid development of the new service activities which contributes to strengthening of social, economic, social and territorial cohesion within the EU. A significant attention is paid to structural reforms, investment into science, technology, education, business and innovation infrastructure, in order to ease and accelerate the innovation development. One of the significant strategy goals is enhancement of the conditions for research, knowledge exchange and innovation. Meeting this goal implies that the investment into R&D in the year 2020 should reach the level of at least 3% GDP EU.

Within the “smart growth“, one of the three basic strategy pillars, a separate leading initiative was defined, named *Union of innovations*. The goals of this initiative is that science in

⁹ Kronja, J., i dr., (2011), Vodič kroz strategiju Evropa 2020, Evropski pokret u Srbiji, Beograd, p. 45

Europe is lifted to the maximum level, to ease and enhance the conversion of the scientific knowledge into the market products and services, to establish better cooperation between cooperation between public and private sector through innovation partnerships, to assist the private sector development through public sector interventions, to remove obstacles (so-called bottlenecks) which slow down and protracts realization of innovation ideas (expensive patenting, market fragmentation, slow application and standard creation, lack of research and qualified workforce), i.e. to remove everything which prevents that the knowledge converted into innovations is rapidly and efficiently realized on the market.

Significant lever in the innovation strategy implementation Europe 2020 is also a new *industrial innovation policy of the European Union*. This policy was brought aiming to enhance and accelerate development and commercialization of new products and services, i.e. to increase global European competitiveness both in traditional and the new activities based on knowledge and high technologies. Industrial innovation policy tries to use better the technologies enabling radical enhancement of production and company business activities, and the significant attention is paid to innovation company development. Within innovation policy, there were defined measures and activities which are necessary to be taken: (a) significant improvement of coordination between education, R&D and innovation economy activities; (b) establishment of widely developed productive cooperation in science and innovations at global level; (c) provision of easier access to funding the R&D activities and innovations, with an emphasis on ownership equity market development; (d) establishment of the unique market for innovation products and services at the EU level, (d) direction towards innovation competitiveness, as well as (e) solving numerous new community, economic, social and ecologic challenges. One of the tasks of industrial innovation policy is to enable review of results and efficiency of the brought directives within which the funds of financial support to research-development and innovation activities are allocated, as well as to reduce the gap in the innovation capacities and activities between certain EU member countries.

THE BASIC CHARACTERISTICS OF SCIENTIFIC AND INNOVATION SYSTEM OF SERBIA

The economy of Serbia is characterized by technological delay, especially in the field of industry. State aid is more declarative than realistic, and the public funding of science, R&D and innovations is mostly motivated by the wish to save this system against the entire downfall, without any greater ambition to improve it significantly.

The existing scientific, R&D and innovation system of Serbia was mostly developed more than two decades ago. Although it was inherited, for the conditions then, as the relatively developed system with respectable scientific, research and innovation capacities, corresponding connection with economy and significant exchange and transfer of knowledge, technology and innovations, nowadays, due to structural and resource weakening (result of sanctions, transition, privatization and inappropriate approach of the country), according to the international valid criteria, there is no efficient scientific, research and innovation system in Serbia.

Scientific-research capacities in economy are mainly extinct, researches at universities are reduced, there is no sufficient demand for R&D results, the impact of science and R&D sector to development and competitiveness of economy of Serbia is low or none, development and business activities of local companies are based on importation of technical and innovation

solutions abroad, there is no strategy «smart research specialization», etc. Everything aforementioned results in delay and demolition of the existing scientific and innovation system of Serbia, which is directed towards survival instead of development.

The connection of various elements within innovation system in Serbia is insufficient, as well as its connection to economy and other scientific and innovation systems worldwide. Research institutes are badly connected or not at all with higher education institutions which disables better use of available capacities and synergic effects due to gathering of knowledge and resources. Moreover, there is a loose connection between scientific and research institutes with economy, and the situation is better only with institutes, which are completely market funded, although their number is significantly reduced. Even the private research organizations which are, as per definition, market oriented and funded by service provision in Serbia, try to provide public funding because there is no sufficient company demand for results of their activities. Insufficient demand of local companies for services related to science, R&D and innovations results from the general condition in economy and society and the current development level. The real economy sector is in a bad condition, a majority of companies has huge development issues and it is on the verge of survival thus only a small number of local companies base their competitiveness and development on application of new knowledge and innovations.

A reduced investment into science, technology and innovations affected also the constant reduction of the number of scientists, researchers and other experts, emigration of the best and the most talented researchers (brain drain), as well as the insufficient motivation and perspective of development of the existing scientific and research personnel. The weakening the professional and personnel base has long term negative effects on efficiency and perspectives of science and technology development, as well as on economy development as a whole.

The insufficient local demand and lack of appropriate investment into long term growth sources (education, business and innovation infrastructure, R&D and other innovation sources) reduced productivity and competitiveness of scientific and research organizations, as well as their ability to solve contemporary challenges and provide dynamic sustainable economy development. Its effect is a small number of technical and non-technical innovations, a small range of R&D activities, loose connection between participants in the innovation area, non-existence efficient innovative network, insufficient competitiveness and bad reputation of local products, etc. Everything aforementioned affects the negative balance in the exchange with foreign countries with inconvenient structure of exportation supply with a slight participation of products and services with significant representation of knowledge and innovations. Therefore it is necessary to strengthen, widen and develop the national innovation potential through the new innovation policy, which shall contribute to the accelerated economic and social development and solution to the current and future challenges.

INNOVATION POLICY DEVELOPMENT IN SERBIA

Efficient innovation policy is characterized by complexity, multidimensionality, long-term orientation, significant need for coordination and inclusion of a great number of participants. Innovation policy implies setting the goals and provision of systematic conditions for development of science and technology and creation, development and application of innovations.

Up to the present development of innovation policy did not provide the required results. In the Report “PRO INNO EUROPE“on Serbia, the most significant drawbacks of innovation policy in Serbia are:

- Lack of cooperation between political institutions and lack of engagement of the business organizations in determining priorities and instruments of innovation policy;
- Researches are rarely the innovation base in companies;
- Economy contribution in R&D funding is low, including also the contribution of the private capital;
- R&D strengthening, as well as innovation development, lacks a strong cooperation between subjects within the country as well as internationally.
- Serbia is an “exporter” of human capital and there is a great threat against emigration of experts and workforce.¹⁰

The report indicates that the results of encouraging development of science, technology and innovations in Serbia are below the required level and that the support instruments within innovation policy are badly developed compared to the EU countries. The report also states that there are certain efforts made, and in certain areas also more significant results which are necessary to be supported and improved further.

The basic efforts within the area of science, technology and innovations, i.e. creation of innovation policy in the previous period, were made by issuing: Strategy of scientific and technological development of the Republic of Serbia for the period from 2010 until 2015, Strategy of development of competitive and innovative small and medium companies for the period from 2008 until 2013 and adoption of the Law on innovation activity.

Strategy of scientific and technological development of the Republic of Serbia for the period 2010-2015 was prepared aiming at provision of knowledge based economy development, starting from the current development level of science and technology in Serbia. Strategy vision is that Serbia becomes innovative country where scientists reach European standards, contribute to the total level of society knowledge and improve technological economy development. Strategy is based on two basic principles: focus and partnership. Focus is reached through defining the national research priority list where it is possible to make progress (biotechnology, energetics, environment protection, agriculture, management and social relations, health care, IKT, new materials, nanosciences and nanotechnologies and social-economic and humanist sciences). Partnership is established through strengthening the connections with institutions and companies in order to provide that Serbia realizes its innovation potentials on the global market. There is also a need for a long-term orientation of the Government towards competition strengthening instead of continuing with only institutional funding of R&D activities. The key strategy goal is restructuring of the public R&D system together with the conformed activities for recognition and integration of the business R&D sector into the national innovation system. Strategy conforms to the goals specified in the Lisbon strategy and it is directed towards their meeting.

Strategy of development of competitive and innovative small and medium companies for the period from 2008 until 2013 was brought in the year 2008 and it represents the basic

¹⁰ Kutlača Đ., (2011), Mini Country Report/Serbia; PRO INNO EUROPE

strategic frame for SMEs development in Serbia.¹¹ Thus, middle term priorities and directions were defined for entrepreneurship development and SMEs in Serbia. However, although the strategy goal is set to be entrepreneurial economy development based on knowledge and innovation creating sustainable, competitive and exportation oriented SMEs sector, the strategy is not essentially directed towards strengthening and development of innovations in SMEs, but development and strengthening of competitiveness of the existing companies without any greater ambitions for their innovation capacity strengthening.¹² Generally, Strategy for development of competitive and innovative SMEs only partially includes significant innovation policy elements, and the proposed goals, priorities, measures and activities represent only a small part of much more complex support system which should be developed within the new thorough innovation policy.

A significant step towards constant innovation policy development was made by bringing the *Law on innovation activity* which defines the principles, goals and organization for application of scientific knowledge, technical and technological knowledge, invention and discoveries, in course of creation and realization of the new and improved products, processes and services, as the development initiator of the Republic of Serbia.¹³ In that way, there are the set goals and the provided systematic conditions for creation, development and implementation of the innovations in Serbia. The law plans for adoption of innovation activity program for each budget year in order to support development of innovative products and services, encourage implementation and commercialization of scientific-research work, provide support and enhance implementation of the contemporary technologies, ease and accelerate the creation of infrastructure innovation organizations and other innovation infrastructure elements. Furthermore, the law also defines the methods of funding the innovation activity as well as other initiative measures. The law also stipulates the probability for provision of tax, customs and other subsidies or payment relief for legal entities and natural persons using the contemporary technologies, create and put on the market innovative products and services, make patents or financially assist development of the innovative activity in Serbia. The law provides possibility to enable also special initiatives to the innovative companies, such as subventions, deposits and deposit refunds in order to improve and accelerate their innovative activity. Although bringing the law on innovative activity defines basic assumptions for initiatives of innovations in society and economy and recognized the role and importance of innovative company initiatives, its use through various programs did not result in any significant increase in innovation activities in economy.

The total reach of brought strategic and legal solutions within this area is very limited. Measures and activities were applied partially, unplanned, which resulted in being realized with different, mostly slight success. For their definition and implementation, there was no dialogue between the interested parties and required cooperation between representatives of wider social community, experts and economy representatives in order to create consensus on the required content of innovation policy and define priorities and schedule of their implementation.

¹¹ Strategies is partially based on the Act on small companies representing the official frame for SMEs development policy in the EU

¹² Grupa autora, (2012), Izveštaj o malim i srednjim preduzećima i preduzetništvu za 2011. godinu, MFP, MRRLS, NARR, Beograd, p. 58

¹³ Zakon o inovacionoj delatnosti, Službeni glasnik Republike Srbije, number: 110/2005, 18/2010, 55/2013

BASICS OF NEW INNOVATION POLICY DEVELOPMENT IN SERBIA

Since the brought strategic and legal solutions did not succeed in significantly improving the area of science, technology and innovations in Serbia, it is required to create new innovation policy, which shall completely and consistently comprise all factors affecting increase in scientific, technical and innovation capacities of the economy in Serbia. New innovation policy should have a wider scope compared to the existing solutions (to include a greater number of instruments, measures and activities which directly or indirectly lead to innovation development) and to establish better frames, simpler regulation and more stimulating market which shall enable innovative companies and other participants to be greatly involved in development of new knowledge, innovations and improvement of the total national innovation capacities.

In that course, the new innovation policy of Serbia should enable: promotion of science, technology and innovations, development of entrepreneurial culture and awareness of science development and knowledge implementation through innovations, development of entrepreneurial knowledge and skills required for realization of innovative ideas, creation of business climate and surrounding which supports and includes development of entrepreneurship, science and innovations and encourages companies to innovate more, development of rapidly growing innovation oriented companies, strengthening company capacities in order to be able to accept and use innovative solutions created in local and foreign public scientific and research institutions, as well as development of effective national innovation system and its inclusion into the regional and global innovation systems.

New innovation policy should also provide: further simplifying, acceleration and cheaper bureaucracy procedures, better conformity of law and regulations with the requirements of economy and innovation realization, solving financial, administrative and technical obstacles limiting and/or making innovation in the local companies more difficult, development of new mechanisms for funding creation and realization of innovations, better protection of intellectual property, further development and strengthening of business and innovation infrastructure (scientific-technological parks, business incubators, innovation clusters and business-technological centres), more effective connection, cooperation and common work of all participants in the innovation process, rapid and effective spreading innovations in economy and better innovation cooperation in the country and at the EU level.

In order to make the new innovation policy successful, priorities must be determined and the areas need to be developed where the best results can be obtained with the critical mass of necessary resources (primarily critical mass of knowledge). Correct selection of priorities shall enable optimization of support to innovation development, strengthening the knowledge triangle (between education, research and innovations) and development of competitive, i.e. export oriented economy.

Framework for the development of new innovation policy in Serbia is innovation policy of the EU. It implies that Serbia, during defining innovation and total development policy should conform the plans, initiatives, actions, instruments and mechanisms to corresponding European policies within this area. Thus, development of science, technology and innovations in Serbia, which is significantly below European average, shall be closer to European standards and requirements. The adoption of the new innovation policy, starting with the best solutions applied worldwide (OECD and the EU) considering the real condition and development possibilities of

Serbian economy and society, shall result in the basic prerequisite of sustainable development of Serbian economy based on strengthening competitiveness and export growth.

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**CHALLENGES OF INNOVATIVE MANAGEMENT IN DEVELOPING ECONOMIES:
CASE STUDY OF MACEDONIA**

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Abstract

The fast pace of the ever-changing global economic environment has been always a challenge to companies, pushing them forward to innovate, thus, contributing to global economic growth. Small and medium sized enterprises (SMEs) had to innovate in order to survive. Therefore, developed economies have turned to introducing innovation management to SMEs. Innovation management can be best described as business process of developing an innovation within the organization. Innovation management has been, creating a valuable chain of innovation which thus has lead to economic growth in developed countries. However, the situation is not the same in developing countries. Unfortunately, in developing countries, such as the Republic of Macedonia, more than 90% of the economy is based solely on the work of SMEs. In order to push growth in the economy, innovation is needed, and it is required not only by large corporations, which account for a small percentage of the economy, but by SMEs as well. Therefore, innovation management needs to be fully operational in SMEs. However, challenged occur which impede the process of innovative management.

This paper will focus on the challenges and obstacles innovation management meets in SMEs in Macedonia. Challenge factors will be divided in two groups: external and internal challenges, and will be subsequently thus analyzed. External challenges in Macedonia include, but are not limited to the political (in)stability, regulations, especially innovation protection policies, geographical position, financial prospects for funding innovation and more. In terms of internal challenges to innovative management, the focus will be on execution of innovation management as a problem in SMEs – in terms of managerial culture and practices, as well as employee understanding and embracing of innovation. The goal of the paper is to offer suggestion on overcoming the outlines challenges, and improving innovation management in SMEs in Macedonia as a developing economy.

Keywords: SME, innovation management, developing economies

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INTRODUCTION

The fast pace of the ever-changing global economic environment has been always a challenge to companies, pushing them forward to innovate, thus, contributing to global economic growth. Small and medium sized enterprises (SMEs) had to innovate in order to survive. Therefore, developed economies have turned to introducing innovation management to SMEs. Innovation management can be best described as business process of developing an innovation within the organization, while optimizing profit on said innovation. The main idea behind the field of innovation management is the establishment of a process of creating commercial value from innovation. Innovation management has been creating a valuable chain of innovation which thus has lead to economic growth in developed countries. However, the situation is not the same in developing countries. In developing countries, such as the Republic of Macedonia, more than 90% of the economy is based solely on the work of SMEs. In order to push growth in the economy, innovation is needed, and it is required not only by large corporations, which account for a small percentage of the economy, but by SMEs as well. Therefore, innovation management needs to be fully operational in SMEs. However, challenges occur which impede the process of innovative management.

This paper will focus on the challenges and obstacles innovation management meets in SMEs in Macedonia. The first section will focus on the overall challenged of innovation management for any developing country. The following section will described the current state of innovation management in Macedonia, and its primary obstacles. The third section of this paper will group the challenge factors of innovation management by origin into external and internal factors, with specific explanation for both groups. In the fourth section of this paper, suggestions for overcoming previously stated challenge factors will be provided. In the end, the conclusion will provide final remarks and suggestions on future research in the field of innovation management in developing countries, and Macedonia in particular

INNOVATION MANAGEMENT IN DEVELOPING COUNTRIES

Companies in developed countries have a significant common trait when it comes to innovation: substantial commitment to innovation management on a firm level. (Hobday, 2005) Innovation can be defined as “the successful introduction of a new or improved product, process or service.” Although this definition may seem narrow, innovations are not always narrowly linked to a single marketplace. The significance of innovation can be seen in its connection to increased productivity, higher margins, and new product development. Through them, innovation is not rarely the source of structural societal change and a moving force for economic growth.

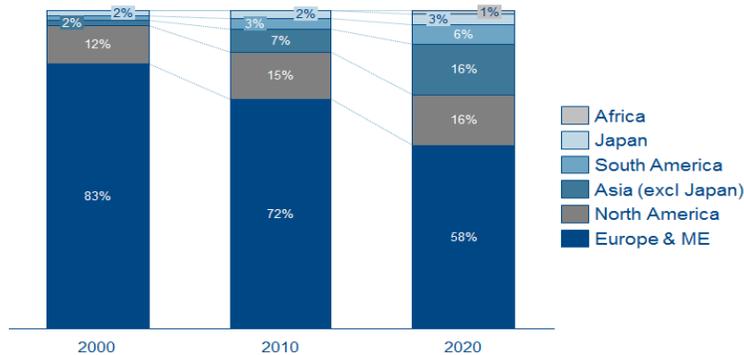
Seeing the importance of creating value through innovation, the management of innovation focuses on four crucial steps: search for an idea, select optimal idea, implementation and value creation. (Bessant et al., 2014) This process has required knowledge implementation and learning experience for its continuity. Often, the learning experience has been through unsuccessful innovation and failures. However, overcoming such challenges has made SMEs in developed countries highly innovative and competitive on a global scale.

What is the difference between companies in developing and developed countries in terms of innovation management? The economic and political background is the first significant differential factor. In an environment that differs significantly of developed countries, innovation management cannot rely on the same learning curve, simply because the “catching up” period

would be infinite. Therefore, there is necessity for “special” innovation management models to be implemented by SMEs in developing countries. (Kim, 1997) Therefore, the current sustainable model for innovation in developing countries is a three stage model, where the first stage is the imitation or acquisition of foreign innovation (preferably acquired from developed countries), the second stage is assimilation, which in successful attempts would lead to innovating through improvement of already existing (acquired) innovation – the third stage in innovation management for developing countries. At the third stage, firms in developing countries have been known to surpass even SMEs from developed countries, from which they have acquired initial idea for innovation. A clear example of this type of innovation management is the rise in innovation coming from Korea and China, which build their innovation (and subsequently economic growth through innovation) based upon technologies initially invented in developed countries.

Innovation in developing countries is crucial for global competence. Globalization, together with the increase and individualization of customer demands and economic uncertainty has deemed innovation management imperative for companies in developing countries. In the past decade innovation increase in developing countries can be observed. Table 1 shows the percentage of innovation in various world regions – a comparison between the past, the current situation and future expectations. As it can be seen, it is expected that innovation in developing countries would increase, not only in developed, but developing countries as well in the future. However, the challenges that need to be overcome in developing countries are immense.

Table 1. Global innovation resources: past and future predictions



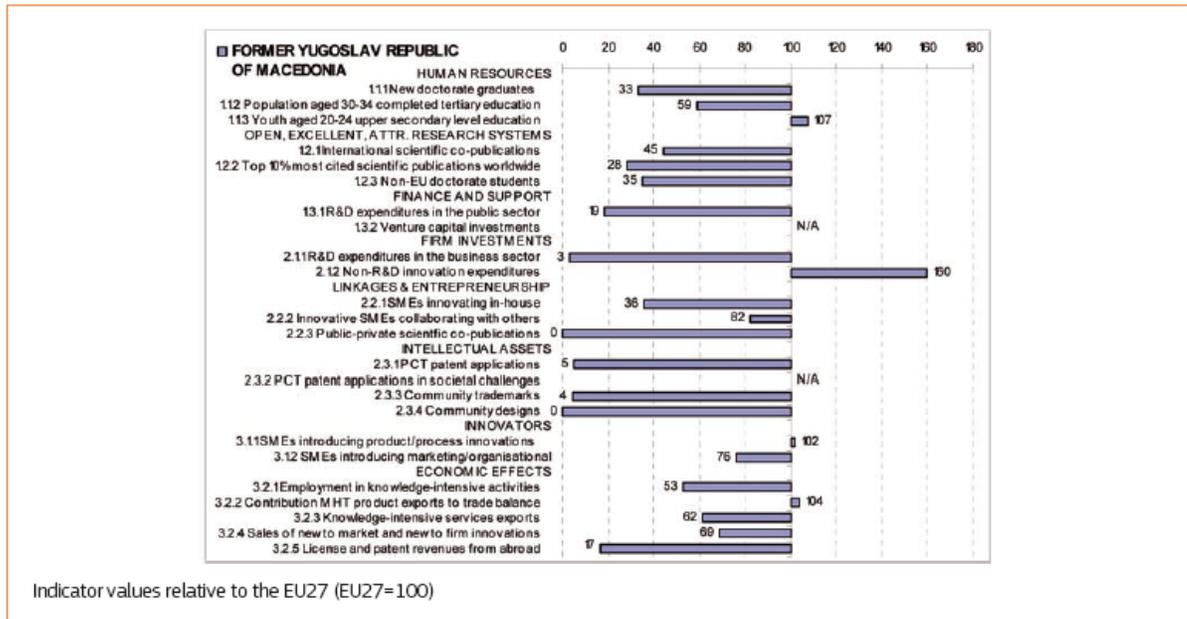
Source: ADL Global CTI/CIO Survey 2011.

INNOVATION MANAGEMENT IN MACEDONIA

As it was mentioned before, innovation management meets higher obstacles in developing countries, which is the reason why innovation in a number of developing countries is stagnating. This is very much the situation with innovation management currently in the Balkan Region. In the past few years, innovation performance in Macedonia has been slightly rising, but still not enough to provide substantial impact to its economy. According to World Economic Forum (2014), in the past two years, the capacity for innovation in Macedonia has even diminished, making Macedonia 91st on the list of 144 surveyed countries. Innovation management is considered to be poorly present in companies, with a below-average grade of 3/7, according to the latest World Economic Forum Research (2014, pp.254). According to the European Commission’s research in 2013, Macedonia’s innovation capacity is defined as modest with below-average capabilities. Still, this 2013 research records a 2.6% improvement in

innovating capabilities for Macedonia from the previous period. Additionally, some major challenge factors, such as intellectual property rights, have improved over the past few years. Other challenges have only deepened. For example, although there is an increase in highly educated staff, including employees holding PhD degrees, there is lack of private-public researches and publications, which leads to a lack of economic impact of educated labor force. Other relative strengths of Macedonian innovation are given below, in **Table 2**.

Table 2. Relative strengths of innovation in Macedonia



Source: IUS 2013.

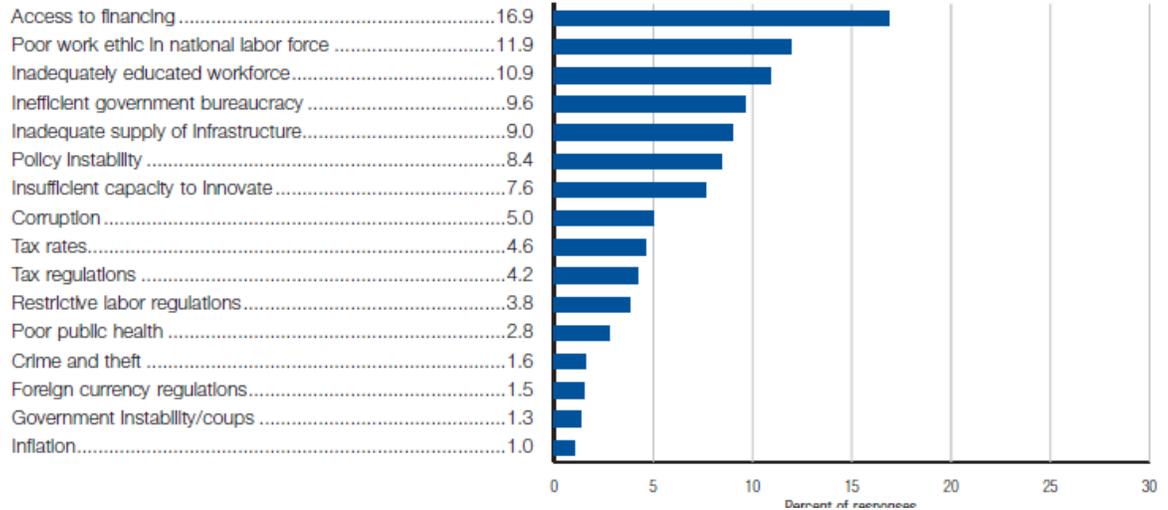
Whereas human resource capabilities excel in growth, linkages and entrepreneurship are slumming below the average. In numbers, investments and innovation increase in heavy industries sectors, whereas they seem to decrease in industries such as energy production. However, many producers argue that the lack of innovation is due to the lack of motivation, mostly because of decreased customers' demand over the years. However, this is not an unexpected finding, given that Macedonia is located in a region of modest innovators.

Another problem related to the enhancement of a cohesive innovation system for connecting innovation activities on an international level. In order to succeed in networking Macedonian innovation management on an international level, there are many requirements to be met: more adequate human and intellectual capital, innovation promoting activities, as well as national financing support for innovation.

In order to present a summary of issues that inhibit innovation management in Macedonia, in the table below the most problematic factors for doing business have been outlined by Macedonian companies. As it will be discussed further in this paper, many of these factors are apparent challenge factors for innovation management. For example, the access to finance is considered a crucial factor for innovation management. As it can be seen from Table 3 other issues that create a lag in Macedonian innovation management (and could be affected) are the insufficient capacity to innovate, poor work ethic in national labor force and inefficient government bureaucracy.

Table 3. Problematic factors for doing business in Macedonia

The most problematic factors for doing business



Source: WEF Global Competitiveness Report 2014-15

CHALLENGE FACTORS OF INNOVATION MANAGEMENT

As far back as 1984, Piatier has divided obstacles to innovation management into two groups: internal and external. Challenge factors of external nature usually stem from the surrounding environment of a company and rarely can they be influenced, whereas internal challenge factors come from the organization/processes on firm level, and can be overcome with proper innovation management adjustments. Although external factors cannot be directly affected, if they are known and anticipated, it is argued that innovation management can avoid their full influence. However, in overcoming external challenges, national institutions play a major role as well. On the other hand, internal challenge factors can be overcome by nurturing innovative culture and continuously improving innovation management on a firm level.

EXTERNAL FACTORS

The overall external challenge factor to innovation is the national innovation climate, which is above all dictated by the geopolitical position of the country. It can be further broken down into three large obstacles to innovation management: government support, bureaucracy and networking/partnering.

Government support is crucial to establishing innovation culture on a national level. Usually, the form of government support is the creation of a national innovation policy, which would serve as a reinforcer of collection of knowledge and dissemination between firms and research facilities. The lack of such a nationwide policy can lead to diminished communication between research and innovation institutions and the business sector. This relation is crucial to innovation management, since innovation implementation and value creation is its key goal.

One of the key external challenges to innovation is bureaucratic procedures. Long

administrative procedures, paperwork and long periods of waiting are diminishing innovation management, particularly in start-up companies. Unfortunately, this challenge is very much present in developing countries. In addition to administrative obstacles, restrictive laws and regulations are also a great external challenge factor. But even the lack of regulation, especially in protection legislation, can be seen as an obstacle. Innovation needs to be legally protected through intellectual property protection legislation, in order to be difficult to copy, unique and provide competitive advantage to its creator. In order to show companies how they could benefit from innovation, the government must provide legal grounds that will create stated benefits for the company.

In the end, the provision of networking and transfer of knowledge and experience is crucial to innovation management, and it is considered one of the major external challenges. (Hewitt-Dundas, 2006) Although this factor relies greatly on the openness of companies across the market, researchers argue that government intervention (most often in the form of triple-helix innovation policy) is crucial in order to create a viable network for experience sharing and learning new innovation models. Developing organizations, relationships and networks for experience sharing and promotion of competence building is a difficult, but important task to implement within the national innovation policy. (Lundvall, 2005)

INTERNAL FACTORS

Klein identifies five distinct groups of internal factors for innovation: ability barriers, knowledge barriers, functional barriers, intentional barriers and affective barriers. (Klein, 2002) Within these groups of obstacles to innovation management, the most important challenges can be perceived – the employee obstacles, the financing obstacles, the knowledge obstacles, marketplace information obstacles and legislative obstacles. It is argued that all these challenges can be overcome, much more easily than external challenges.

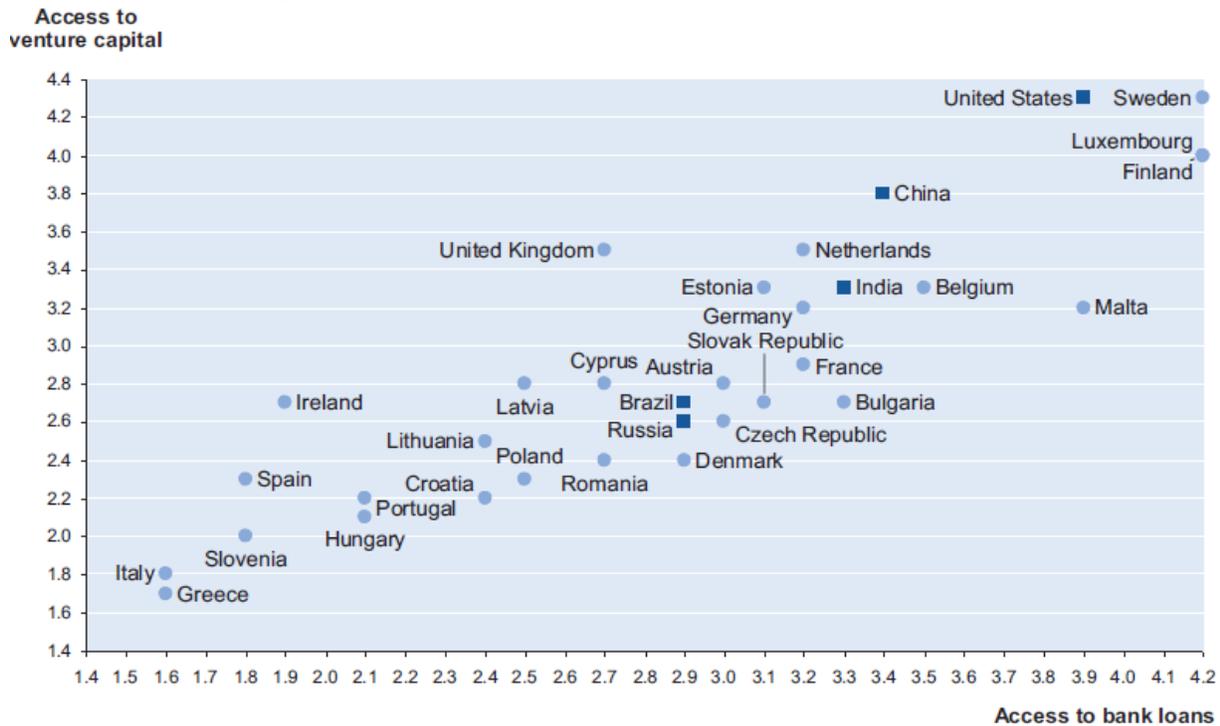
In terms of ability and knowledge barriers, most challenges occur due to employee lack of motivation or lack of knowledge. It appears that they can be easily overcome by implementing innovation-fostering HR policies. However, it is important to bear in mind that in less-than-innovative cultures, the cultural traits of most employees will include lack of motivation and innovative knowledge. This is a challenge most often met in developing countries. Although it is possible to intervene on a firm level, it is often argued that the implementation of national innovation policy may remedy this challenge.

Additionally, innovation processes lead to conversion of job practice and organizational forms that might create an obstacle in the eyes of employees when conducted in a hierarchical organization. Innovation management needs to overcome possible resistance and opposition from within the firm because of this. It is argued that firms that have continuous innovation practice have overcome this challenge by creating a company culture filled with understanding and support for the innovation process. (Simpson et al., 2006) However, in an organization where innovation is not a constant process, this may be a challenge difficult to overcome. Employee commitment is the key to overcoming this challenge, as well as effective change management in action, and higher level of creativity in the human resources department. But aside from employees, it is crucial that management first embraces the innovative spirit, in order to be able to successfully lead innovation management processes and thus increase profitability.

Functional or organizational challenges involve technical firm issues that may impede the process of innovation. One of the most painstaking issues within this subgroup is the issue of financing innovation. As it can be seen from Table 4 below, regions with high level of

innovation have many financing options. Access to both equity and debt financing is provided, which is one of the main supports for innovation management. Financing more often than not can be listed as an external challenge factor as well, since the lack of financing outside the innovating entity can be due to inefficient government policies or lack of market access to financing. In fact, one of the main challenges of Macedonian innovation is the lack of appropriate financing – managing innovations is related to higher risks and in turns, expected higher returns. Traditional investors, banks in particular, are risk-averse and do not see the need for investment in risky innovations as highly beneficial. In order to create more innovation-friendly culture among companies, higher access to finance is required, such as co-financing and grant schemes, venture capital, mezzanine financing, etc.

Table 4. Access to types of capital.



Source: WEF Europe 2014

CONCLUSIONS AND RECOMMENDATIONS FOR OVERCOMING CHALLENGE FACTORS OF INNOVATION MANAGEMENT

As it has been stated before, not all types of challenges can be overcome on firm level. Internal challenges can and should be dealt with within companies, but when it comes to external challenges there is not much a company can do directly to overcome such challenges. However, this section will provide suggestions for overcoming both groups of challenge factors, both on national level (external challenges) and on firm level (internal challenges).

When it comes to external challenge factors, they should be addressed on a national level. It is difficult for firms to overcome such challenges individually. Therefore, the best suggestions for overcoming external factors are addressed to governments directly. Needless to state that these challenges are usual phenomena in developing countries.

Addressing the national innovation policy (or the lack thereof), it is crucial to understand the need for internal cumulability of innovative knowledge and procedures, creating networks of interactions and partnerships and implementations of innovative knowledge. (Antonelli et al, 2013) The national-level policy for innovation addresses many if not all of external challenge factors. Suggested types of innovation policies include for example, introducing a twin policy focusing on firms and regions, with the core idea of strengthening the accessibility and usage of externally acquired knowledge through both networking and connecting business sector with research facilities on a national or regional level. The triple helix system is an even more popular national innovation policy, relating the government to the industry to research (universities). Enforcing this system is beneficial for all parties involved, as there is knowledge transferability, which can be profitably useful by going through the industry's innovation management process, and in the end, contribute to the economic growth of the national system. Additional government assistance is the reduction in regulatory issues and bureaucratic procedures, while increasing the intellectual property protection legislations. In order to motivate companies to be innovative, it is up to government to create safe innovation ground, which would ensure companies that their innovation will be their competitive advantage as well, thus motivating companies to invest in innovation. The most ailing issue of innovations, where national policies can affect the outcome, is company access to finance. Creating national funds for supporting innovation is crucial. This is a method very much used in developed countries in the form of state funds for innovation, particularly for start-up companies. Such funds are currently set up in developing countries as well, as is the example of Macedonia's Innovation and technological development Fund, which has been established in 2013, and is yet to prove its purpose in supporting innovation. In addition, during the period 2013-2015 a project titled "Strengthening industrial capacity for implementation of industrial policies", financed by EU's Instruments for Pre-accession Assistance (IPA) is promoting and enhancing the triple-helix program within Macedonia, establishing networks between educational institutions, the industry and governmental institutions. (Innovation Fund, 2012).

An important issue for the support of SME innovation on national level is the existence of a mechanism for intellectual property protection, which in the end line affects legal security of innovators and their ideas. In order to create a favorable innovation climate, it is up to the government to provide such legislation safety for companies, especially when it comes to SMEs.

When it comes to internal factors, authors argue that these challenges are far more easily overcome. But the greatest difficulty is being able to locate these challenges in SMEs. For that purpose, there are many recommended solutions to facing internal challenges, but in the end the broad formula for success is the raising of global awareness within SMEs of the importance of innovation and the significance of nurturing an innovative culture within a company. In this sense, both on management and employee level, mechanisms for recognition and support of innovative characters must be created; mechanisms which vary from one firm to the other but have the same global goal – enhancing firm innovation culture. Moreover, management recognition should not be only in the form of praise of a job well done – allocating resources such as time and finances to innovative employees are imperative.

In the end it is important to stress that the only path to competitiveness for developing countries' SMEs is through innovation management.

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INCREASING THE ABSORPTIVE CAPACITY FOR INNOVATION IN SMEs IN MACEDONIA

Gligorovski Violeta, PhD student ¹

Abstract

The creative contemplation as determinant of innovation theory is crucial concept of the organization in every competitive company. The introduction of new technologies, techniques and methods marginalizes the current and clears the path for competitive strategy of innovation. The aim of this paper is to analyze the innovation through the technological perspective in small and medium sized companies. The analysis shall present the meaning of several fundamental questions: are the small and medium sized companies prepared to absorb the technological changes, the level of innovation implementation as part of the strategies of the small and medium sized companies, are the small and medium sized companies prepared to accept innovations, etc. The research shall present the flexibility level which small and medium sized companies manifest towards the innovation as a category.

These are some of key issues that this paper will try to elaborate, using the scientific methods of comparative analysis, literature review, survey, internet research, etc. in order to present not only secondary data, but also to gather and analyses primary data that would be further used for final conclusions.

Keywords: innovation, strategy, technological changes, absorptive capacity

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INTRODUCTION

The creative contemplation as a determinant of innovation theory is crucial concept of the organization in every competitive company. It is a concept and a mode of perception of how to view things beyond their appearance.

Innovation has been recognized as a key element of competition and dynamic efficiency of markets (Love and Roper, 2013). Innovation activities are considered as the driving force for the business success and overall economic development. Small and medium sized companies are the main force for every developed economy. So, the innovation in SME's is very crucial element for the economic success. Innovation is implemented as a strategy concept in those SME's who has a vision for development and success.

“Innovation is not just an economic mechanism or a technical process. It is above all a social phenomenon. The history, culture, education, political and institutional organization and the economic structure of each society determine that society's capacity to generate and accept innovation (Mandjoubi, D. 1997).

Science, technology and innovation (STI) are clearly accepted as fundamental factors in a modern economy and are important in all stages of development. That is the reason for the importance of this subject of matter to be researched. Increasing the absorptive capacity for the innovation is an objective for every small and medium sized enterprise in order to achieve competitiveness in the market.

INNOVATION AND SME'S

Small and medium sized enterprises are the support of the Western Balkans' economies and they make a main contribution to job creation and economic development. The SME's are forced to be innovative in order to establish the market competitiveness(Шуклев, 2006).Stimulating innovation in SME's remains the element of policy initiatives for stimulating economic development at the local, regional, national and European levels.

When we talk about innovation, there are two views – an economic view and a social view. The conventional view is economic, – that first proposed by Josef Schumpeter in his book “The Theory of Economic Development”. There he argues that there are five forms of innovation: new products, new processes, new markets, new resources, and new organizations. Innovation is the process to develop and improve products, processes and markets, with the aim to aggregate value. The definition is based on a distinction made by him between an invention, an idea, and innovation as the generation of value out of an idea (Fransen, 2013.) Innovations can be radical or incremental (Jensen et al 2007). Radical innovation means that researchers and scientific entrepreneurs develop and test new technologies based on scientific knowledge. This is sometimes referred to as techno-globalization, as especially multinationals develop new technologies, which are subsequently produced by suppliers across the globe. However, high technology SME's also engage actively in radical innovation. Most of the SME's innovation is incremental meaning that existing knowledge is adjusted to the local context or adoption.

The social view looks at how innovations are adopted and adapted. This approach has been discussed by Everett M. Rogers in his book “*Diffusion of Innovation*”. (Salazar, Holbrook, 2002)Definition of diffusion as (Everet Rogers explain in Diffusion of innovation 1995) is the presence of four elements in the diffusion of innovation process. These elements include the following:

- 1) The Innovation: an idea practice(s) or objects that is perceived as new by individuals or a group of adopters.
- 2) Communication Channels: the means by which innovations move from individual to individual, or group to group.
- 3) Time: the non-spatial interval through which the diffusion events occur. These events include the innovation-decision process, the relative span of time for the individual or group to adopt the innovation and the innovations' rate of adoption in a system.
- 4) A Social System: a set of interrelated units that are engaged in joint problem solving activities to accomplish a goal or goals.

For enterprises, innovation is a crucial mean how to create competitive advantage and superior customer value.

ABSORPTIVE CAPACITY

Cohen and Levinthal (1990) defined absorptive capacity as a firm's ability to recognize the value of new external knowledge, assimilate it and apply it to commercial ends. Zahra and George (2002), the concept of absorptive capacity explain as a dynamic capability regarding to knowledge creation and utilization that enhances a firm's ability to gain and sustain a competitive advantage. Kim (1997) defines absorptive capacity as the capacity to learn and solve problems. Cohen and Levinthal's original work was based on exploring the premise that firms might incur substantial long-run costs for learning a new 'stock' of information and that R&D needed to be viewed as an investment in today and tomorrow's technology (Cohen and Levinthal 1990). Research by Zahra and George (2002) suggested that several different processes were involved – rather than simple absorption of new knowledge there were discrete activities linked to search, acquisition, assimilation and exploitation. Making a distinction between what they termed 'potential' and 'realized' AC helps explain why some firms are unable to leverage and exploit external information. (Bessant and Rush,)

(1) *Acquisition* is how a firm identifies and acquires knowledge that is generated externally (Zahra and George, 2002), in which the key influence factors are: prior internal knowledge, prior external knowledge, prior investments, human resources and communication

(2) *Assimilation* is how the firm can absorb, understand, analyse, process and interpret this new external knowledge. Key influencing factors are the level of education, diversity of backgrounds, organizational structure, internal communication and human resources

3) *Transformation* is how the firm develops procedures to merge the new knowledge with the knowledge that already exists in the company. Key influencing factors are individual absorptive capacity, level of education, diversity of backgrounds, organizational structure, organizational culture, internal communication and human resources (Bessant and Rush,).

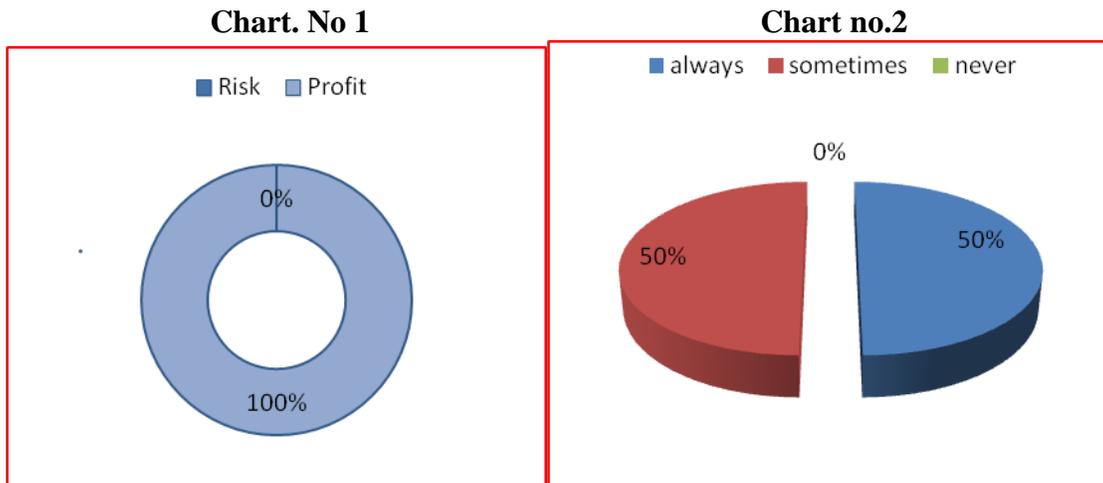
(4) *Exploitation* is how the firm applies this newly developed information to achieve the organization's objectives with key influencing factors including human resources, individual absorptive capacity, organizational structure, bureaucracy and responsiveness to the absorptive capacity of an organization depends upon the absorptive capacity of the individuals and groups within that organization.

**INCREASING THE ABSORPTIVE CAPACITY IN SME
PILOT RESEARCH
(SCANNING THE POSITION OF INNOVATION IN SMALL AND MEDIUM SIZED
COMPANIES IN MACEDONIA**

The pilot research was taken regarding these issues in a 40 small and medium sized enterprises from different industries and services from all over the country. The sample of enterprises and the survey were randomly defined. The survey was consisted of twelve questions mainly considering above mentioned matters.

I will elaborate some of the conclusions that I have made from this research.

- Small and medium sized companies in Macedonia have a clear concept about what innovation means and how can be defined. They understand the importance of innovation and how it will influence the process of progress of the company, by investing in innovations.
- Companies always know what their customers need, because they have strong connections with them. They use different ways to gather this information (depend of the sector): their experience, visiting the project that they working on, talking with them etc.



- From the Chart no.1 we can understand that the SMEs consider that investing in innovation is potential profit for the company, and not the risk. 100% of the companies agree with that statement, and 95% of the enterprises have a clear vision about the future and have strictly defined strategy for competitiveness. 100% of the companies considered that competitiveness of the company is related with the investment in the innovations.

- Chart no. 2 shows that 50 % of the companies always follow the innovation in their own sector, and other 50% only sometimes follow the innovation in their sector, but interesting fact is that all companies are interested in innovation and new information's regarding their own sector.

- From the survey we can identify that companies constantly are interested in new technologies that will improve their production process or improve services that they provide.

Chart no.3

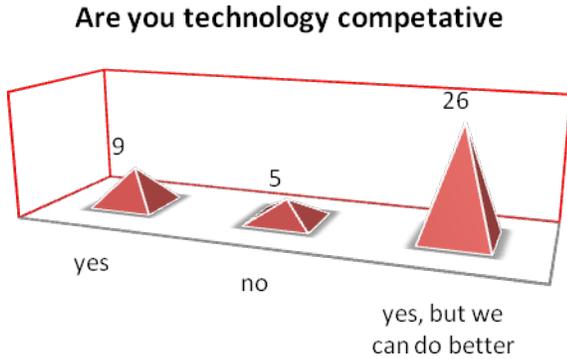
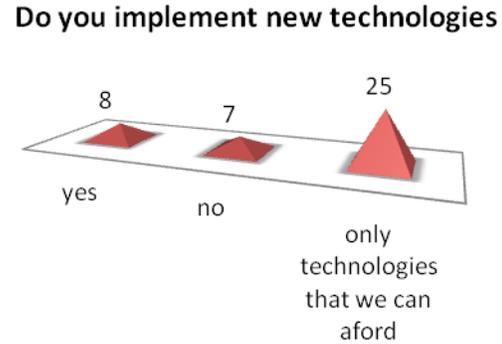


Chart no.4



- As we can see from the chart No.3 65% of the companies answered that they are technology competitive, but they can do better. This statement is related with the chart no.4, with the question: Do they implement new technologies? All of the companies that think that can do better, they answered that they implement technology that can afford. So, the conclusion is that small and medium sized companies need financial support in order to be technological competitive. The financial support they can have from the projects or the funds that provide the Government.

- Interesting fact is that, 100% of the companies answered that they don't have support from the official institution to keep up with the innovation in their own sector. So, this is an indicator that, there is a missing link between small and medium sized enterprises and the institutions that can provide information concerning them.

- This missing link can be a drive for an increasing absorptive capacity for innovation for small and medium sized enterprises. Companies don't have capacity to contribute with a solution for this matter.

It is important to absorb the new knowledge, in order to increase the capacity for innovation. Four 'states' are suggested by (Fogg, H. Peers).

1. Unaware/Passive – SMEs do not recognize the need for change and do not know what might be improved. These organizations have a very low or no absorptive capacity.

2. Reactive – These SMEs recognize the need for change but are unclear how to go about the process in an effective approach. Both 'Unaware/Passive' and these SMEs will be developing potential absorptive capacity rather than realized absorptive capacity

3. Strategic' – These SMEs have a well-developed sense of the need to change and have good implementation capability. They take a strategic approach to innovation and have a clear idea of priorities. However they may lack the capabilities to create new market opportunities and they tend to compete within the boundaries of an existing industry.

4. Creative' – These SMEs have well developed capabilities and are able to operate and lead effectively on an international basis. They have strategic frameworks for innovation and strong internal resources and high absorptive capacity which enables them to diversify and extensive networks to keep them informed of opportunities.

So, the creative company is the profile of company that is considered as a company prepared to grow and to absorb external knowledge and assimilate to innovation.

CONCLUSION

How the SMEs can increase absorptive capacity for innovation?

Innovation is a concept of how management can see potential of the company and use it for financial actualization. It is clear defined strategy of how to use knowledge and materialized in economic sense. In Figure no.1 we can see how small and medium sized companies have determinations as an internal enablers, have a relationship with external enablers, might have a financial support from the Government funds, and to have constant relations with economic chambers, or institutions that would be helpful for giving information's that company need. Increasing the absorptive capacity for innovations in small and medium sized companies is a process of recognition of possibility and uses it. Creative enterprises have implemented strategy for innovation and they are aware how to use internal enablers, means how to motivate employee to be innovative oriented, how to stimulate their skills, invest in research and development and how to encourage human potential in general.

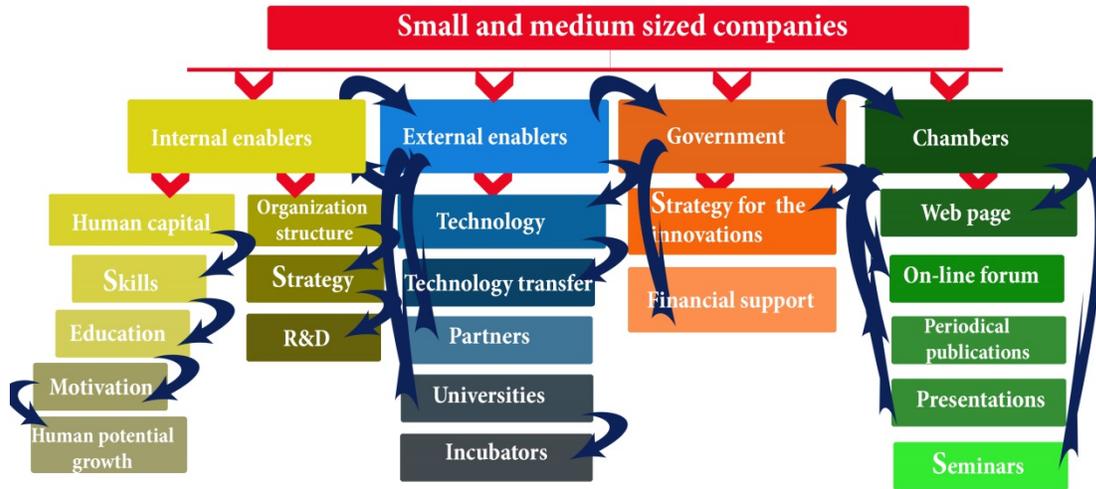


Figure 1

These enterprises have established strong links with other partners from the same sector and partners that they collaborate, and they use the latest technology that exist in their production in goods and services. These enterprises always use the government financial support; they applied for projects that support innovations. Also, they have a strong links with economic chambers and use their services in form of (suggested) web page, on-line forums, periodical publications, seminars, presentations, incubator ect.. (Figure 1)

Innovation is the concept of how things can be done in order to have success.

- Increasing the absorptive capacity for innovation in sme's is ability to :
- ✓ Strengthening and developing internal enablers ,
- ✓ Adopting and developing relations with external enablers
- ✓ Getting the financial support from the Government,
- ✓ Linking with the economic chambers.

In my opinion, small and medium sized companies are the most important segment in a modern economy and increasing absorption for innovations is crucial for them to be competitive on the market and to grow financially.

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GAINING COMPETITIVE ADVANTAGE USING INNOVATIVE WEB 2.0-BASED SIMULATION TOOLS AND SERVICES

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Abstract

Gaining competitive advantage over business opponents has always been a highest-priority task for each single enterprise. This is an especially important issue with SMEs, which have to exhibit maximum agility and flexibility to quickly reorganize and adjust their production capacities, as well as to maximize their operational efficiency in order to cope successfully with ever increasing demands being posed by the globalized business environment. The appliance of innovative information technologies through scientifically-based modeling and evaluation of business processes can significantly help SMEs in achieving their strategic business goals: reduction of costs, preservation of resources, and growth of effectiveness. All these effects contribute to improvement of overall SMEs' performances, thus directly affecting SMEs' competitiveness. The paper aims are twofold: to elaborate the recent increasing involvement of computer simulations within SMEs as a long-term strategy for achieving and retaining higher levels of competitiveness, as well as to point out the potentials offered by the innovative, Web 2.0-based simulation-oriented technologies, as being an alternative approach to traditional computer-based modeling and simulation assessment of business processes. In particular, the potential benefits of such approach have been practically shown using the Insight Maker[®], a general-purpose online modeling and simulation environment, and the systems thinking methodology.

Keywords: competitive advantage, SMEs, Web 2.0 paradigm, Web-based simulation (WBS), Insight Maker[®]

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“When you change the way you look at things, the things you look at – change!”
Max Planck (1858-1947), a German theoretical physicist

INTRODUCTION

How to rapidly respond to changes and how to gain sustainable advantage over business competitors are the two most important questions that remain ‘a holy grail’ of the contemporary economy. In today’s dynamic and globalized marketplace, there is no room neither for the old-fashioned style of managing, nor for the traditional planning methods any more. Managers are facing multiple challenges related to building up adaptive and flexible organizations which are able to evaluate the ever-changing business environment in order to rapidly translate insights into winning strategies, over and over again, since “competition is at the core of the success or failure of firms” (Porter, 1985, p. 1). In this context, the notion of ‘competitive advantage’ has emerged, as being a fundamental premise to business success. Lately, the concept of competitive advantage has been thoroughly exploited in discussions about business strategies. However, whilst statements about it abound, there is no a single precise definition. For instance, Ehmke (2008) defines the term as “an advantage gained over competitors by offering customers greater value, either through lower prices or by providing additional benefits and service that justify similar or higher price”. According to Pietersen (2010, p. 17), the term ‘competitive advantage’ means achieving a bigger Value/Cost gap than the competitors’ one, i.e. a bigger gap between a product’s value seen by customers and the total costs incurred in providing that product. This definition is in unison with Porter’s views stating that “competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm’s cost of creating it” (Porter, 1985, p. 3).

According to Porter (1985), there are two basic types of so called ‘positional’ competitive advantages, including: (1) the cost advantage (when the enterprise is able to deliver the same benefits as competitors, but at a lower cost), and (2) the differentiation advantage (when the enterprise is able to deliver benefits that exceed those of competing products, i.e. providing a variety of products, services, or features to consumers that competitors are not yet offering or are unable to offer). Thus, a competitive advantage enables the enterprise to create a superior value for its customers and superior profits for itself. Besides these, two other types of strategies have been increasingly been adopted by enterprises recently, including (3) innovation (introduction of completely innovative, new or notably better products or services), and (4) operational effectiveness (performing internal business activities better than competitors’ ones, which improves the characteristics of the company while lowering the time it takes to get the products on the market).

How can competitive advantage be achieved? Obviously, business flexibility is a key premise in assuring competitive advantage and consequently, a sustainable growth. There is now a direct, yet provable link between organizations’ flexibility and business performance. To maximize flexibility, SMEs have to highly integrate and automate key business processes and their infrastructure, both internally and externally. At the same time, they must learn how to manage their business processes far more dynamically and responsively. Today SMEs face a severe business environment, fraught with capable competitors, high levels of uncertainty and complexity, numerous regulations, various modalities of consolidation, increasing number of ever-demanding customers, and

adoption of contemporary business models that must change quickly and precisely. In order to navigate successfully throughout this landscape, SMEs have to become highly flexible or ‘flex-pon-sive*’, which is a “description of a company that responds with lightning speed and agility to rapidly changing business needs, having put a focus on processes that are enabled for change through IT” (Carter, 2007).

The rising importance of competitive advantage has recently attracted a profound research interest and has intensified the studies of this concept due to contemporary issues regarding superior performance levels of enterprises in a context of the existing, highly competitive market conditions.

THE IMPACT OF ICT ON COMPETITIVE ADVANTAGE

SMEs dominate the national economies worldwide. Based on recently investigated literature resources, Liotta (2012) provided the evidence that 99% of enterprises throughout Europe are SMEs, 92% of which are micro-enterprises (European Commission, 2013). Those figures are quite similar to the corresponding percentages for China and India. In addition, Mendo & Fitzgerald (2005) reported that small businesses are more risky and with the higher firm failure rate in comparison with large companies. This finding fosters the SMEs’ needs for finding out sources of innovation and gaining competitive advantage, as being fundamental factors that guarantee both their survival and prosperity.

In today’s globally connected marketplace, a sustainable growth requires business flexibility and continuous innovation, both of which are increasingly proving to be impossible to achieve without aligning IT technology with business goals. Information and communication technology (ICT) has continually been proclaimed to be significant driver that fosters innovation and the sustainable competitive advantage. Recent studies have already confirmed the anecdotal evidence that successful use of ICT can significantly improve a company’s performance potentials and competitive position, as well as future overall growth (King, 1989; Bharadwaj *et al.*, 1999; Stratopoulos & Dehning, 2000; Bharadwaj, 2000). In addition, enterprises can sustain strategic innovation by ICT management and use (Sambamurthy, 2000). Still, the competitive advantage gained by ICT adoption is impermanent, since information and communication technologies (both hardware and software) are nowadays relatively low-priced and user-friendly, thus being both highly accessible and easy to implement. As a result, once an organization starts to enjoy the benefits of its ICT-based competitive advantage, an abundant number of followers will try to neutralize it through replicating, or even enhancing the ICT solutions already been used, as soon as possible (Mata *et al.*, 1995). Despite these findings, Feeney & Ives (1990) point out that ICT-enabled sustainable competitive advantage is always desirable for any organization, and can be reached through achieving three different, yet closely related concepts including generic lead-time, competitive asymmetry, and pre-emption potential.

Much of the recent research has been focused on investigating the issues related to recognizing the direct effects emerging from the ICT adoption on increasing competitive advantage in enterprises (Davis *et al.*, 2003), as well as the issues regarding the identification of determinants of the sustainable competitive advantage due to ICT adoption (Dehning & Stratopoulos, 2003). A number of research endeavors have been

focused on exploring the role of information systems (IS) in the process of gaining competitive advantage (Clemons, 1986; Zhang & Lado, 2001), whilst others are dealing with the factors facilitating the use of information technologies for gaining a competitive advantage (Neo, 1988).

In practice, plethora of innovative ICT tools and techniques has been increasingly used for gaining sustainable competitive advantage of SMEs. For instance, many organizations are taking advantage of business analytics and business intelligence IT-based solutions to help them find new insights, perceptions and understanding in their business processes and performance. Yet another IT-based activity is data mining, which can reveal significant, hardly detectable facts out from their databases and data repositories. In addition, computer simulations have been also used as a powerful approach to gaining excellence in decision making processes on all levels within SMEs. Lately, the notion of 'Big Data' has been also mentioned as one of the most promising, cutting-edge approaches to gaining a competitive advantage. Such data encompasses customers, suppliers, competitors, processes, operations, routines and procedures, as well as huge amounts of communication data originating from mobile devices, instruments, tools, machines and transmissions. However, extracting valuable knowledge and producing substantial economic benefits in this manner require a completely new business philosophy, an entirely novel, innovative and creative mindset, new people, extensive usage of ICT tools and technologies, and unique data storage and management strategies, which cannot be practically met by vast majority of SMEs.

COMPUTER SIMULATION AND SMEs

Exploring different ways of doing things, as a result of the intrinsic human curiosity and longing for discoveries is the essence of the ever-lasting quest for the ultimate truth and knowledge. The phrases 'what if' and 'if we did it that way', being the seeds of improvements, inventions, and innovations, have always been the drivers of the overall progress. The previous statement is, in fact, the core concept of simulation: the ability to analyze the behavior of a given system and estimate the outcomes of its operation under various real-time scenarios and for a wide gamut of working parameters and various process variables, during its design phase, i.e. before it is really built up and exploited.

Simulation models are being created as simplifications of real systems to help their designers understand and overcome the inherent complexity and complicated nature of reality. Computer simulations, supported by modern software tools, are based on development of a computer model using simulation language, package, tool or integrated environment (O'Kane, 2003). They are useful in helping understand the core relations between interacting elements of the system and, to a certain extent, the implications of those interactions, thus providing a solid basis for learning and predicting system's behavior, as well as helping the decision making processes regarding the observed real system on all levels. Consequently, simulation is a technique for modeling and analysis, widely used for evaluating and improving real dynamic systems, which results in significant savings in time, money, and even lives (Harrell *et al.*, 2004).

In that context, simulations are crucial for companies in minimizing time, costs, and resource usage needed for accomplishing their business activities, which can lead towards achieving their strategic business goals and gaining substantial competitive advantage.

Therefore, the ability to analyze and test their activities in advance, before large investments are being done, becomes more and more important (Klingstam & Gullander, 1999). Utilization of simulation techniques and tools can improve the ability to make right decisions in complex and uncertain environments (Liotta, 2012). Therefore, simulation has become of the utmost importance in solving problems for engineers, designers and managers in an increasingly competitive world (Shannon, 1998). In addition, Košturiak & Gregor (1999) argued that simulation can be combined with other systems engineering methodologies for optimization of decision making regarding organizational structure, production program, manufacturing facilities, as well as the whole chain of logistics. At last, many researchers have argued that simulation techniques can assist in improving business effectiveness and performances, as well as in gaining higher level of understanding required for overcoming inherent complexities in the practice (Kettinger *et al.*, 1997; Klingstam & Gullander, 1999; Irani *et al.*, 2000; Johansson & Jørgensen, 2001; Williams *et al.*, 2001; O’Kane *et al.*, 2007).

It should be also pointed out that, compared to analytical (mathematical) models for analyzing systems, simulations are more comprehensible and more credible, because they require fewer simplifying assumptions and captures more real characteristics of the observed system (Shannon, 1998).

However, despite all of these facts and numerous benefits stated in literature (Klingstam & Gullander, 1999; O’Kane *et al.*, 2007), as well as positive experiences that show that simulation models are more accessible than SMEs expect (Hvolby *et al.*, 2012), the number of studies that reported the usage of simulation techniques in SMEs is very small, compared to the number of studies related to large companies, meaning that computer simulation techniques have not been widely adopted and implemented within SME sector. This is not an encouraging finding, since simulations are particularly useful for solving problems in manufacturing and service systems – the two common types of systems today in SMEs. These types of systems have much in common related to their structure (resources, activities, inputs, outputs) and objectives (requirements related to quality, efficiency, cost reduction, time savings, and customer satisfaction).

Until now, SMEs have been used computer simulations in variety of fields, such as: logistics and production networks (Liotta, 2012), reorganization and automation of manufacturing (O’Kane, 2003), supply chain networks (Byrne & Heavey, 2004; Terzi & Cavalieri, 2004; Jain & Leong, 2005), knowledge management (Soto *et al.*, 2011), product returns in retail SMEs (Ahmed & Latif, 2010), decision-making regarding future production strategies (Hvolby *et al.*, 2012), continuous process improvement (Adams *et al.*, 1999), lean assessment (Mahfouz *et al.*, 2011), or investigation of how costs of integrating existing and new ICTs affect SMEs’ positioning at the market (Beneki *et al.*, 2009).

WEB-BASED SIMULATION

Until recently, technology stood on the way of achieving high levels of flexibility and business performance. Thanks to the emergence of the Web 2.0 paradigm and open standards, technology now gives an opportunity to all companies, including SMEs, to become more innovative and to gain substantial competitive advantage. More and more, the Web is being considered as an online environment suitable for providing both

modeling and simulation tasks. The emerging new innovative approach to computer simulation, which strives to become de facto an adequate replacement of the traditional workstation-based computer simulation, has been named as a ‘Web-based simulation’ (WBS). WBS is an integration of the Web with the field of simulation. It assumes an invocation of computer simulation services over the World Wide Web, specifically through a user’s Web browser (Page *et al.*, 1998; Page & Oppen, 2000; Byrne *et al.*, 2006; Byrne *et al.*, 2010). WBS is currently becoming a quickly evolving area in computer science, which is of significant interest for both simulation researchers and simulation practitioners. Such great interest is a direct consequence of the successfulness of the Web 2.0 paradigm, and its associated technologies, e.g. HTML, HTTP, CGI, etc., as well as the great popularity of, and reliance upon, computer simulation as being a problem solving and decision support systems (DSS) approach. This novel discipline is owing much to the appearance of the Internet-friendly programming languages, like Java or JavaScript, and of distributed object technologies, like the Common Object Request Broker Architecture (CORBA) and the Object Linking and Embedding / Component Object Model (OLE/COM), which have had particularly important effects on the state of this innovative simulation practice. Therefore, WBS, as being an emerging area of exploration and application within the simulation community, has been already considered a state-of-the-art discipline, which is expected to proliferate and even prevail in the forthcoming years (Harrell & Hicks, 1998; Guru *et al.*, 2000; Byrne *et al.*, 2006). Currently, the researchers in the field of Web-based simulation are interested in dealing with topics such as methodologies for Web-based model development, collaborative model development over the Internet, Java-based modeling and simulation, distributed modeling and simulation using Web technologies, and new applications (Miller *et al.*, 2000; Kuljis & Paul, 2001; Miller *et al.*, 2001; Zu Eissen & Stein, 2006; Byrne *et al.*, 2010).

A CASE STUDY: USING INSIGHT MAKER[®] FOR MODELING AND SIMULATION

Insight Maker[®] is an innovative, free-of-charge, Web 2.0-based, multi-user, general-purpose, online modeling and simulation environment, completely implemented in JavaScript, which promotes online sharing and collaborative working. It integrates three general modeling approaches, including system dynamics, agent-based modeling, and imperative programming in a unified modeling framework. The environment provides a GUI aimed at model construction, offering advanced features, such as model scripting and an optimization tool. Insight Maker[®] has been developed for several years, and has gained significant adoption with currently almost 26,000 registered users (Fortmann-Roe, 2014).

To the best of our knowledge, it is the first, yet the one and only free-of-charge Web 2.0-based Internet service so far, that delivers a plethora of advanced features to its online users, including Causal Loop Diagrams, Rich Pictures Diagrams, Dialogue Mapping, Mind Mapping, as well as Stock & Flow simulation, thus offering a thorough insight into various aspects of a system’s dynamics. By supporting agent based scenarios, storytelling and sensitivity analysis, Insight Maker[®] exhibits a wide gamut of features that not only rival, but, in many cases, outperform the traditional, commercially available simulation software packages.

To demonstrate the usefulness of Web-based simulations being applied in SMEs, we revert to stock-and-flow simulations, which are constituent part of System Dynamics (SD), a methodology and a mathematical modeling and simulation technique for framing, understanding, and discussing complex issues and problems. As an approach to understanding the dynamic behavior of complex systems over time and an important aspect of the systems thinking theory, SD uses internal feedback loops, time delays, as well as stocks and flows to model the entire system.

If compared to Discrete-Event Simulation (DES), System Dynamics uses a quite different approach. Contrary to DES, SD is essentially deterministic by nature. It models a system as a series of stocks and flows, whilst state changes are continuous, resembling a motion of a fluid, flowing through a system of reservoirs or tanks, connected by pipes. Because of its great flexibility, along with its ability to combine together both qualitative and quantitative aspects of the modeled system, as well as its tendency to model and simulate the dynamics of a system at a higher, yet more strategic level in order to gain a holistic insight into the dynamic interrelations among the different parts of a complex system, SD has been applied in many different fields of study so far, including project management, system analysis, health care, etc.

Using Insight Maker[®], we have modeled one of the water tanks, named “R2”, being an integral part of the complex water distribution system of “Studenchica”, which supplies with clean, drinkable water the city of Prilep, Republic of Macedonia.

Without delving into the technicalities of implementation, it should be stated that the water tank “R2”, which is responsible for delivering fresh water to the lower zone of Prilep, has a total capacity of 8,028 m³ and is box shaped. There are one input and two output water flows going into/from the tank; the input flow conveys water into the tank with a variable intensity rate, which depends primarily on the magnitude of the freshwater spring, as well as the intensity of water consumption in the other segments of the distribution system, whilst the main output flow delivers water to end consumers with variable intensity rate, which depends on their consumption needs, fluctuating both in various time periods of the year and of the day. The other, minor outflow takes away the superfluous water (if any) towards the near-by artificial lake, thus preventing overflowing. There are three safety levels defined with the water tank: the minimum level (at 2.10 m during winter; at 3.10 m during summer), the maximum level (at 4.55 m), and the overflow level (at 4.80 m). The input flow is being automatically controlled by a valve, which assures stable water levels in the tank, interchanging between the maximum and the minimum safety levels.

The Insight Maker[®] model⁶ of the previously described water tank is depicted on Fig. 1.

⁶ The simulation model, named “Model of the Water Tank”, can be seen and run at <http://insightmaker.com/insight/18153#>

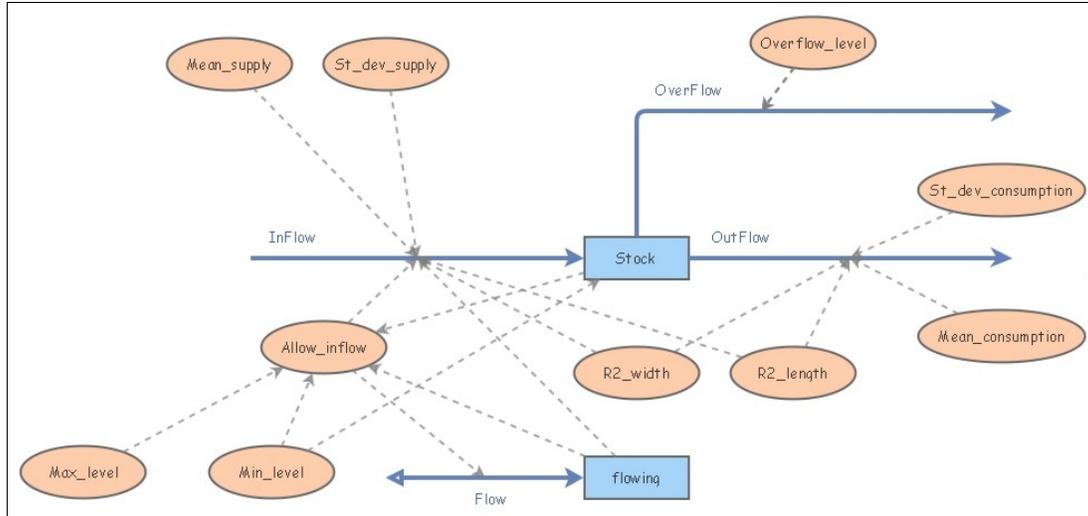


Figure 1. Water tank “R2”, as modeled in Insight Maker®

The simulation model allows testing the behavior of the system by performing various simulation runs, each with a different combination of the key working parameters, defined by the user, using the sliders next to the right of the model.

Moreover, it is also possible to assess various scenarios for fixed, pre-defined sets of working parameters, encompassing various season-related patterns of input and output water flows (Fig. 2).

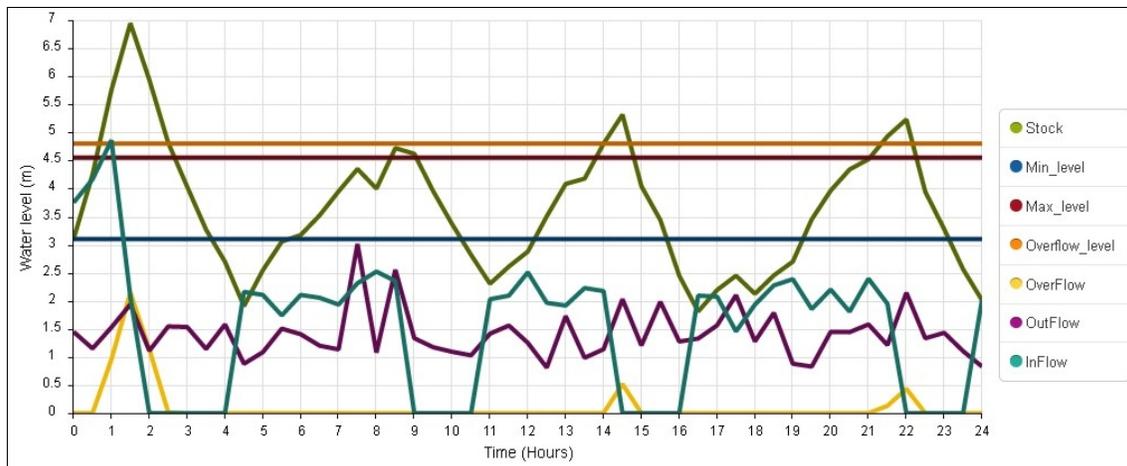


Figure 2. Insight Maker® graphical output from a specific simulation scenario run

CONCLUSIONS

All types of computer simulations, including Web 2.0-based ones, can be successfully used for assessing and improving different business processes within SMEs, as well as for facilitating decision making in complex and uncertain situations. This is important, since it is very difficult, if even impossible, to experiment in real settings. Simulations can reveal new insights into business processes that will increase their

effectiveness, performances and flexibility, thus creating an unprecedented competitive advantage on a long term.

Insight Maker[®] has proven to be a great innovative tool for mapping ideas by graphically visualizing them, and then, by converting maps into computational simulation models, to display specific behaviors and dynamics of a modeled system over time, as well as to carry out multiple scenario runs.

The intrinsic logic implemented within the actual simulation model of the water tank can be also successfully utilized by all types of Min/Max inventory systems, which, besides the ABC system, the Two-Bin system, and the Order-Cycle system, represent the simplest method of inventory control often found with SMEs, regardless of their nature.

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INTERNET MARKETING AS A DRIVING FORCE OF SMEs DEVELOPMENT AND COMPETITIVENESS

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Abstract

The introduction of information and communication technology (ICT) have changed the nature of competition, led to new business models and the ability for consumers to compare prices, as well as creating new opportunities for relationship marketing.

The focus of this paper is the effect of ICT on Small to Medium Enterprises (SMEs). SMEs have been chosen for examination in this paper as they firstly comprise a large proportion and contribute significantly to the success of regional economies. Secondly SMEs often have inadequate skills and insufficient resources (both money and time) to respond to ICT adequately.

The most significant opportunity SMEs get from the internet marketing is to outperform large competitors regardless of relatively smaller capacity of human and financial resource.

The internet marketing and technological innovations are providing SMEs with new opportunities to develop customer's loyalty as a factor for their competitiveness.

The paper will identifies the influence of the internet marketing strategies on the different types of customer's loyalty. The primary objective of this paper is examining the effects of the strategies of internet marketing on the: preference loyalty; complaining behavior and price tolerance. SMEs are provided with internet marketing strategies on how to immunize online customer's loyalty against switching behavior and price sensitivity.

CRM (Customer Relationship Management) has been increasingly recognized as a business strategy to effectively understand, manage and sustain customer relationship with advanced information and communication technologies. Rapid development of CRM applications have seen the trend that more and more SMEs are seeking to implement CRM in order to survive and compete in the world of e-business.

Keywords: internet marketing, SMEs, competitiveness, customers.

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INTRODUCTION

Over the past ten years, it is evident that one of the main developments within the SME's has been the rapid growth in the use of information and communication technology (ICT). SME's are increasingly dependent on business sourced or influenced by use of ICT and are also affected by competition engendered by the availability of ICT such as the internet and world wide web (WWW). It is clear that ICTs are of paramount importance to the SME's .

The introduction of ICTs have changed the nature of competition, led to new business models and the ability for consumers to compare prices, as well as creating new opportunities for relationship marketing.

The focus of this paper is the effect of ICT and internet marketing on small to medium enterprises (SMEs). SME's have been chosen for examination in this paper as they firstly comprise a large proportion and contribute significantly to the success of regional economies. Secondly SME's often have inadequate skills and insufficient resources (both money and time) to respond to ICT adequately.

The combination of the visibility on the WWW based on keyword search by the internet user and the quality of the website could well make or break a SME's business.

Small and medium-sized enterprises (SMEs) are a very heterogeneous group. They include a wide variety of firms village handicraft makers, small machine shops, restaurants, and computer software firms that possess a wide range of sophistication and skills, and operate in very different markets and social environment. According to (Carson David et al, 1995, p 81) SMEs have different characteristics from those of large companies. In addition to size, there are a number of qualitative characteristics which serve to underline the difference. These attributes are summarized as follows:

-Scope of operations. SMEs serve predominantly a local or regional market rather than a national or an international market;

-Scale of operations. SMEs tend to have a very limited share of a given market. They are relatively small in a given industry;

-Ownership. The equity of SMEs is generally owned by one person, or at most, A very few people. Small firms tend to be managed directly by their owner or owners.

-Independence. SMEs are independent in the sense that they are not part of a complex enterprise system such as a small division of a large enterprise. Independence also means that the firm's owner/managers have ultimate authority and effective control over the business, even though their freedom may be constrained by obligations to financial institutions.

-Management style. Small firms are generally managed in a personalized fashion. Managers of small firms tend to know all the employees personally, they participate in all aspects of managing the business, and there is no general sharing of the decision-making process. Other characteristics are pointed out from perspective of finance, organization and business operation. Compared with large firms, SMEs generally lack financial resources which suppresses their potential growth, similarly, they do not have the benefit of a team of specialist experts. Externally, SMEs have little control of or influence on the environment in which they operate, so they find difficult to position themselves against a strong competitor.

To sum up, there are two purposes of highlighting characteristics of SMEs. One is to help understand how SMEs can benefit from doing internet marketing in terms of addressing major barriers to growth. The other is to determine options of strategy that SMEs can employ in doing internet marketing.

SME'S OF GLOBAL COMPETITIVE ADVANTAGE AND ICTs

(Ma 2003, pp. 451–467) proposed the 4C's framework, to identify sources of global competitive advantage. The framework identifies four major groups of competitive advantage. These are:

- Creation and innovation. Businesses can gain competitive advantage by creating new products (innovating), by being efficient, by building organisational learning and having creative human resource practices.

- Competition. Competitive advantage can be gained by using marketing strategies such as looking for first-mover advantage.

- Cooperation. This involves collaborations with other businesses, to (for instance) gain access to customers, resources and/or knowledge.

- Co-option. This is an attempt to align another party's interests with those of the business.

(Porter 2001, pp. 62–78) suggests that internet technologies provide even greater opportunities for businesses to provide distinct offerings. (Ives and Mason 1990 pp. 52–59) suggested that there were three ways in which ICTs could be used to improve the customer service strategy of a business. These are:

- Personalised service. Central to this notion is the ability to identify repeat customers and their particular characteristics and needs.

- Augmented service. This involves a differentiation strategy.

- Transformed products. More recently, (Schlenker and Crocker, 2003, pp.7–17) have suggested that ICTs can be used to help redesign and (therefore) improve business processes. One of the reasons that small businesses have not taken advantage of internet technologies to a greater extent is that they are more comfortable with designing new products or services than in changing existing business processes to develop new ways to produce existing products.

(Ahituv and Neumann 1990) have identified three factors that influence the likelihood of strategic IT potential in an organization:

- The presence of significant information content in key relationships between buyers and sellers. IT (and communications technology) is obviously suited to the transfer of such information. It can provide benefits in the areas of cost, speed of data transfer and improvements in data entry errors.

- The presence of competitive pressures in the industry (such as deregulation, IT innovation, or competition intensity). This forces industry participants to find ways of gaining competitive advantage by closely examining the potential of IT as a part of their constant investigations of all parts of their business to try to gain an edge on competitors.

- Limited product or service life. The importance of having effective and flexible systems to manage these effectively cannot be overstated, generally offering the organizations the opportunity to package the price of their products and/or services to be lower during off peak periods to maximise sales.

The five competitive forces model can be used to examine external forces that affect the strategic potential of IT in each area (Earl, M. 1989):

- Customers. Attempts could be made by the organization to use IT to lock in customers.

- Suppliers. In the same way that organizations try to lock in customers, they could attempt to reduce the power of suppliers.

- Substitute Products/Services. This is where a substitute product is used to replace an existing product.

- New Entrants. Barriers to entry could be used as a weapon against new entrants to an industry. Locking in customers or competing aggressively in the areas of price and quality (even in the short term) are ways of discouraging new entrants.

BENEFITS FOR SMEs FROM INTERNET MARKETING

The distinguishing characteristics of SMEs represent both advantages and disadvantages to SMEs competitiveness and growth. For instance, compared with large firms, relatively smaller customer base makes it possible for SMEs to react faster and more dynamically to customer needs, while a lack of financial resources and specialists will prevent SMEs from entering into global market. However, internet marketing, referring to conduct of business with assistance of internet and other information technologies, can effectively exploit SMEs advantages and offset drawbacks. In general, SMEs can benefit from internet marketing in the following aspects, which are also depicted in:

- Reduced cost. internet marketing can alter the virtual value chain by redefining economies of scale, allowing small companies to achieve low unit costs for products and services in markets dominated by big companies;

- New business opportunities. For example, setting up a website where customers can view product catalog, place an order, and make online-payment;

- Access to wider customer base locally and internationally. By expending their presence into World Wide Web, SMEs can interface with same amount of customers as large firms do. This enables SMEs to compete with large firms in a better position;

- Increased revenue from sales. Combination of traditional sales channels and internet commerce offers SMEs more sales opportunities, resulting in increased revenue;

- Access to timely information. The internet and other communication technologies provide SMEs with access to marketing, sales and customer information in real time;

- Increased speed to market. Equipped with timely information on customers and competitors, SMEs are able to speed up reaction to market dynamics.

To sum up, despite of above concrete benefits, the most significant opportunity SMEs get from the internet marketing is to outperform large competitors regardless of relatively smaller capacity of human and financial resource.

Advantages and benefits of internet marketing to Small and Medium-Sized Enterprises are:

- Inexpensive sources of information;

- Inexpensive ways of advertising and conducting market research;

- Competitor analysis is easier;

- Inexpensive ways to build storefronts;

- Less locked into legacy technologies;

- Image and public recognition can be generated quickly;

- An opportunity to reach worldwide customers;

Disadvantages and Risks of internet marketing to Small and Medium-Sized Enterprises are:

- Lack of financial resources to fully exploit the Web;

- Lack of technical staff or insufficient expertise in legal issues, advertising, etc.;

- Less risk tolerance than a large company;

- Products not suitable for online sales;

- Reduced personal contact with customers;

- Inability to afford the advantages of digital exchanges.

Critical success factors for SMEs are: product; payment methods must be flexible; electronic payments must be secure; capital investment should be kept to a minimum; inventory control is crucial; logistics services must be quick and reliable; owner support; high visibility on the internet; join an online community; a web site should provide all the services needed by consumers.

The key to successful business on the internet is not the formulation of a conceptual strategy but the execution of that strategy: the content owners must buy into the strategy and have the confidence of senior executives; often the decisions the content owners make may have serious consequences to the organization and its strategy.

Internet marketing strategy formulation include: outcome of the initiation phase should be a number of potential internet marketing initiatives that exploit opportunities and manage threats in the business environment; strategy formation stage must decide which initiatives to implement and in what order.

Strategy formulation issues include: risk analysis, managing conflict between the off-line and on-line businesses and pricing strategy.

Internet marketing creates substantial risks because of the open and interactive nature of the technology. Security issues include: computer virus attacks; alterations of electronic information and records; loss of intellectual property when trade secrets are copied or recorded; extortion.

Pricing products and services for online sales changes pricing strategies in subtle ways: price comparison is easier; buyers sometimes set the price; on-line and off-line goods are priced differently.

Internet marketing strategies for SME's are:

-Website -important component of internet marketing based firm is the website. Website should have technology that will make it easier for its customers to navigate; site should offer every single feature necessary; fully-functional and sustainable e-commerce web site; stable server for hosting; provide customer specific services; technology partners who constantly upgrade the features as well as technology; help business partners such as logistics partners and suppliers to share and exchange business data.

SME's business build its web site and this development process is argued to be progressive, where the early stages of the web presence are typified by a simple 'brochure' type website, whilst later stages provide small businesses with advanced website features such as enhanced publishing opportunities, improved business promotion and interactive after sales support.

The role of the social networking for SME's is:

-Help employees, partners, suppliers and customers work together to build networks of like-minded people and share information in the enterprise;

-Easier and faster connections among employees facilitate cross-division collaboration and greater innovation;

-Advertising, public relations, customer service and product development.

Social networking - provides an overview of social software practices including blogs, message boards and consumer review sites. Social network sites - Social media platforms such as Facebook, MySpace, and LinkedIn allow the user to connect with friends and like-minded individuals, often on the form of online communities and to develop a network that can be used for social and or business purposes.

Social media management isn't just about sending out tweets – it's about managing a brand's image through multiple social channels. That may be Twitter or Facebook, but it may also be Pinterest or LinkedIn. It's also about combining proactive business development, helping fill the top level of the sales funnel, with customer support – helping support the bottom end of the funnel. Social media management has become increasingly mature and complex over the last few years, with greater reporting tools available, and a wider range of social networks. Skills involved blend brand awareness, customer service and creativity, as well as an awareness of how social media metrics reflect on other marketing metrics.

M-marketing - mobile devices are increasingly being used by consumers. Wireless and mobile platforms - wireless is likely to be the next major event in the history of technology. Its application in SME's is also likely to increase in future. Mobile services shall continue to be an important channel of information and services distribution for both providers and consumers. Future mobiles might decrease in size, weight and price and are likely to increase in power, storage, connectivity, position and capabilities. Electronic personal guide might be in frequent usage. Mobile marketing is one of the biggest growth areas in digital marketing. The increased usage of smartphones around the world has resulted in a greater dependency on them for quick and timely information.

Text messaging is a push strategy that some view as spam, but if used correctly, can be an effective customer messaging strategy.

Blogs - are online journals or diaries hosted on a web server. They are now used as both an education and marketing tool, allowing better positioning in search engine through linking strategies and keyword optimisation. Blog content is distributed to an unlimited number of websites via syndication (RSS, Search engines) and online communities.

Blogging, RSS & News Feeds and ensuring that blogs are visible – involves not just writing blogs, but creating a blogging strategy that brings together SEO, PR, social media and web design. A good blog will be one that attracts natural, organic traffic through effective keyword research, as well as social traffic. It will be well designed, and it will have a consistent voice that makes it instantly recognisable.

Podcasting - podcasts are audio or video recordings, a multimedia form of a blog or other content. They are generated by internet users and they are often distributed through an aggregator, such as iTunes. The advantage of podcasts is that they are downloadable onto a mobile device and allow the user to listen or view them at his own convenience, whilst driving for instance.

Internet Forums- are an online facility that provides local businesses with an internet portal using the locale, or an industry particular to the locale, as the unique selling point, or common brand This acts as an anchor providing more of a profile to entice visitors to the website that represents the location or destination.

Email -represented an important communication tool for all types of businesses. Much of the email use was driven by supply chain relationships and entailed the online transfer of designs, orders and invoices. Email marketing is one of the earliest forms of digital marketing. It involves database marketing: segmenting the customer data and delivering personalised, targeted messages at the right time. The skills involved vary from database analysis & CRM, through to crafting the right message, designing emails in HTML, and analysing the results to act upon them. Email marketing is one of the best and most powerful ways of marketing online and email is an excellent tool for building a relationship with the customers, letting you build both repeat business and good word-of-mouth through your marketing online efforts.

Search engines- are the ‘information crawlers’ of the 21st century. They arrange the information and present it in a ready to be read format. SEO (search engine optimisation) is the art of increasing a website’s visibility in the search engines. This can be done by increasing the ranking of a particular keyword, or increasing the volume of keywords that a site ranks for. There are a variety of SEO techniques, from on-site technical analysis and improvement, to content creation, outreach, blogging & link-building. The skills involved are wide-ranging: technical capabilities, an analytical approach, and creativity.

Search engine marketing (SEM) -This is among the best ways to boost up the sales and has been popular since the idea of online marketing was introduced. It comprises of two elements, search engine optimization (SEO) and Paid Search Advertising (PSA). In plain words, SEO helps in making more visible over the different search engines for getting free traffic, while PSA pertains to getting traffic by paying for the ads run over the web for the brand or business. The basic idea of relying over SEM is to simply get more number of visits via the search engines both via organic search and through effective designed PPC campaigns. In SEO, you have several ways of getting higher traffic, which boost up your sales including relying over page descriptions, titles, Google authorship, web page speed, site navigation, back links, quality content, ALT text for images, etc. Also, you can find several effective tools for chalking out competent SEM (both SEO and PPC) strategies, which eventually help in boosting up the sales.

Paid Search, PPC or pay-per-click is the management of paid adverts in the search results. These paid adverts are typically placed above, or to the right of the ‘organic’ search results. PPC management is all about maximising your budget for the best return on investment.

Online advertising differs from PPC in that you are advertising on other websites. For instance, you may want to buy banner space on a specific website, and you would pay the website owner either based on the number of impressions, or the number of clicks the advert receives. Skills involve design, creativity, negotiation, and data analysis, ensuring that the right advert is placed in the right place, at the right time.

Content Marketing - kind of marketing is considered as the heart of online marketing campaigns. Content simply helps in creating loyal visitors or followers, comments, a number of social media shares and lastly good boost to your business sales. The crux of content marketing is to simply produce quality content, which your readers would simply want to read and thus can motivate them to say yes to the call to action process. There are different ways of content marketing. Content doesn’t mean simply text stuff, but it also comprises of good images, videos and of course textual stuff. You can further explore to use these formats of content for effective content marketing, which in turn can build up a good follower’s base and thus boost up sales.

Affiliate marketing can be quite similar to online advertising, except that the website hosting the advert will be recompensed only when a sale is made. The payment, therefore, will be higher – and will give the website owner the incentive to promote the advert more prominently. Affiliate marketing isn’t restricted to banner advertising. Many affiliates make money through simple links, e-mail marketing, or even developing e-commerce shops with affiliate products.

Linking websites- independent SME’s businesses with unique resource locators (URLs) located in one region and identify the extent to which such sites were linked.

Viral marketing combines many elements of the marketing mix. Some call it ‘content marketing’, as it always involves disseminating an element of content across multiple channels. This can include videos on Youtube, blogs, e-mail marketing, as well as traditional

elements, but the aim is to ensure that the content captures the imagination of your market, and that the content spreads naturally through online communities.

CRM AS AN INTERNET MARKETING STRATEGIC IMPERATIVE FOR SMEs

In order to optimally extract benefits from internet marketing, the first and foremost thing for SMEs to do is to establish strategies that involve business goals and effective business models to achieve goals.

Today customers are in charge due to the fact that it is easier than ever for customers to comparison shop and, with a click of the mouse, to switch companies. As a result, the customer is becoming the most valuable but scarce asset of the company. Sustainable customer relationships are worth more than the company's products, stores, factories, web addresses, and even employees. In order to survive in the increasing competitive environment, a company's strategy should focus on how to find and retain the most profitable customers possible instead of just providing superior products or service (Kalakota Ravin et al 2000 pp.169).

Based on above, companies that are not doing business in the way the customer wants are bound to be out of business. SMEs are operating in the contemporary world of sophisticated customers and intensifying competition against same-sized companies and large firms, therefore the only way for SMEs to succeed is by focusing diligently on customer needs. This urgently requires SMEs to build e-business models that are flexible, fast moving and customer focused. CRM, with best practice in transforming customer relationships into profitability and competitive advantage, is such an ideal e-business model. The ultimate goal of CRM is to help SMEs to turn into customer-focused organizations that conduct business processes centered on customers.

Creating a customer-focused company starts with a customer relationship management (CRM) strategy, which must include process reengineering, organizational change, incentive-program change, and totally revamped corporate culture. Due to the relatively small size and customer base of SMEs as well as the less complex organizational structure and independent nature, it is practically possible for SMEs to achieve strategic goals in terms of shifting from product or service-oriented to customer-oriented business models.

CRM has been increasingly recognized as a business strategy to effectively understand, manage and sustain customer relationship with advanced information and communication technologies. Rapid development of CRM applications have seen the trend that more and more SMEs are seeking to implement CRM in order to survive and compete in the world of e-business.

Nowadays, in the e-Business environment, companies are shifting their business strategies from product-oriented to customer-oriented. As a strategy to optimize lifetime-value of customers, CRM can help companies to succeed in the world of e-business. Not only large, multi-national companies, but also SMEs are increasingly seeking to implement CRM in order to find a competitive advantage on which to base their business' prospects for longevity.

CRM comprises three phases:

1. Acquiring new customers: the company acquires customers by promoting product and service leadership;
2. Enhancing the profitability of existing customers: the company enhances the relationship by encouraging excellence in cross selling and up selling, thereby deepening and broadening the relationship;

3. Retaining profitable customers for life: Retention focuses on service adaptability-delivering not what the market wants but what customers want (Kalakota Ravin et al 2000 pp.175).

As a customer-oriented business application system, CRM has particularly focused on front office processes involved in CRM life cycle, consisting of sales, customer services and marketing automation.

In simplicity, connecting the internet to CRM has made this term: eCRM. It provides ability to take care of the customer via web, or the customers being able to take care of themselves online. That's the difference between CRM and eCRM, which lies in shift from client/server-based CRM to web-based CRM. Some issues of eCRM are generally related to the internet, others are related to the creation of internet applications for CRM. Perhaps the most important one is related to its actual value to e-business.

MEASURING THE BENEFITS OF ICTs IN SMALL BUSINESSES

Measuring results and using metrics include: a quantifiable measurement, agreed to beforehand, that reflects the critical success factors of a company, department or project. A specific, measurable standard against which actual performance is compared: key performance indicator (KPI); attract new customers; improve online marketing effectiveness; metric; conversion rate of visitors; customer retention rate; web analytics.

The analysis of data to understand visitor behavior on a website: where visitors are coming from; what pages they look at and for how long; how customers interact with the site's information; SEO; effectiveness of website design and navigation; visitor conversion.

This study is designed to research website quality and its relations to multi-dimensional loyalty and tested the quality-loyalty relation considering the different types of service loyalty: preference loyalty; complaining behavior and price tolerance.

The key dimensions of website quality are: website design, information quality, reliability, responsiveness, assurance, website usability and personalization.

In order to assess the customer's satisfaction from the website quality, we have undertaken assessment among customers from Republic of Macedonia. The assessment was based on a survey carried out on representative samples of customers.

The hypotesis are:

H1 There are negative relationships among of website quality and preference loyalty.

H2 There are negative relationships among website quality and complaining behavior.

H3 There are negative relationships among website quality and price tolerance.

F-Test Two-Sample for Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	3.38	2.42
Variance	1.179184	1.554694
Observations	50	50
df	49	49
F	0.758467	
P(F<=f) one-tail	0.168237	
F Critical one-tail	0.622165	

The F-Test between the modalities of website *quality* and modalities of preference loyalty shows $F > F$ critical, which means that we should reject the H1 hypothesis with risk of 5%

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.090738
R Square	0.008233
Adjusted R Square	-0.01243
Standard Error	1.254598
Observations	50

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.627214	0.627214	0.39848	0.53087
Residual	48	75.55279	1.574016		
Total	49	76.18			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	2.067844	0.585405	3.532332	0.000922	0.890809	3.244878	0.890809	3.244878
X Variable 1	0.104188	0.16505	0.631252	0.53087	-0.22767	0.43604	-0.22767	0.43604

Results from regression analysis between the modalities of website quality and modalities of preference loyalty shows that if website quality will change for 1 the preference loyalty will change for 0.104188.

F-Test Two-Sample for Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	3.38	3.38
Variance	1.179184	0.975102
Observations	50	50
df	49	49
F	1.209293	
P(F<=f) one-tail	0.254227	
F Critical one-tail	1.607289	

The F-Test between the modalities of website *quality* and modalities of complaining behavior shows $F < F$ critical, which means that we should accept the H2 hypothesis with risk of 5%

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.175477
R Square	0.030792
Adjusted R Square	0.0106
Standard Error	0.982225
Observations	50

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	1.471243	1.471243	1.524974	0.222879
Residual	48	46.30876	0.964766		
Total	49	47.78			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	3.919349	0.458313	8.551681	3.27E-11	2.997849	4.84085	2.997849	4.84085
X Variable 1	-0.15957	0.129218	-1.2349	0.222879	-0.41938	0.10023	-0.41938	0.10023

Results from regression analysis between the modalities of website quality and modalities of complaining behavior shows that if website quality will change for 1 the price tolerance will change for -0.15957

F-Test Two-Sample for Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	3.38	2.94
Variance	1.179184	1.241224
Observations	50	50
df	49	49
F	0.950016	
P(F<=f) one-tail	0.429148	
F Critical one-tail	0.622165	

The F-Test between the modalities of website *quality* and modalities of price tolerance shows $F > F$ critical, which means that we should reject the H3 hypothesis with risk of 5% .

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.154182
R Square	0.023772
Adjusted R Square	0.003434
Standard Error	1.112188
Observations	50

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	1.445822	1.44582	1.16884	0.28504
Residual	48	59.37418	1.23696	2	
Total	49	60.82	2		

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	2.405331	0.518955	4.63495	2.76E-05	1.361902	3.44876	1.36190	3.44876
X Variable 1	0.158186	0.146315	1.08113	0.28504	-0.136	0.45237	-0.136	0.45237

Results from regression analysis between the modalities of website quality and modalities of price tolerance shows that if website quality will change for 1 the price tolerance will change for 0.158186.

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**THE IMPACT OF THE INTELLECTUAL PROPERTY LAW, INNOVATION
AND COMPETITION LAW, UPON THE DEVELOPMENT OF THE
SOFTWARE PRODUCING COMPANIES IN EU**

Gjorgji Janakiev¹

Abstract

The software industry is reported to be one of the fastest growing in many relevant journals. This growth is related to the accelerated development of the IT technology, entertainment industry etc. Software development raised a lot of companies from bottom to the top, such as Google, Microsoft, Facebook etc. However, building a small business in this industry is quite challenging effort taking into consideration all the intellectual property rights, competition law, and management of innovations. This paper is analyzing the software industry in Europe, and is providing an insight in the relations between above stated factors, and points out important factors for development of stable market such as: balance between the Intellectual property rights, competition law, and imposed standards by the market leaders.

The software industry is analyzed by using two approaches: legal and economic, which are mutually interdependent, with both positive and normative inquiry. At the end, we will make an attempt to provide answer to the following questions: First, will there be an incentives to innovate without the financial benefits raised form the intellectual property rights? and second, are these rights slowing down the industry growth?

Keywords: Innovations, Intellectual property rights, monopoly, incentives, development

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INTRODUCTION

Intellectual property rights (IPRs), play an important role in today's innovative market, affecting the diffusion of knowledge, innovation process, and economic efficiency. These IPRs have usually been granted by government authorities as a measure to protect inventions and then promote further innovation through a limited monopoly. The granted monopoly is justified through economic means, so the inventor can return his initial investment in research and development (R&D). On the other hand this monopoly is intended to provide incentives for the innovator for future R&D. Keeping this in mind it can be said that this represent an economic argument, in favor of monopolization of ideas, which believes that without the beneficial government granted monopoly, there will be a lack of incentive to innovate.

Software industry is by all means affected by this state of the market. Software IPRs are not new to the industry, but its complex nature and debated effects over the innovation make it difficult but interesting area to explore. While some are exalting IPRs, others oppose them. The evolution of the judicial treatment of the patentability of software in the last two decades has led to a remarkable increase in the number of patents on software and of firms seeking protection in this area. On the other side, critiques of the increased patentability of software have argued that this transformation will deter innovation and competition by holding up the development of technology that builds on patented prior art and that it holds back inventors because of patent infringement suits.

INTELLECTUAL PROPERTY LAW AND ECONOMIC THEORIES

In order to further discuss the impact of IP law over the companies in the software industry, there must be made a connection between IP law and the economy. IPRs, like any other property right, is granting the right holder (creator or owner) of patent, trademark or copyright to make economic or other benefits from his or her own creation, work or investment. So from here, it can be said that Intellectual property is a legal right associated with creative effort and includes: computer programs, films, design, inventions, artistic and literal works, music etc. (Bainbridge, 2009, p. 3). Intellectual property rights are usually separated into two major areas: The first one is industrial property - which includes rights connected to industrial designs, trademarks, patents and trade secrets. The other one is copyright - which protects artistic and literary work, as well as the rights of performers and broadcasting organizations (WIPO, 2004, chapter 1). Intellectual property laws exists basically for two main reasons: The first reason is a moral and economical (WIPO, 2004, chapter 1). The idea behind this is to give the inventor an incentive to start to invent, so when the idea is put to life he or she can benefit from the effort dedicated to the subject. It also provides a legal protection in order to prevent free riding, because those who free-ride benefits from other people's investment are disrupt the goals of the IPR system. The other reason is for promotion of creativity, the distribution, and application of its results. What lies behind this is the aim of galvanizing fair trade and the contribution to social and economic growth (WIPO, 2004, chapter 1). Intellectual property rights are supposed to work as an incentive for others to invent. The creation of intellectual property is result of personal creative work but has to a large extent already been inspired by existing works. At first glance it would seem that if such protection were not granted for new products the results would be that the economic and personal incitements for creation would vanish. The risk of free riding would

reduce incentives to innovate and would contravene with the development of new products, which would result in a society which suffers from stagnation.

THE RELATIONSHIP BETWEEN EUROPEAN COMPETITION LAW AND IP LAW

To make the connection between Intellectual property rights and European competition law (further will be used the term Competition law), regarding the software market, there must be taken into consideration the question: Are the IPRs and competition law in conflict or they have same goal? When the comparison is made between these two legislations, at first glance it seems that they have different effects. IPRs by its nature is providing the beneficiaries exclusive rights or legal monopoly, which prevents other parties to use the protected work. On the other side, Competition law, by its nature, prevents forming monopolies and is limiting the extent of the exclusive right. However, closer examination of the two legislations, will reveal that they have same goal which is to ensure progress of innovation and investment for the better wellbeing of the consumers (Dolmans, O'Donoghue & Loewenthal, 2007). It seems like the balance between IPRs and Competition law is the key for progress. On one side it should provide incentives for R&D, but on the other hand it should add value for the customers by providing healthy competition. Patents, for example, are one of the shortest protections, and in short term it gives the innovator incentives for further development of the product or some new invention. But after its expiration, in long term, the effects will be higher production at lower cost for whole industry (Merkin, 1985). Today, the relationship between IPRs and Competition law are not perceived as so divergent as long as the short term effect on competition counterbalance the long run efficiencies (Haracoglou, 2008, p. 101).

EFFICIENCY GOAL

The Innovation today is generally accepted as the main cause of increases in economic welfare of the society. Hence, the treatment of innovation must be considered very carefully and from different perspectives such as its efficiency. From market perspective, price system, used as market mechanism, is clearly conducting efficient allocation of resources. However, it is not so clear how innovation is affected by this and other market mechanisms. If the whole functioning of the market mechanism is observed, it can be seen that there is relatively clear connection between market mechanism and the incentives the players on the market have to innovate (Drexler, 2008, Part 1). As stated before the goal of competition law is to assure healthy competition by regulating the behavior of the market mechanisms, with accent put on price system which should enable efficient allocation of the resources. This is regulated in

Article 81 of the European Commission Treaty: "The objective of Article 81 is to protect competition on the market as a means of enhancing consumer welfare and of ensuring an efficient allocation of resources" (Commission Notice1). The efficiency goal is divided into three dimensions: static efficiency, dynamic efficiency and efficient use of resources inside the production entities. The competition as a driving force is raising static and dynamic efficiency into market mechanism, but it can't guarantee their maximization. For example: market structured by large amount of small suppliers and high competition, can ensure in certain extent that allocation of resources will be efficient, but on the other hand, the hard competition will limit the finances for dynamic efficiency. Contrary to this, the suppliers are tending to be more innovative in order to cope with the competition, thus they are investing in R&D. This should not mean that system need to protect him from the competition, but the system should stimulate

the innovators to further improvements and developments which on the end are beneficial for the consumers and the society. From this example can be seen that the competition on the market is the starting point or initiator of the innovation in the first place, so it must be kept in good shape. In that manner, there are a lot of things that effect dynamic efficiency and economic theory help to explain how market structure does exactly this, and that has implications for the management of market conduct (Drex1, 2008, p. 5).

THE EUROPEAN SOFTWARE INDUSTRY

European software industry is a driving force for innovation, growth and employment in almost all sectors of the European economy. The software industry draws core relations with many other industries such as automotive, IT, machines production, aeronautics etc., in one word if there is a modern machine there must be a software.

In the past decades, software industry recorded rapid development and today is one of the fastest growing in the world. Software is today used in almost every segment of modern human existence. The predictions are that growing software market will outgrow the IT industry itself.

Much of the software that is developed today is solely used for increasing efficiency, functionality and quality of production and distribution processes. The software market is a continuously growing sector, and it is estimated that it will grow more swiftly than the ICT (Information and Communication Technology) sector as a whole. The predictions are that after recovery of the World Economic Crisis, the Software market in the period between from 2012 to 2017 will grow with CAGR of 6.7% (CAGR – Compound Annual Growth Rate), or 167 billion in 2017 (Lucintel, 2014).

The Economic Impact of Software

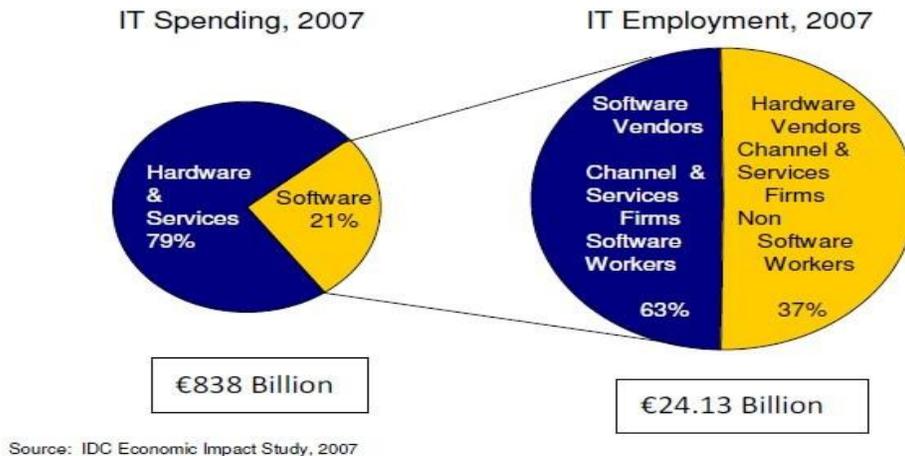


Figure 1. The Economic impact of Software

Compared to the other ICT sectors, software has the most positive economic influence on the market. Growth in software spending has an effect which provides the market with greater job opportunities and economic multipliers compared to other fields in the ICT area (IDC, 2007)

ECONOMICS OF SOFTWARE

One of the effects that emerging in Software industry is the creation of so called network effect. This effect appears as a result of the impact that one user of service or good, has over the value of product to other people. With this happening, the value of the network effect increases by increasing the number of users. For example, the value of Wikipedia increases by the number of people that are using it. This effect could drive the market toward establishment of one supplier. The market for operating systems is usually characterized as network effects (Lopatkat & Page, 1995). These effects take place when the user experiences benefits other than the product itself, in other words a network benefit which further increases of the number of users of the product (Lopatkat & Page, 1999, p. 12). This creates demand and further turns into positive feedback which can interfere with antitrust law. Producers in these markets get a constantly increasing return to scale, which strengthens early success and intensifies early defeats (Lopatkat & Page, 1999, p. 12). This may have a “tipping effect” on the market to one single kind of product.

THE IMPACT OF IPRS IN NETWORK MARKETS

In network markets, IPRs play a very important role because they can be used to create and enforce incompatibility or to introduce compatibility by opening or closing a network standard. Compatibility means that network goods that are based on the same standard need not be produced by the same firm. For example, if an Operating system only supports software that the same firm produces it would be characterized as an incompatible virtual network. On the other hand, an Operating system is more valuable to the consumers if it is compatible with a variety of software. Therefore the conclusion can be drawn that consumer welfare is much higher, in terms of network effects, when there is compatibility between network goods.

EUROPEAN STANDARDS IN THE SOFTWARE INDUSTRY

Standardization is a major driver of competitiveness and, in general, is a key factor for the development of the software industry (European Commission white paper, 2009). The role of standards has been debated for years, and the software industry has fewer formal standards compared to other industries (The official bodies are: European committee for standardization, CEN, and the International Standardization Organisation (ISO)). Informal industry consortia have been the most preferred when developing common used specifications in the software sector. The standards development is dictated by the pace at which technology is developing, and the market is controlling the usefulness of the standards and its specifications. The European software industry is gaining most in the standards arena, where the standards process is transparent and open to all, and where the success of technologies and different business models are decided by the market rather than government authorization. An open standard is a standard that is publicly available and has various rights to use associated with it, and various properties of how it was designed. It is not the same as open source - open standards can result from either OS or proprietary routes. If open standards are provided, it will allow all possible vendors to enter the market, which will result in more R&D and ultimately

increase consumer choice (European software strategy v.2.0, 2009). Therefore; –Open standards should be at the core of a strategy that seeks to promote an innovative and competitive European software sector. (European software strategy v.2.0, 2009).

TENSION BETWEEN IP LAW AND STANDARDS

The connection between software standards and IP law is usually in form of copyright protection, and is given in form of specification documents, while technical standards are protected by patents. Addressing this, it can be seen that there is contradictory in the nature of standards and IP law. Standards aim to stimulate compatibility through a system which can be shared, while IPRs stimulate creation of innovation by granting exclusive rights in the market (Drahos & Maher, 2004). This tension can lead to arguments that they are in conflict with each other (Drahos & Maher, 2004). For example, the European Committee for standardisation has developed a document called, CEN/CENELEC Guide 8: Standardization and Intellectual Property Rights, which states: "The underlying philosophies of standardization and IPR-protection are opposites. Standardization is intended to put ideas into the public domain, whereas protection of IPR makes them private property. Therefore, any use of IPR by a standard is an anomaly, sometimes an unavoidable one, which needs careful management." (CEN/CENELEC). However not all scientist are sharing this view. Some argue that it is unusual for one entity to own all technologies within a technological system, and IPRs may actually help in creation of standards because it allows parties to engage in "pareto-improving trades" (Lea & Hall, 2004).

THE IMPACT OF THE INTELLECTUAL PROPERTY LAW, INNOVATION AND COMPETITION LAW, UPON THE DEVELOPMENT OF THE SOFTWARE PRODUCING COMPANIES

In today's era of "computerized" world, software interoperability has become a really important issue. As a result of this, IPR are getting significant role in software standardization, as the technological advancement is making infringement of rights such as piracy and illegal copying of patents much easier. In order to establish proper economic functioning of the software industry, IPR must provide strong legal protection against free riding and product duplication. For example, the price of the illegal copied software products is insignificant compared to the price of the legal software whose developer tries to cover the developing expenses. This, is putting the developers in bad situation on the market, which can have lasting consequences for his or her business. Therefore if the developers want their invested capital back, it's important that free riding is kept in control (*Even, 2006*). The protection vary depending on the type of software, investments and the usage, and constraints of the software. Today software is traditionally protected by copyrights, trade secrets and patents (while trademarks are only used to protect a word, name, symbol or most commonly a brand-name). This has led to a number of challenges because the source code of the published software can easily be rewritten.

Trade secrets are used to protect valuable information in a program, but since programming languages and operating systems became more standardized in the 1980s, an increased possibility to understand the source code of a program became evident and trade

secrets could no longer be used alone to protect the source code, therefore companies turned to copyright.

Copyright is meant to protect direct copying, but the copying of the idea or concept is still allowed. In other words, copyright is a contract between an author and a user which specifies what the user can or cannot do with the author's work.

Patents are similar to copyright; it does not protect the underlying idea, but the new technical application of an idea. Furthermore, a patent grants the creator of the product or process, a monopoly right which can last up to 20 years, and under certain circumstances up to 25 years.

The right to exclude has made patents very effective. The mixed nature of software makes the protection by IPR complex. The basis of software, which is the source code, is treated as an expression of an idea thus the developers are given copyright for the source code of the software. When the source code is put to life in compiled form, the software performs technical work and can be defined as an engineering solution.

There are several different types of software, but the most important are proprietary software or closed source software (CSS) and open source software (OSS) (Muffatto, 2006).

Table 1. Comparison between OSS and CSS

	OSS	CSS
Example	Linux	Microsoft
Free of charge	Yes	No
Unconditional	Yes	No
Source code open	Yes	No
Freedom to	Yes	No
Protects freedom	Yes	No

Proprietary software is closed source software, it is protected with IPR, and the exclusive rights are granted to its developer. Example for this kind of software is Microsoft Office. By purchasing a copy of Microsoft Office, the one is buying only one license for authorized use of the software, which is not transferring any ownership right. This means that the user is not allowed to make legal copies, to sell or to lease the software, but solely to use the software for its intended purpose.

Open source software is defined as computer software where the source code and certain rights are provided under a software license that meets the OSS definition (Open source definition). This is based on a so called open source ideology and outlines the conditions of usage, modification and redistribution of open source software. Furthermore, this means that the user of the software is allowed to change it or even improve it and finally then redistribute it with or without modifications if the user wishes. Examples of OSS are: Linux operating system, Apache web-server, Mozilla Firefox web browser, Openoffice.org office suite, Android etc.

OPERATING SYSTEMS, BROWSERS, AND THE INTERNET

Microsoft as one of the world leading companies in software industry offers to the market great variety of different operating systems (OS). OS is controlling the operation of the computer or other device by uniting the programs and the hardware. Along with their operating

systems, Microsoft includes a lot of other programs such as simple word processor called wordpad, paint – a drawing program, and an easy to use calculator. However, the application that is drawing the biggest attention from both developers community and IPRs legislators is Internet Explorer (IE). The IE is enabling access from the computer to the World Wide Web (www) which represent the largest part of the Internet. Microsoft is bundling the IE into their Windows Operating systems, and throughout the years with it they created a standard. The reason why IE draw such an attention, especially in front of the European antitrust institutions, is raised from the issue: is IE a separate product, or a part of the Windows operating system. The issue was raised by the competing browser developing companies such as Opera Software, which believe that this tying is not a fair competition.

The reason why companies would use tying as a strategy is because it provides them with economic efficiencies which ultimately give benefit to consumers. Tying leads to efficiency gains for both, to seller by distribution and production efficiency, as for the customer they now don't need to buy the two products separately. Tying is making the sale of one product conditional on the purchase of another one. For example, a company that produces a good in a competitive market can tie this product to another product which is protected by an IPR. In economic theory this is usually referred to as-leveraging. The theory suggests that a firm which has monopoly in one market can monopolize the second market, by using its dominance in the first market. Competition authorities are usually seeing tying as harmful for competition. But on the other hand it's important that this view does not hinder firms in executing tying practices in the future. It's important to keep in mind that tying is not illegal and is still looked upon as a strategy that can benefit all parts. For this reason economic theory suggest that firms with strong market power should be investigated (Motta, 2004, p.468). It also suggests that if competition authorities too strictly intervene with a tying practice it can create negative effects which can reduce incentives to invest in innovation (Motta, 2004, p. 468).

THE IMPACT OF THE PATENTS

In the last decade the patent protection of software is been increasing rapidly, that created excessive patent protection. The biggest part of today's software industry is reduced to small companies that are producing only one segment of the complex software, that control only few part of complex device (a tablet, a mobile phone, a laptop etc.). So one device may hold thousands, even hundreds of thousands, of separate components (bits of software code or bits of hardware) each one arguably patentable. The result of this is a huge patent thicket, creating the opportunity to limit competitor's power by suing for infringement, and also for infringing, and then challenging the validity of the patent when patentee sues (Posner & Becker, 2012).

Further impediment for the efficiency of the patent policy is the lack of competent software patent examiners with adequate technical skills, the limited technical competence of the judges and jurors, the difficulty to make damage assessment for the infringement of a certain component rather than a complete product, and the instability of the industry based on its rapid development.

With all these impediments the legislation is not capable of following the development of the industry. By the time needed for resolving one issue in court, the subject software or device component is becoming obsolete on the market. This means that when one company claim its right on some software or prove that they didn't make an infringement, at that point, the company will not have economic benefits of the subjected software.

As argued before in the text, by the development of the software industry the number of the companies that are seeking protection is constantly raising, and consequently is raising the number of law suits. One of the reasons why the number of law suits is so big is because patent research by the new innovators is too costly. In theory, the product developers can check the patent database to see if they are transgressing someone's patents. But in practice the situation is as follows: one large software program may have millions of lines of code, while it is possible to obtain a patent for functionality with only few lines of code. So single software program can potentially implicate thousands patents. The cost and time to find these patents, research their applicability, and consequently negotiate for license, would vastly exceed the potential economic returns from most software applications. Thus, instead of making research, software developers are rationally choosing not to research the patent database and instead "fly blind" (Goldman, 2012).

The large number of patent law suits is presenting a heavy burden for the law system and for the software industry. Many industry researchers as well industry workers and analysts, are sharing the notion that the patent protection of software is endangering and stalling the new developments as a result of the protection that is given to the old ones.

CONCLUSION

Intellectual property is a legal right associated with creative effort in a certain industry and includes: computer programs, films, design, inventions, artistic and literal works, music etc. They exist basically for two main reasons: The first reason is a moral and economical. The idea behind this is to give the inventor an incentive to start to invent, so when the idea is put to life he or she can benefit from the effort dedicated to the subject. It also provides a legal protection in order to prevent free riding, because those who free-ride benefit from other people's investment by doing so are disrupt the goals of the IPR system. The other reason is for promotion of creativity, the distribution, and application of its results. What lies behind this is the aim of galvanizing fair trade and the contribution to social and economic growth. In today's era of "computerized" world, software interoperability has become a really important issue.

As a result of this, IPR are getting significant role in software standardization, as the technological advancement is making infringement of rights such as piracy and illegal copying of patents much easier. In order to establish proper economic functioning of the software industry, IPR must provide strong legal protection against free riding and product duplication.

In the last decade the patent protection of software is been increasing rapidly, that created excessive patent protection. The large number of patent law suits is presenting a heavy burden for the law system and for the software industry. Many industry researchers as well industry workers and analysts, are sharing the notion that the patent protection of software is endangering and stalling the new developments as a result of the protection that is given to the old ones. Judging by this, can be concluded that patent protection as whole is excessive and that major reforms are necessary.

The goal of patents is to provide people with incentives to innovate interesting new things for the benefit of the society. However, there are people who are capable of inventing derivative innovations and inventions which can prove to be more beneficial for the society. So if the protection of original inventors is too strong then the other ones are limited. The problem is that encouraging the one is weakening the incentives to the other and either way around. So

the solution would be to develop the system to the point where can be reached an equilibrium, where all participants can be encouraged equally.

The good thing about this problem is that it has been noticed by the experts and the legislation is moving in the direction to come up with satisfying solution of the problem. When the solution is going to be presented is to be seen. However, the solution should bring answers to the vast population of people employed by the rapidly growing software industry.

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SMES NETWORKING-KEY SOURCE OF INNOVATION

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Abstract

Small and medium-sized enterprises (SMEs) are key players in this type of innovation. Poor competitiveness of most domestic companies or their products and services way, but more in the domestic market is one of the biggest problems in the Republic Macedonia. One of the objectives of the Government of the Republic of Macedonia is that SMEs achieve international competitiveness. In a knowledge-based economy competitiveness is becoming more dependent upon the ability to apply new knowledge and technology in products and production processes. This paper is focuses on increasing the contribution of new entrepreneurial ventures and small and medium-sized enterprises (SMEs) to innovation. For complementary knowledge and know-how, they increasingly rely on collaborative arrangements, in addition to market-mediated relations (e.g. purchase of equipment, licensing of technology). Inter-firm collaboration within networks is now by far the most important channel of knowledge sharing and exchange. Interactions are also intensifying between firms and a number of other institutions involved in the innovation process. The paper's aim is to gain understanding of networking in SMEs and how networking contributes to the companies' growth.

Keywords: SMES, networking, companies' growth

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INTERDEPENDENCE OF KNOWLEDGE, INNOVATION AND NETWORKING

Besides the processes of regional integration, technological leadership, institutional support and local human resources, the more recent models to develop a national economy include knowledge, learning and innovation as important dimensions. Knowledge, innovation and networking are essential components of the new infrastructure for prosperity in the new economy. These are highlighted as promoters of economic development. Networks and collective learning increase creativity and innovation of SMEs. It contributes to new innovative environment that will allow free flow of knowledge between enterprises, their synergy and increased innovation capacity. The successful innovation depends on accumulated knowledge, which is generally created through networking and learning processes.

There are different types of knowledge. Namely the innovation is a result of individual and group implicit and explicit knowledge. It is shown in the following figure:

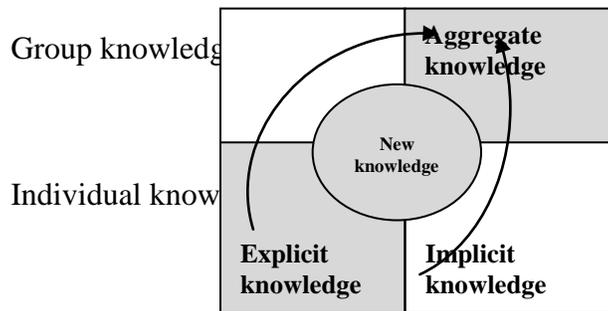


Figure. 1 The innovation as a result of different types of knowledge

The process of knowledge and the process of innovation are interconnected. The innovation depends on the knowledge and enterprises need to develop cooperation in order to improve the process of innovation and create sustainable competitive advantage⁴. Such cooperation helps to create new knowledge that can be useful in filling the gap between different knowledge in the enterprise and would reduce the risks and costs of its creation of innovation. Therefore, it is essential to increase the innovation ability to identify the implicit knowledge and its conversion into explicit, which is essential in the process of creating innovation. This means that the implicit knowledge gains importance from the aspect that it is constantly changing and growing as a result of new experiences and skills of individuals.

Namely creation of knowledge as part of the process of knowledge, is a component of the innovation process. But in this context, knowledge would be considered as a component or static resource model innovation. The correlation of the process of innovation and the process of knowledge is represented by a conceptual model in the following figure⁵:

⁴ Plessis, M.D. (2007), “The Role Of Knowledge Management in Innovation”, Journal of Knowledge Management, Vol. 11 No 4, pp (20-29)

⁵Jashapara, A. (2004). Knowledge Management, an integrated approach. England, Pearson Education Limited

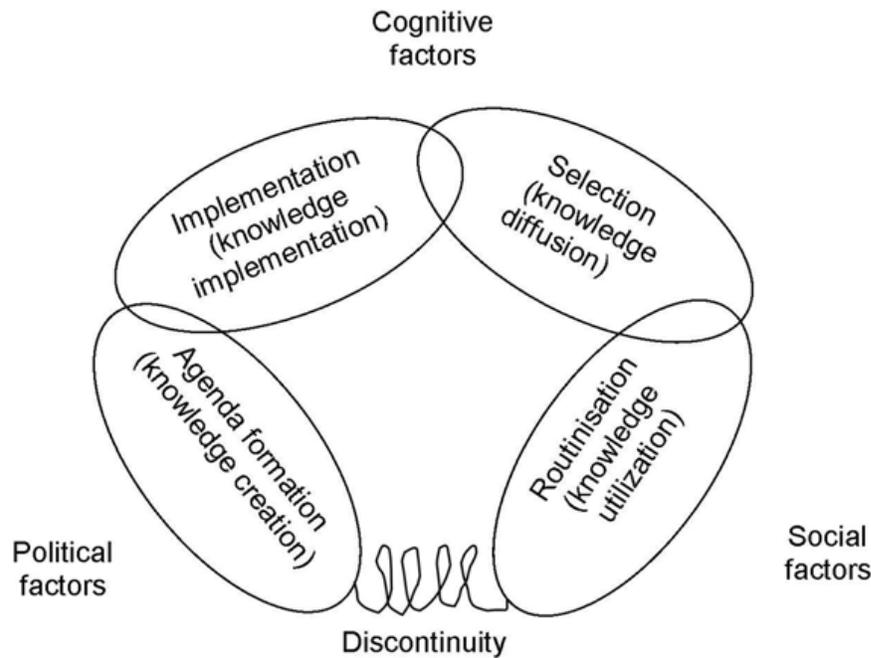


Figure 2. The innovative process presented through the process of knowledge

The process of innovation in this conceptual model is presented through four phases:

1. Agenda setting in which are identified the needs for innovation,
2. Selection of innovations,
3. Implementation and
4. Routinization, in which the innovation becomes part of the company.

Each of these phases is in correlation with the appropriate component of the process of knowledge. Agenda-setting is related to the creation of knowledge, the selection with the transfer, implementation of the innovation with the implementation of knowledge and integration of knowledge and routinization with usefulness of knowledge. The creation of knowledge includes: identification and articulation of existing knowledge in the enterprise, collection and evaluation of new knowledge (ideas) and collection of external knowledge. The diffusion of knowledge includes: systematization, formalization and integration of knowledge, transfer of knowledge across the enterprise, development of the organization managed with the knowledge and memory and knowledge protection. While in the use of knowledge are incorporated: the application of knowledge to improve the processes and products and the measurement and evaluation of knowledge management. In this conceptual model the implicit knowledge is most important in the first phase (creating knowledge), while in the final phase the explicit knowledge is of greater importance.

In other words, long-term competitiveness of SMEs is connected with their ability to continuously upgrade its knowledge base, instead to the exploitation of cheap resources and economies of scale⁶. Moreover, today, human capital is becoming an

⁶Maskell, P. and Malmberg, A. (1999) "Localised Learning and Industrial Competitiveness", Cambridge Journal of Economics, 1999, V.23, p.167-185.

important component, because knowledge and learning through networks require human intellectual and creative abilities. Although the boundaries of organizations are important for knowledge creation, increased complexity of the knowledge base requires cooperation and long-term relationship between the companies. It is generally accepted that new knowledge is needed for innovation through interactive learning processes. Collective learning is generally defined as ‘a social process of accumulation of knowledge based on common rules and procedures, which allows individuals to coordinate their activities in order to find a solution to the problem’⁷.

With the change in perception of knowledge and learning, the innovation process significantly is transformed over the decades. The new kind of innovation results from the network connection of SMEs and therefore there is a new term called ‘innovative networks’. In this context, SMEs are defined as major agents of regional networks and innovation activities. In the network of small and medium enterprises, the dynamic synergy causes transfer of accumulated knowledge. In addition, it is also necessary to recharge the so-called unspoken knowledge of small and medium entrepreneurs with the codified knowledge⁸.

INNOVATION NETWORKS AS A FACTOR TO INCREASE THE CAPACITY AND SUSTAINABILITY OF INNOVATIONS

Innovations are key driver of competitiveness of enterprises. They are a necessary condition for improving their efficiency. The use of innovations is to determine the survival of enterprises. They are essential to creating value in the companies, but it largely depends on actors outside the enterprise⁹. Therefore innovation networks are of growing importance in the knowledge economy, which is characterized by fast changes and high level of obsolescence of knowledge¹⁰. Networking of SMEs in interest of innovations is of great importance not only for their success, but also to increase the economic performance of regions. In order to understand the relationship between innovation and networking, innovation can be defined as ‘commercially successful exploitation of new technologies, ideas or methods through the introduction of new products or processes, or improving the existing.’¹¹ Small and medium businesses do not have enough resources to innovate. Therefore they should take advantage of the so-called innovation networks as a tool for enter at the international market.¹² The impact of innovation and innovation networks on the performance of enterprises is shown in the following figure:

⁷Capello, (1999) “Spatial Transfer of Knowledge in High-Tech Milieux; Learning Versus Collective Learning Process”, *Regional Studies*, 33(4), p.353-365

⁸Patrucco, P.P. (2003) “Institutional Variety, Networking and Knowledge Exchange: Communication and Innovation in the Case of Brinza Technological District”, *Regional Studies*, 37(2), p. 159-172.

⁹Cefis, E. and Marsili, O. (2005) A matter of life and death: innovation and firm survival, *Industrial and Corporate Change* 14(6): 1167-1192.

¹⁰Lundvall, B.-Å. and Barras, S. (1997) *The Globalising Learning Economy: Implications for Innovation Policy*, DG XII-TSER: Bruxelles

¹¹Simmie, J., Sennett, J., Wood, P. and Hart, D. (2002) "Innovation in Europe: The Tale of Networks, Knowledge and Trade in Five Cities", *Regional Studies*, 36(1), p. 47

¹²Scott, A. (1996) *Regional motors of the global economy*, *Futures* 28: 391–411.

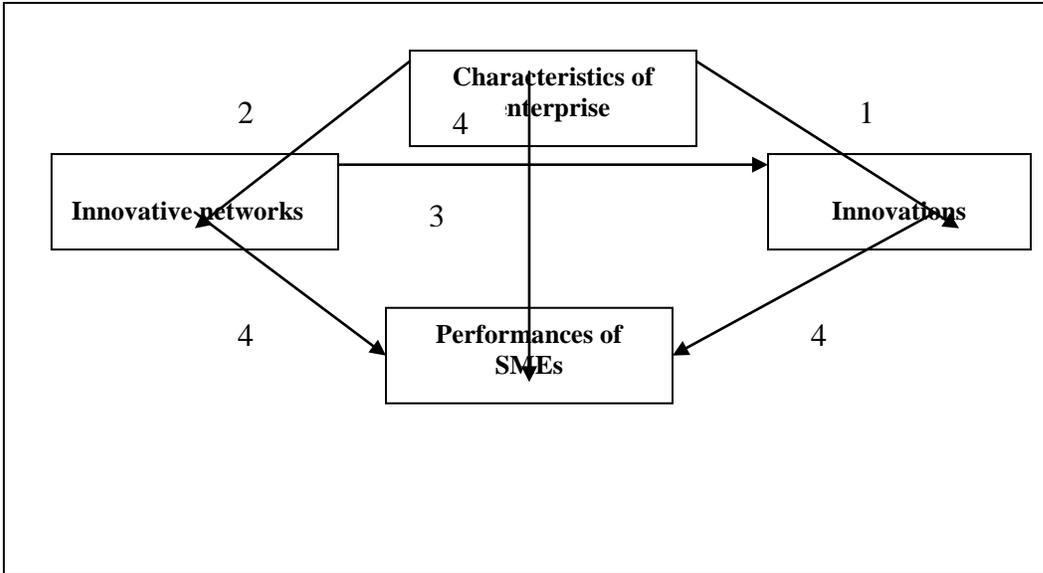
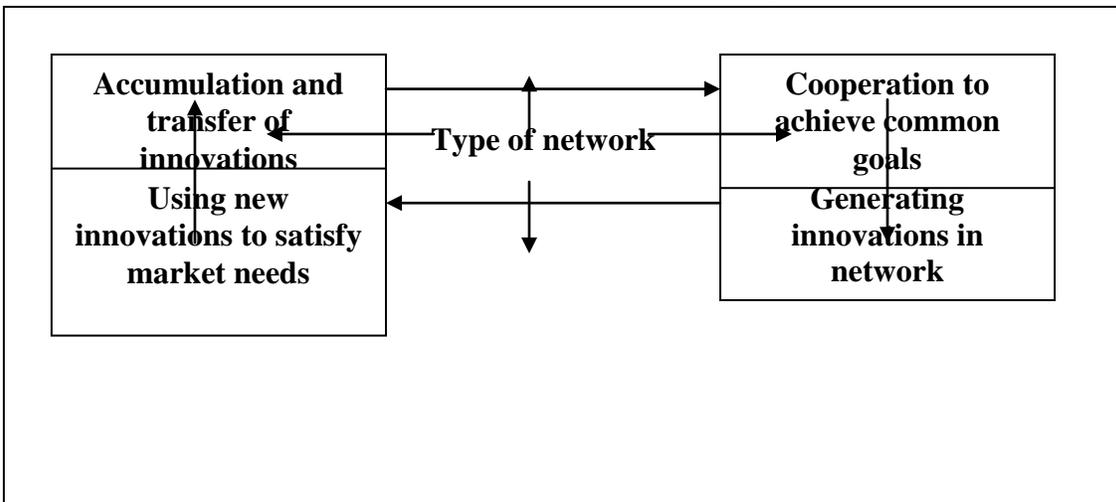


Figure. 3 The impact of innovations and innovation networks on the performance of SMEs

In the network of cooperation, sustainability of innovations is crucial. The codification, accumulation and application of new knowledge will contribute to new concepts and experiences, which will increase the capacity for innovations. As a whole, the innovative network improves innovation capacity which consists of resources and knowledge of network members. It is shown in the following figure¹³:



External sources of information, knowledge, know-how and technologies in order to build their own innovative capability and to reach their markets. Although different types of small and medium enterprises have different needs, all must be network connected, between them or with other highly innovative companies on a regional, national and global level. Empirical studies confirm that companies that are collaborating are more inventive than those who do not cooperate, regardless of their size. But they

¹³Szeto, E. (2000), Innovation capacity: working towards a mechanism for improving innovation within an inter-organizational network, The TQM Magazine, Volume 12 Number 2, pp. 149-158.

also show that the tendency to be included in knowledge-based networks reduces with their size.¹⁴ This is a reflection as part of the explanation of the fact that the innovation of small and medium enterprises is very limited. Creating appropriate conditions and stimulations to increase the participation of SMEs in innovation networks is a key challenge. Collaboration through innovative networks of SMEs allows increasing of innovations, as well as of the competitive advantage.

Innovative networks can have different forms and can be distinguished according to the following main features:

- The type and partners. Networking of individuals and organizations in functional areas (eg, research, production, logistics, marketing) gains importance in terms of connectivity in traditional vertical chains. Another common trend is the rapid development of networks that covers a wide range of participants, such as suppliers, customers, research organizations, business-oriented services, public authorities, etc., Partnerships between small companies, small and large companies, among small and public research organizations, are more important because they are effective ways of refining the division of labor within the innovation systems for the benefit of all;
 - Innovation mode. Innovations may refer to products, services, processes, etc.;
 - Geographic scope. Networks can be local, regional, national, international and global in scope, depending on the type of partners and dominant innovation mode. Geographic boundaries of networks are changing over time;
 - Organization and relationships between partners - from loose networks to structured partnerships. The network of relationships vary significantly, ranging from very informal, flexible and trust-based relationships to more formalized and stable arrangements, such as partnerships. However, behind every formal network (collaborations, joint investments, etc..) there are various informal networks that bring life and sustainability.

The networks do not always have a positive impact on innovation. In fact, innovation networks with suppliers have a negative effect on production innovation. While procedural innovations are not affected by age or size of the company, but is a positive impact of innovation networks (and with suppliers and customers). The size of the company has an indirect effect, and is positively associated with innovation networks and with suppliers and customers. It is shown in the following figure:¹⁵

¹⁴OECD (2001), Innovative Networks: Co-operation in National Innovation Systems.

¹⁵Rob Winters, Erik Stam (2007), Innovation Networks of High Tech SMES: Creation of Knowledge but no Creation of Value , pp 13

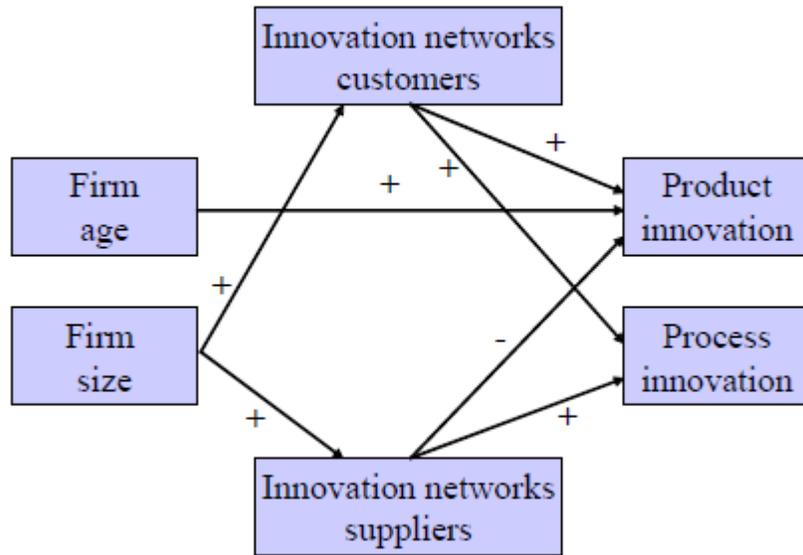


Figure 4. Network effects on innovation

ICT AS A BASIC INFRASTRUCTURE FOR NETWORKING OF SMES

Computer networks allow companies to connect and provide important services such as computer and information services, hardware and software services, data processing, advanced communication services, in terms of research and development etc.. The development of information and communication technology has led to a major institutional and technological change, it is the possibility of on-line transfer of knowledge between different companies whether it is for companies from the same country, region or globally.

From the early 1990s until today, the increasing development of the Internet, has a dominant influence in the field of business. Internet largely creates better relationships with suppliers, customers, increased efficiency in the management, improvement of the production process, and improving cooperation with other companies both locally and globally. For any company the use of Internet as an important competitive advantage is reflected through indirect advertising, fast feedback from customers, improving responsiveness to customers, access to government data, accelerating of corporate communications etc.. In this way is created a networked economy in which is very easy the communication and cooperation between all interested parties.

Information and Communication Technology is enabling fast transfer of information and continuity of production and consumption, also it is considered to be driving force in the transformation of the traditional economy in the 'knowledge economy'. The networking of small and medium enterprises through specific services such as electronic data interchange (EDI), is crucial for organizational restructuring of production. In such a system the information become available to all interested parties, enterprises, suppliers and customers.

Within the knowledge economy is very important the development of the process of 'e-learning' where the main feature of this type of learning is to increase the ability for transformation of information obtained from the electronic network in specific knowledge.

ICT has an effect on the territorial aspect of companies that enables increased integration between certain regions by creating regional networks between. In addition, ICT can be considered as a kind of catalyst, which allows complementarity between economic and social networks both in global and regional scales. ICT also allows inter-regionalization of production through the establishment of interregional networks, markets and strategic alliances. Computer communication can be used to reduce costs for exchanging technological knowledge of the inter-regional level. As a result, information and communication networks provide positive externalities that affect the performance of regional development. ICT is a dynamic concept, which makes possible the process of decentralization of production in different areas and creation of an entirely new type of network organization. Although with the help of ICT has become possible geographic decentralization of production, in the last years networking of companies enabled re-centralization especially in urban areas. New information and communication technologies have enabled the knowledge and information to accumulate in certain centers that act as nodes in some broader networks. One of the key questions to be asked here is whether this networking with support of information and communication technology can replace and improve the physical relationship between the companies.

In any case, the information and communication technology is base for networking companies and dissemination of knowledge, and this will form the base for local and regional development.

NETWORKING AS AN IMPORTANT FACTOR IN IMPROVING THE COMPETITIVENESS OF SMES

Small and medium companies represent basic core of the European economy. Within the EU there are about 23 million small to medium sized companies that constitute 99% of the total number of companies, while 57% of them are owned by one owner. They employ two-thirds of the total number of employees and create more than half of the value added in the EU¹⁶. Therefore small and medium companies have extremely importance for future growth and economic development in Europe, and therefore in Republic of Macedonia as an important partner of the EU and its potential member.

In today's knowledge economy, SMEs compete in a complex environment as a result of increased global competition, technological evolution and flexible structures of organizations. In such a competitive environment, networking is turning into the core of achieving success and competitiveness in the region, because it reduces uncertainty by sharing risks and allows cooperation for rapidly changing environment. Therefore, it might be noted that the involvement of SMEs in regional and global networks is of essential meaning for regional development and innovation in the process of globalization. On the other hand, innovation has impact on regional development. From that point of view will be considered their interdependence. In this context, networking of

¹⁶<http://www.bsrstars.se/about-us/smes-networks/>

companies is becoming more important and allows companies to act individually but as part of a larger system. Thus companies can invest more in knowledge and consequently to accelerate innovation processes that would be the basis for competitive advantage.

At the architecture of the network can be viewed as a network whose nodes constitute such activities performed by participants in the network. The segments that connect nodes constitute flows with their priorities and dimensions that connect individual operations. Therefore the main structural components of the network are nodes and connections (links) between them. Nodes can be composed of different subjects as legal independent units or parts of the company (business unit, department). Nodes must be subjects capable for behavior which is independent, but also capable of interacting with other systems for sharing of resources, energy and knowledge. Relationships that are built between the nodes are defined as links or connections between nodes. Basically the purpose of these links is to provide an exchange of resources, and operational characteristics of the network are represented by the common rules of the network such as a common language, standards of behavior, planning and control, etc..

Companies within the network can perform collaborative research, develop new technologies, establish sales networks abroad, create a common brand, increase the range of products etc. Some networks stay within the traditional areas of networking such as supply chain networks while others have completely new objectives and completely new protagonists such as creating common centers for research and development, common training centers, public private partnerships, alliances to support specific projects and more. Establishing a network structure especially among small and medium companies can stimulate the capacity for continuous learning, multiplying the effects of additional gained knowledge. On the other hand, the significance is even greater if we have into account that accumulated knowledge generates additional value. This networking companies can become a primary tissue where the intelligence of the individual will be transformed into collective intelligence, which is the base for the acquisition of competitive advantage in the market. Being part of the network includes the exchange of knowledge between participants in the network, increasing knowledge, accelerating the innovation processes and therefore increasing the capacity for innovation, in order the company to be competitive at the global market. All small and medium companies need to develop the ability to work in a network if they want to compete against the big companies.

Networking of the companies should allow a larger development by common use of resources. Specific examples of such networking companies have in Silicon Valley in the USA, Italy, South Germany etc.. Such networking of the companies on a regional level can serve as an example of successful operation and as a base for the acquisition of competitive advantages. So connected regions can be connected with other regions and thus to form an inter-regional network of SMEs. The impact of networking to increase the competitiveness of SMEs can be seen through the following benefits:

- Increasing the scale and scope of activities. Namely the capacity of the enterprise can significantly increase and expand with synergy of technological competences and technological and organizational innovations. This results in increasing the customer base of any enterprise;

- Improved ability to overcome technological complexity. It implies the need for collaboration of experts from specific fields and share their knowledge on assisting innovation networks;
 - Networking provides better access to various sources of financing;
 - Networking of small and medium enterprises can provide better access to scientific and research institutions and using their expertise;
 - The association of small and medium enterprises in networks will make them more attractive as partners for large companies, thereby gaining access to new business opportunities
 - Distribution of costs and risks. The costs associated with innovation are quite high and above the capabilities of each individual company. So, with the networking they can be distributed by mutual agreement;
 - Continuous learning. Namely, given the continuous and rapid technological and market changes, SMEs should be adjustable through continuous learning. Collaboration improves the learning of new and potential technologies, and the ways in which technological changes may affect existing business. It can also affect SMEs to learn to change their organizational approach;
 - Flexibility and efficiency in knowledge management. Given the fact that there are different types of knowledge, especially implicit and specific knowledge, which is difficult to transfer through market mechanisms, networks facilitate the exchange of all kinds of knowledge based on mutual trust of SMEs;
 - Speed. Speed is often essential to utilize the new opportunities made possible by so-called innovation networks;
 - Elasticity. The speed of change in the international markets and science and technology, together with greater diversity and specialization of knowledge, created uncertain and changing environment of SMEs. In a stable environment is enough enterprises to be involved in exclusive relations with a few partners. However, in a dynamic environment are more necessary contacts in order to manage and overcome challenges;
 - National and regional networks of small and medium enterprises are often base and driving force in the development of transnational networks.

According to all the benefits listed may be concluded that the networking of small and medium enterprises can be crucial in ensuring a competitive advantage that is the basis for further growth and development.

CURRENT TREND AND PRESPECTIVE OF SMES NETWORKING IN MACEDONIA

Network economy is a new entrepreneurial model that is based on information, innovation, communication and modern information technology.

One of the objectives of a national economy is to improve competitiveness of SMEs in the international market. It is a key issue for the Republic of Macedonia. Basic presumption for achieving this goal is networking of small and medium enterprises, which becomes a key factor to increase innovation capacity, competitiveness and economic development. SMEs today are the main agents of networks and innovative

activities, and networking is a new paradigm in their work in order to create knowledge and competencies.

Networking of SMEs in our country is just on beginning. Therefore, networking of SMEs should be in the focus of government strategies in order to promote innovation.

One of the main goals of the Government of the Republic M. SMEs is to ensure international competitiveness. This is necessary to encourage alliances in the field of e-commerce. The benefits of the networking of SME are:

- Improving the access to information and consultancy services to SMEs in the border region;
- Improving the quality and diversification of cross-border information and business consulting services;
- Increasing the capacity of SME and institutions that offer support for the business sector and local authorities in the area of business;
- Using of innovative forms of marketing and advertising in the border region.
- Providing active exchange of information between business organizations in the border region;
- Improve business collaboration.

Therefore, in R. Macedonia were formed European Information and Innovation Centre and is a full member of the European network of companies which is a key instrument for the implementation of the framework program for competitiveness and innovation of SMEs. It was established in 2008 with the support of the European Commission and the Government of Macedonia.

European network of enterprises (EEN) is the largest business network in Europe, which helps companies to improve their operations and innovate, through partnerships, information and expert advice.

European Information and Innovation Centre in Macedonia are a professional organization that facilitates realization of many projects who are relating to competitiveness and innovation, not only in the domain of science centers and enterprises, but also beyond, because it is directly related to the European Commission. Through this Centre can be implemented many joint programs because it is a key instrument for the implementation of CIP-program (Competitiveness and Innovation Framework Programme) of the European Union. The main objective of this center is to provide an organized entrance of small and medium enterprises in the global market so that will overcome existing barriers. Improving the competitiveness of the economy by increasing the level of innovation of SMEs is essential mission of the center. The activity of this center includes several activities, including:

- Internationalization of local SMEs in transfer of technology and participation in research projects;
- Dissemination of information in the field of EU policies, initiatives and relevant courses for SMEs;
- Finding international partners for business cooperation, technology exchange and participation in development projects;
- Organization of international events, company operations, brokerage events, meetings of companies and other forms of bilateral and multilateral cooperation;
- Establishing, maintaining and updating the database of companies in the country for international cooperation;

- Information and publications on international issues, themes and events;
- Training, assistance and support to SME for participation in the Single European Market;
- Support for participation in programs of the European Union.

Measures that should be taken in the future to increase the competitiveness of SMEs in the RM through network connection using the advantages offered by modern ICT are:

- Increasing access to finance and co-financing for the implementation of modern ICT products and services;
- Implementation of innovative ICT methods and electronic communications for SMEs, including high quality online content and e-commerce products and services;
- Campaign to promote the benefits of using modern ICT products and services to a target group of SMEs;
- Campaign for educate SMEs on the use of modern ICT and electronic communications in order to develop new, innovative and competitive products and services.

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**PROBLEMS IN DISTRIBUTED COOPERATIVE SOFTWARE
DEVELOPMENT: A REVIEW**

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Radulović¹ Biljana

Abstract

In the world of communications and globalization, software development projects are often implemented in cooperation of distributed teams and software companies. There are several issues that arise from such an organization - in technical, psychological, social and project management areas. This paper presents results of a review of research results in this area and suggests directions for further development.

Keywords: Distributed teams, cooperative software development, project management

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INTRODUCTION

Distributed software development (DSD) is a common practice in software industry (Jimenez et al, 2009), for companies that aim to reduce costs, increase availability of human resources, improve quality etc. (Herbsleb and Moitra 2001). DSD is usually implemented in large software projects (Herbsleb, 2007). Therefore, many research efforts in recent decade has been focused on DSD issues.

One of systematic research and practical endeavour in DSD area was organized within an international project “OPHELIA (Open Platform and meTHodologies for deVELOpment tools and IntegrATIOn in a distributed environment), funded by European Union and started in October 2001. OPHELIA aims to produce a platform definition that will support software engineering in a distributed environment and the integration of toolsets across such an environment. The project consortium comprises partners from six countries (Czech Republic, Germany, Italy, Poland, Spain and the UK) and is a test case for the platform. The platform intends to support the analysis and implementation phase of the software lifecycle. An additional project goal is the development of a methodology and a process for the optimization of the software lifecycle in situations where modelers and software engineers are distributed over different sites.” (Dewar, 2002)

Analysis of research in the field of DSD is presented in several review papers. In (Jimenez et al, 2009) systematic review of published papers in DSD field shown that there is a tendency of DSD research. “Through the systematic search carried out, it can be concluded that the subject of DSD is evidently an area which was not widely studied until a few years ago, and that it is only recently that a greater number of publications have appeared”. According to (Jimenez et al, 2009), most of DSD related research include: case studies (47%), experiments (27%), literature reviews, simulations and surveys. Standards that are used in published papers were related to CMM, CMMI, ISO 12207, ISO 9001, ISO 15504. Research is mostly conducted in enterprises (40%) and university (16%). IT industry based research is mostly conducted within large IT companies that do their outsourcing to other countries, such as Alcatel (*Ebert and De Neve, 2001*), IBM (Sengupta, 2006) and Philips (Kommeren and Parviainen, 2007). Very few DSD related papers are focused on SME’s (Small and Medium Enterprises) DSD experiences. “The European Commission describes an SME as an independent firm which employs less than 250 employees. According to this definition, 99.2% of software development companies in the world are SMEs” (Jimenez et al, 2010). Therefore, research in DSD is valuable for SME’s.

Aim of this paper is to analyze and categorize research results in DSD area. This paper introduces SE-PM matrices based on standard software engineering and project management areas, that could be used for determination of coverage and presentation of uncovered areas in these fields, applied to DSD issues. Application of SE-PM matrices could help in directing future research in DSD field.

THEORETICAL BACKGROUND

Distribution taxonomy is presented (Gumm, 2006) with:

- Objects of distribution (what is distributed – people, artifacts, tasks etc.)
- Types of distribution (i.e. how is distribution organized, distribution dimensions):

Physical (or geographical) distribution (named “global software development” (GSD) (Herbsleb and Moitra 2001).)

- Organizational distribution,
- Temporal distribution,
- Distribution among stakeholder groups.
- Challenges of distribution (i.e. issues to be solved, such as version control, communication, cultural differences, perceived distance etc.)
- Solutions of challenges (i.e. how these problems could be solved, such as social solutions, technical solutions etc.).

Collaboration and cooperation are “mostly used synonymously for describing the distributed processing of common software artifacts based on division of labor. In doing so, several authors distinguish multiple levels of collaboration: These consist of (a) informing, (b) coordinating, (c) actually collaborating, and (d) cooperating. As opposed to collaboration, cooperation in this taxonomy is conducted by participants with equal rights and individual goals subordinated to one collective target. Similar to collaboration, cooperation also implies constant and intensive interaction. Furthermore, cooperation features one common process and common outputs such as jointly created documents as well as collective team evaluation and results.” (Hildenbrand et al, 2008)

TYPES OF DSD ORGANIZATIONS

Some types of distributed software development organizations are:

- *Virtual teams* – “are composed of geographically distributed coworkers linked through information technologies to achieve an organizational task” (Zhang et al, 2008). “The virtual team is described as the core building block of the virtual organisation. A traditional team is defined as a social group of individuals who are collocated and interdependent in their tasks; the group undertakes and coordinates their activities to achieve common goals and share responsibility for out-comes . Virtual teams have the same goals and objectives as traditional teams and interact through interdependent tasks, but operate across geographic, temporal, and organisational boundaries. They often operate in a multicultural and multilingual environment; communication between virtual team members is normally electronic and often asynchronous.” (Noll et al, 2010)
- *IT Outsourcing* – “ is as an act of delegating or transferring some or all of the IT related decision making rights, business processes, internal activities, and services to external providers, who develop, manage, and administer these activities in accordance with agreed upon deliverables, performance standards and outputs, as set forth in the contractual agreement” (Dhar and Balakrishnan, 2006). Large IT companies (Kommeren and Parviainen, 2007), as well as small and medium enterprises (Boden, 2007) include distributed software development by engaging outsourcing teams from other countries.
- *Open Source Software (OSS) development* - with informality in communication and cooperation, where individuals and groups contribute to improvement the common product with partial features enhancements. Contributors are users and developers at the same time and their improvement suggestions are not formally written as requirements. (Mockus and Herbsleb, 2002)

BENEFITS OF DSD

When DSD projects are concerned, “early results (Spinellis, 2006) warned that such projects may suffer from lower quality due to geographical dispersion” (Kocaguneli et al, 2013). Research (Kocaguneli et al, 2013) rechecked the statements regarding DSD influence on software quality and proved that DSD approach is appropriate for using in industry.

There are many “known” benefits of DSD, among which are (Ågerfalk et al, 2008):

- Cost savings,
- Access to large pools of skilled workforces,
- Reduced time to market,
- Proximity to market and customer, including local markets.
- Some “unknown” benefits of DSD, according to (Ågerfalk et al, 2008) are:
- Organizational benefits – a) innovation and shared best practices, b) improved resources allocation,
- Team benefits – a) improved task modularization, b) reduced coordination costs, c) increased team autonomy,
- Process benefits – a) formal record of communication, b) improved documentation, c) Clearly defined process.

RESEARCH METHODOLOGY

Aim of this paper is to summarize research related to issues in DSD by analysis of related work in this area. Literature review is focused on categorization of issues in DSD area. Research methodology is applied with this sequence of steps:

1. Search for papers - performed using Google and Google Scholar search engines whose resulting papers redirected the search to search engines such as: Elsevier, Science Direct, Wiley Interscience, IEEE Digital Library and ACM Digital Library. Keywords for searching for related texts were “distributed software development”, “issues in distributed software development”, “virtual teams in global software development”, as well as other keywords related to particular type of issues, such as “distributed software project management”.
2. Selection of papers – among all search results there were listed papers and other texts from variety of journals, conferences, white papers, technical reports, projects reports and web sites. Selection was performed in aim to focus on full papers from journals and international conferences.
3. Categorization of results – Resulted papers could be classified according to:
 - I) Research category:
 - a) review papers, presenting lists of issues and solutions from other research papers,
 - b) papers related to particular type of issues in DSD, where issues could be categorized as technical, organizational, social and psychological.
 - II) Year of publication:
 - a) FIRST period - from 2000-2008,
 - b) SECOND - recent period 2009-2014.
4. Focused analysis – further selection within categorized papers is made to perform analysis upon:
 - o DSD issues in review papers from first period

- DSD issues in review papers from second period
- 5. Analysis of standards coverage – the problem of DSD belongs to standard areas of software engineering and project management. Research results are compared regarding these areas coverage. Areas within software engineering and project management are related and they form a matrices, named SE-PM matrices. This matrices is applied in systematization of related work in DSD issues field, so uncovered areas could be determined.

REVIEW PAPERS ANALYSIS

In the last decade, results of particular issues research in DSD area have been summarized in several review papers, as presented at Table 1 and Table 2.

Table 1. Summary of DSD issues from review papers – first period

Review paper	DSD Issues
Gorton and Motwani, 1996	Virtual team organization (cooperative, delegation and consultative model) and communications, inter-team communications, software development process and task allocation
Carmel and Agarwal, 2001	Distance, Collaboration, coordination, control, cultural distance, linguistic barriers, temporal distance
Ebert and De Neve, 2001	Language, Cultural barriers, Coherence, Collocation, Allocation, Working roles (Core competence, Engineering, Service), training, coaching, concurrent engineering, feature-oriented development, change management, incremental development, CMMI levels
Dhar and Balakrishnan, 2006	Risks of IT outsourcing - factors: people (different skills, experience), Knowledge (Functional, Technological, Managerial), Cultural, Political, Financial (Accounting standards and variation in currency exchange rate), Quality Standards, Performance measurement standards, Scope, Cost, and Time Estimates, Different companies in foreign countries have different management and core competencies, Legal Contracts and Intellectual Property standards, Security - protection and control of data, Disaster Recovery, Contract management (formulating contracts, schedule planning, activity planning, sending and accepting deliveries, dispute resolution, and signing off).
Sengupta et al, 2006	Inadequate communication, particularly informal, cultural differences, strategic issues, process, technical issues, knowledge management, requirements misunderstanding, interface agreements, geographic dispersion, time-zone issues and cultural/organizational

	differences, key performance indicators, CMM
Ågerfalk et al, 2008	Geographical distance: Lack of informal communication, misunderstandings, requirements change Temporal distance: time zone, delay in feedback, different working hours Socio-cultural distance: Nature of software development process, language, lack of familiarity, lack of trust

Table 2. Summary of DSD issues from review papers – second period

Review paper	DSD Issues
Jiménez et al, 2009	human resources, organizational management, communication of team members, infrastructure, organizational alignment, project management, standards alignment, configuration management, testing, knowledge management, process control, group awareness, coordination, collaboration, process support, quality, measurement
Jiménez et al, 2010	DSD in SME: Communication, Configuration Management, Knowledge Management, Quality Management, Risk Management, Project Management, Process support, Coordination, Collaboration
Noll et al, 2010	Geographic, temporal, cultural and linguistic distance, knowledge sharing, skills, organization, process, management, fear and trust, infrastructure, product architecture
Kocaguneli et al. 2013	Software product quality, communication, coordination, organization, development strategies

SE-PM MATRICS

SE-PM matrices is a new tool introduced in this paper that could be used in determination of covered areas in research related to both software engineering and project management. Particularly, this tool could be used in this paper for DSD issues related work systematization. This way applicability of this tool is presented at particular case. Table 3. Presents the general structure of proposed SE-PM matrices.

Table 3. The structure of the proposed SE-PM matrices

<i>SE – PM matrices</i>	PM area 1	PM area 2	Etc.
SE area 1	Symbol or reference		
SE area 2			
Etc.			

For each cell, symbols (or references to papers) could be used as:
 ∅ (“empty”) – not covered, or simply to left blank,
 √ (“check mark”) – covered.

Software engineering knowledge areas (KAs) of interest for analysis of DSD issues coverage could be refereed from variety of standards. In this paper IEEE Computer Society’s SWEBOK v.3 (SWEBOK, 2014) is considered a standard source for software engineering areas definition. Regarding project management, IPMA’s PMBOK 5th edition (PMBOK, 2013) is considered as a standard source in this area. SWEBOK’s knowledge areas of software engineering include 15 areas, as presented in Table 4.

Table 4. The knowledge areas in software engineering body of knowledge

The 15 SWEBOK KAs
Software Requirements
Software Design
Software Construction
Software Testing
Software Maintenance
Software Configuration Management
Software Engineering Management
Software Engineering Process
Software Engineering Models and Methods
Software Quality
Software Engineering Professional Practice
Software Engineering Economics
Computing Foundations
Mathematical Foundations
Engineering Foundations

PMBOK has 10 knowledge areas. “The 47 project management processes identified in the *PMBOK® Guide* are further grouped into ten separate Knowledge Areas. A Knowledge Area represents a complete set of concepts, terms, and activities that make up a professional field, project management field, or area of specialization. These ten Knowledge Areas are used on most projects most of the time. Project teams should utilize these ten Knowledge Areas and other Knowledge Areas, as appropriate, for their specific project.

The Knowledge Areas are: Project Integration Management, Project Scope Management, Project Time Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management and Project Stakeholder Management.” (PMBOK, 2013)

APPLICATION OF SE-PM MATRICS TO DSD ISSUES IN REVIEW PAPERS

Referring to standard SWEBOK and PMBOK, the mayor areas of both software engineering and project management knowledge areas are entered in SE-PM matrices, i.e. table. DSD review papers analysis will be entered in SE-PM table, to present how this matrices could be used in practice. For SE knowledge areas, only 4 KAs are ommitted, but all others are included in SE-PM matrices.

Table 5. Analysis of DSD research review regarding standards coverage

<i>SE – PM matrices</i>	Integration	Scope	Time	Quality	Human Resource	Communication	Risk	Procurement	Stakeholder
Requirements							√		
Design							√		
Construction	√		√	√	√	√	√		
Testing							√		
Maintainance							√		
Configuration Management				√			√		
Engineering Management		√	√	√	√		√		
Engineering Process			√	√	√		√		
Engineering Models and Methods		√			√		√		
Quality				√			√		
Engineering Economics		√	√				√	√	

DISCUSSION AND CONCLUSIONS

Previously presented Table 5. shows results of matching of items from analysis of review papers related to DSD issues with SE-PM matrices rows and columns.

During matching results of analysis of review papers to appropriate cell in SE-PM matrices, several problems occur:

1. Some of items from Table 1 and Table 2 could not be matched with any of the rows or columns.
2. Some of items from Table 1 and Table 2 could be matched with only a column (PMBOK KA's), but the analyzed item is not precise enough to have row (SWEBOK KA's) matching.

This application of SE-PM matrices to DSD issues review papers shows:

1. It is possible to use SE-PM matrices in DSD issues analysis. Conclusions could be drawn regarding covering certain areas of software engineering and project management regarding DSD issues research review papers.
2. Application of SE-PM matrices shows that list of KAs regarding software engineering, as well as regarding project management should be extended with some new items. For example, in project management KAs, there should be also Knowledge Management included (now it could be assigned within human resources, but this KA is much broader than human resources application).

Future plans regarding research in this area could be directed towards more complete analysis of DSD issues research from primary research papers, not from review papers. Another direction for research could be toward research in the field of integration of software engineering and project management in the context of methodology for research coverage analysis for any IT or software development related research field.

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THE CHALLENGES OF BUSINESS-TO-BUSINESS MARKETS AND CREATING PERMANENT PARTNERSHIPS THROUGH STRATEGIC RELATIONSHIP MARKETING

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Abstract

Today's business marketing strategies apply modern marketing relationship, for creation and sustainability of long-term value for companies, i.e. search and establishing permanent partnerships with customers. Strategic Alliances appear in different types of agreements among different manufacturers, manufacturers and consumers, manufacturers and suppliers and manufacturers and intermediaries.

The issue treated in this paper, is building long-term relationships with customers as a necessity in the global world, because these relationships offer a way that provide a competitive advantage, and can be hardly copied by competitors. More often business-to-business markets want to have permanent relationship with an organization, rather than switching constantly among providers in their search for value.

The issue in this paper is thoroughly examined through the matter of strategic partnerships and implementation of marketing relationship, as a fusion which allows the creation of a strategy that focuses on keeping and improving relationships with current customers.

Through a case study, the paper has explored the ways that retailers determine their most profitable customers or how they improve their experience with the customers and business with them. The goal is to answer the question whether the creation of partnership alliances will enable companies to reinforce what they do well with clients, who possess additional skills.

The research results may serve as a basis for significant solutions to enhance business partnerships, in which relationship marketing is implemented. The conclusions in the paper should confirm the thesis that customer retention should be a core value of the company and a popular business concept.

Strategic partnerships with incorporated marketing relationship, should represent a process of negotiation and interdependence among partners, adjustment, creating shared value, respond to conflicts and overcome their differences. If business-to-business markets include multicultural, cross-cultural and international perspectives and such behavior that conducts business, then in the future this can offer permanent partnerships.

Keywords: Profit-enhanced strategies, multicultural perspectives, disintermediation, strategic partnerships and sustainable channels.

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THE CHALLENGES OF BUSINESS-TO-BUSINESS MARKETS AND CREATING PERMANENT PARTNERSHIPS THROUGH STRATEGIC RELATIONSHIP MARKETING

“If you think you can go alone in today's global economy, you are highly mistaken”.

Jack Welch, former General Electric leading man

INTRODUCTION

Strategic alliances that represent various forms of cooperation of two or more independent companies coordinate the necessary competencies, skills and resources in order to achieve more value for partners. The purpose of the strategic alliance is strengthening their competitive positions in the competitive environment. Creating alliances has been proved as a productive strategy to overcome the lack of resources or capabilities that are required of the company on one hand and ensuring or preserving a competitive position in the global market on the other hand.

Alliances today are highly developed and can be among similar or different companies, or competitors, business functions on same or different level etc. Strategic alliances are established at all levels from local to global alliances, covering all industries: production, transport, pharmaceutical, information and service.

In any case, the company with a partnership should adjust itself in a way that offers the best competitive advantage.

Important segments of strategic alliances are creating added value and its fair distribution, in accordance with the role of the partners in the alliance. This role is not valued only by the economic value of each partner at the entry, but under the sway on the competitive position of each partner.

ASSUMPTIONS FOR COMPANY’S ENTRY INTO A STRATEGIC ALLIANCE

Strategic alliances are an important prerequisite for any company in establishing its long-term, continuous and stable survival and strengthening not only the company, but also other entities.

The basic prerequisite for company’s successful entry into the strategic partnership is what its leadership requires from the strategic alliance.² Strategic partnership should be defined in planning and development enterprise documents (business strategy) or analyzed and projected in joint feasibility study with potential strategic partners.

The second prerequisite for company's entry into the strategic alliance is quality decision. It will be quality, if contains an action plan for its implementation. The company top management must define and plan quality activities that will precede the signing of the agreement on strategic partnership.

The third assumption should answer the question: What if the strategic partnership initiative comes from the businesses in its proximity? In that case, management should have a clear response, whether they want or not a strategic alliance and what is the purpose of its realization. There is no doubt that the unsuccessful companies are not attractive to strategic partners, thus the company should possess certain advantages and attractiveness to enter into long-term joint project with other companies.

² Đurić, Prof. dr Z., *Strateška partnerstva – alijanse – preduzeća*, Novi Sad 2006, 4.1, pp. 225

The fourth assumption relates to the different degrees of complexity of strategic partnerships (alliances). According to "step by step" system, the company has to go through less complex partnerships and then with its gained experience, can overcome better and easily the requirements that are imposed in the complex partnerships. The practice shows that newly-established companies without any practice hardly find strategic partners.

The establishment and successful operation of the strategic partnership is very important for mutual trust, as the fifth prerequisite for successful business-to-business relationship, while the next assumption relates to the investment, if the company decides to use a long-term cooperation through some strategic alliance form. Each entry into a strategic alliance requires possession of proper knowledge, skills, information and time in solving problems in establishing strategic alliance; all these activities entail costs and require investment. Also implementation of joint projects requires change and adjustment of technology on the enterprise, which always entails more investments.

As a precondition (assumption) for successful strategic partnership is stable macroeconomic environment (continuous economic growth rate, stability of general price level in the country, harmonization of economic systematic solutions, improving the quality of associated economic activities and state operating - its institutions etc.

ADVANTAGES AND DISADVANTAGES OF STRATEGIC ALLIANCES

Building strategic alliances certainly has its positive and negative sides. Positive aspects of establishing strategic alliances are:

- *Adoption of skills and knowledge.* Alliances are effective and economical way of learning the knowledge and skills of others. Learning and developing the partner's competencies in the areas in which they are the best, are more common motive for entering the company in an alliance;
- *Access to new markets.* To enter on the market with a company that has been already operating or the office is based in a foreign country and knows the market and culture, can be often more effective and successful way to win the foreign market than an independent entry in that market;
- *Access to new distribution channels.* The alliance can bring the company new access to distribution channels than if it gets an access by itself, which would be more difficult and expensive way for the company³.
- *Reduce costs and uncertainty and risk sharing.* Uncertainty and operational costs can be significantly reduced by using the resources of its partners. When a partner is specialized in particular part of the process, economies of scale are achieved, which provides greater benefits for all partners in the alliance, rather than those which the company would achieve alone;
- *Access to new technology.* Many alliances are established to allow the company one step further to modern technologies (through arrangements such as licensing, special contracts, etc.);
- *Access to capital.* The primary motive of smaller companies for strategic alliances is the access to new capital, which will allow growth and development to new products and services;
- *Access to production.* The alliance may allow the company access to modern production lines and facilities, expertise in production etc.

³ Klopčić R. Marketing mogućnosti etičke primjene, Off-set Tuzla (2010)

- *Increased company credibility.* Companies that have just started their business through alliances with renowned partners can significantly increase their credibility on the market and by investors.

As an advantage of creating a partnership, the following positive effects should not be also neglected: *access to new products* (especially in the pharmaceutical industry), maximum concentration of those segments of the business in which the partner company is competitive, the synergy effect through joint cooperation and joint effort, etc.

Besides the mentioned advantages, strategic alliances have also disadvantages:⁴

- *Lack of control.* Control over mutual working is crucial in order to achieve the alliance objectives. Alliances search for new control methods, unique methods of management and creation of certain liabilities, according to its resources to the alliance.

- *Disagreement between partners* on some issues in mutual working can lead to significant problems in strategic alliance.

- *A high percentage failure.* A significant number of strategic alliances end in failure. It is due to cultural differences between partners, alliance's unrealistic expectations, inability of the partners to contribute to the alliance in terms of expectations etc.

- *Reducing flexibility of partners.* The alliances may restrict the flexibility of their members, if there is an entry into another alliance, acquisitions or similar transactions;

- *Dependence on the partner.* In some cases, it can happen a member of the alliance to become dependent on the partner;

- *Significant investment in resources and time.* For a successful alliance, a long-term commitment of its participants is essential. Often members invest much more of their resources and time and ultimately the alliance do not achieve its goals and therefor comes to termination of the alliance.

RELATIONSHIP MARKETING AND STRATEGIC ALLIANCES

Relationship marketing is a strategy that entails searching and creating ongoing partnerships with customers, distributors or consumers. As consumers have become more demanding and competition has become more intense, so relationship marketing has changed.

Contemporary relationship marketing in companies is realized through strategic partnerships. As a cooperative business agreements between companies⁵, strategic alliances can take a form of licensing or distribution agreements, joint ventures, research and development consortia and partnerships; they may exist between different manufacturers, manufacturers and consumers, manufacturers and suppliers and manufacturers and intermediaries.

The essence of the new marketing strategy is *building long-term relationships with clients* in order to provide competitive advantage, but also because it is difficult to copy the business strategy by the competitors. Strategic alliances strengthen operations and better compete, but to succeed long-term alliance, it should be built on trust and commitment, possessing a coordinated communication approach (alliance members) and coordinated logistical strategies.

⁴ Buble, M., (editor) and a group of authors, "*Strategic Management*", Synergy, Zagreb, (2005)

⁵ Lamb, W. Ch., Hair, F. J., McDaniel, C., *Marketing 11*, South Western Engage Learning (2009), Part 2, pp. 236-238,

The new marketing strategy also implies creating of so-called *relationship commitment* i.e. the company believes that an ongoing relationship with another company is so important that it warrants maximum effort to maintain it indefinitely. A perceived reduction of commitment by one of the partners, often leads to a breakdown of commitment. Commitment is tightly connected with the mutual trust.

Trust exists when one party has confidence in an exchange partner's reliability and integrity. Primarily it is an issue of mutual trust between different levels: between managers and experts in the company, between potential partners and existing partners. Therefore every company has to have specialists who possess quality knowledge for strategic alliances models, joint projects and current practice of strategic partnerships. Some alliances fail when partners have a lack of trust in their trading partners or if the management of some companies perceives the strategic alliance as limit of freedom. But it is completely wrong because without strategic approach, no company is attractive to strategic partnership.

In the global industry for motor vehicles, manufacturers adapt their products to the customers' needs, to increase the speed of response to customers, *in order to strengthen the overall loyalty*⁶. Manufacturers in the automotive industry build strategic partnership for their clients and believe that they can reduce the time from order to delivery, transaction costs, storing inventory process, in order to deliver the whole package (except the most unusual), within a few days.

Other companies build strong partnerships with suppliers to coordinate their logistic strategies, to reduce costs in the marketing channel and ultimately to deliver better service to customers⁷. These partnerships will gain significant importance in the coming years, as more companies give their logistic functions to third enterprise - logistics providers, because of greeter efficiency with lower costs, and for more intensive focus on their businesses. On the other hand, the strengthening of integrated logistics companies is due to their ability to understand the more complex logistic environment. Linking with allied integrated logistics, can greatly help other companies that strive to expand their global presence in the market. Distribution channel members are closely related in creating satisfaction and value for their customers. A company distribution system represents a bid system for another company and the success of each member in the channel, depends on the results of the offer in the entire channel. Therefore companies must cooperate (create alliances, i.e. partnerships) with other channel members to improve the entire channel distribution.⁸

Modern marketing strategy requires companies enter into the alliance - partnership through *working on joint projects*. Many wholesalers and retailers work closely with suppliers in terms of internal stores programmes. Partnerships can also take the form of *mutual information* and *continuous renewing supplies* systems. Companies manage their supply chains through information, while suppliers connect with customers through these software systems to share information and coordinate their logistics decisions.

Today's marketing approach imposes a need for more companies to utilize *information technology and Internet to develop a sophisticated electronic market "business to business" (B2B)*, where companies can build cooperative global trade cooperation networks. In these

⁶ build-to-order (BTO), order-to delivers (OTD)

⁷ Little E., Marandi, E., Relationship Marketing Management, Thomson Learning, London, 7, (2003).

⁸ Kotler, Ph.; Armstrong G., Principles of Marketing 13th ed, Global Education, Pearson, (2010), Chapter 12, pp. 374-378

exchanges, B2B initially has focused on the association of manufacturers and their suppliers of online sources, supply of raw materials, auctions and other services.

Relationship marketing and strategic alliances recently popularized mostly by American business executives and educators have been familiar in other cultures, too: businesses in Mexico, China, Japan, Korea and large number from Europe.

In Japan, alliances or partnerships between companies are based on personal relationships that are developed through so-called "amae" or indulgent dependency. Amae is the feeling of nurturing concern for, and dependence on, another. Reciprocity and personal relationships contribute to "amae". Mutual relations between companies can further develop into *keiretsu* - a network of interlocking corporate affiliates. Within a *keiretsu*, executives may sit on the board of their clients or their suppliers. Members of *keiretsu* trade with each other whenever possible and often engage in joint product development, finance and joint marketing activities.

CASE STUDY: PODRAVKA AND THE COOPERATION WITH FUNDACIO TECNALIA RESEARCH & INNOVATION

Within the food-processing cluster of Croatia, established in 2013, an example for strategic partnership is cooperation between joint stock Company (AD) Podravka and Spanish Fundacio Tecnalia Research & Innovation⁹. Foundation Teklanika Research & Innovation is so called research and development "engine" for strengthening the competitiveness of Spanish and European industry, i.e. it is the first private non-profit institution for research and development in Europe. Through strategic alliance with Podravka, the goal was to provide new value for customers. The partnership is based on the collaborative development of innovative food products and services, IT upgrade, the networking platform of open innovation and cooperation in European research programmes. Partnership alliance will include promotion of research and development in order to raise the products competitiveness. Experts from both sides will be able to exchange experiences and develop new products.

The example of this strategic alliance (open innovation model) allows opening internal resources to partners and associating with the best in the region, and thus it should contribute to the creation of new value-added products for global customers.

CASE STUDY: STRATEGIC ALLIANCE - THE WORLD PRESS GROUP

Strategic alliance known as The World Press Group attempts to unify the common interest of respectable publishers in several business segments. It includes six reputable world publishers giving reliable business information for almost 5 million European readers. The Alliance includes: Business Week, The Economist, Fortune, Herald Tribune, Newsweek and Time. The World Press Group offers opportunities for coordinated communication performance for those companies that want to reach the business journals target reader. Independent surveys in eight European leading countries have shown that publishers in the publication World Press Group publications provide valuable status of communication.

⁹ The institution Fundacio Tecnalia Research & Innovation is present in 22 locations worldwide (Europe, USA, South America) with over 4000 clients, aimed to activities in the area of research and development, with special emphasis on nutrition industry.

CASE STUDY: UNDERTAKEN DISTRIBUTION OF UNILEVER PRODUCTS BY ATLANTIC GROUP ON MARKETS IN CROATIA AND SLOVENIA

Crucial aspect of strategic partnership (manufacturer-distribution channel) between Atlantic Group and Unilever is strengthening operations, growth accelerating and providing quality service to customers and clients, especially for the partner Unilever, while brand name and reputation for Atlantic Group, the distributor.

Namely, the strategic alliance of the manufacture Unilever with distribution channel Atlantic Group means partnerships with the leading consumer goods distributor in Southeast Europe, which operates with 16 distribution centers and direct delivery in over 53,000 locations.

Unilever is one of the most prominent multinational companies which more than 400 existing products that are used daily by two billion customers. Its portfolio includes a wide range of food products, products for personal care, as well as an extensive range of household products. The extent of recognizable brands and the company's success is the facts that 15 best-selling brands generate annual sales revenue exceeding one billion dollars.

For its distribution activities, Atlantic Group has more than 1,000 vehicles, highly developed technology and knowledge how to manage with key customer, product categories, trade marketing management and product categories, as well as highly developed logistics.

The strategic partnership is worth 32 million euros, of which Atlantic Group in Croatia takes the distribution of one of the largest consumer goods manufacturers; in its portfolio there are globally renowned brands : Knorr, Rama, Lipton, Bertolli, Hellmann's , Dove, Axe, Rexona, Cif, Domestos and many others.

CASE STUDY: STRATEGIC ALLIANCE BETWEEN ZVIJEZDA D.D. AND BELGIAN PRODUCER CALLEBAUT

The reason for partnership between between Zvijezda dd and Belgian chocolate producer Callebaut Randy is supplementing **its extensive range of products and expanding its network of partners from** Zvijezda d.d point of view, and increasing and improving the supply to loyal customers in terms of the company Callebaut (distribution of Callebaut chocolate to all top hotels restaurants and ice cream parlors).

The company Zvijezda d.d. through this partnership will complement its extensive range of products for preparation of desserts, with renowned Belgian chocolate producer Callebaut, while its partner CALLEBAUT continues its leading position in production of cocoa and superior quality chocolate production.

As one of the oldest chocolate manufacturers in Europe and one of the few manufacturers that follow the cocoa harvest processing to produce the finest chocolate, is now a part of a group called Barry Callebaut. The company has a leading role in innovation for constant communication with confectioners and care for their needs, in order continuously to introduce new trends in the world of sweets.

SUPPLY CHAINS AS A FORM OF STRATEGIC PARTNERSHIP

Relationship marketing strategy that involves searching and creating long-lasting partnerships with customers, also involves the existence of cooperation in the supply chain¹⁰. This kind of alliances and cooperation are formed in order to develop innovative products, better performance and stable, effective and efficient sources of supply.¹¹ The chain includes suppliers, manufacturers, carriers, storage, wholesale and retail, customers and they all create additional value for the alliance through: increased sales, reduced operating costs, increased market share, reducing inventory and inventory costs, increased level of service quality, shorter delivery time, increased consumer satisfaction.

Strategic partnership through supply channels and value delivery to customers, contribute to focusing the companies towards consumers, as well as modifying the company's attitude, that success with consumers depends on the efficiency and effectiveness of all other companies that are in that chain. The strategic partnership is created to solve many business issues of common interest for all participants in the long-term cooperation agreements.

Here occurs the relationship marketing as a business strategy of the alliance, because the direction shifts towards global market instead of *local and/or national*. This shifting leads to changes in prices of transport services, communication, materials, human resources etc. and therefore we need to respond quickly to changes creating new ideas, products or components, wherever the need arises. Moreover, the global market leads to global competition. An important instrument with such an alliance in the competitive struggle is productivity growth, due to the additional value creation or greater value than the value which the company will create without alliances.¹² According to certain data for instance, recently has been recorded a productivity growth of the U.S. economy for 1.7%. The management itself creates a process in which inputs are transformed into outputs. It has been determined that if the rate of productivity is 2.5%, it will duplicate the standard every 30 years¹³.

Strategic partnership and relationship marketing as a business strategy of the alliance, changes the movement in another direction, too: instead of group or serial goods deliveries, goods are delivered *just-in-time*, Production is synchronized with market needs, while the total inventory is minimized, whether for raw materials, semi-finished or finished products. This way reduces the need for equity or it is directed towards other endeavors.

Other positive effects of strategic partnership have been also noticed in supply chains. *The time for products development* quickly shortened, because the quick and effective management provides new technologies or partnerships with other companies. Changing technology and globalization are reflected on the workforce. Again there is a transition (period), *the need for workers with certain standards for training of manpower and teams* that make decisions independently. Explosion of knowledge and modernization of jobs require workers to combine their different knowledge, which enable greater competence to perform the tasks.

¹⁰ Đurić, Prof. dr Z., *Strateška partnerstva – alijanse – preduzeća*, Novi Sad (2006), 4.1, pp. 225

¹¹ Ayers, B., *Work: Design, Implementation, Partnership, Tehnology and Profits*, Auerbach Publication, (2002), pp. 5

¹² Neizer, J., Render, B., *Principles of Operations Management*, Forth Edition, Prentice Hall, New Jersey, (2003)

¹³ Neizer, J., Render, B., *Principles of Operations Management*, Forth Edition, Prentice Hall, New Jersey, (2003)

Attention is increasingly moving *from product standardization to shaping the product according to the customers/consumers*. Namely, products are shaped in a way that will allow easy incorporation of additional elements that are aligned with customers' market needs.

One of the trends is the increased participation of suppliers in business processes. Usually they take the value of the product by over 50%. Suppliers are also hired to improve the quality of the product. Therefore companies build long-term, strategic partnerships with critical suppliers in the supply chain.

CASE STUDY: STRATEGIC CONNECTING OF TOYOTA WITH SUPPLIERS

Multinational company Toyota - the leader in continuous learning and improvement in the automobile industry, has developed bilateral and multilateral alliances with their suppliers, resulting in superior levels of productivity and learning for all participants. Toyota group is well shaped for diffusion and utilization of manufacturing know-how of the corporation, both as existing know-how with its suppliers.

In Japan, Toyota's strategic alliances network with its suppliers is known as "Toyota Group", which promotes the philosophy - acting, *Kyoson kyoei* (or in Japanese: coexistence and mutual prosperity). Toyota and its suppliers are renowned for fastest diffusion technique of "lean" production, reducing stocks. In its alliances Toyota encourages participant's suppliers, open exchange and sharing knowledge. Toyota provides its suppliers acquiring additional benefits, they are motivated to participate in the alliance, because they learn quickly, participating in the mutual learning processes, which is certainly more superior than isolated attempts of gaining knowledge. However, Toyota Group established "*rules of participation*" that prevent access to knowledge for its suppliers until they openly and explicitly agree to share knowledge with other members of the alliance. On the other hand, suppliers do not dare to violate the undertaken commitments, because of Toyota's ability to impose sanctions (e.g. termination of the business relationship). The most important structures and processes in the Toyota Group are: Toyota suppliers association (Japanese: *kyohokai*), which has three goals: sharing information between members and Toyota; joint development and training of their members for "social" events; the association "Operations Management Consulting Division (OMCD), helps in solving operational problems of Toyota and its suppliers. OMCD is responsible for collecting, storing and diffusion of valued productive intellectual capital (knowledge), inside Toyota network, Mail-ing Group (Japanese: *shukko*), are suppliers who help each other for improvements related to production, quality and transfer staff. Through this association Toyota annually transfers more than 120 individuals within domestic enterprises, mainly to its suppliers¹⁴.

All these changes changing the focus of activity and satisfaction of new customers/consumers create integrated supply chains. Integrated supply chain includes forecasting, inventory management, planning. The external part of the integrated chain is oriented to relations, communications, and interface among the internal supply chain, customers and suppliers. On one side, the chain should be integrated, and on the other side to remain open and flexible enough for entry of new suppliers. An open question in the integrated supply chain remains the ability to store information. The information should provide data on emerging

¹⁴ web.efzg.hr/Izazovi_poduzetništva_u_21_stoljeću

trends, as well as data from the past, especially in electronic transactions. Very quickly there is a from one model to another, without having preserved the knowledge of the previous period. Therefore integrated supply chains should enable:

- improved management in the extended service in value chain;
- improved customers satisfaction;
- new opportunities for product delivery;
- reducing defects and other amenities
- losses elimination;
- reduce errors (waste) etc.

Such integration of various processes and systems technology, flexibility in applied technology are achievable through strategic alliances or through partnerships, for savings, risk sharing, creating added value, increase competitive power market.

CONCLUSION

Strategic alliances have become a concept which is difficult to imagine modern business without them. Their advantages greatly outweigh the disadvantages and every year grows the number of exponentially new-established strategic alliances. More than one fifth of the total revenue of the global economy are created through strategic alliances.

Strategic alliances and innovative practice in developed countries have no unification or globalization of innovation, but there is one common feature - competitive advantage is acquired.

The partnership should produce a new quality and help in the selection of companies that add better value.

Strategic partnerships promote those activities that can be a base for establishing relatively permanent competitive advantage, or observing activities that require adjustments.

With strategic alliances it is implemented expanding management distance - leveling. Strategic alliances in developed countries are aimed to radical changes - improvement of horizontal communication, reducing hierarchical levels which lead getting closer to consumers.

If partnerships strategies between companies provide innovation and creativity, which constantly encourages daily improvements, upgrades, improvements to the products and services it will provide the efficiency as well as effectiveness of marketing relationships that bring in all activities.

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**MARKETING STRATEGIES IN ORDER TO ENTER NEW MARKETS AND THE
POSITION OF THE MACEDONIAN COMPANIES**

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Abstract

The basic motive for this research paper is to show the importance of implementation the marketing strategies and their proper selection for successful internationalization of Macedonian companies. The experience of high industrialized countries shows that, through market adjustment and the use of various marketing strategies companies can ensure growth and development. Also, the purpose of this paper is to present the need and the role of the marketing strategies for entering in a foreign markets used by the Macedonian enterprises. The analysis in this paper will address the trends in global trade and general trends as an example for the problem in the first part of this research, then draw to structure of the enterprises in general and how Macedonian companies has to act in global market. Scope of this research will also be analyzes the needs for using new strategies by the business entities for achievement of the required asset that can and should be further affects for the maximization of the export in general. Also in this paper we will give a review of the policies undertaken by the state to improve the performance of its own export or promotion of exports of Macedonian products.

Keywords: marketing strategies, internationalization, foreign trade, import, export, economy.

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INTRODUCTION

Marketing strategies as part of global business policy, is a key component in the planning and programming of the growth and development of international companies. The experiences of industrial developed countries show that through market adjustments and the use of various marketing strategies, companies can ensure growth and development.

The essence of international marketing shows that the marketing concept has universal significance, or orientation of companies fully meet the needs of consumers, and therefore a profit. This raises the question whether the terms export, foreign operations, international trade and business cooperation with overseas are synonymous with international marketing ,or international marketing is part of the overall marketing system that has an international perspective? There are many different approaches to the definition of international marketing and they are treated separately because they represent a very complex and dynamic area in the overall marketing system.

The internationalization of business, however is a possible direction or strategy for growth and development of companies across national borders and they are based on respect for the modern trends in the development of global markets and technologies, and thus acceptance of current standards and rules in international competitive behavior.

The decision of selecting the foreign market is one of the most important, so each company must adopt and establish a global strategy. Choice of markets in which the company wants to enter and establish operational activities actually determines its particular field of doing business and it has set a model for its future development in this area.

Also, the choice of market entry model for a specific market in general, are two separate decisions. The specific features of individual countries, as well as strategies for entry and expansion of international markets affects the way for entry in to specific market. Characteristics of each country, such as its size, growth rate, degree of political stability, working conditions and existing infrastructure, greatly affect the willingness of management in the company to devote resources to a particular market or country, and it affects the choice of method of entry.

The research shows that access to Macedonian companies in the implementation of strategies for entering new foreign markets, is serious and involves all segments and ways of managing this process. In fact prevails that marketing and marketing concept is a higher stage of market development and a higher stage of the market concept. This suggests that marketing occurs with the emergence and development of markets. Market research, thus, becomes a major and crucial task. On the other hand formation of the strategies for international markets is a developing process in which the dominant strategic orientation and funds for international expansion, and key decisions are different in each subsequent stage.

TREND OF GLOBALIZATION

The sixties of the last century are characteristic for many companies of the North American continent by achieving expansion overseas. These companies, attracted by the higher growth rate of these economies and the opportunities open to them in the developed markets of Asia, South America and Europe achieved excellent results.

Japanese companies in the seventies of the last century were those who dominated the foreign markets, especially the USA market.

It should also be noted that the seventies of 20th century is characterized by the growth of companies in newly industrialized countries, which rapidly penetrate the American and European

markets. Nineties of the 20th century however, were recognized therefore by major changes that occur in the area of spatial constraints of the market.

North American and European markets were increasingly integrated, but the markets of the countries of the former USSR are entering a phase of fragmentation of markets. Parallel to this process many new markets were opening in the Far East, such as China, India and Indonesia. The result of all these developments is that the markets are becoming global by its volume, while national borders, at that point, start buckling under the impact of global pressure.

After 1990 begins a period which, according to Jovic¹ is distinctive because then, there is arising of a significant structural change, caused by strong processes of economic globalization, so that:

- gravitational center of world industrial production moved from the region of Western Europe and North America in the region of East and Southeast Asia;
- The main goal of international competitiveness is achieving international economic leadership;
- regional economic grouping gets a certain meaning through establishing and directing the individual trade and financial flows (strengthening the integral competitiveness, leading to economic barriers to other countries);
- value of international trade flows repeatedly exceed the value of total global production, which leads to the conclusion that the overall economic development in modern conditions is based on the integration processes in the world;
- leading carriers of international exchange of goods and services companies that dominate superior corporations, so in international trade flows, largely, are individualized and trade is no longer a macroeconomic phenomenon;
- state, as a political reality, its true role in the development of international trade brings down the provision, and not the regulation and prevention of such flows;
- Key factors for achieving favorable competitive advantages, under the influence of the process of globalization in the modern world, are located in the technological and marketing plan, emphasizing the need to completely innovate the production process and encouraging technological and organizational improvement.

It is an undeniable fact that the main feature of this period is that open economies will be able to accept the new logic of the market and realistically adapt their structure and implementation of such processes, but they can even think of achieving goals internationally.

Domestic market can't be defended or isolated from outside influences and competition that is silent, nor can it serve as the basis for a product or market expansion.

Targeting companies to international markets results in a larger number of markets that are global or more regional than national. Markets that were once confined to national spaces, with such changes receive international dimension.

Today the main customers are looking at the international markets, thus creating conditions for demand for their services globally. The development of global marketing infrastructure encourages the level of development of global business operations.

The development of communications and increasingly frequent trips to the final consumers outside their national borders lead to development of a growing global market segments. Hence, they are characterized by similar interests and needs around the world.

INTERNATIONAL MARKETING SEGMENT AS THE INTERNATIONAL BUSINESS

An international operation, among other things, is overheard discipline that deals with the rules that regulate international commercial and economic relations. International operations, as a scientific discipline, covering the exchange of goods and services, the international movement of labor and capital, foreign direct investment, portfolio investment, and the role and importance of international institutions.

International operations, on the other hand, economic activity, covers all business activities and business ventures that are made between two or more countries. From this point of view, international operations include: export, cooperative arrangements, financial arrangements, work on mediation, direct investments. Subjects of international operations are: the international community, the state and companies. International operations, basically can be divided into: external (international) trade, international finance and international payments and international trade law.

From what has so far been said about international business, and knowing the nature of international marketing, it can be concluded that international marketing is an integral part of international business. Specifically, international marketing, the complex activity in the implementation of marketing functions regardless of national borders, is a subsystem of international operations. The international marketing involves the application of basic principles, concepts and instruments in international operations (international production, international financial management, international knowledge transfer etc..).

International marketing is closest to international trade, that he has some similarities, but also differences in terms of international trade. Thus, international trade covers a range of activities related to the exchange between individual countries or companies from these countries. International trade involves the buying and selling, which means physical distribution of products and pricing. Besides these activities, international marketing involves market research, planning and development of the product or service and promotion. In international trade goods always crosses the border between the countries participating in the exchange.

Presales and post-sale activities are integral parts of the market performance of the company, but they are often neglected for reasons mostly, first-in sales activities. Hence the conventional meaning of international trade, where it represents pre marketing stage in the development of international operations of the company.

International marketing orientation requires more investments in selected market segment as opposed to conventional international trade, so long, according D.Vezjak², enables enterprises to:

- increase awareness of the environment and overseas markets, develop marketing information system (MIS), as a basis for planning, decision-making and management of export marketing operations,
- achieve product development in accordance with specific international or foreign standards, depending on the wishes, needs and demands of foreign consumer segments (target market)
- introduced modern sales channels abroad and builds its own network marketing distribution,
- Increases the degree of market communication, and thus the level of information and motivation of subjects abroad.

A foreign trade operation hasn't advantage over international marketing that has a range of features that makes available to companies that choose to internationalize. These advantages can be seen in two ways. First, international marketing has integrated control significantly in more market activities; and second classical work activities of foreign trade operations are set significantly higher.

An International Marketing show that there is great advantage in terms of international trade and thus allows all errors listed in international operations to be removed.

Comparison of International Trade and International Marketing ³

Measure	International Trade	INTERNATIONAL MARKETING
Contractors	companies	companies
Exports of goods	to	not required
Technology Transfer	not	in certain cases
Transmission Production	not	in certain cases
Transmission Capital	not	in certain cases
Transfer of know-how	not	in certain cases
Services	not	to
Encouraging	income	growth of the firm
Source of data	intermediaries	Information Systems
Research center	not	to
Market research	rarely	to
Determination of objectives	not	to
Strategy	not	to
Planning	incomplete	detail
Deciding	routine	system
Control	financial	system
Organizing	underdeveloped	a marketing
Developing product	rarely	to
Politics Product	not	to
Sale	to	to
Distribution	conventional	active policy
Communicating	ad	creative propaganda
Prices	adjustment	active policy
Selling activity	rarely	constantly

Source: Vezjak Danilo: Labor stated, p. 41

What is good to know for every marketing manager who works in the field of international marketing and international business is the risks that comes with the job.

Namely, in particular international business company may face risks range, for example : confiscation, expropriation, nationalization, the risk transfer, risk of import restrictions, market risk of blockages, tax risk, price risk, risk syndication, etc. ., or risks that can still be called political risks. It is known that the company may not directly control the changing of marketing environment, but certain measures and management techniques can assess the degree of risk.

Such prediction and avoidance of risks is of utmost importance for the international operations of the company and, at the same time, contributing to the further development of the overall international business worldwide. Hence, international marketing can be considered as one of the skills necessary to know when taking a certain kind of international operations, whether it is for international trading or some other international economic cooperation.

STRATEGY FOR APPEARANCE ON THE INTERNATIONAL MARKET

Model of international trade during the sixties and seventies of the twentieth century was reviewed and it has led to the emergence of the theory of international product life cycle in which there are multiple stages of international expansion of certain industries. Almost all products go through sales cycle, corresponding to the life cycle of the product. The basic assumption is that lack of knowledge indecisive management and limited resources lead to higher levels of anticipated risk and represent a major barrier to the entry of the company in the international market. Therefore, company will start exporting to certain country or in neighboring countries whose markets are similar to domestic and through independent sales agents. All companies have to follow developments at the international level, because they can represent important information in terms of the point of view of strategies oriented towards domestic markets, also pointing to future changes in the market and the emergence of new competitors abroad. When any company will acquire the necessary experience and information relating to international markets, it then grows thanks to the establishment of subsidiaries, and then production, such as processing facilities in the foreign country. According to the widely accepted view of the so called. "EPRG framework", the process of developing international operations often needs to be guided by the approach and orientation of top management in the company.

In all these stages is the fact that management has different views. Namely, in the first stage, which characterizes the ethnocentric approach of action in foreign countries is seen as subsidiaries of domestic business operations; in the second phase the emphasis is on differences of national market; in the third stage already established regional teams dealing with product management and commercial names, and often under the auspices of the regional offices of the company; in the fourth stage occurs geo centric or world orientation, the concept of national market disappears, and the activities are integrated and coordinated worldwide.

STRATEGY FOR CHOOSING AND ENTERING IN A FOREIGN MARKET

The company, which is oriented to the international market, must create international marketing strategy that will allow a rational approach to the individual segments of the international market. When they are in process of creating a marketing strategy crucial thing for the firm's is a willingness to devote resources to the international markets, or to competition concerns, goals and objectives. Depending on the position and the relative power of key competitors, can be adopted in various types of strategies .No an important consideration, thus, is monitoring the moves of a competitor in the formulation of strategy, in terms of its current and anticipated future market position .In the formulation of international marketing strategy is needed to answer the following questions: where, how and with which program will perform on the international market? There is not successful international marketing strategy formulated if they don't choose an adequate international market. But the choice should be given to the form of

action or way to enter the country and determined to make the optimal combination of instruments of the marketing mix.

There is a close interdependence of decision when choosing a country's decision on the method of operation of a particular company on the international market, that the decision on whether to export, to enter into licensing agreements or franchise agreements, the decision to joint venture or establish its own company etc..

In general, the decision to choose the way in the market and that market entry are two separate decisions, which depend on the specific characteristics of individual countries as well as the expansion of the international market, hence they influence the choice of method of entry (inclusion) in international marketing.

The characteristics of each country (such as, for example, its size, growth rate, political stability, and working conditions of existing infrastructure) influence the decisions of managers to direct resources in a particular country or market, and the choice of entry method in a particular country. For example, small markets are often better served by sale or export license. Managers can determine a limited resource and they will focus on countries with high risk or with poor market infrastructure, and by using the license agreement or joint venture with a local partner. But if managers want the company to quickly enter multiple markets, then the resources and time needed to build custom segments can be limiting the factors that will lead the company in a position to quickly determine licensing or joint venture.

The characteristics of the product, the nature of demand and trade barriers, and the goals and tasks of the manager in the area of expansion also affect decisions on how to enter. The bulky (rough and tough) products and products with small value require production close to the market, to reduce transport costs, although they may be offset by economies of scale in production.

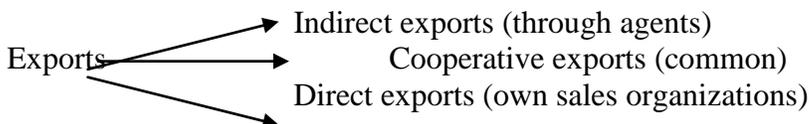
Customs and other trade barriers have a corresponding impact on the determination of production or the decision of the assembly of finished products to foreign markets.

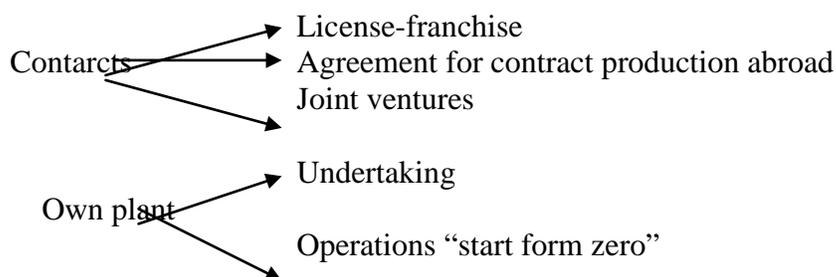
The objectives and tasks of the manager in the area of expansion also affect direct investment and interest in contracts with foreign companies.

According B.Rakita⁴, internationalization is a basic criterion for distinguishing and grouping of different ways of entry and operation of foreign market. Mentioned author has identified three strategic bases-production-company business relationships with respect to the foreign market, including:

1. Internationalization through export marketing company, as a form of internationalization through its busy (market) function. This strategy is characterized by the transfer of products beyond national borders, but production in the home country;
2. internationalization indirect transfer of technology, knowledge and experiences;
3. immediate internationalization, as manifested by the transfer of production units or transfer of a foreign company in a given environment, engaging with their own capital. Basically, it is a direct investment abroad.

On the other hand, Douglas Susan and Craig Samuel⁵, identify modalities for entering the foreign market:





Source: Susan P.Douglas and C.Samuel Craig: "Global marketing strategy"

PROBLEMS WITH COMPANIES FROM THE REPUBLIC OF MACEDONIA FOR ENTERING IN FOREIGN MARKETS

Defining strategies for performance in foreign markets is not an act, but it is the process of adjusting to modern companies or businesses to global marketing. According to the experiences arising from research we can freely say that companies in our country use export or other simpler forms of cooperation as a form of performance in international markets. Republic of Macedonia as a state generally has no strategy for export, and also a part of the Macedonian companies have developed quality plans and strategies to conquer the foreign markets. Knowing that only 5% -6% of the total active companies in the Republic Macedonia dealing with export and structure of products go to foreign markets is a relatively of low value and it shows that much of the Macedonian companies are no long-term export that will lead to significant use of forms for entering new foreign markets. Here, it is important to emphasize that Macedonian companies need to spend more resources and investment to develop strategies for export or for the performance of foreign markets, because only in that way can expect more growth and development of their own business.

However in recent years the export trend is moving in a positive direction, and in the last three years it has grown by 75% -80%, compared to the previous three years. But according to the Statistical Office trade deficit amounted to 35.3% and import coverage by export was 64.7% in 2013 which is a high percentage and indicates that export strategies are more than needed for companies in Macedonia.

Following tables will show the structure of Macedonian export/import by countries , grouped according to categories of goods as defined by SITC compare 2011 and 2012.

Exports/imports by countries¹⁾

in thousand US \$

	Exports		Imports		
	2011	2012	2011	2012	
	4 478 313	4 015 403	7 027 162	6 522 388	Total
	4 123 329	3 594 132	5 644 383	5 153 840	Europe
	87 274	75 656	39 460	35 028	Albania
	38 278	48 984	133 242	119 237	Austria
	62 476	41 620	39 285	35 093	Belgium

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308 616	287 163	457 883	407 837	Bulgaria
67 665	72 743	35 589	31 575	Slovakia
22 762	34 890	60 545	71 535	Czech Republic
11 939	7 079	21 593	24 456	Denmark
95 835	17 862	157 615	86 863	Ukraine
20 478	20 349	125 876	86 741	France
218 014	188 486	569 750	804 343	Greece
1 242 550	1 180 747	729 690	634 384	Germany
87 514	65 996	69 201	64 742	Netherlands
291 126	281 177	427 608	401 710	Italy
609	964	821	3 473	Cyprus
-	14	23	71	Liechtenstein
93 092	84 545	90 122	70 993	Bosnia and Herzegovina
88 242	74 272	185 517	150 363	Slovenia
139 622	98 502	133 163	120 960	Croatia
8 355	9 120	49 716	52 662	Hungary
5 101	5 459	2 305	4 128	Belarus
25 395	18 153	82 163	100 286	Poland
46 276	52 757	94 625	120 115	Romania
39 643	33 144	684 326	362 143	Russia
66 479	46 939	62 951	75 359	Spain
31 493	33 334	172 102	147 928	Switzerland
17 440	11 335	32 175	25 580	Sweden
54 305	62 928	593 064	560 938	United Kingdom
337 477	298 145	498 157	482 725	Serbia
34 266	31 475	2 140	2 748	Montenegro
552 946	392 459	36 049	28 529	Kosovo
28 061	17 835	57 628	41 296	Other European countries
297 566	344 751	1 085 729	1 123 146	Asia
18 143	23 960	47 412	50 873	India
943	87	5 300	2 872	Iran
1 106	1 475	51 980	48 429	Japan

SMEs DEVELOPMENT AND INNOVATION: BUILDING COMPETITIVE FUTURE OF SEE

82	361	81	5	Jordan
127 461	158 846	354 896	374 927	China
19 418	57 858	45 833	23 148	Korea
10	121	1 654	844	Kuwait
153	825	1 630	5 963	Kazakhstan
1 014	2 806	19 862	25 391	Israel
38 450	13 960	27 531	26 012	Taiwan
6 546	5 674	1 138	1 104	United Arab Emirates
73 433	66 811	345 414	325 431	Turkey
10 806	11 968	182 997	238 147	Other Asian countries
4 842	3 650	41 098	25 764	Africa
-	-	0	514	Malawi
79	7	1 160	872	Ghana
553	751	5 766	5 317	Egypt
132	8	1 320	1 321	Morocco
1 166	539	17 657	5 678	South Africa
1 510	58	1 222	1 450	Tunisia
330	198	87	327	Nigeria
105	67	30	-	Sudan
153	757	1	1	Libya
813	1 263	13 855	10 285	Other African countries
40 769	61 401	118 517	113 664	North and Central America
3 755	3 536	21 812	22 188	Canada
36 101	56 399	88 814	82 875	USA
193	-	236	46	Panama
161	1 371	4 490	4 800	Mexico
559	94	3 165	3 755	Other North and Central American countries
6 825	6 277	131 134	102 089	South America
-	-	19	12	Bolivia
4 723	3 764	15 262	13 542	Argentina
1 896	2 143	67 386	62 261	Brazil
4	-	1 511	1 230	Chile
-	24	385	352	Peru
169	236	12 081	7 520	Colombia
-	20	903	484	Uruguay
-	89	12 672	11 870	Ecuador
33	1	20 915	4 818	Other South American countries
4 953	5 193	6 300	3 885	Oceania
4 908	5 061	4 510	2 973	Australia

SMEs DEVELOPMENT AND INNOVATION: BUILDING COMPETITIVE FUTURE OF SEE

	45	107	1 650	784	New Zealand
	-	26	140	128	Other countries of Oceania

¹⁾ Shown are countries with significant participation in Macedonian exports and imports.

Exports/imports grouped according to categories of goods as defined by SITC

in thousand US \$

	Exports		Imports		
	2011	2012	2011	2012	
	4 478 313	4 015 403	7 027	6 522	Total
			162	388	
	373 345	339 618	672	681	Food products
			245	495	
	4 235	3 740	1 947	3 461	Live animals
	44 071	39 283	155	160	Meat and meat processings
			260	459	
	10 937	11 290	56 298	56 132	Eggs and dairy products
	10 138	7 661	25 619	23 225	Fish and fish processings
	60 178	58 943	104	116	Cereals and cereal processings
			037	732	
	197 074	175 434	78 694	77 994	Fruits and vegetables
	12 094	11 044	70 839	64 977	Sugar, sugar processings and honey
	14 138	13 747	77 388	78 482	Coffee, tea, cocoa, spices and processings
	1 988	1 219	26 578	27 341	Livestock fodder (excluding unmilled cereals)
	18 492	17 258	75 586	72 692	Other fodder products
	234 992	237 722	68 938	74 002	Beverages and tobacco
	81 462	91 359	38 795	37 208	Beverages
	153 531	146 364	30 143	36 794	Tobacco and tobacco processings
	288 480	265 078	365	299	Crude materials, except fuels
			914	738	
	10 377	9 562	6 656	3 526	Hides, skins and furskins, raw
	3 359	3 303	10 391	11 044	Oil seeds, and oleaginous fruits
	19	119	3 356	3 667	Crude rubber (synthetic and reclaimed)
	3 419	3 696	24 156	19 236	Wood, lumber and cork

3 857	3 308	859	179	Pulp and waste paper
2 538	1 439	12 834	13 389	Textile fibres and their wastes
36 493	25 831	17 413	14 214	Crude fertilizers and minerals
220 183	210 332	269	216	Metal ores and scrap metal
		174	639	
8 236	7 487	21 075	17 843	Raw animal and vegetable materials
390 124	258 515	1 438	1 390	Mineral fuels, lubricants and related materials
986	1 548	51 624	45 194	Coal, coke and briquettes
333 712	206 828	1 056	971	Petroleum and petroleum products
		577	324	
5 599	5 249	102	120	Gas, natural and manufactured
		223	667	
49 827	44 890	228	253	Electric energy
		138	200	
17 839	15 547	75 648	79 366	Animal and vegetable oils and fats
747 204	681 142	827	740	Chemicals and related products
		581	586	
2 583	2 081	29 014	27 536	Chemical elements and compounds
21 743	10 673	108	68 886	Tar and raw chemicals
		566		
16 574	14 028	93 865	83 835	Dyeing, tanning and colouring materials
83 170	83 815	163	158	Medical and pharmaceutical products
		116	143	
11 422	11 372	106	102	Essential oils and resinoids and perfume materials; toilet, polishing and cleansing preparations
		658	756	
642	822	34 370	30 892	Fertilizers (other than those of group 272)
17 204	16 543	102	96 728	Plastics in primary forms
		898		
41 276	41 737	85 935	83 524	Plastics in non-primary forms
552 589	500 070	103	88 286	Other chemical materials and products
		157		
1 233 354	1 038 474	1 963	1 833	Manufactured goods classified mainly by material
		245	790	
2 474	1 698	40 993	38 284	Leather, leather processing and furs

626	588	49 315	48 111	Rubber processing
4 312	3 958	51 854	48 292	Wood and cork processing
12 944	9 052	133 036	121 138	Paper, hardboard and products thereof
60 107	60 104	483 006	442 728	Textile yarn, fabrics and related products
69 042	55 044	165 750	163 349	Non-metallic mineral processing
1 011 412	834 939	437 534	370 069	Iron and steel
7 768	14 088	473 645	475 248	Non-ferrous metals
64 669	59 003	128 112	126 572	Other metal processing
353 636	398 992	1 174 864	1 026 532	Machinery and transport equipment
1 308	1 013	37 539	42 474	Power type generating machinery and equipment
16 311	15 148	108 438	107 863	Machinery specialized for particular industries
1 167	2 190	13 566	12 088	Metal-processing machinery
122 863	189 206	192 040	167 938	General industrial machinery and equipment
5 833	5 021	70 676	67 032	Office machines and automatic data processing machines
6 139	4 839	139 558	147 088	Telecommunication devices
158 984	135 310	254 053	204 105	Electrical machinery, apparatus and appliances
31 729	36 729	350 035	273 261	Road vehicles
9 303	9 537	8 958	4 682	Other transport equipment
836 540	779 370	430 806	390 271	Miscellaneous manufactured articles
3 049	1 604	19 221	23 992	Prefabricated buildings and sanitary plumbing
41 774	54 664	39 140	42 480	Furniture and parts thereof; bedding, mattresses, mattress supports; cushions and similar stuffed furnishings
923	1 603	6 124	5 059	Travel goods, handbags and similar containers
659 322	602 751	66 841	64 184	Clothing

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	83 068	68 802	38 078	36 869	Footwear
	15 511	13 803	75 800	53 539	Professional scientific and controlling instruments and apparatus
	607	717	11 335	11 145	Photographic apparatus and watches
	32 285	35 426	174	153	Other manufactured articles
			267	004	
	2 799	944	9 362	6 222	Special transactions and commodities not classified according to kind

Exports according to the statistical procedure

in thousand US \$

	2011				2012 ¹⁾				
	Total	Regular	Passive processing	Active processing	Total	Regular	Passive processing	Active processing	
	4 478	3 269	5 522	1 203 416	4 015	2 932	2 977	1 080 319	Total
	313	376			403	107			
	1 242	794	51	448 203	1 180	800	2	379 986	Germany
	550	296			747	759			
	552	549	261	3 445	392	388	31	3 520	Kosovo
	946	240			459	908			
	337	333	263	3 432	298	296	461	1 489	Serbia
	477	782			145	195			
	308	302	59	6 489	287	278	0	8 384	Bulgaria
	616	068			163	779			
	291	101	364	189 140	281	108	18	172 952	Italy
	126	621			177	207			
	218	147	3 019	67 880	188	133	2 415	52 194	Greece
	014	115			486	877			
	127	13 770	0	113 691	158	12 367	-	146 480	China
	461				846				

¹⁾ Shown are the first 7 countries according to export in 2012

Commodity exchange with EU countries - volume, balance, coverage of import by export, 2012

								EU country
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	Volume in thousand US \$	Export in thousand US \$	Import in thousand US \$	Balance in thousand US \$	Coverage in %	Participation in the total volume	
	6 329 637	2 522 614	3 807 023	-1 284 409	66,26	100,00	Total
	168 221	48 984	119 237	- 70 253	41,08	2,66	Austria
	76 713	41 620	35 093	6 527	118,60	1,21	Belgium
	695 000	287 163	407 837	- 120 674	70,41	10,98	Bulgaria
	1 815 131	1 180 747	634 384	546 363	186,12	28,68	Germany
	31 535	7 079	24 456	- 17 377	28,95	0,50	Denmark
	122 298	46 939	75 359	- 28 419	62,29	1,93	Spain
	6 467	488	5 979	- 5 491	8,17	0,10	Finland
	107 090	20 349	86 741	- 66 393	23,46	1,69	France
	623 866	62 928	560 938	- 498 010	11,22	9,86	United Kingdom
	992 828	188 486	804 343	- 615 857	23,43	15,69	Greece
	15 662	84	15 578	- 15 494	0,54	0,25	Ireland
	682 887	281 177	401 710	- 120 532	70,00	10,79	Italy
	2 662	2	2 659	- 2 657	0,09	0,04	Luxembourg
	130 738	65 996	64 742	1 254	101,94	2,07	Netherlands
	19 314	11 154	8 160	2 994	136,69	0,31	Portugal
	172 872	52 757	120 115	- 67 359	43,92	2,73	Romania
	36 915	11 335	25 580	- 14 245	44,31	0,58	Sweden
	106 425	34 890	71 535	- 36 645	48,77	1,68	Czech Republic
	1 166	258	908	- 650	28,44	0,02	Estonia
	4 437	964	3 473	- 2 508	27,76	0,07	Cyprus
	3 040	2 358	683	1 675	345,23	0,05	Latvia
	4 369	2 511	1 858	654	135,19	0,07	Lithuania
	828	59	770	- 711	7,61	0,01	Malta
	118 439	18 153	100 286	- 82 133	18,10	1,87	Poland
	104 317	72 743	31 575	41 168	230,38	1,65	Slovakia

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	224 635	74 272	150 363	- 76 091	49,40	3,55	Slovenia
	61 782	9 120	52 662	- 43 542	17,32	0,98	Hungary

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From the tables that follows we can see the forms and modalities used by the Macedonian companies for entering foreign markets.

No.	Company	Activity	Town / City	Capital Domestic / Foreign	Modalities used for entering foreign market							
					Export			Agreement			Own plant	
					Indirect export	Cooperative export	Direct export	Franchise License	Contract farming abroad	Common flozhuvanja	Taking	Operations "start from zero"
1	IGM-Trade	Metallurgy	Kavadarci	Domestic		To	To					
2	Alkaloid	Pharmacy	Skopje	Domestic		To	To					To
3	Sokotab	Tut.Industrija	Bitola	Foreign		To	To					
4	Imperial Tobacco	Tut.Industrija	Skopje	Foreign	To	To	To					
5	Conti Hidroplast	Plastic Profiles	Gevgelija	Domestic	To		To					
6	Strumica Tabak	Tut.Industrija	Strumica	Foreign	To		To					
7	Marble Plant	Gradezh.materijali	Prilep	Foreign	To	To	To					
8	Svisslion	Food ind.	Skopje	Foreign			To					
9	Fakom	Metallurgy	Skopje	Domestic		To	To					
10	BRAKO	Metalopreabot.	Veles	Domestic			To					
11	MAKPETROL	Oil and Gas	Skopje	Domestic		To	To					
12	Vitaminka	Food ind.	Prilep	Domestic			To			To		
13	CEL	Products. Wine	Negotino	Foreign			To			To		
14	Boiler Company	Proiz.aparti	Veles	Domestic		To	To					
15	Brilliant	Food ind.	Stip	Domestic		To	To					
16	Makprogres	Food ind.	Vinica	Domestic		To	To					
17	BB Tikvesh	Proiz.na wine	Kavadarci	Domestic	To	To	To					

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18	Europe	Food ind.	Skopje	Domestic	To	To	To					
19	Skopje Brewery	Products. Drink	Skopje	Foreign			To					
20	Vesna SAP	Ind.za car parts	Skopje	Foreign		To	To					
21	Multiprom	Confectionery	Skopje	Domestic		To	To					
22	Factory for yeast and alkoh.	Food ind.	Bitola	Domestic		To	To					
23	Replek Farm	Pharmacy	Skopje	Domestic	To		To					
24	Kiro Dandaro	Printing Indus.	Bitola	Domestic		To	To					
25	Commune	Packaging	Skopje	Foreign			To					

Display modes for foreign markets that used some of the Macedonian exporters.

Modalities used for entering foreign market							
Export			Agreement			Own plant	
Indirect export	Cooperative export	Direct export	Franchise License	Contract farming abroad	Common flozhuvanja	Taking	Operations "start from scratch"
Number of companies	Number of companies	Number of companies	Number of companies	Number of companies	Number of companies	Number of companies	Number of companies
7	16	25	0	0	2	0	1

Display of surveyed companies in number, according to modalities that are used for entering new foreign markets.

The research which is shown in the table is showing that most of the companies in Macedonia exporters use export (direct, indirect and cooperative) as a form of entering foreign markets. A few companies are using more complex forms for entering new foreign markets.

It is obvious that most of the Macedonian companies have no general export strategy nor use marketing concept for performance in foreign markets. Hence it should be emphasized that companies from the Republic of Macedonia should be encouraged to allocate significant funds, time, resources and energy to build a strategy for performance in foreign markets, a strategy should be based on the marketing concept. More complex forms of cooperation with foreign countries may enable the company to be closer to customers, to establish a specific kind of control over the environment and become much more concrete in the markets where it will take action. With this concept and strategy every company provides full control, realizes improved contact quality and increases sales.

What is needed for Macedonian companies transformation strategy we use more complex forms of export marketing concept to increase their capabilities and profit .If companies do not start to restructure, they will continue with their operations, mainly in the domestic market where you face tremendous competition from abroad, which will be increasingly stronger and more aggressive.

CONCLUSION

Formation of strategies for international markets is a developing process in which the dominant strategic orientations are funds for international expansion and key decisions are different in each subsequent stage.

The growing interdependence of markets and the growth of competition in the global adoption of certain plans require a strategic approach when deciding to enter the international markets. Decisions to enter the international market must be based on an assessment of the attractiveness of a particular market or country. The strategic perspective in deciding the choice of country or market in which you are entering is helping the company to integrate the decision in its overall strategic plan. A proactive strategy to enter the international market is very important for successful expansion of world markets.

The choice of international markets that will get something more than the choice of a particular geographical terrain. In that choice includes decisions about the way the potential of a given market can more be used. In making these decisions are made and careful assessment of opportunities and risks associated with operations in a particular country. All these different factors must simultaneously be assessed in order to find the best way to enter the particular country or a particular market.

Internationalization of the business represents a possible direction or strategy for growth and development of companies across national borders, and on the basis of respect for the modern trends in the development of global markets and technologies, and thus acceptance of current standards and rules in international competitive behavior. In this context, international marketing is the process of market direction and coordination of business activities for successful internationalization.

This paper should be a modest contribution to the proper use of marketing strategies in the process of internationalization of companies in the Republic of Macedonia, because it is the only way for success in all areas of their development.

In this context, the Macedonian companies in defining strategies for entering the international market should be oriented to use more complex forms of export marketing.

Hence the opinion that this matter according to its attractiveness and relevance insufficiently explored in Macedonia, opening the possibility for further elaboration, that will lead to a more serious approach to the use of modern marketing concept in the design of proactive export entry strategies foreign markets.

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**WOMEN ENTREPRENEURSHIP IN THE REPUBLIC OF MACEDONIA-
CURRENT SITUATION AND OPPORTUNITIES**

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Abstract

Women entrepreneurship has been recognized as an important source of economic growth. Women entrepreneurs create new jobs for themselves and others and also provide society with different solutions to management, organization and business problems. However, in the Republic of Macedonia they still represent a minority of all entrepreneurs. Women entrepreneurs often face gender-based barriers to starting and growing their businesses, like discriminatory property, matrimonial and inheritance laws and/or cultural practices; lack of access to formal finance mechanisms; limited mobility and access to information and networks, etc.

Women's entrepreneurship in the Republic of Macedonia can make a particularly strong contribution to the economic growth, well-being of the family and communities, poverty reduction and women's empowerment, thus governments as well as various developmental organizations should actively undertake promotion of women entrepreneurs through various schemes, incentives and promotional measures. In this sense, the new information economy offers many possibilities. Also, the new economy offers a number of opportunities for women.

The paper methodology will be largely based on the classical methods of desk-based research of the available literature and data.

Keywords: women entrepreneurship, economic growth, government promotion, information economy, SMEs development

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INTRODUCTION

Women entrepreneurship nowadays is recognized as an important source of economic growth worldwide. And in general, entrepreneurship is seen as one of the most important solutions to unemployment, poverty and low economic growth, and in this frame, women entrepreneurship is considered its key segment and should therefore be straighten and supported by all stakeholders, at all levels - national, regional and / or global.

Women's entrepreneurship creates jobs, but also engages various opportunities for management and organization of work processes. Thus, it can give a strong contribution to the welfare of families and communities and reduce poverty, as well as to contribute to the achievement of the Millennium Development Goals. Having this facts in mind, it is obvious that the issue of women entrepreneurship is not purely gender issue, but primarily economic.

Yet, the official numbers reveals another reality. Namely, women entrepreneurs, are accounting for about one third of the total number of entrepreneurs in the world and thereby are a minority. Reasons for this are numerous gender barriers to start up and/or to develop a business. Among most common barriers are listed various property discriminations, laws on marriage and inheritance and other cultural practices, lack of access to financial mechanisms, limited mobility and limited access to information and networks, etc. Therefore, governments around the world, as well as all developmental organizations through various schemes, initiatives and promotional measures, must actively promote women entrepreneurship.

Women in the Republic of Macedonia are also a minority in the total number of entrepreneurs. Namely, in the total number of employers, the share of Macedonian women is roughly $\frac{1}{4}$, they represent 40% of the unemployed, and in the total active population in the Republic of Macedonia, 64% are women.³ These figures indicate that if promote and activate women in business, tremendous opportunities for acceleration of growth, employment and prosperity in the country can be open. Under these circumstances, it is not exaggerated to say that in order to achieve strong economic growth and high standards, Republic of Macedonia literary needs, women's entrepreneurial revolution.

In order to achieve the above mentioned goal, to the Government of Republic of Macedonia are available countless opportunities, theoretical guidance and good practices that should be translated into policies and measures. So far in this area, despite the ambitious governmental support of entrepreneurship, self-employment and improvement of the macroeconomic environment for business, we must point out that undertaken measures to support Macedonian women entrepreneurship are quite modest. In addition, we would like to add that the country, as a candidate for full-fledged membership in the European Union, has serious liability regarding the issue of women entrepreneurship.

Within the above elaborated context, this paper pretends to help achieve the goal of developing Macedonian women entrepreneurship. The intention is to analyse current situation through the available data on women entrepreneurship, as well as to elaborate the problems that hinder its development and to indicate the set of measures and steps to be taken by all stakeholders and thus contribute to the development of Macedonian society and help the country to become a prestigious place to live.

COMPARATIVE FACTS ABOUT THE REPUBLIC OF MACEDONIA AND WOMEN ENTREPRENEURSHIP

It is well widely accepted fact that women entrepreneurs make significant contributions to the conomie. In many developed economies, women are starting businesses

³LABOUR FORCE SURVEY, 2013, STATISTICAL REVIEW: Population and Social Statistics, SSO, Republic of Macedonia, Skopje, June 2014

at a faster rate than men and are making significant contributions to job creation and economic growth. In the United States, for example, women-owned firms are growing at more than double the rate of all other firms (23 percent and 9 percent respectively) and have done so for nearly three decades.⁴ They contribute nearly \$3 trillion to the U.S. economy and are directly responsible for 23 million jobs. New data projections also suggest that future job growth in the United States will be created primarily by women-owned small businesses. It is interesting to mention that 24 percent of family businesses are led by female CEO or president, and 31.3 percent of family businesses indicate that the next heir is female. In almost 60 percent of all family businesses, women are in the top management team.⁵ In Canada, women own 47 percent of small enterprises and accounted for 70 percent of new business start-ups in 2004. Women's significant contribution in these developed economies exemplifies what many developing countries can aim to achieve by increasing opportunities for women entrepreneurs.

On world level, with about 8 to 10 million formal women-owned SMEs in emerging markets, as is illustrated in Table 1, (representing 31 to 38 percent of all SMEs in emerging markets), the average growth rate of women's enterprises is significantly lower than the average growth rate for SMEs run by men.⁶

Table 1.: Number of formal SMEs with 1+ woman owners, in million

East Asia	4.8–5.9
Central Asia and Eastern Europe	1.2–1.4
Latin America	1.2–1.4
Sub-Saharan Africa	0.8–1.0
Middle East and North Africa	0.3
South Asia	0.2
Total	8.4–10.3

Source: McKinsey-IFC SME database; Enterprise Survey; ILO, human Development report; team analysis

In 2012, women made up only 31% of self-employed European citizens, and only 10% of working women are self-employed.⁷ Entrepreneurship appears to be a rather masculine occupation, with women believed to be more risk-averse. Moreover, women are seen to be motivated more often by necessity than by opportunity. When women do start businesses, they often do so in less innovative sectors. Monitoring of female entrepreneurship is challenging given a lack of data. However, whilst their companies perform equally, it is often believed that sales in women's companies grow less than in those of their male counterparts.

Republic of Macedonia hasn't tradition for the entrepreneurship. Last years, through many measures Macedonian government promoted them. However, the number of the companies is small (71.290 active companies) in which 475.909 individuals were employed, 41% of which are women. However, as can be seen in Table 2. for the 2013, from total number of working age population, about 50% are women, they are 40% from the total

⁴ According to new data projections from the Guardian Life Small Business Research Institute, future job growth in the United States will be created primarily by women-owned small businesses and by 2018 women entrepreneurs will be responsible for creating between 5 million and 5.5 million new jobs. That's more than half of the 9.7 million new jobs the Bureau of Labor Statistics (BLS) expects small businesses to create, and about one-third of the total new jobs the BLS projects will be created in that time frame.

⁵ The 10 Largest Family Businesses In The U.S.: <http://www.businessinsider.com/the-10-largest-family-businesses-in-america-2011-11?op=1-accsced> on 10.7.2014.

⁶ Strengthening Access to Finance for Women-Owned SMEs in Developing Countries, International Finance Corporation 2011, Washington.

⁷ Library Briefing, Library of the European Parliament 30/04/2013.

number of labor force, the same percent of total number of employed and unemployed persons and 63,2% from the total inactive population in the country. While the highest (above 70%) is share of the women inactive population of the age of 25-59 and above 20% of unemployed women of the age of 25-29, which is huge potential for the women entrepreneurship.

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Table 2: Working age population by economic activity, gender and age, in the Republic of Macedonia, in 2013

Age	Total			Labour force									Inactive population		
				Total			Employed persons			Unemployed persons					
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Total	1 672 460	837 446	835 015	956 057	573 825	382 232	678 838	407 531	271 307	277 219	166 294	110 925	716 403	263 620	452 783
15-19	139 118	71 669	67 450	17 734	10 902	6 832	6 695	3 795	2 900	11 040	7 107	3 932	121 384	60 766	60 617
20-24	157 087	80 671	76 416	81 928	49 836	32 093	41 233	25 051	16 182	40 696	24 785	15 911	75 158	30 835	44 323
25-29	164 495	84 153	80 342	126 943	72 921	54 022	75 469	43 990	31 479	51 474	28 931	22 543	37 552	11 232	26 320
30-34	161 893	83 227	78 666	136 361	79 541	56 820	96 193	55 538	40 655	40 168	24 004	16 164	25 532	3 686	21 846
35-39	153 201	78 035	75 165	123 909	74 099	49 810	91 909	53 644	38 265	32 000	20 455	11 545	29 292	3 936	25 355
40-44	146 506	73 997	72 509	116 856	69 082	47 774	90 834	55 386	35 448	26 022	13 696	12 326	29 650	4 915	24 735
45-49	147 581	74 598	72 983	116 143	68 740	47 403	94 098	55 531	38 567	22 045	13 208	8 836	31 438	5 858	25 580
50-54	141 606	71 577	70 029	104 403	63 373	41 030	81 312	49 921	31 391	23 091	13 452	9 639	37 203	8 204	28 999
55-59	134 910	67 824	67 086	87 060	54 259	32 802	66 235	41 989	24 246	20 826	12 270	8 556	47 849	13 565	34 284
60-64	116 420	56 425	59 995	38 434	27 406	11 028	29 043	19 422	9 621	9 392	7 984	1 407	77 985	29 018	48 967
65+	209 646	95 271	114 375	6 285	3 667	2 618	5 818	3 265	2 553	:	:	:	203 361	91 604	111 757

Source: LABOUR FORCE SURVEY, 2013, STATISTICAL REVIEW: *Population and Social Statistics, SSO, Republic of Macedonia, Skopje, June 2014*

Situation in 2013 is worse regarding employment by type of ownership of the business entities and by gender. We can see in Table 3., that in total number of employed (without type of ownership of the business entities-private or other) - 678.838, women participated with about 40%, but in private companies that participation is lower.

Table 3.: Employed by type of ownership of the business entities and by gender, in the Republic of Macedonia, 2013

Gender	Ownership of business entities		
	Total	Private	Other ¹⁾
Total	678 838	521 607	157 230
Men	407 531	318 038	89 493
Women	271 307	203 569	67 737
	Structure by ownership in %		
Total	100,0	76,8	23,2
Men	100,0	78,0	22,0
	100,0	75,0	25,0
	Structure by gender in %		
Total	100,0	100,0	100,0
Men	60,0	61,0	56,9
Women	40,0	39,0	43,1

¹⁾ Other (mixed, collective, state, undefined)

Source: LABOUR FORCE SURVEY, 2013, STATISTICAL REVIEW: *Population and Social Statistics, SSO, Republic of Macedonia, Skopje, June 2014*

Then, as illustrated in the Table 4., from 31.656 employer, 28% are women, from 98.182 self-employed, 20 % are women and from 60.899 unpaid family worker, 64% are women. This fact once again confirm our main thesis.

Table 4.: Employed by economic status and gender, in the Republic of Macedonia, in 2013

Gender	Economic status				
	Total	Employed	Employer	Self-employed	Unpaid family worker
Total	678 838	488 110	31 656	98 182	60 889
Men	407 531	284 813	22 669	78 137	21 912
Women	271 307	203 298	8 988	20 045	38 977
	Structure by gender in %				
Total	100,0	100,0	100,0	100,0	100,0
Men	60,0	58,4	71,6	79,6	36,0
Women	40,0	41,7	28,4	20,4	64,0
	Structure by economic status in %				
Total	100,0	71,9	4,7	14,5	9,0
Men	100,0	69,9	5,6	19,2	5,4
Women	100,0	74,9	3,3	7,4	14,4

Source: LABOUR FORCE SURVEY, 2013, STATISTICAL REVIEW: *Population and Social Statistics, SSO, Republic of Macedonia, Skopje, June 2014*

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Table 5.: Employed by gender and economic status, in the Republic of Macedonia, in the period 2009-2013

	2009			2010			2011			2012			2013		
	Total	Men	Women	Total	Total	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Total	629 901	389 332	240 569	650 554	650 554	245 932	645 085	388 963	256 122	650 554	393 092	257 462	678 838	407 531	271 307
Employee	453 031	269 092	183 939	475 909	475 909	184 869	463 075	269 116	193 959	475 909	278 983	196 926	488 110	284 813	203 298
Employer	32 469	25 193	7 275	31 147	31 147	8 456	36 754	27 633	9 121	31 147	22 975	8 171	31 656	22 669	8 988
Self-employed	80 053	69 100	10 953	88 162	88 162	12 110	83 551	68 563	14 988	88 162	71 556	16 607	98 182	78 137	20 045
Unpaid family worker	64 349	25 946	38 403	55 336	55 336	40 498	61 705	23 651	38 054	55 336	19 578	35 758	60 889	21 912	38 977

Source: LABOUR FORCE SURVEY, 2013, STATISTICAL REVIEW: *Population and Social Statistics, SSO, Republic of Macedonia, Skopje*, June 2014

Moreover that tendency hasn't remarkably improved (as seen in Table 5., in period 2009-2013 there is grow of same 4-6 percent point in all categories, exclusion with unpaid women worker witch in all period not only hasn't improvement, but in same years there is so much the worse).Furthermore, as shown in Table 6.in total number of unemployed, 40% are women and they wait for work longer than men.

Table 5.: Unemployed persons by duration of unemployment and gender, in the Republic of Macedonia, in 2013

Gender	Total	Duration of unemployment							
		Up to 1 month	2-5 months	6-11 months	12-17 months	18-23 months	2 years	3 years	4 years and longer
Total	277 219	8 705	20 312	19 606	18 519	13 734	2 959	23 616	169 767
Men	166 294	5 621	11 957	11 249	9 112	7 663	1 223	13 591	105 879
Women	110 925	3 085	8 356	8 358	9 407	6 071	1 736	10 026	63 888
Structure by gender in %									
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Men	60,0	64,6	58,9	57,4	49,2	55,8	41,3	57,5	62,4
Women	40,0	35,4	41,1	42,6	50,8	44,2	58,7	42,5	37,6
Structure by duration of unemployment in %									
Total	100,0	3,1	7,3	7,1	6,7	5,0	1,1	8,5	61,2
Men	100,0	3,4	7,2	6,8	5,5	4,6	0,7	8,2	63,7
Women	100,0	2,8	7,5	7,5	8,5	5,5	1,6	9,0	57,6

Source: LABOUR FORCE SURVEY, 2013, STATISTICAL REVIEW: *Population and Social Statistics, SSO, Republic of Macedonia, Skopje, June 2014*

Considering presented statistical analysis, we can conclude that women entrepreneurship in the Republic of Macedonia, according all indicators compared with other country, is lower, and hasn't good tendency, but in the same time, we should consider the effects of large global financial crisis that has gripped deeply, both Europe and the Republic of Macedonia.

Some recent trends point to the fact that a growing number of women decides to start their own business which goes beyond glances past the traditional role of women in the family. However, the results of relevant scientific research in this matter are modest and in fact indicate a greater willingness, perseverance and support for the male population to establish their own business.

EU REGULATION – OBLIGATIONS AND OPPORTUNITIES FOR DEVELOPMENT OF FEMALE ENTREPRENEURSHIP

Women for Europe represent a pool of potential entrepreneurs. EU initiatives, such as dedicated networks for women, are supplemented by stakeholders' own initiatives, while the European Parliament (EP) has recognised the positive contribution of female entrepreneurship.

According European Commission⁸, when establishing and leading business, women encounter greater difficulties than men. These difficulties are mainly seen in limited access to finance, poor training and networking, as well as daily need for balancing between the business and the family. Therefore, the Commission is actively supporting entrepreneurship and thereby is creating more jobs for women, and in the same time empowers women economically and socially, and is raising their creative and innovative capacities. The main development document binding on Member States, as well as candidates for membership in the EU is the EU's Lisbon Declaration, 2010, which sets out the following obligations:

- Increasing the employment rate for 70%, and
- Increasing the number of women in the work process for more than 60%

In same line with above mentioned targets is the EU Action Plan for Entrepreneurship 2020, which relies on three pillars:

- Entrepreneurship education and training
- Creating an environment where entrepreneurs can develop and grow, and
- Developing role models for certain groups of entrepreneurial potential that can be achieved through traditional programs to support business

In 2009, the Commission has established the European Network of Female Entrepreneurship Ambassadors, which in 2011 was supplemented by the European Network of Mentors for Women Entrepreneurs. In same time with this operational bodies, the Commission impose:

- Effective enforcement of existing regulations on gender equality, in particular Directive 2010/41/EC74 which should further stimulate female entrepreneurship;
- Creation and implementation of a national strategy for women's entrepreneurship that will result in increased participation of women owners/managers of companies;
- Collecting gender-disaggregated data and their annual updating on the status of the national women's entrepreneurship;
- Continuation and expansion of existing networks of Female Entrepreneurship Ambassadors and Mentors for Women Entrepreneurs;
- Implementation of policies that will enable women to act through an appropriate work-life balance by establishing adequate and affordable care for children and elderly dependents, and especially taking into account all the benefits of support from European funds;

So, these are the prerogatives which Macedonia should consider as benchmarks down the route of development and intensification of women entrepreneurship, that will bring the country closer to meeting both its own and EU and development agenda. In same time, when discussing women entrepreneurship in the Republic of Macedonia, one must take into account current macroeconomic environment in the country, which is still relatively risky and inappropriate and is still under the influence of accumulated problems, particularly low level of GDP, lack of investment capital, low level of utilization of capacity, high unemployment and the growth of trade and budget deficits. In contrast, we must bear on mind constant new financing opportunities, that entrepreneurs are not aware of, nor well informed on, on one hand, and the need to resolve the high collateral requirements and deficiencies that occur in

⁸European Commission -Enterprise and Industry-Small Business Act for Europe: <http://ec.europa.eu/enterprise/policies/sme/small-business-act/>-accessed on 15. 7. 2014.

the regime of secure transactions in lending to micro, small and medium enterprises, especially start-up, on the other hand. Finally, there are available a number of donor credit lines that are poorly used, from:

- The World Bank
- The European Bank for Reconstruction and Development
- IPA Program,
- Donations received from certain developed countries (Germany, Italy, Switzerland, etc..)
- Loans from FAO
- Direct private investments and more.

All presented opportunities indicate a huge field for active participation of authorities, civil society, science, the media, which should launch new initiatives and practices of women entrepreneurship in the Republic of Macedonia, following the example of the most successful countries. In this context than beside the obligations set by the European Commission, stated above, Macedonia should use the following proven tools:

- Strategies to support and encourage civil society organizations, initiatives and / or groups whose primary mission is to reduce poverty, analysis of the labor market, training and information in the field of entrepreneurship;
- Support of women's groups in this sense, is also extremely important
- Greater financial support for unemployed women to start their business
- A system of encouraging and supporting entrepreneurship in higher quotas for women's participation
- Series of fiscal measures to support entrepreneurship through tax cuts for business and the introduction of special measures and also lower taxes for those employers who will provide a contract for employment of a women. This should especially apply to regions with high rates of unemployment among women;
- Voucher system for access to facilities for the care of children of those families who are at risk of poverty;
- Introducing work from home in order to provide greater flexibility for women with family responsibilities;
- Establishing Agency for women entrepreneurship and programs for lending to small businesses run by women;
- Providing flexicurity in operation;
- Support media with the introduction of programs of this topic and presenting success stories, etc.

CONCLUSION

As a general conclusion regarding women entrepreneurship, we can say that although enterprise culture and the status of women in society may differ between the various countries, many of the problems faced by female entrepreneurs are quite similar. Basically, it is important to make women aware of the possibilities they have today as well as to assist them in establishing necessary business contacts. Women appear to have a different approach towards running a business than men, therefore gender awareness in designing and delivering support measures targeted at women entrepreneurs is essential. In this regard is essential, too, to have in mind women's empowerment through ICTs from the various uses that ICTs have been put to. These include: connectivity and access to information about livelihoods and enterprises; data management and creation of data repositories; linking

women producers to global markets; efficient communication for micro-enterprises; opportunities for skill-building and employment; and opportunities for self employment.

Women's entrepreneurship in the Republic of Macedonia can make a particularly strong contribution to the economic growth, well-being of the family and communities, poverty reduction and women's empowerment. Our analysis shows that the high number of unemployed and inactive women, especially between the ages of 20-39 years, together with the low number of women employers and self-employed, as well as the high number of unpaid female labor, indicate unfavorable conditions in this domain.

In order to achieve the Lisbon objectives and sustainable development, except obligations of the EU, Macedonian government should undertake radical measures with strong promotion and support from the government, but and all stakeholders, specially scientists. Stakeholders underline the importance of better data on which to base policies, as well as the reinforcement of support structures for female entrepreneurs such as the provision of information and training, business networks, business support services, and facilitating access to both human and financial capital for women.

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**REGIONAL DIMENSIONS OF ENTREPRENEURSHIP EDUCATION IN
THE SUBJECT AREA OF SMALL AND MEDIUM ENTERPRISES (SMEs)**

Kostadinova Antipesheva Tsvetana PhD¹

Abstract

Education is considered in general, as well as its application in the field of economics. It can be assumed that the poor situation in the sector of small and medium enterprises /SMEs/ is caused by the insufficiently good organization of the education in entrepreneurship. Moreover, in medium and long term, the development of the entrepreneurship, as a whole, leads to the development of the big and small businesses. Supporting entrepreneurship is the basis for the overall development of the economy, including its competitiveness.

The end result of the education is the professional competence of a different kind and degree. The basic concepts of entrepreneurial knowledge, skills, attitudes and behaviours shall be taught earlier than the upper school level. In this sense the formation of modern economic culture should start quite early, based on the evolutionary principle of knowledge. First the report examines the Design and Technology classes as part of the technological education. Then it reveals the best pedagogical practices in entrepreneurship within Blagoevgrad as it is taught in the Professional High School of Economics "Ivan Iliev".

In the field of higher education, entrepreneurship is taught in the region at SWU "N. Rilski ". A course in Entrepreneurship is mandatory in the syllabus of major "Marketing", Faculty of Economics, third year. The aim of the course is to provide students with in-depth knowledge of the theoretical and practical problems of entrepreneurship and explore basic approaches to its implementation in the current conditions. Its benefits to the SMEs are also viewed.

Object of the study is the entrepreneurship education. The aim is to show the best experience, in order to be applied in similar situations. The methodology used is the analysis of the existing situation in entrepreneurship education, the study of the legal framework and the transformation of the results into conclusions and recommendations.

Keywords: education, entrepreneurship, small and medium enterprises.

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The small and medium-sized enterprises (SMEs) are the backbone of any economy. They provide an important part of the infrastructure that determines the competitiveness in the economy. They are a major source of economic growth and job openings. Moreover, SMEs are the most sensitive entrants, in respect to the changes in the business environment. They bear the heavy burden of excessive bureaucracy and at the same time take advantage of the initiatives for mitigation of administrative regulation. They are the ones that can put the economy back on the trajectory of economic growth. The small, the medium and the big business do not exclude each other but complement and enrich each other, and thus create a more balanced nature of the economy. The distinction between them is determined by the following factors - the number of the personnel and the turnover or the total balance sheet. EU policy on SMEs was first introduced in 1983, when it adopted the first Community program for these enterprises. "Think Small First" is one of the fundamental principles of the EU policy towards SMEs.

One can reasonably assume that the current state of the SME sector is undergoing some difficulties, due to the insufficient organization of entrepreneurship education. Moreover, in medium and long term, the development of the enterprise, in general, improves not only the development of the small business, but also the big one. Entrepreneurship education maintains high level in the most EU Member States. A wide variety of programs and activities exist throughout Europe. The European Commission is committed to promoting entrepreneurship education at all levels, from primary school to university and further. European SME Week is a campaign to promote entrepreneurship across Europe. This is the time when entrepreneurs can get information about the support available at European, national, regional and local level. This Pan - European campaign aims to make it easier for the existing and potential entrepreneurs to find information, advice, support and ideas to help them develop their activities. European SME Week is one of the measures, which implements the Law on Small Business, the first comprehensive SME policy within the EU and its Member States. In many aspects of SME policy, the European Commission is working in partnership with the Member States, by facilitating the identification and exchange of good practices. For many years, this process is rooted in the European Charter for SMEs. In recent years there has been significant convergence in the thinking of the EU Member States in the field of SME policy and the practical aspects of the implementation of the entrepreneurship policy. A growing number of EU Member states have reported that they have developed measures, inspired by other countries, thus have benefited from each other by strong ideas.

The national policy in favor of the SMEs is also an important issue. Supporting entrepreneurship in our country is the basis of the overall development of the Bulgarian economy, including its competitiveness. European countries are increasingly aware that economic recovery from the crisis and the return to growth requires more entrepreneurship. This is because entrepreneurship makes the economy more competitive and innovative, and creates job openings. This new orientation is fixed in many key EU documents from 2011 until present. Entrepreneurship and the associated willingness to take risks should be applauded by political leaders and the media, and supported by the administrative authorities. The national strategy in favor of SMEs 2014 – 2020 states that "Bulgaria should create and maintain an environment in which entrepreneurs can succeed and where the entrepreneurship is rewarded. Bulgaria should take good care for future entrepreneurs, notably by encouraging the entrepreneurial interest and talent, particularly among students, young people and women."²

² www.strategy.bg

The end result of the training are the professional competences of different kind and degree. It is not right to reserve the entrepreneurial knowledge, skills, attitudes and behaviors only for the upper school levels. In this sense the formation of modern economic culture should start quite early, based on the evolutionary principle of knowledge. In our country the training, including knowledge of economics and entrepreneurship, starts from primary education classes in "Design and Technology" as part of the technological training. It accumulates its educational content by some extremely dynamic performance trends and tendencies. As such, it includes the basic elements of technical, natural scientific, social, economic and other types of knowledge divided in blocks that describe the separate stages and trends of the technological culture. The educational activities in the Cultural and Educational Field (CEF) "Domestic science and technologies" are designed to build the foundations of literacy and technological competence of students as an essential element of their common culture. Subjects in this area represent a kind of steps to move from the process of building the domestic culture of the individual toward the process of building basic skills for future career development of those individuals. Considering the state educational requirements for school subject's content, we can highlight the following features:³

- *The School Subject "Domestic science and home technology", studied in Grade I - IV*, focuses on the initial steps into the diverse world of technologies in the light of the knowledge of everyday activities and resources that are present in the real life of the child. Starting from First Grade, it introduces appropriate economic concepts as a part of child's life.

- *The Subject "Home Technology and Economics", studied in Grade V - VI*, develops knowledge in the direction of the initial understanding of the connections: domestic culture - technologies; economy - technologies; scientific discoveries - technologies. Apparently, here the priority of economic knowledge is highly covered.

The subject "Technology", studied in Grade VII - VIII, builds common basic technological competence of students completing primary education, which powers them to orient their career choices in the field of social, economic and industrial technologies. The subject "Technology" represents the transition between the main stage of general education and the period in which for a majority of students an initial professional training is carried out. By learning "Technology" students can form an idea of their future career or make specific choice for future training in one or other professional area.

- *The modern discourse to secondary technological education* is based on the relationship between the administered educational policy within CEF "Domestic science and Technologies" and the set in the "National Programme for Development of School Education" 2015 strategy for continuing the technological training in upper-school. Technological teaching in high schools should be introduced as a logical continuation of the subject teaching in Grade VIII, as students are given the opportunity to strengthen their economic and technological knowledge, "transfer" skills and upgrade the competencies they have acquired so far.

For the majority of students secondary education takes place in specialized schools. Those places where basic economic knowledge is taught are the Professional High Schools of Economics (PHSE). Within Blagoevgrad this is PHSE "Ivan Iliev". It was founded in 1949 as a Business School with four classes. Currently it trains students in the following specialties: Banking, Insurance and Social Security, Economics and Management, Business Administration, Operational Accounting, Financial Reporting, E-Commerce, Economic Informatics. The present research shows the best pedagogical practices for teaching

³ www.minedu.government.bg

entrepreneurship. It traces the usefulness and the implementation of the entrepreneurship in the small and medium enterprises.

The Entrepreneurship course is taught in the professional field of Business management and Administration. The course is being taught within an academic year/ two classes per week. It provides information for the basics of entrepreneurship, as well as the character of the entrepreneur - motivation, values, beliefs. Of particular interest is the educational practice of starting private business and studying its financing and tax policy. The "Education and Practice Center", which is part of the school, is a place where students are working in a real office environment within their classes on the subject "Training firm" (TF). Training firm is a model of an enterprise designed for educational purposes. This model allows the recreation of various problematic processes of the "real" business activities, so that they become transparent and understandable through to students. The Training firm is suitable for controlling, testing and advancing the economic knowledge and skills and behavioral patterns in all structural units of a single enterprise like those of the departmental assistant-specialist or those of the entrepreneur. In the Training firm students can perform all typical for the economic practice of the industry trade operations - from supplying, through the provision of services, all the way to the distribution. Related commercial activities should be performed by the student in accordance with the common commercial practice and the legal requirements. In reality, the goods and the services, as well as the real money for making payments do not exist. Students prepare the necessary for the enterprise information and the documents, as they exchange them by using modern technology and information resources. Each training firm, in accordance with the business practice is structured in departments. Students go through different departments and perform specific activities for their operation. In the training firms they accumulate knowledge and experience in the field of economy and trade. This brings dynamic in the learning process. Students take the role of managers and employees, some of them show entrepreneurship skills, some teachers take the function of corporate consultants, others –of company management. There are currently 36 separate training firms in the field of trade, banking, insurance and travel services. Some of them students represent at international fairs of TF "TF FEST" since 2007.⁴

As it comes to local higher education, entrepreneurship education is taught at SWU "N. Rilski". The subject of the same name is mandatory and taught in Major "Marketing", Faculty of Economics, third year. The aim of the course is to provide students with in-depth knowledge of the theoretical and practical problems of entrepreneurship and to explore basic approaches to its implementation in modern conditions. As we go through the curriculum we can observe that the lectures trace the development of the entrepreneurship and the SMEs in Bulgaria, as well as the government policy for their support. The conditions of globalization are also concerned –problems, approaches to assessment and competitiveness factors. The institutional prerequisites for the development of entrepreneurship and small business in the USA and EU countries are also included in the lecture course. The exercises are structured by holding discussion and solving different cases. As a final result, students should have acquired basic knowledge and skills on how to organize and manage entrepreneurial businesses to apply entrepreneurial approaches and strategies. Similar knowledge, albeit in another aspect, receive the students in Major "Technology and Entrepreneurship" at the Faculty of Pedagogy. They cover the subjects "Methodology of formation of economic culture in technological training" and "Methodology of entrepreneurial training" as part of the special methodologies. That is how the future teachers in CEF "Domestic science and Technologies" prepare for the continuously changing conditions of the environment and labor, the technology and economy. The new paradigm, expressed in radical socio-economic changes in Bulgarian society, raises a

⁴ www.pgiblg.com

new concept in education and particularly in Bulgarian technological training. Educational activities in this Cultural and Educational Field aim to form technological literacy and competence at students as an essential element of their common culture. Technological literacy is the ability to use, manage, identify and understand the different types of technologies, including economic ones. It includes knowledge, skills and their application in real situations.

A logical question arises here: Can the educators contribute in creating such an economic society in which entrepreneurship can be put on a pedestal and become a major factor in the performance of SMEs? Should teachers and economists both combine efforts, in order to prepare more erudite personnel? A university major, unifying the knowledge from both spheres, shall also be considered.

The end result of education is the knowledge, its transformation into professional competencies and opportunities for implementation. It is obvious that knowledge must incorporate the corresponding general skills, otherwise it remains empty, verbal knowledge. On the other hand, skills should be based on the knowledge, they should be conscious and not based on guessing. In this train of thought, by deciding a situation - a whole class of similar situations arises behind it and one can define a common way of solving them, which can be applied under other specific conditions. Each element of novelty develops thinking, behind which the relatively stable structure of what is already learned appears. These are processes much needed in entrepreneurship education. (Fig. 1)

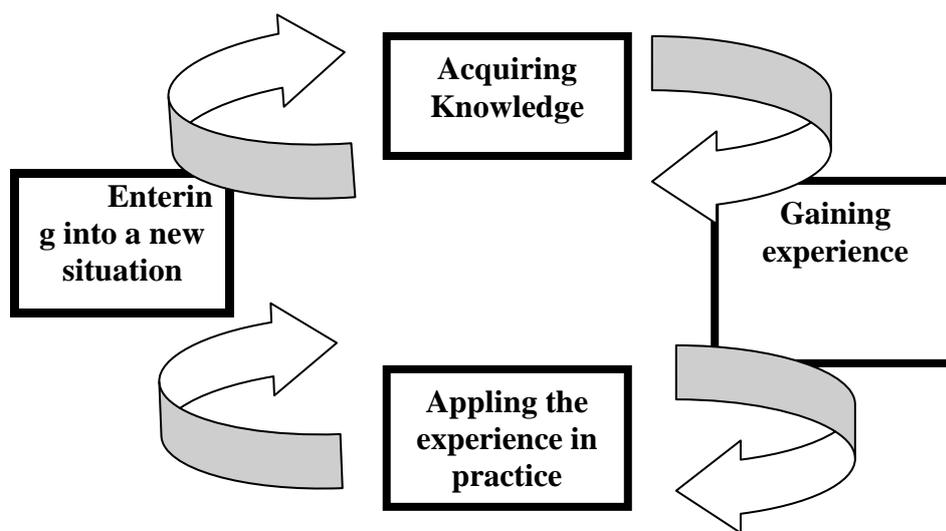


Figure 1: Cycle of knowledge, skills and their application

The relationship between social development and education is obvious. Therefore, the whole society is interested in updating the education strategy. We need a new quality training of labor resources. The professional - skill development of young people means to ensure their further development. Career decisions are not independent. They are events that are consistent and interrelated. Such a decision is very important for every individual and contributes to his/her professional implementation. Especially for people dealing with small and medium enterprises.

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TOBIN'Q AND R&D INVESTMENT IN CESEE COUNTIES

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Abstract

In this paper Tobin's and R&D investment issue has been subject of investigation. Tobin's q quotient is derived by the ratio of market value (market capitalization of listed companies excluding investment companies and mutual funds) and replacement value of capital used in production (Adjusted savings: consumption of fixed capital). Further, the influence of democracy indices Freedom House political rights and Freedom house civil liberties as proxies for democracy has been investigated along with the some government related variables as well as other macroeconomic variables. The basic idea of this paper is being derived from Arrow paper. Zvi Griliches first introduced production function that relates market value of the firms, tangible and intangible assets. This model also can be applied in a small and simple Keynesian framework, where change in capital stock (investment) is a function of the difference between actual q and normal \bar{q} . i.e. normal $\bar{q} = 1$, and some natural growth rate (actually fitted values of the output growth), when $q = \bar{q} = 1$ investment equals savings, i.e. there exists macroeconomic equilibrium. In the empirical section theories had been tested on a pooled data from sample of 12 CESEE countries.

Keywords: Tobin's q, R&D, Market value, Replacement value, CESEE countries

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INTRODUCTION

In this paper we examine the issue of R&D investment and the Tobin's q . R&D investment is different than other ordinary investment, according to Hall and Lerner (2009)¹, fifty percent or more of R&D spending is on salaries of highly educated scientist and engineers. The idea comes from Arrow (1962)², but the Arrow introduced growth model in which the per capita growth rate depends on the capital per worker and the average of the stock of capital of other workers³. In the empirical literature form this area one significant contribution is the paper by Connolly and Hirschey (2005), when comparing the R&D effect on Tobin's q they find positive and statistically significant relationship across sample of manufacturing and non-manufacturing firms, and the found evidence which statistically significant and positive influence of R&D on Tobin's q ⁴. Earlier Connolly and Hirschey (1984)⁵, considered relation between market structure, R&D and profits. And the find positive effect of R&D on profit, but also negative R&D concentration interaction effect⁶. As we said earlier with the Arrow paper (1962), and later Romer (1990), research and development expenditures have been valued in economic growth perspective (Warusawitharana, 2008)⁷. Also the same production that Zvi Griliches (1979)⁸, used is vastly used in this literature, the functional form is as follows: $Y = F(K, L, T, u)$, here K and L are labour and capital inputs, and T is a measure of the current state of technical knowledge, and u are all unmeasured determinants of output and productivity. James Tobin (1978), also explains that q is a measure of profitable investment opportunities. Later Zvi Griliches and Cockburn (1988), relate the value of the firm with Tobin's q , as follows:

$V = q(\text{tangible capital, intangible capital})$, so in this paper⁹, q is related also to intangible capital. Megna and Klock (1993)¹⁰, also examined the contribution of R&D stocks of the firms in semi-conductor industry, and find positive externalities of own R&D stock of the firms as well as the rivals stock of R&D on Tobin's q , but rivals patents negatively influenced Tobin's Q , this reveals that patents and R&D are distinctive measure of intangible as-

¹Hall, B., H. & Lerner, J., (2010). "The Financing of R&D and Innovation," UNU-MERIT Working Paper Series 012, United Nations University, Maastricht Economic and social Research and training centre on Innovation and Technology.

² Arrow, K.J. (1962). "The Economic Implications of Learning by Doing," *American Economic Review*, May 96(2): pp. 308-312.

³ $y = Ak^{1-\alpha}(\bar{k})^\alpha$ $0 < \alpha < 1$ in equilibrium $k = \bar{k}$

⁴ Connolly, R., Hirschey, M., (2005), Firm size and the effect of R&D on Tobin's q , *R&D Management* 35. 2, 2005. © Blackwell Publishing Ltd, 2005. Published by Blackwell Publishing Ltd,

⁵ Connolly, R., Hirschey, M., (1984), R & D, Market Structure and Profits: A Value-Based Approach, *The Review of Economics and Statistics*, Vol. 66, No. 4. (Nov., 1984), pp. 682-686.

⁶The firms in the more concentrated industries are less efficient researchers, or are willing to take riskier projects.

⁷ Warusawitharana, M., (2008), Research and Development, Profits and Firm Value: A Structural Estimation, Division of Research and Statistics, Board of Governors of the Federal Reserve System

⁸ Griliches, Zvi (1979), R&D and Productivity: The Econometric Evidence, Chapter: Issues in Assessing the Contribution of Research and Development to Productivity Growth

⁹ Cockburn, Iain & Griliches, Zvi, (1988). "Industry Effects and Appropriability Measures in the Stock Market's Valuation of R&D and Patents," *American Economic Review*, American Economic Association, vol. 78(2), pages 419-23, May

¹⁰ Megna, P. and Klock, M. 1993. The Impact of Intangible capital on Tobin's q in the Semiconductor Industry, *The American Economic Review* 83(2): 265 – 269.

sets, because patents are marketable and R&D are just initiative. Hall (1998)¹¹, introduced Cobb-Douglass production form with Tobin's q:

$$bV_t(TA, IA) = q_t TA^{\sigma} IA_t^{\alpha} \quad (1)$$

Here TA is tangible assets, and IA are intangible assets. Intertemporal elasticity of substitution is given by σ , symbol. While in logarithms this function is presented by the following functional form:

$$\log bV_t = \log q_t + \sigma \log TA + \alpha (\log IA/TA) \quad (2)$$

Later Hall, Thoma, and Torrisi (2007)¹², explain that the functional form of intertemporal maximization with several capital goods it's hard to derive, and most of the literature relies on the assumption that market valuation equation takes log-linear, or log-log presentation. Hall, Thoma, and Torrisi (2007), make a distinction between knowledge capital and physical assets. Adaptive multiplicative separable function can be written as follows (Damianova, 2005)¹³:

$$bV_t = (TA_t)^{\beta_1} \sum_{\theta=1}^T (IA_{t-\theta})^{\beta_2 \cdot \theta} \quad (3)$$

Here θ is the time lag, denoting that production of knowledge capital is different than production of physical capital since it involves projects with durations of several years.

R&D AND TOBIN'S Q

R&D investment create "intangible" capital, and this affects the valuation of the company by the investors. Market value of the firm we treat as indicator for the success of the company, but only partial (Griliches, 1981)¹⁴. We use here the "definitional" model by Zvi Griliches:

$$MV = q(TA + IA) \quad (4)$$

Here MV represents the market value of the firm (equity plus debt), which is equal to q (which represents the current market valuation coefficient of the company's assets), multiplied by TA which represents tangible assets, plus IA intangible assets. From the expression above we have following $q = \frac{MV}{(TA + IA)}$ that is the expression for Tobin's Q (quo-

tient). Here we state that, IA –intangible assets are the "stock of knowledge" of the companies. The reason why in the q-theory, $Q > 1$, Q can be above 1, is because of the Intangible assets of the company. For the early Keynesians it was important, what is the position of the current cash flow and liquid assets, as a major determinants of investment (Akerlof, 2007)¹⁵. But later Modigliani -Miller, same as the other existing contemporary literature, assumed that

¹¹Hall, B.,(1998), Innovation and market value,University California Berkeley

¹²Bronwyn H. Hall & Grid Thoma & Salvatore Torrisi, 2007. "The market value of patents and R&D: Evidence from European firms,"NBER Working Papers 13426, National Bureau of Economic Research, Inc

¹³ Damianova,K., (2005), The Conditional Value of R&D Investments, National Centre of Competence in Research Financial Valuation and Risk Management

¹⁴ Griliches, Z. (1981), 'Market value, R&D and patents', *Economics Letters*, 7 (2), 183-187

¹⁵Akerlof, George,(2007),Missing motivation in macroeconomics,*American Economic Review*, 2007, vol. 97, issue 1, pages 5-36

the firm's financial position, is not important in investment decision, i.e. investment is independent of current cash flow and liquidity position. In the original paper by Tobin (1969), firms should invest up to the point where marginal costs of a new unit of capital is the valuation of such a unit capital in the market (Akerlof, 2007). Tobin like in neoclassical growth theory assumes some natural rate of growth y_n , and the equation $y_k * K = sY$, where s , is the savings ratio (marginal propensity to save), Y is the real income, marginal efficiency of the capital stock is \bar{R} , and $\bar{R} = rK$, where r is the interest rate or return of the capital stock. In such a case $q=1$, and investment equals saving. While Tobin defines $\bar{R} = rq$, in Tobin's paper q is the market price of existing capital goods, so $rq = rK$, i.e. $q = K$, so the firm should invest up to the point where the marginal unit of capital is equal to valuation of such a unit of capital in the stock market. So investment is independent of finance situation of the firm.

In his interpretation of Keynesian LM curve Tobin introduced $\frac{\bar{R}}{q}$ as the speed of investment that should be equal in equilibrium with $\frac{r}{K}$, or $\frac{\bar{R}}{q} = \frac{r}{K}$. Later on in 1977 paper, Tobin defines marginal efficiency of capital as follows:

$$V = \int_0^{\infty} E(t)e^{-Rt} dt \tag{5}$$

Here V are the cost of capital(replacement value) and $E(t)$ are the expected future earnings, For a definite integral solution is $-\frac{1}{r+1}$ for $Re(r) < -1$. Now Tobin (1977) presents market value of capital goods of the firm and the expression is presented in the following expression: $MV = \int_0^{\infty} E(t)e^{-rt} dt$, $E(t)$ is constant, then $V = E/\bar{R}$, and $MV = E/r$, consequently $\frac{MV}{V} = \frac{R}{r}$, this is the expression for out quotient Q . Tobin extends model to macro-economics (IS-LM) model defining the investment function, which is a change in capital as follows, $\frac{\Delta K}{K} = f(q - \bar{q}) + y_n$, \bar{q} is some normal value of q , i.e. $q=1$, while y_n is the natural growth rate. And if $q = \bar{q}$, then $\Delta K = y_n K$, which represents net investment¹⁶. Now since we explained market valuation models for the firm, will add up R&D to see the causality between the two. Abel(1984), did set up a model of market value of the firm and R&D. Abel(1984)¹⁷ uses Bellman value function¹⁸, for the market value of the firm.

$$V(T_t, p_t) = \max_{L_t, \bar{R}_t} E_t \left[p_t L_t^\alpha T_t^{1-\alpha} - wL_t - a\bar{R}_t^2 + \beta V(T_{t+1}, p_{t+1}) \right] \tag{6}$$

Here E_t is conditional dynamic expectation, here $T_t^{1-\alpha}$ is the technology, which is accumulated to produce output, \bar{R} again is the marginal efficiency of capital, but yet it is some R&D activity, here $a\bar{R}_t^2$ are R&D expenditures. Here, wL_t are the wages of the workers that

¹⁶Tobin J, and Brainard W.C.(1977), *Asset Markets and the Cost of Capital*, Cowles Foundation Paper 440 Reprinted from *Private Values and Public Policy*, Essays in Honor of William Fellner, North-Holland, 1977

¹⁷Abel, B, Andrew (1984), "R & D and the Market Value of the Firm: A Note". In *R & D, Patents and Productivity*, edited by Zvi Griliches, (1984), 261 - 269.

¹⁸Bellman equation has been used in economics amongst others also by Edmund Phelps, Robert Lucas, Sargent and others.

influence the cash flow of the company, p_t is the price of the output, and $p_t L_t^\alpha T_t^{1-\alpha} = \pi$ is the profit of the firm. Abel used the Bellman equation to derive the expression for Tobin's q .

$$q_t = \frac{V(T_t, p_t) - E_{t-1}V(T_t, p_t)}{V(T_{t-1}, p_{t-1})} \quad (7)$$

Here E_{t-1} are the expectations from the past period, but E_{t-1} is multiplied by the present value of the firm, meaning that excess return are uncorrelated with any past information (Efficient market hypothesis).

DEMOCRACY, OTHER ECONOMIC VARIABLES AND STOCK MARKET PERFORMANCE

Throughout literature there is no clear indication as how political regime impacts economic growth. Though democracy has very attractive features, this model of political organization may lead to inefficient policies and high levels of income redistribution, Acemoglu (2008)¹⁹. As Barro (1999)²⁰ noted more democracy encourages rich to poor redistributions and may enhance the power of interest groups. Or as Barro (1997)²¹ once again concludes the net effect of democracy on economic growth is inconclusive. When financial development in matters some papers find positive association between financial development and the quality of political institutions, but this result is conditioned by the quality the institutional framework.

Ghardallou, Boudriga (2006)²². On the other hand Yang (2011)²³, found out that democracy is not positively related to stock market development. Here is set hypothesis that the effect of democracy on Tobin's q is positive, since democracy affects positively on the financial institutions. As the measures for democracy here are used Freedom house political rights and Freedom house civil liberties. The effect of government size appears to be negatively associated with the financial efficiency but positively associated with the financial sector size in low income economies, in some recent studies, like the one of Cooray, (2011)²⁴. The hypothesis here is that the government consumption effect is positively associated with the Tobin's q .

METHODOLOGY

In this paper one can see that time series models and panel model had been used jointly. In the first section in order to see the long run coefficient and the causality between R&D and Tobin's q paper starts with the usual cointegration testing. From the cointegration test paper uses Johansen test for cointegration. This test it is well known that allows for more than one cointegration relationship. This approach is similar to augmented Dickey-Fuller test but it requires for VAR approach.

$$x_t = A_t x_{t-1} + \varepsilon_t; \quad (8)$$

¹⁹Acemoglu, D. (2008), *Oligarchic versus democratic societies*, *Journal of the European Economic Association*.

²⁰Barro, R. (1999), *Determinants of Democracy*, *Journal of Political Economy* 107(S6): 158-183.

²¹Barro, R. (1996), *Determinants of economic growth: a cross-country empirical study*, NBER Working paper.

²²Ghardallou, Boudriga (2006), *Financial Development and Democracy: Does the Institutional Quality Matter?*,

²³Yang, B., (2011), "Does democracy foster financial development? An empirical analysis", *Economic Letters*, 112, pp.262-265.

²⁴Cooray, A. (2011). The role of the government in financial sector development. *Economic Modeling*, 28 (3), 928-938.

$$\Delta x_t = (A_1 - idMATRIX)x_{t-1} + \varepsilon_t \quad (9)$$

$$\Delta x_t = v x_{t-1} + \varepsilon_t \quad (10)$$

$$v = (A_1 - idMATRIX) \quad (11)$$

So in Johansen cointegrating relationship IDmatrix is identity matrix, A_1 is a $g \times g$ matrix, x_t and y_t are cointegrating vectors. The rank of v is the number of cointegrating relationships. After one determines the number of cointegrating relationships, one can use VECM model to capture the long run relationship between variables in the model. Vector Error Correction Models (VECM) are the basic VAR, with an error correction term incorporated into the model and as with bivariate cointegration, multivariate cointegration implies an appropriate VECM can be formed. We are estimating the error correction mechanism by using the lagged residuals u_{t-1} .

$$\Delta Y_t = \beta_0 + \beta_1 \Delta X_t - \beta_2 (Y_{t-1} - C - \beta X_{t-1}) \quad (12)$$

Now the error correction mechanism is:

$$EC = Y_{t-1} - C - \beta X_{t-1} \quad (13)$$

In the cointegrating regression

$$Y_t = C + X_t + u_t$$

$$u_t = Y_t - C - X_t \Rightarrow u_{t-1} = Y_{t-1} - C - \beta X_{t-1} \quad (14)$$

u_{t-1} in the last expression represents error correction mechanism. And further in the second section there exist joint tests of IS-LM and IS-MP-IA framework with the tobin's q paper uses GMM estimation i.e. well known Arellano-Bond estimation technique. In order to capture the long run as well short run effect, paper uses level independent as well as lagged independent variable. In order to test for the validity of restrictions one can use Sargan test. Next for the panel data section, this paper uses panel unit root test first. This test is of Fischer type and it is based on the augmented Dickey-Fuller test. Null hypothesis is that all panels contain unit root, alternative is that at least one panel is stationary. Next, to the unit root test panel cointegration tests have being performed in order to test for the long run relationship of the variables in the model. These tests were based on Westerlund (2007)²⁵ procedure. Data used in this paper cover period from 1993 to 2011 for 12 countries²⁶.

JOHANSEN TEST FOR COINTEGRATION

This test²⁷ as noted before allows for more than one cointegrating relationship unlike Engle Granger, but it is a subject to asymptotic properties i.e. requires large sample²⁸. In this series of test for each country in the sample the null hypothesis is either $r(\Pi) = 0$ or $r(\Pi) = 1$ this depends on the power of the test. If there is evidence of cointegration, one can estimate the ECM using the lagged residuals u_{t-1}

²⁵Westerlund, J.(2007). Testing for error correction in panel data. Oxford Bulletin of Economics and Statistics 69: 709–748.

²⁶See Appendix 1 Definitions on some of the variables used in the models

²⁷Johansen, S., (1988), Statistical analysis of cointegration vectors, Journal of economic dynamics and Control

²⁸Though Johansen test for cointegration works and with not so small samples.

$$\Delta Y_t = \beta_0 + \beta_1 \Delta X_t - \beta_2 (Y_{t-1} - C - \beta X_{t-1}) \quad (15)$$

In the previous expression EC Mechanism $\equiv (Y_{t-1} - C - \beta X_{t-1})$. And in the cointegration regression one can get :

$$Y_t = C + \beta X_t + u_t \Rightarrow Y_t - C - \beta X_t = u_t \Rightarrow u_{t-1} = Y_{t-1} - C - \beta X_{t-1} \Rightarrow u_{t-1} \equiv \text{EC mechanism} \quad (16).$$

The results prove that for every country in the sample there exist one cointegrating relationship between Tobin’s q and knowledge absorption as proxy for R&D. The results are presented in the following table.

Table 1. Johansen test for cointegration

Country	Null hypothesis	Variables	Deterministic term	Lag order	Johansen Trace test		Decision
					Trace statistics	5% critical value	
Bulgaria	$r_c(\Pi) = 0$	$q_t, \text{knowledgeabsorption}_t$	Constant	1	16.6237*1	15.41	Reject the null hypothesis that cointegration rank is zero, and accept alternative that cointegration rank is 1
Croatia	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	1	3.7365*	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Czech Republic	$r_c(\Pi) = 0$	$q_t, \text{knowledgeabsorption}_t$	Constant	1	0.5846*	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Estonia	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	2	3.0070*	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Hungary	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	2	0.0367	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Macedonia	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	1	3.5754*	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Moldova	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	2	14.5442*	15.41	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Romania	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	2	13.3169*	15.41	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Russian Federation	$r_c(\Pi) = 0$	$q_t, \text{knowledgeabsorption}_t$	Constant	2	18.1933	15.41	Reject the null hypothesis that cointegration rank is zero, and accept alternative that cointegration rank is 1
Slovak Republic	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	2	0.97	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.
Slovenia	$r_c(\Pi) = 1$	$q_t, \text{knowledgeabsorption}_t$	Constant	1	1.16*	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.

							1.
Ukraine	$rc(\Pi) = 1$	$q_t \text{ knowledgeabsorption}_t$	Constant	2	1.8507	3.76	Insufficient evidence to reject the null hypothesis that cointegration rank is 1.

After one had determined the number of cointegrating relationship, the analysis can continue to the Vector Error correction model, i.e. determining long run coefficient between Tobin's q and R&D.

Table 2. VECM models

Country	Cointegration vectors	Interpretation of cointegrating vector
Bulgaria	$q_t = \begin{matrix} 0.62 \\ (-3.14) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.0062%
Croatia	$q_t = \begin{matrix} 0.077 \\ (0.96) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	t-stat lower than 1.61 proves that between knowledge absorption variable and Tobin's q do not exist cointegration relationship.
Czech Republic	$q_t = \begin{matrix} -3.42 \\ (2.89) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an decrease of the Tobin's q by 0.0342%
Estonia	$q_t = \begin{matrix} -2.23 \\ (9.10) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an decrease of the Tobin's q by 0.0023%
Hungary	$q_t = \begin{matrix} 14.70 \\ (-2.94) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.1470%
Macedonia	$q_t = \begin{matrix} 1.21 \\ (-4.47) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.0121%
Moldova	$q_t = \begin{matrix} -7.49 \\ (3.21) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an decrease of the Tobin's q by 0.0749%
Romania	$q_t = \begin{matrix} -1.60 \\ (3.11) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an decrease of the Tobin's q by 0.016%
Russian Federation	$q_t = \begin{matrix} 0.66 \\ (5.12) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.0066%
Slovak Republic	$q_t = \begin{matrix} -0.32 \\ (3.42) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an decrease of the Tobin's q by 0.0032%
Slovenia	$q_t = \begin{matrix} 0.079 \\ (3.34) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.00079%
Ukraine	$q_t = \begin{matrix} 0.06 \\ (3.24) \end{matrix} \log \text{knowledgeabsorption}_t + ec_t^{VECM}$	1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.00006%

Note: *** statistical significance at all levels of significance; ** statistical significance at 5%, * statistical significance at 10%

According to the results from the table, there exists positive association between Tobin's q and R&D in Bulgaria, the coefficient is positive 0.62 and significant at levels of statistical significance. In Croatia the coefficient is positive though is statistically insignificant. This proves that between R&D and Tobin's q there does not exist long run association. In Czech Republic marginal contribution of R&D to Tobin's q is negative. The coefficient is large -3.42, it means that on long run 1 percentage point increase in Royalty and license fees payments would decrease Tobin's q by 0.0342%. In Estonia the coefficient is also negative. For Estonia, one can conclude that 1 percentage point increase in Royalty and license fees payments would decrease Tobin's q by 2.23 %. In Hungary marginal contribution of knowledge absorption to Tobin's q is huge and the coefficient proves that 1 percentage point increase in R&D would lead to 0.1470% increase in the ratio between market value and re-

placement value of enlisted companies. In Macedonia, as the VECM model proves 1 percentage point increase in R&D investment would lead to 0.0121% increase in the Tobin's q of enlisted companies. In Moldova marginal contribution of R&D investment to Tobin's q is negative 1 percentage point increase in R&D investment lowers the q quotient by 0.049 %. In Romania 1 percentage point increase in R&D investment lowers the q quotient by 0.0160 %. In Russian federation 1 percentage point increase in R&D investment increase the q quotient by 0.0066 %.

In Slovak Republic 1 percentage point increase in R&D investment lowers the Tobin's q by 0.0032 %. In Slovenia 1 percentage point increase in the R&D investment leads to an increase of the Tobin's q by 0.00079%. In Ukraine 1 percentage point increase in payments for royalties and licence fees would lead to an increase of the Tobin's q by 0.0006%. So from the results the association between R&D investment and Tobin's q only in Croatia is not significant. So from the countries in sample in six countries the result is positive and in five countries the association is negative. In the countries where the sign on the coefficient is negative policy implication would be that the R&D policy should develop more, and that the current state of that policy is underdeveloped.

Or that this policy does not exist at all. In Czech Republic the funding system was also obsolete. So in general the result is inconclusive whether the investment in R&D affects positively on Tobin's q. This finding is consistent with the notion that there exist U-shaped association between R&D intensity and firm value i.e. there exist diminishing marginal return to each unit of money spent on R&D, Huang, Liu (2006)²⁹. In the next table are published the results for the average Tobin's q for selected countries in the sample. Tobin's q is derived in a following way:

$$\text{Tobin's } q = \frac{\text{Market value of the installed capital}}{\text{Replacement cost of the capital}} = \frac{\text{Market capitalization of listed companies}}{\text{Adjusted savings: consumption of fixed capital}} \quad (17)$$

²⁹Huang, C. J., & Chun J. L. (2006). Exploration for the Relationship Between Innovation, IT and Performance, *Journal of Intellectual Capital* 6(2): 237-252

Year\Country	Bulgaria	Croatia	Czech Republic	Estonia	Hungary	Macedonia
1993	n.a.	n.a.	n.a.	n.a.	0.90	n.a.
1994	0.87	n.a.	0.976675	n.a.	0.93	n.a.
1995	0.76	0.91	1.01	n.a.	0.94	n.a.
1996	0.71	0.98	1.02	n.a.	0.98	0.90
1997	1.02	1.00	1.00	1.03	1.02	0.79
1998	0.96	0.99	1.00	0.99	1.02	0.79
1999	0.95	0.98	1.00	1.05	1.03	0.79
2000	0.95	0.99	1.00	1.05	1.02	0.79
2001	0.96	0.98	0.99	1.03	1.01	0.88
2002	0.99	0.99	1.00	1.05	1.01	0.94
2003	1.00	1.00	1.00	1.06	1.01	0.96
2004	1.02	1.01	1.01	1.07	1.03	0.96
2005	1.04	1.03	1.02	1.03	1.03	0.98
2006	1.07	1.06	1.02	1.05	1.04	1.00
2007	1.02	1.09	1.03	1.04	1.04	1.03
2008	1.01	1.04	1.01	0.98	0.99	0.97
2009	1.00	1.05	1.01	0.99	1.01	0.97
2010	1.01	1.05	1.01	0.99	1.01	0.96
2011	1.02	1.05	1.00	0.96	1.00	0.95

Table 3. Tobin's q for the selected countries in the sample³⁰

Year\Country	Moldova	Romania	Russian Federation	Slovak Republic	Slovenia	Ukraine
1993	n.a.	n.a.	0.68	n.a.	n.a.	n.a.
1994	n.a.	0.81	0.77	0.95	0.93	n.a.
1995	n.a.	0.84	0.93	0.94	0.89	n.a.
1996	0.93	0.81	0.97	0.96	0.92	n.a.
1997	0.95	0.92	1.03	0.95	0.96	0.96
1998	0.94	0.93	0.97	0.92	0.98	0.88
1999	0.94	0.93	1.05	0.92	0.98	0.93
2000	n.a.	0.91	1.03	0.93	0.99	0.95
2001	n.a.	0.94	1.05	0.94	0.99	0.93
2002	n.a.	0.96	1.06	0.94	1.01	0.97
2003	n.a.	0.96	1.08	0.95	1.02	0.98
2004	n.a.	0.99	1.08	0.96	1.03	1.01
2005	n.a.	1.00	1.10	0.96	1.02	1.04
2006	n.a.	1.02	1.12	0.96	1.04	1.06
2007	n.a.	1.02	1.12	0.97	1.06	1.09
2008	n.a.	0.98	1.06	0.95	1.02	1.02
2009	n.a.	1.00	1.10	0.95	1.02	1.01
2010	n.a.	1.01	1.10	0.94	1.01	1.04
2011	n.a.	0.98	1.09	0.94	0.99	1.01

Table 4. Continued Tobin's q for the selected countries in the sample

³⁰See also Appendix 2 Market capitalization of firms in stock markets in CESEE countries

From the tables one can see that the average Tobin's q quotient for the selected countries move s around 1, i.e. the market value is almost equal to replacement value of capital. Next, in a table descriptive statistics of some of the variables it has been published.

Table 5. Descriptive statistics of the variables in the model

Variable	Mean	Standard deviation	Minimum	Maximum	Observations
Tobin's q					
overall	0.823819	0.372374	0.0	1.286.911	N = 228
between		0.230658	0.2	1.042.841	n = 12
within		0.299463	-0.2	1.591.731	T = 19
R&D					
overall	562.848	0.290129	5.0	6.013.715	N = 228
between		0.097486	544349.0	5.747.852	n = 12
within		0.274636	4884992.0	6.068.262	T = 19
Government consumption					
overall	9.085.602	2.535.866	4.8	19.28	N = 216
between		211.436	5351111.0	1.389.778	n = 12
within		1.521.047	5725602.0	155.806	T = 18
Inflation					
overall	4.840.662	1.823.138	6.7	91.2	N = 216
between		1.370.293	2878222.0	7.357.944	n = 12
within		1.262.774	1501717.0	8.119.662	T = 18
Log Real GDP					
overall	9.111.734	0.660963	7290968.0	1.020.836	N = 216
between		0.649226	7568224.0	9.897.315	n = 12
within		0.220691	8587443.0	9.579.037	T = 18
Investment					
overall	0.085839	0.272361	-1.0	0.811422	N = 216

between		0.036422	0.0	0.135191	n = 12
within		0.270109	-1.0	0.785633	T = 18
Interest rate					
overall	3.197.315	1.039.439	492849.0	1443.61	N = 221
between		2.371.037	8687191.0	8.870.354	n = 12
within		101.359	-4739956.0	1386.88	T-bar = 18.4167
Log of M2					
overall	3.695.929	0.475326	2424803.0	4.422.449	N = 225
between		0.310588	3355081.0	4.150.556	n = 12
within		0.371439	2765651.0	4.643.561	T = 18.75

From the above table one can see that the average value of Tobins'q overall is 0.82. The other variables statistics is presented in the table. In the descriptive statistics table also information are available for interest rate, monetary aggregate M2, investment and logarithm of real GDP, as well as inflation. Next in a table are presented results from panel unit root test.

Table 6. Panel Unit root test Fisher test Based on Augmented Dickey Fuller

Ho: All panels contain unit roots	Ha: At least one panel is stationary	Statistic	p-value	Decision	transformation required
Tobin's q	Inverse chi-squared(24) P	387,2395	0.000	Accept alternative hypothesis: At least one panel is stationary	none
R&D	Inverse chi-squared(24) P	694.394	0.000	Accept alternative hypothesis: At least one panel is stationary	none
Inflation	Inverse chi-squared(24) P	391.261	0.0265	Accept alternative hypothesis: At least one panel is stationary	Cross-sectional means removed
Log of Real GDP	Inverse chi-squared(24) P	523.633	0.0007	Accept alternative hypothesis: At least one panel is stationary	Cross-sectional means removed
Government consumption	Inverse chi-squared(24) P	512.302	0.001	Accept alternative hypothesis: At least one panel is stationary	none

Logarithm of M2	Inverse chi-squared(24) P	473.332	0.003	Accept alternative hypothesis: At least one panel is stationary	Cross-sectional means removed
Lending interest rate	Inverse chi-squared(24) P	235.156	0.000	Accept alternative hypothesis: At least one panel is stationary	none
World interest rate	Inverse chi-squared(24) P	81.178	0.000	Accept alternative hypothesis: At least one panel is stationary	none
Investment	Inverse chi-squared(24) P	130.767	0.000	Accept alternative hypothesis: At least one panel is stationary	none

From the above table one can see that in all cases with every variable one can reject the null hypothesis of unit root and accept alternative that at least one panel is stationary. Some variables ask for removal of cross sectional means otherwise no transformations are necessary.

In the next table are reported results for the panel cointegration test. Westerlund (2007)³¹ test uses the following specification:

$$\Delta y_{it} = c_i + a_{i1} * \Delta y_{it-1} + a_{i2} * \Delta y_{it-2} + \dots + a_{ip} * \Delta y_{it-p} + b_{i0} * \Delta x_{it} + b_{i0} * \Delta x_{it-1} + \dots + b_{ip} * \Delta x_{it-p} + a_i (y_{it-1} - b_i * x_{it-1}) + u_{it} \quad (18)$$

The speed of convergence in the ECM mechanism is :

$$y_{it} = - \left(\frac{b_i}{a_i} \right) * x_{it} \quad (19)$$

G_a and G_t statistics test $H_0: a_i = 0 \forall i$ and $H_1: a_i < 0$ for at least one i . The Pa and Pt test statistics pool information over all the cross-sectional units to test $H_0: a_i = 0 \forall i$ and $H_1: a_i < 0$ for all i

Table 7. Panel cointegration test Westerlund (2007) specification

³¹Westerlund, J. 2007. Testing for error correction in panel data. Oxford Bulletin of Economics and Statistics 69: 709–748.

From the above table on can see that tobin's q is cointegrated with all of the variables. Of special importance is the notion that there is clear evidence of cointegration between tobins'q and R&D.Thus, there exist evidence of the long run relationship between innova- tions and Tobin's q.

Next, in a table is presented augmented model with democracy related variables and economic variables. Model specification is as follows:

$$q_{it} = C + \beta_0 \log R\&D_{it} + \beta_1 \log R\&D_{i(t-1)} + \beta_2 FHPR_{it} + \beta_3 FHPR_{i(t-1)} + \beta_4 FHCL_{it} + \beta_5 FHCL_{i(t-1)} + \beta_6 \pi_{it} + \beta_7 \log GY_{it} + \beta_8 \log GY_{i(t-1)} + \varepsilon_{it} \quad (20)$$

Table 8.Democracy and economic variables related with Tobin's q

Dependent variable variables	Tobin's q				Model 1		Model 2		Average AIC selected lag and lead lag length
	model set up	constant	trend	Gt	Ga	Pt	Decision: Coefficient (statistical significance)	reject null	
Dependent variables Lag(1)	lags(1 3) leads(0 3) Irwindow(3) westerlund	<input type="checkbox"/>	<input type="checkbox"/>	0.0000	0.0001	0.554***	0.0000	0.571***	2.08 and 2.83
Logknowledge absorption Log of M2 Lag(1)	lags(1 3) leads(0 3) Irwindow(3) westerlund	<input type="checkbox"/>	<input type="checkbox"/>	0.0000	0.0510	0.152*** -0.0680 -0.036	0.1780	0.163***	2.5 and 2.08
PHPR Freedom house political rights Lag(1)	lags(1 3) leads(0 3) Irwindow(3) westerlund	<input type="checkbox"/>	<input type="checkbox"/>	0.0000	0.0000	0.018*** 0.0000 -0.010	0.0000	0.005	2.17 and 2.58
PHCL Freedom house civil liberties Lag(1)	lags(1 3) leads(0 3) Irwindow(3) westerlund	<input type="checkbox"/>	<input type="checkbox"/>	0.0000	0.896	0.0000 -	0.0000	0.010**	2.5 and 2.08
tobin's q- investment Lag(1)	lags(1 3) leads(0 3) Irwindow(3) westerlund	<input type="checkbox"/>	<input type="checkbox"/>	0.0000	0.065	-0.0000 0.0034	0.0130	0.001	2.5 and 1.67
tobin's q-log natural output (centered+ moving average with 5 interval) Lag(1)	lags(1 3) leads(0 3) Irwindow(3) westerlund	<input type="checkbox"/>	<input type="checkbox"/>	0.0000	0.0000	0.028* 0.0000 -0.001	0.0000	0.018	2.25 and 2.5
C	Constant					-0.640		-0.575	
Arellano-Bond test for AR(1) in first differences ;p-value						0.0331		0.0308	
Arellano-Bond test for AR(2) in first differences ;p-value						0.2112		0.6947	

Dependent variable	log of Real GDP per capita(logRGDP _{it})	Model 1(Coefficient significance)	Model 2(Coefficient significance)
Dependent variables Lag(1)		0.8013***	0.644***
q	Market value/replacement value	0.0223*	0.005
Lag(1)		0.0114	0.005
logGY _{it}	Log of government consumption	-0.1048***	-0.092***
Lag(1)		-0.0078	0.047***
logCY _{it}	Log of private consumption	-	0.515***
Lag(1)		-	-0.297***
Logπ ^e _{it}	Log of expected inflation	-0.0341	-0.034*
Lag(1)		-0.0354	0.001
logER ^e _{it}	Expected exchange rate, log	-0.0156	-0.010
Lag(1)		0.0520*	0.075***
R ^w	World interest rate =US federal funds rate minus PPI	-0.0020***	-0.001
Lag(1)		-0.0014***	-0.001***
Y ^w	World output ,log	0.8536***	0.247*
Lag(1)		-0.6041***	-0.096
Constant		-0.5363	-3.634
Sargan test H ₀ : overidentifying restrictions are valid ;p-value		0.0000	0.0315

Note: *** statistical significance at all levels of significance; ** statistical significance at 5%, * statistical significance at 10%.

Romer (2000)³², proposed an alternative to the IS-LM model and AS-AD model. This model makes assumption that Central banks in the world follow interest rate rule rather than targeting money supply. This model is known as AD-IA, or aggregate demand inflation adjustments model. So this model uses expected inflation, that is inflation lagged once, when one makes inflation adjustment. In the Romer's approach aggregate demand relates to output and inflation. According to Romer (2000), target rate equals to last period inflation $\pi_t^* = \pi_{t-1}$.

This assumption also means that inflation rises when output is above its own natural rate, and inflation falls when output is below its natural rate. Dependent variable in the IS-MP-IA model is logarithm of Real GDP. Tobin's q is positively and statistically significantly associated with the logarithm of real GDP when private consumption is not in the model. Government consumption is negatively associated with the logarithm of real GDP, which means that for these countries fiscal prudence is needed. Expected exchange rate is positively associated with logarithm of real GDP lagged once (on short run). World interest rate is negatively associated with the logarithm of real GDP. Lagged once coefficient is even more significant for this variable. World out is positively associated with the logarithm of real GDP on long run, and lagged once is negatively associated, though in the second models is insignificant. Expected inflation is negatively and statistically significantly associated with the logarithm of real GDP in the second model on long run. Government consumption is not in-

³²Romer, D.,(2000),*Keynesian macroeconomics without the LM curve*, *Journal of Economic Perspectives*—Volume 14, Number 2—Spring 2000—Pages 149

significant in the presence of private consumption, so one can conclude that for these countries Ricardian equivalence does not hold. For a graphical depiction of these models see Appendix 2³³.

CONCLUSION

From this paper we concluded that there exist positive and statistically significant relationship between Tobin's q and investment in R&D, or as we name it, knowledge absorption, according to the Global Innovation Index 2012³⁴. This is one of important conclusion from this paper. Second, conclusion is that on average higher level of democracy does induce more positive stock market outcomes. This means that higher level of democracy thus induce higher ratio of Tobin's q. Government consumption is positively associated with the average Tobin's q. Cointegration tests by country prove the positive association between R&D investment and Tobin's q for 6 countries. Also, panel cointegration tests prove that Tobin's q does have long run relationships with the following variables: R&D, logarithm of M2, Freedom house political rights and civil liberties, investment, and logarithm of natural output. Tobin's q was tested in the IS-LM framework and in the more recent IS-MP-IA model and the results were as expected. From the results in the IS MP IA model also, relatively low world real interest rates and the expected world economic recovery would help increase real GDP whereas expected real depreciation of the national currencies of the countries in the panel would have negative effect on the real GDP. The estimation results suggest that the change of the effective exchange rate affects output positively (lagged once), while the change of the world interest rate affects output negatively or it does not affect the output at all, i.e. that variable is insignificant.

Appendix 1. Definitions on some of the variables used in the models

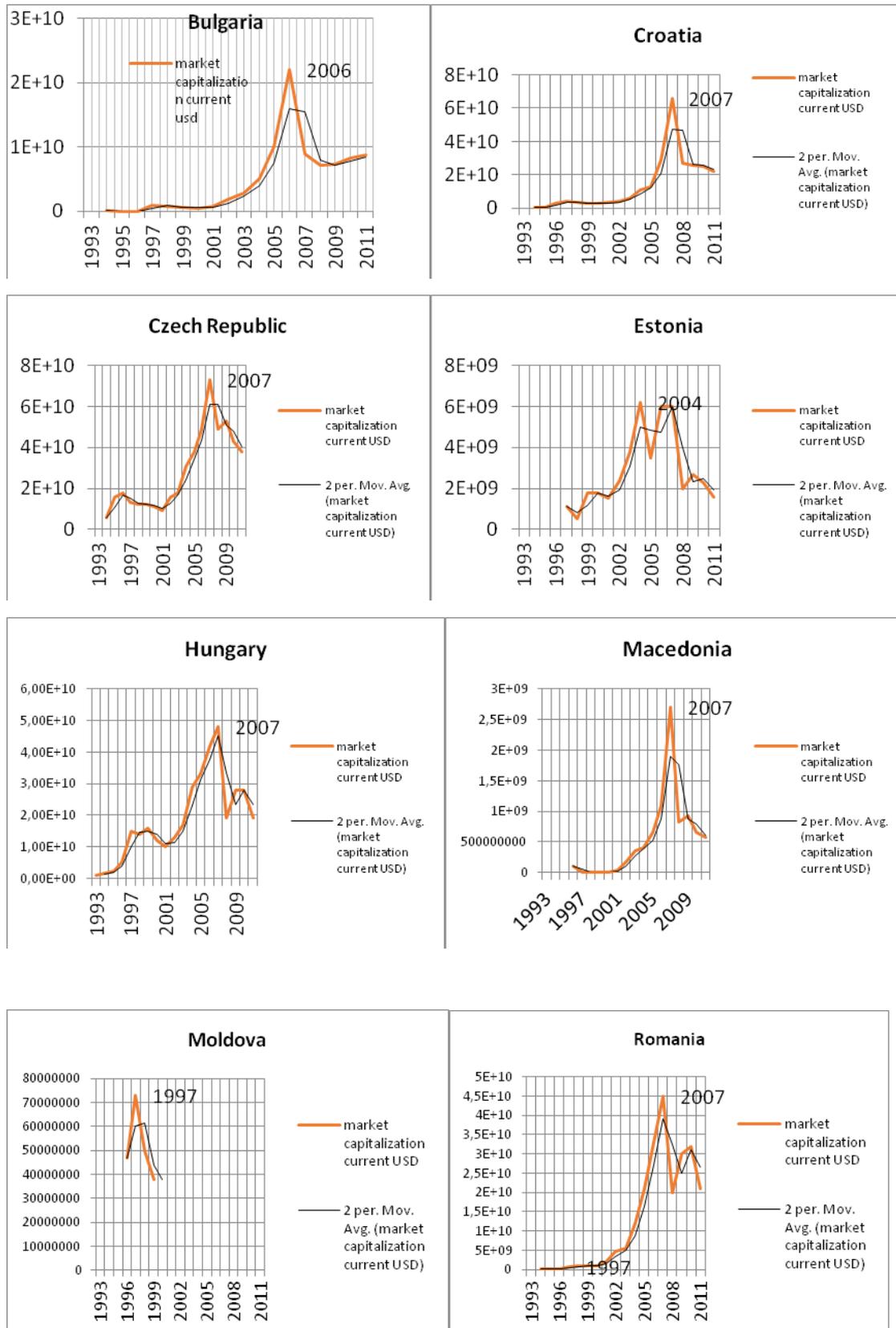
Name of the variable	Variable label
Market capitalization of listed companies (current US\$) (also known as market value)	Market capitalization (also known as market value) is the share price times the number of shares outstanding. Listed domestic companies are the domestically incorporated companies listed on the country's stock exchanges at the end of the year. Listed companies does not include investment companies, mutual funds, or other collective investment vehicles. Data are in current U.S. dollars.
Adjusted savings: consumption of fixed capital (current US\$) (Replacement value)	Consumption of fixed capital represents the replacement value of capital used up in the process of production.
Royalty and license fees, payments (BoP, current US\$) (knowledge absorption)-(R&D)	Royalty and license fees are payments and receipts between residents and nonresidents for the authorized use of intangible, nonproduced, nonfinancial assets and proprietary rights (such as patents, copyrights, trademarks, industrial processes, and franchises) and for the use, through licensing agreements, of produced originals of prototypes (such as films and manuscripts). Data are in current U.S. dollars.

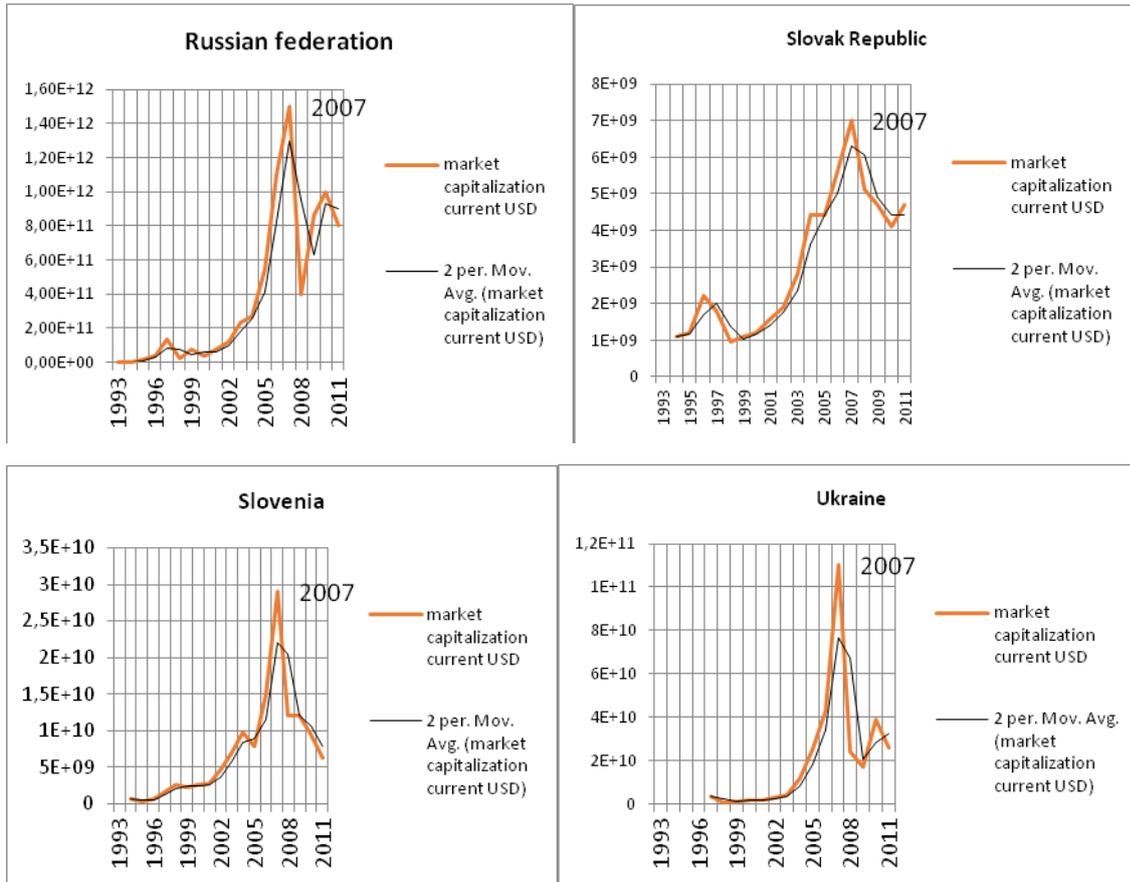
³³Appendix 3 R&D and Tobin's q, democracy and Tobin's q and IS-LM model

³⁴<http://www.globalinnovationindex.org/gii/>

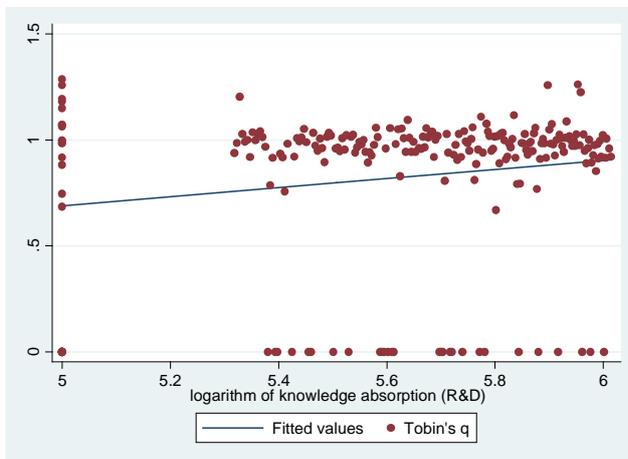
Freedom house political rights (FH_PR)	Since 1972 (1978 in book form), Freedom House publishes an annual report, Freedom in the World, on the degree of democratic freedoms in nations and significant disputed territories around the world, by which it seeks to assess the current state of civil and political rights on a scale from 1 (most free) to 7 (least free).
Freedom house political rights (FH_PR)	Since 1972 (1978 in book form), Freedom House publishes an annual report, Freedom in the World, on the degree of democratic freedoms in nations and significant disputed territories around the world, by which it seeks to assess the current state of civil and political rights on a scale from 1 (most free) to 7 (least free).
Government consumption (gov.cons) (% of GDP)	General government final consumption expenditure (formerly general government consumption) includes all government current expenditures for purchases of goods and services (including compensation of employees). It also includes most expenditures on national defense and security, but excludes government military expenditures that are part of government capital formation.
Inflation (annual %)	Inflation as measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency.
World interest rate	World interest rate is derived when US Federal funds rate is subtracted by the Producer Price Index in US manufacturing, which proxies for US inflation. This variables proxies for monetary policy conditions, same as exchange rate does. Data on US federal funds rate and US Producer Price Index for all commodities (which served for world interest rate derivation) are obtained by the FRED (Federal Reserve Bank of St.Louis) data base
World output	World output production of world GDP

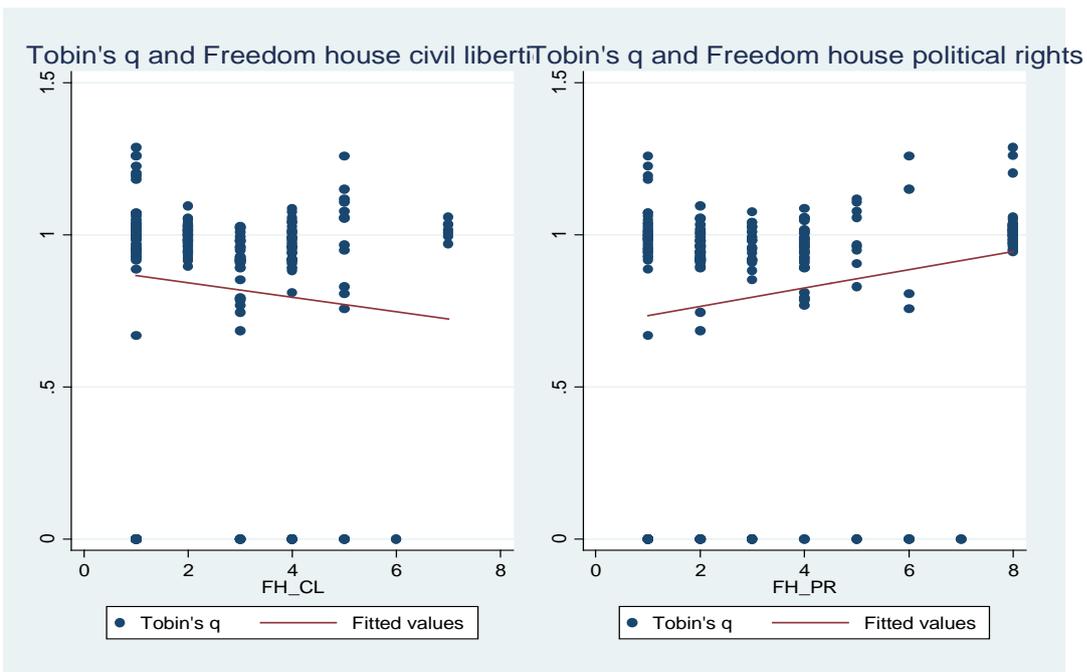
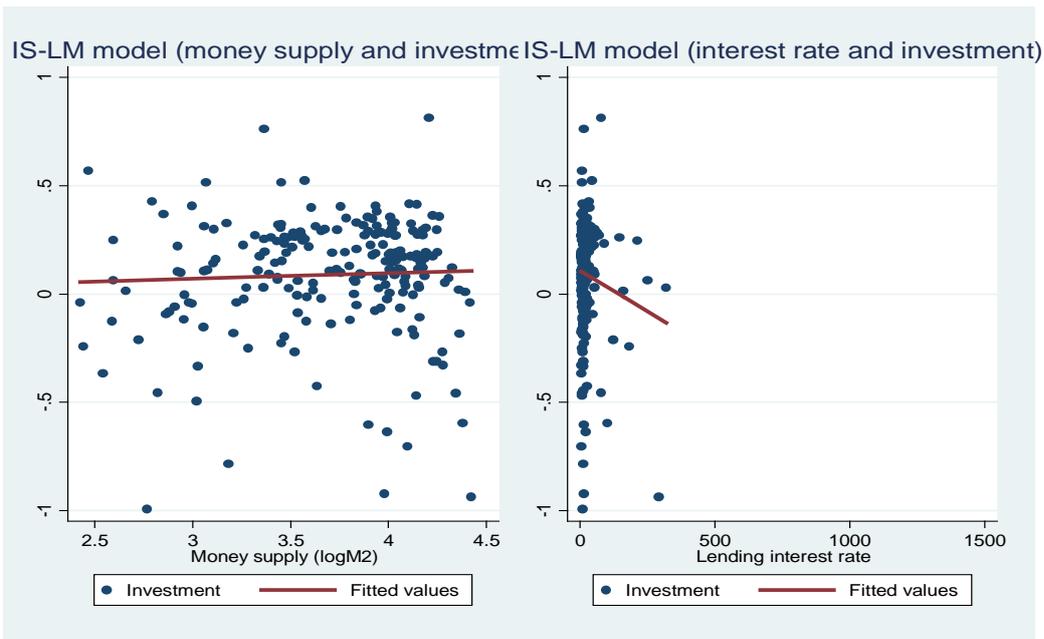
Appendix 2. Market capitalization of firms in stock markets in CESEE countries





Appendix 3. R&D and Tobins'q ,democracy and Tobins's q and IS-LM model





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**IMPACT OF THE CLOUD COMPUTING IN RESOLVING OPERATIONAL,
TACTICAL AND STRATEGIC ISSUES IN SME'S (CASE STUDY OF DONIA DOO -
FOOD PROCESSING COMPANY)**

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Abstract

Internet technologies at this point are a prerequisite without which you can not imagine the functioning of certain modern companies and their communication within the company, with the market and the world. The cloud technology ie the cloud computing technologies as the latest way to using the Internet as a technology are a step forward in modernizing the work of companies, in their access to information and assistance offered by these technologies in the everyday processes, information flow and also the decision making.

The speed of accessing certain key information by the management and their modeling in the information input when making certain decisions and solutions make the cloud computing and the cloud application an ally that is subtle and information unlimited for every manager. The knowledge of these technologies, or the knowledge of the way in which they can be used in their everyday work in companies means strengthening the strategic potential of a company on the market.

The paper is a case study for an actual example of using the Google cloud technology and the tools it offers for the operation in Donia - food processing company. The main aim is to recognize the positive aspects of the implementation of cloud technology in the real and daily operations and the contribution it provides for the adoption of better and more objective decisions by management and actual information flow in real time.

At the end of the paper will be presented the company main advantages gained by using free Google cloud computing in the SME's.

Additionally, the fact that most of the tools referred to in the paper are free and opened for modification increases even more their importance and potential for companies.

Keywords: SME's, cloud technology, ICT, decision, Google

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INTRODUCTION

On the global market today there are too many variables in terms of processes, data and information, hence to make the right and timely strategic decisions, it is essential to consider a lot of information, beliefs, perspectives and concepts. Decision making is an essential aspect of modern management. It is the primary function of management. Decision making is a part of all managerial activities. When decisions are made, then the management should ensure that they will be directed to supporting the organization's goals, not the goals of a particular manager or the management team. Hence there is no longer a dilemma whether you should accept the latest technological advancements. Namely, as businesses evolve and change one of the main tasks of ICT is to support and to offer solutions which allow companies to timely respond to changes. The restructuring of businesses from local into global, the applications, services and products become more complex, and the ICT is placed in a constant transition. Such is the case with the cloud computing ... It is a revolutionary way of thinking, or it is a universe of servers on which applications can be built. It is a world of services that can be used to make new things. Business innovation already incorporates the process for the research and review of new ideas or new business models, collaboration, workforce transformation, alternative approaches to the development of products by using new technologies. The dilemma is how we, as individuals, and companies, as entities may follow the pace of technological development and the inclusion of technology in all procedures, programs and processes. The economic Darwinism may soon be redefined into technological Darwinism. Those who possess the best technology, in fact, can easily adjust and can be certain that they will survive in the business world. The aim of this is to present a realistic example of how technology can quickly and almost free of charge be implemented in companies and that they have real improvements in performance.

AIM OF THE STUDY

The purpose of the case study is an analysis of the justification of the use of the cloud technology in small and medium-sized companies that are a kind of drivers of economic development. Cloud technology, as an innovation in recent years, and its application by organizations in achieving a competitive advantage, is a particularly interesting topic for research. The models for decision making are also an important segment when we want to make proper, timely and objective decisions. When you are faced with chaos, we always look for ways to make it structured, make it clearly visible, or at least get a general view of the whole situation. The models help to reduce the complexity of the situation by allowing to disregard most of the less important facts and focus on what is most important. A prerequisite for the adoption of relevant decisions is information in the appropriate quantity which the company has, and the access to them. All this contributes to a greater competitive advantage of the company in a globalized and complex world of business practices. However, in R. Macedonia this technology, its usage and its impact on the organizations there is very little interest. That is why this research is a step forward in that direction, a real example is considered of the use of this technology by a small and young company in the Republic of Macedonia, whereby the impact of the implementation of this technology in the company "Donia" -doo from Prilep is analyzed. To analyze the justification of the use of cloud technology in this company several segments of its operations are taken into consideration. The decision making and the operating mode is compared, i.e. the decision making before and after the implementation of an intranet portal which, itself, is a sublimation of the Google cloud tools. The idea is to show that the

implementation of new technologies can be made with very little cost and with evident improvement and optimization of the various segments of operation.

DESCRIPTION OF THE COMPANY



"Donia" LLC is a relatively young company that started operations thirteen years ago, with little capital and an idea to offer the consumers a quality product with appropriate price, starting with the production of traditional - oriental products. At this point, one can list over 150 products produced in the company, and many of them can already be found not only on the domestic, but also on the markets in Europe, USA, Canada and Australia. As a company characterized by a rapid adaptability, innovation and implementation of global trends not only in improving the quality and range of products it offers, but also in the company culture and the environment in which it operates. The company is proven by the implemented standards: ISO 22000, HACCP, GLK IFS and ISO 9001. By following the trends of companies in the world and implementing modern practices in its operations "Donia" has won numerous awards in the field of human resource development and corporate social responsibility, and we can say that "Donia" is a pioneer in the area of these segments in the Republic of Macedonia. Accordingly:

- *the mission* of the company is achieving satisfaction among customers with products that offer: satisfaction, quality and reliability;
- *the company's vision* is to be one of the leading manufacturers in the food industry in the region.

DESCRIPTION OF THE MOST COMMON PROBLEMS IN THE COMPANY

Since the company started working just thirteen years ago, "Donia" has undergone a very large growth and development in each segment of its operations. Growth, in turn, means changing the structure, processes, the ways of working and the group dynamics of the entire company. Namely, as an illustration, in 2005, the company had only 30 employees at the end of 2013 "Donia" LLC employed about 200 people. Overall, the problems that arise occasionally are generated by the speed of growth and changes that pass through the company in recent years, and are related to the environment and the changing working conditions. The problems that the company has faced, have had various manifestations in different parts of the operations, i.e. in different sectors of the company. Here is a list of the most common problems that the staff and management team of the company have faced:

- poor communication or "noise" in the communication among the various levels of management (horizontal and vertical);
- dissemination problems related to the daily information on different employees;
- lack of well-defined channels for communication between the employees;
- poor control of the manufacturing processes;
- blurred quality control;
- difficult access to key information required for decision-making at work;
- long time for getting certain necessary information;

- the unbreakable link between the workplace with the underlying documentation and the information from the local server;
- poor control of the employees;
- few reports needed for objective monitoring of the company;
- poor training of a part of employees to using ICT;
- inability to access certain information outside the company;
- weak or absent access for employees to content necessary to develop the knowledge and skills needed for improvement;
- long time for introducing new employees in the work process;
- lack of a system for evaluating employees;
- lack of system for recruitment of staff;
- absence of analysis of the customers, suppliers, competition;
- weak or non-existent communication with consumers;
- absence of a research and development department, as a function of the company;
- long period for obtaining information for the development of new products;
- lack of basic analysis of the markets, products, customers, basic materials, consumers, etc.;
- intuitive and non-analytic and decision making;
- lack of models and tools for decision-making;
- poor planning of resources in the company;
- lack of quantitative performance indicators;
- subjectivity in the assessment of certain situations;
- complicated way of making orders and a great loss of time;
- weak control over resources in the company, especially the ones not physically present in the company;
- the need for physical presence to hold meetings with some of the staff (who physically are not in the company) ... etc.

We can conclude that the company faced a number of problems that are the results of a fast and dynamic change in the operation, and internally within the company and externally on the market. The management team, in a lack of information, resources or tools to control these problems, mainly solved them impulsively with improvising certain processes and models for decision. Decisions often were passed with only a superficial analysis of the limited information under the pressure of time.

SUMMING UP AND DEFINING THE KEY ISSUES

In summing up the problems, i.e. their genesis, together with the part of the management, an assumption arose that they, for the most part, are a consequence of the following five reasons:

1. Poorly defined channels of communication between the management and the employees. Poorly defined channels of communication between the management and the other employees, resulting in insufficiently clear information, requirements and tasks, or "noise" in the communication. The bad communication is reflected on the clarity of the delegated tasks, the way and the time to correct certain activities and the like.

2. Undefined key documents, information and models for making decisions.

The undefined key documents, information and models that are required to make decisions, by themselves, cause a great loss of time and resources to prepare, submit and to implement the decisions based on them. The lack of decision-making models, on the other hand, usually means preference of unprogrammed or intuitive decisions which, to a large extent, can be bad and reflect seriously on the current situation of the company, its resources, the retention or loss of competitive advantage that the company has on the market. The large number of errors also reflects on the need for independence of the middle management's decision making. A consequence of this is the mistrust in the decisions being made and the management, and it negatively affects the organizational culture and leadership in the company;

3. Lack of tools for monitoring the processes and the employees. Processes and employees often are intertwined and complement each other. To be able to manage something one has to quantify it. The detailed division of tasks, business processes and their quantification is a major step forward in managing them. The quantification process significantly reduces the subjectivity in making certain decisions or analyzes of certain processes.

4. Slow or inadequate feedback from employees in terms of tasks or activities. Making the right decision is just part of the process for implementing activities that will contribute to quality in the operations. If you just take a good decision, and can not properly delegate, coordinate and control it, there won't be a quick feedback, then the opportunities to get the expected results are very small.

5. lack of access to information when the employees are out of the office or after work. Communication i.e. getting timely information is an important factor in decision making. As a process, it means engaging at least two parties that communicate. The trend of modern business and the balance of private and professional life which the socially conscious and modern companies aspire to is something that dictates the way of transformation of the workplace and the relation to the functioning of the companies in the world in general. Cloud technology allows this time and space distance to be quickly and efficiently solved with new achievements and it can contribute to the timely information availability and a better balance between private and professional life.

SUGGESTIONS FOR SOLVING KEY PROBLEMS

The key to solving the problems is setting up a concept, by the company, to address the priorities of individual problem situations. This was achieved by appointing a person (depending on the sector to which the solutions are related) responsible for analyzing, documenting and following the problems and situations in each sector, summarizing the problem-situations and creating a timeline for the activities that will contribute to solving the problems. Hence, initially the problems facing each sector were recorded, then the documentation i.e. the information that are most commonly used and the decisions that are made in this particular sector were recorded too. After defining them, all necessary information, documents, the process of their creation and the selecting were collected. Through the use of the cloud tools for which the creator was informed, a trial solution for the main problems for every sector was offered. In this context, the portal was created with a dozen reports and a small number of tools for communication and monitoring of resources in the company. Next, people were assigned who would create and perform the necessary input of data for the database that would later be modified and applied widely. The initial version of the portal, because of the institutional layout of the tools and the solutions, in a record time, was accepted by the wider part of the administration and the

management team. The creation and use of the intranet portal reflects on the transparency in the operations of the company, the transparency of communication, and the way decisions are made. In recent years the portal has undergone significant changes, in the structure, the information it provides, and the way of its usage. Specifically, some of the tools offered by Google, with time have been modified and amended. It all takes place in a parallel with the changing of the company structure, the processes and the organizational culture that influences it.

IMPLEMENTING SOLUTIONS AND THE DIFFERENCES BEFORE AND AFTER THE USE OF THE INTERNET PORTAL

As the employees were informed about a solution which at the time was not implemented by any company and telling them that it would solve a great deal of their problems and make them more productive, they became more motivated to accept it. Given the fact that each of them, depending on their needs, can be an initiator in the creation of additional features, created an effect of curiosity and the opportunity to be a part of what will be seen as an innovation in the operations. The short training related to the usage of the Drive applications or at that point Google Docs, also contributed to securing the ground that would reduce the chances of a slow implementation of this solution.

When a group makes the decision as opposed to a single individual, implementation of the decision will be easier, because group members will be invested in the decision. Particularly if the group is diverse, better decisions may be made. Everyday conversations with some of the staff about what frustrates them most or what is the most time consuming and the promotion of the idea that the solution will overcome much of the identified problems also contributed to the active involvement of its employees in the implementation. It is recommended for managers to focus on a process that avoids and reduces the reactive decisions and prefers creative thinking when making decisions. The basis of this recommendation is for managers not to try to rationalize the cognitive process, but to try to understand the real decision-making in a world of uncertainty. Unfortunately, most of the managers use the basic approach and finding a satisfactory solution rather than the best solution. Due to this assumption, most individuals are concerned with the selection and implementation of satisfactory alternatives rather than optimal ones. In essence, they satisfice rather than optimize. All changes were communicated to all who use the intranet portal. It kept the interest of the employees in enriching the contents and functions. Another also important factor for the successful implementation was that the solution was made by the management, and therefore the biggest obstacle to the implementation of innovation and a rejection by the management was reduced to a minimum. For a summary of this case study the determination of the company to react to newly created conditions and the willingness of the team directly involved in seeking such solutions, responding to changes and quickly implementing solutions and tools that have not been used in company should be noted. An important fact is that the intranet portal and the use of cloud tools was done by a person who is part of the management of the company. It further indicates the dimension of the management as a catalyst in the implementation and acceptance of new solutions and ways of working. Creating a portal by the manager of the company rejects further opportunities for misunderstandings or poor communication related to the explicit display of the needs of the company, and an objective view of the processes and the like. Watch a preview of the changes to which the implementation of the intranet portal or use the free Google cloud tools contributed.

Table 3.1 before and after the introduction of intranet

Before introducing the intranet	After introducing the intranet
Poor communication, or "noise" in the communication among the various levels of the management (horizontal and vertical)	The delegation of duties is made in writing, which reduces the space for a bad interpretation of the tasks and misunderstanding
Problems with dissemination of daily information for various employees	The information are available in a written form at all time, from any device that has Internet access, and everyone has access to it
Lack of well-defined channels of communication between the staff	Each sector has a separate document for the exchange of information and a special access to it is delegated
Poor control of manufacturing processes	Fully controlled checkpoints for each process and analysis of the problems that occur often, the people who recorded them etc.
Unclear quality control	Quantified and explicitly described processes and overall access to the information at any time and from anywhere
Difficult access to key information for making decisions during operations	Defined commonly used information, their availability on the intranet and granted access to those who use them
Long time to get the necessary information	Most needed information is defined and access to them is independent of the job or the working hours
The basic information and documentation are related to one place	Access to basic documentation, regardless of place or time
Weak control over employees	Precisely defined procedures for every workplace and access to the procedures, regardless of the time and place of the person who needs them. Defined model for evaluating the performance and track record
Few reports needed for objective monitoring of the company	Defined basic reports on each sector, their placement on the portal and provided access to them
Poor training of the staff to use ICT	Trained users to use the intranet portal
Inability to access certain information outside the company	Provided easy access to the most important information from anywhere
Weak or inappropriate access to contents employees need to develop the knowledge and skills needed for job advancement	Know-how content created, links to content that increase the skills and knowledge of employees

A long period of introduction of new employees in the work	Reduced time to introduce employees to work
Absence of a system for evaluating employees	Created the model for the evaluation of the performance and developed a way to measure performance and access of all persons to whom such information is of interest
Lack of system for recruitment of employees	Created on-line tests, a different approach to them, reduced time for decision making about hiring staff, an on-line database of applications
No analysis of customers, suppliers and competitors	Created an on-line database with basic information about the opinions of buyers, customers and suppliers. Access to the results, independent of the time and location
Poor or inadequate communication with consumers	Created newsletter for informing consumers about information relevant to the operation of "Donia" and its products
Lack of research and development, as an activity in the company	Form a base for setting up the necessary information and documents about the sector and the collaboration among all involved
Long period of development of new products	Reduced period for the development of new products through proper communication between all involved in the development process and the development of products (procurement, production, sales, marketing)
Lack of basic analysis of markets, products, customers, basic materials, consumers	Created a model for monitoring the product of competitors, the competition and access to it independent of the time and place
Intuitive and non-analytic decision making	Decreased number of intuitive decisions, an increasing number of programmed decisions
Lack of models and tools for decision making	Improved planning of resources in the company and their monitoring
Bad planning of resources in the company	Establishing additional reports and quantitative performance indicators and access to them by the management
Lack of quantitative performance indicators	Quantifying the major part of the operations and structuring the indicators
Subjectivity in the assessment of individual situations	Reduced subjectivity in solving specific problems, increased transparency and the involvement of more people in the decision-making process
Complicated way to create orders and great loss of time	Making on-line orders through any type of device that has access to the Internet

Poor control of resources in the company, especially the resources not physically present in the company

Locating some of the resources and their real-time monitoring

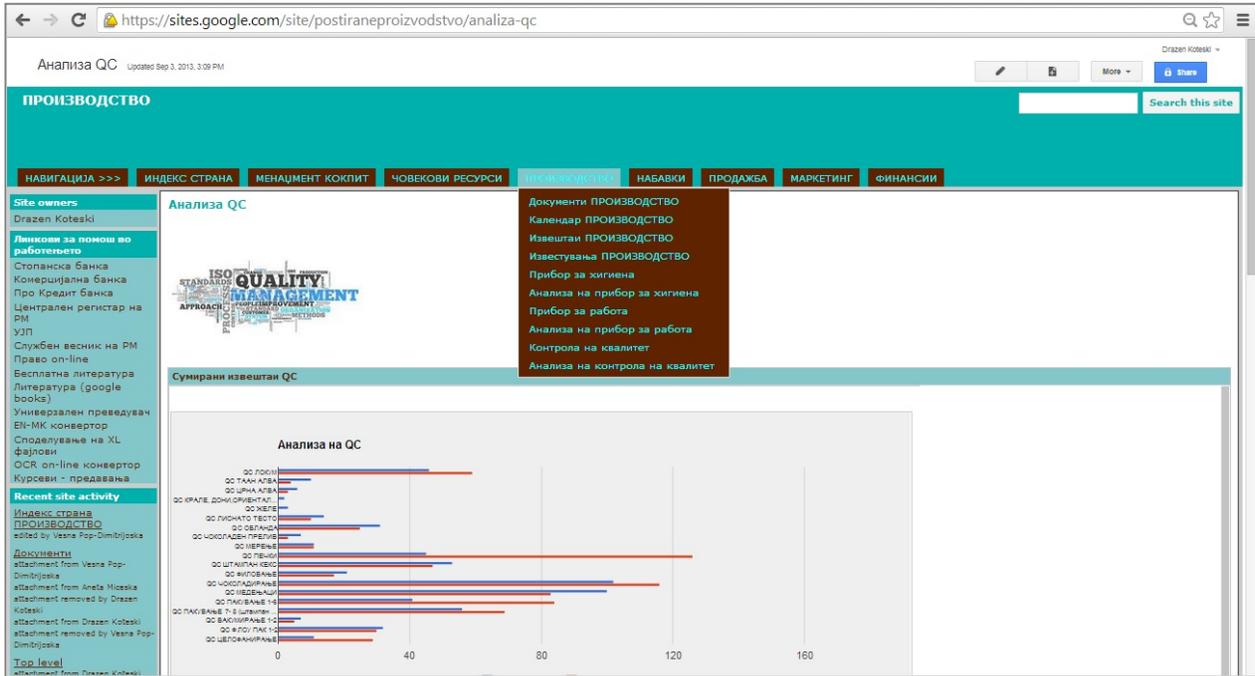


Figure 2.: Print screen of Production and Quality control index page on the intranet

Need of physical presence to hold meetings with some of the employees who are not physically present at certain time

Training and easy organization of on-line meetings and collaboration of resources during meetings

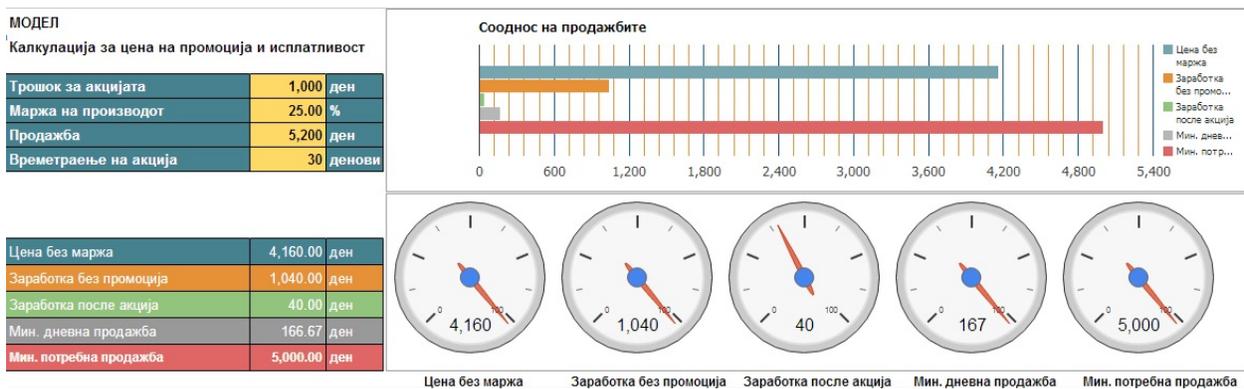


Figure 1.: Example of decision making model made on intranet using the google cloud tools

CONCLUSION

Expectations of technology have always been great, even above that level available at the moment. In certain periods of development of technology the role changes, and the technology requires those who use it to learn and to be more aware of the potential that it offers. The knowledge about how to use the technology in the most appropriate way i.e. how to channel it into an efficient usage regardless of what it offers is sometimes more significant than the level of its development. In short, the same technology in a variety of different circumstances and different users can be used differently and with different results. When organizations discuss how they will apply new technology to gain competitive advantage, what is meant is the knowledge, the will and the motivation of managers to optimally exploit it. The previous example testifies to the correlation among technology, its usage and the creation of competitive advantage for companies through its implementation.

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IMPLEMENTING AND COMPARING OF THE E-GOVERNMENT LIKE INNOVATION IN THE SEE COUNTRIES

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Abstract

Innovations are essential for the development of people and humanity in general. Although, very often innovations are connected with the technology, innovations are still present in all spheres of human life. Therefore, we can say that innovation does not only consider patents and licenses that are used to manufacture a new product, but as innovation is considered and the way of producing the product or innovation can be the process of organizing, managing and conducting the things in the manufacturing process. Therefore, we can say that the process of introducing new management in a country to be considered as innovation. We are witnesses of great progress, development and use of information technologies now-a-days with discovering of the Internet. The use of the Internet, information technologies have invaded in every pore of the work of people and reorganize their previous way of working. In that sense, all previous commitments and professions received an "e" prefix, which actually is the explanation that it is done electronically and to that purpose we can say that we have an e-business instead of business; e-management instead of management; e-banking instead of banking etc. Therefore, the governments in many countries have changed its operations with a touch of the use of information technology and the Internet, specifically the introduction of electronic operation. The so-called e-Government and e-Society is accepted in almost all countries in South-Eastern Europe. To get a better picture and to understand it we will elaborate e-Government in the Republic of Macedonia, and we will do comparison to other countries in South-Eastern Europe. Here, will be analyzed predispositions of the countries in which is implementing e-Government, the strategies and the ways that provided it to perform, as well as comparing the implementation in the Republic of Macedonia with other South-Eastern European countries.

Keywords: Innovations, Information Technologies, e-Government, South-Eastern European countries, comparison

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INTRODUCTION

After the emergence of Information Technology (IT) appears the Internet. The Internet as innovation makes big changes in all spheres of people's life. Also the Internet offer benefits that made ease the previous way of working of individuals, companies and the state. The government in each country cares for the growth and development of their country and therefore follows the trend of active use of IT. According to that appears the term e-Government. That means that the Government by providing good IT infrastructure in the country gives a chance to the companies to be successful on national level and in the same time an opportunity to succeed on international level. By the pressure of the process of globalization, the Governments of the countries in same region, in our case South-Eastern Europe (SEE), use unification of the technology system and try to cooperate in order to enable to the companies to compete on a wider scale. (Sonntagbauer et al. 2010)

In this connection, the result of e-Government is through using of IT to provide services for citizens, companies (business) and government (administration) to facilitate the interaction between them. Therefore, in this paper we present the e-Government in the SEE countries, but firstly we will explain the definition for e-Government to have a clearer start point for this paper in section 2. In section 3 we will see the readiness of the SEE countries for implementation of the e-Governance and the ICT Infrastructure in these countries. According to that we will elaborate the implementations of the e-Government in SEE countries and make comparison in section 4 and after that we give a conclusion in section 5.

DEFINITION OF THE E-GOVERNMENT

Just few years ago the term e-Government was unknown, but to be in step with the times more important institutions gave their definitions to clarify this term. Here are some of them:

- According to the World Bank:

“E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The results from this are benefits like: less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.”[2]

- The e-Government by the European Union is based on the definition:

“e-Government is the use of Information and Communication Technologies in public administrations combined with organizational change and new skills in order to improve public services and democratic processes”.[3]

- The OECD (Organization for Economic Co-operation and Development) e-Government definition is: “The use of ICT's, and particularly the Internet, as a tool to achieve better government”. [3]

From the given definition we can see that e-Government is related to the three user groups and to each group are offered different services.

The use of the electronic medium is like a tool in the exercise of a country's affairs along with alignment of citizen's and business interests followed by greater transparency and efficiency. [2]

Despite all the benefits offered by the e-Government, there are certain groups of people around the world who refuse to use information technologies and the Internet to cooperate with the government. They are mostly older generation of people who had not the

opportunity to learn how to use IT in their work and therefore they see them with a degree of mistrust and insecurity, and because of that they still prefer the traditional way of working in business - face to face. Such groups of people there are in the SEE countries. They slow down the process of implementing the e-Government and therefore it is necessary to know the level of e-Readiness.

E-READINESS AND ICT INFRASTRUCTURE IN THE SEE COUNTRIES

E-Government readiness (e-Readiness) according to [1] is a function of a country’s state of networked readiness, its technological and telecommunication infrastructure, the level of citizen’s access to electronic services and the existence of governmental policy and security mechanisms.

E-Readiness shows us the degree to which a country is prepared to participate in the networked world. It would demand the adoption of important applications of ICTs in offering interconnectedness between government, businesses and citizens. This inter connected ness is conditioned by the penetration of Internet access for the general population, and especially companies and government bodies. [1]

To express the degree of e-Readiness in the country, need to calculate the Index of e-Readiness.

Index of e-Government readiness refers to the use of information and communication technologies by governments to accomplish the goals as: better communication with citizens and businesses, providing better access to services offered by governments, greater access to information, etc., with the ultimate goal of more effective and efficient government. [5]

The index of e-Readiness has more components and depends of online services supplied by Government to citizens; of telecommunication infrastructure in the country; of human capital in the country derived from the literacy rate of the adult population and rate of education and of the e-participation or participation of the citizens in the public policy through ICT by using online services offered by the Government.

For that purpose we will make some analyses for e-Readiness for the countries of SEE that will give us the wider picture of the development of the e-Government in that countries on the world level.

In Figure 1 is given the size of the e-Government development index by the areas, more precisely the continents in the world. As we can see Europe as the highest e-Government development index in the world and it is higher than the world average. In continuation, on the Figure 2 is presented e-Government development index by the regions in Europe, where we see that the region of Eastern and Southern Europe has less developed e-Government compared with Western and Northern Europe. But, even though the countries of SEE are below the regional average of e-Government development they are still far more developed than the world average. [7]

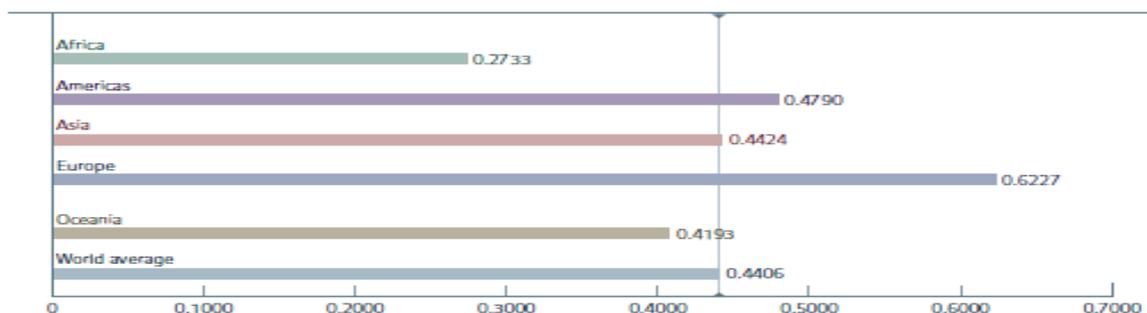


Figure 1: E-Government development in world [7]

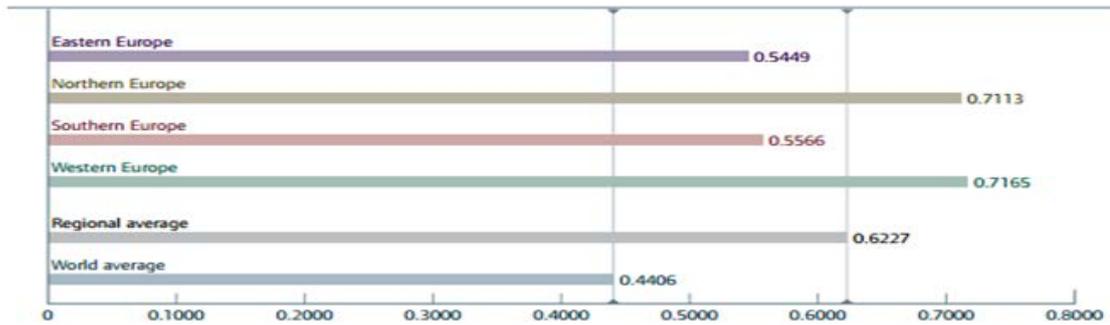


Figure 2: E-Government development in Europe [7]

View of index of e-Government development of the SEE countries is presented in Table 1. Here is given the rank of each country separately in world frames and the components that makes that index. These include online services, telecommunication infrastructure and human capital which determined thee-Government development index. According to these data better ranking of e-Government development have countries that are part of the European Union or pretend to become their member, so they do efforts to follow the trend of development of e-Government in order to be able to join their network.

Table 1: E-government development index [7]

World Rank	Country	Index value	Of which		
			Online service component	Telecommunication infrastructure component	Human capital component
29	Slovenia	0.6243	0.1360	0.1659	0.3224
35	Croatia	0.5858	0.1436	0.1393	0.3030
41	Greece	0.5708	0.1209	0.1263	0.3235
44	Bulgaria	0.5590	0.1392	0.1112	0.3086
47	Romania	0.5479	0.1414	0.1021	0.3045
52	Macedonia	0.5261	0.1090	0.1255	0.2916
60	Montenegro	0.5101	0.1069	0.1093	0.2940
69	Turkey	0.4780	0.1177	0.0852	0.2752
74	Bosnia and Herzegovina	0.4698	0.0939	0.0827	0.2932
80	Moldova	0.4611	0.1004	0.0638	0.297
81	Serbia	0.4585	0.0756	0.0889	0.2940
85	Albania	0.4519	0.1058	0.0538	0.2924

In order of the things first should be provided a physical infrastructure like computer and skilled people for working, and after that the regulation and other e-Government solution. If technology solutions enable government to service citizens in a more timely, efficient and cost effective way it is more than necessary citizens to have some Internet literacy to use it. Speed of adoption and use of e-Government solutions depends on the knowledge of the users and their absorbing capacity and capabilities of learning. Governments at first should know their competences and then to evaluate the ability to offer services through the Internet. [4]

For that purpose these indicators of the e-Government development index are analyzed separately and we can see the results in Table 2, 3 and 4.

Table 3: Online service index [7]

World Rank	Country	Index value
41	Croatia	0.4222
42	Romania	0.4159
45	Bulgaria	0.4095
47	Slovenia	0.4000
60	Greece	0.3556
62	Turkey	0.3460
71	Macedonia	0.3206
74	Montenegro	0.3143
75	Albania	0.3111
84	Moldova	0.2952
91	Bosnia and Herzegovina	0.2762
110	Serbia	0.2222

Table 4: Human capital index [7]

World Rank	Country	Index value
11	Greece	0.9804
14	Slovenia	0.9770
43	Bulgaria	0.9350
46	Romania	0.9226
51	Croatia	0.9181
63	Moldova	0.8999
70	Montenegro	0.8910
71	Serbia	0.8910
75	Bosnia and Herzegovina	0.8886
82	Albania	0.8860
84	Macedonia	0.8835
108	Turkey	0.8339

From the obtained results in Table 2 and 3 we can see that the SEE countries on world level are ranked higher when we talk about possession of human capital, than for offering online services. This Survey is made by United Nations in 2010. Analysis of human capital index on world level gives us information that from all 183 analyzed countries in the world SEE countries are deployed in the interval of 11-108 places. On the 11th place is Greece, on the 84th place is Macedonia and last ranked country from SEE is Turkey on 108 place. The results of online services index shows that the higher rank of all SEE countries has Croatia on 41st place, Macedonia is ranked on 71st place and last in the group is Serbia with 110 rank in the world.

Telecommunication infrastructure and the components of which depend this Index are elaborated in detail in Table 4. As we can see the SEE counties for this indicator are on higher rank worldwide compared with offered online services index. First in the group of countries in SEE is Slovenia ranked on 31st place, Macedonia is on 46th and last in the group for this indicator is Albania with 98th world rank.

For better analyses of this Index we have numbers for its components like: Internet users per 100 inhabitants, fixed telephone lines per 100 inhabitants, mobile subscribers per 100 inhabitants, personal computers per 100 inhabitants and fixed broadband per 100 inhabitants.

Table 4: Telecommunication infrastructure index and its components [7]

World Rank	Country	Index value	Estimated Internet users per 100 inhabitants	Main fixed telephone lines per 100 inhabitants	Mobile subscribers per 100 inhabitants	Personal computers per 100 inhabitants	Total fixed broadband per 100 inhabitants
31	Slovenia	0.5026	49.24	50.11	101.97	42.68	21.17
41	Croatia	0.4220	50.75	41.85	133.95	17.95	11.86
45	Greece	0.3829	32.6	53.65	123.90	9.43	13.53
46	Macedonia	0.3804	42.9	22.39	122.56	36.76	8.77
54	Bulgaria	0.3370	30.99	29.74	140.05	8.91	11.24
55	Montenegro	0.3311	45.09	56.85	103.58	4.16
58	Romania	0.3093	23.99	23.58	114.54	19.32	11.75
66	Serbia	0.2695	23.99	31.35	97.76	18.31	4.59
68	Turkey	0.2581	33.12	23.68	89.05	6.10	7.78
72	Bosnia and Herzegovina	0.2505	34.66	27.33	84.26	6.40	4.99
87	Moldova	0.1933	19.09	29.44	66.60	11.43	1.29
98	Albania	0.1629	15.10	10.07	99.93	3.84	1.15

These components give us the final picture of telecommunication infrastructure in the countries and therefore can be seen predispositions of the country for introducing e-Governance. For better understanding, some of the components of this index are elaborate in detail in Figure 3. There is presented the growth of the number of Internet users through the period of 2009-2013 and as we can see the biggest number of Internet users has Slovenia and the lowest number of internet users has Turkey. Increasing of the number of the users is continuously in the years in all counties, but in Montenegro can be note a drastically increasing in last two years.

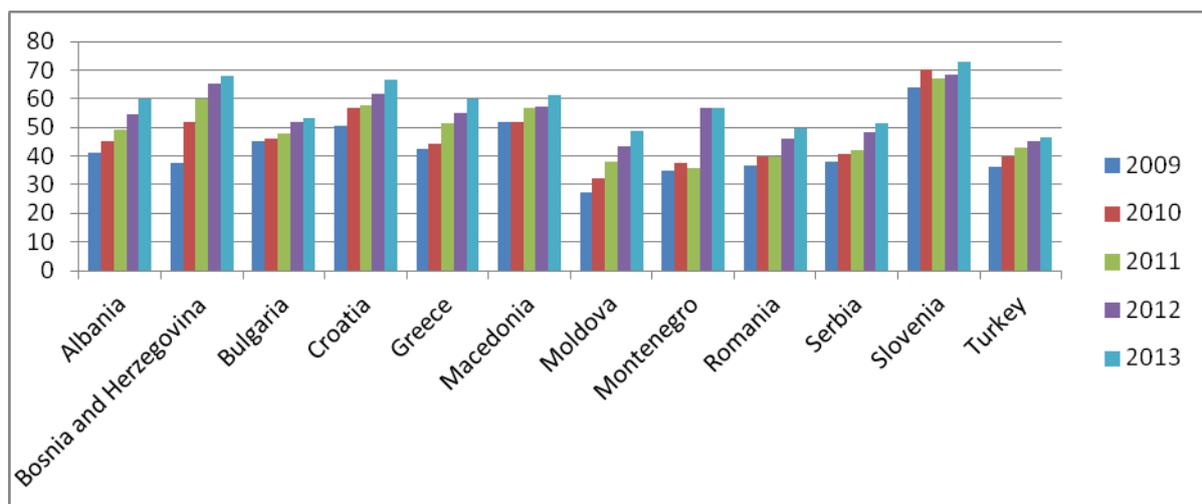


Figure 3: Internet users (per 100 people) for period 2009-2013 [14]

Number of Internet users is consists of individuals (citizens) and enterprises (business). In Figure 4 and 5 is analyzed the number of enterprises in European Union that have accepted the IT. In Figure 4 is presented the percent of the enterprises that has adopted

the IT in the working process in 2010 and 2012. We can see that that percent is pretty high and it is 94% for 2010 and 95% for 2012 which means that there is no big difference for that period. In Figure 5 is presented the 95% of the enterprises that use IT in 2012 divided by the size. We can note that 100% of the large companies use IT in the work, which told us that they are more interested to work on international level and to benefit from the implementation of e-Government.

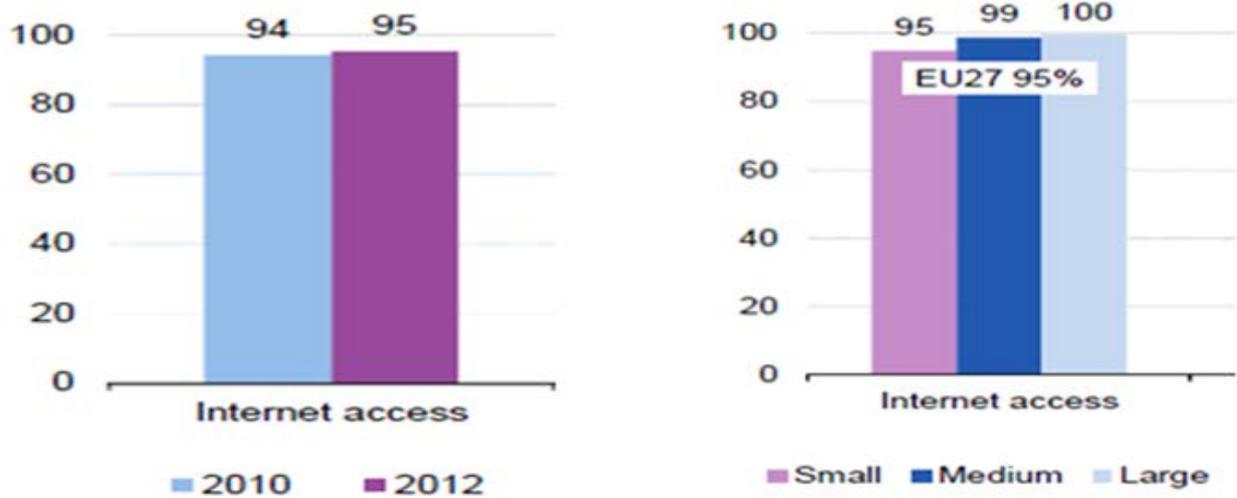


Figure 4: Adoption of IT in enterprises **Figure 5:** Enterprises adopting IT in EU27(in %) for 2010 and 2012 [18]classified by size in EU27 (in %)in 2012 [18]

In the next Table 5 is presented the number of the people that use IT in their work in enterprises which are classified by the size. The numbers refers on EU enterprises in 2010 and 2012. We have slightly increased trend of using of IT from 2010 to 2012, but we see that employees in enterprises from all size more use computers without Internet access, which told us that some of them are not ready to accept the advantages that offered e-Government.

Table 5: Employed persons using computers and accessing the Internet in enterprises, classified by size, in EU27 in 2010 and 2012 (in %) [18]

	All enterprises		Small		Medium		Large	
	2010	2012	2010	2012	2010	2012	2010	2012
Persons employed using computers	52	53	44	47	50	52	57	58
Persons employed using computers with access to the Internet	43	45	39	42	43	45	45	48

In Table 6 is given the number of enterprises with different size that use IT in the Republic of Macedonia in 2013. Based on these data and data from the previous Figure 5 we can make a comparison of using IT in enterprises in EU and the Republic of Macedonia. As we can see the trend of increased use of IT in large companies continues as in EU. By the small companies in the Republic of Macedonia we can see that the number that use computer in its work is bigger than those with Internet access. By the larger companies the number of using computer with and without Internet access in working process is same. They use computer and internet together and from there it can be concluded that the larger company are aware for the benefits that offered e-Government.

Table 6: IT in the enterprises in Macedonia according to the number of employees in 2013 [16]

	Enterprises according to the number of employees		
	10-49	50-249	250+
Enterprises Total	100	100	100
Enterprisers with computer	93.7	98.5	98.3
Enterprisers with Internet Access	90.5	97.9	98.3

After this analysis of the number given in the previous Tables we can conclude that the SEE countries are aware for the benefits that come with e-Government and they work on increasing the predisposition and readiness for implementing the e-Government.

IMPLEMENTING AND COMPARING OF THE E-GOVERNMENT LIKE INNOVATION IN THE SEE COUNTRIES

In every country in transition the economy has problems with transparency, implementation and corruption. These are major objections by the EU on the way of accession to the Union. [4]

The counties from SEE which are not part of the EU are motivated to make good e-Government in order to connect with the other countries. For that purpose they tend to make unification of the services that e-Government will offer to the users. The services supplied by the Government are divided in two categories. One is for citizens and the other is for business. In Table 7 are given the 12 services for the citizens and the 8 services for organizations.

Table 7: e-Government services for citizens and business [5]

The 12 services for citizens are as follows:	The 8 services for businesses are as follows:
1. Income taxes: declaration, notification of assessment	1. Social contributions for employees
2. Job search services by labor offices	2. Corporate tax: declaration, notification
3. Social security benefits	3. VAT: declaration, notification
4. Personal documents: passport and driver’s license	4. Registration of a new company
5. Car registration (new, used, imported cars)	5. Submission of data to statistical offices
6. Application for building permission	6. Customs declarations
7. Declaration to the police (e.g. in case of theft)	7. Environment-related permits (incl.

8. Public libraries (availability of catalogues, search tools) 9. Certificates (birth and marriage): request and delivery 10. Enrolment in higher education/university 11. Announcement of moving (change of address) 12. Health related services (interactive advice on the availability of services in different hospitals)	reporting) 8. Public procurement
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After the list of services that are provided by the Government in the country in Table 8 we can see which of that services intended for enterprises are mostly used and to compare their percentage usage in the Republic of Macedonia and in the other countries in EU. On first place are services connected with banking and finance, after that come services related with education and then services of e-purchases and e-sale, which can be counted as a part of the e-procurement. That gives us information that e-Government system has more advantages and all of them are for different area like finance, education, health etc. and give to the users benefit by using them.

Table 8: Internet usage in enterprises [1]

Country	Macedonia	EU27
Banking& Finance	70.80%	78.00%
Training & Education	38.20%	24.00%
Using e-Gov. services	75.80%	68.00%
e-purchases	8.20%	28.00%
e-sale	5.00%	16.00%

With all data previously obtained like e-Government development index, online service index, human capital index, telecommunication infrastructure index, Internet users etc. we can finished the picture by presenting the e-Participation index.

Table 9: E-participation index [7]

World Rank	Country	Index value
20	Slovenia	0.5143
25	Croatia	0.4571
39	Bulgaria	0.3000
48	Greece	0.2571
55	Macedonia	0.2143
55	Turkey	0.2143
58	Moldova	0.2000
64	Romania	0.1857
76	Montenegro	0.1571
86	Albania	0.1286
135	Bosnia and Herzegovina	0.0429
135	Serbia	0.0429

E-Participation index has maximum value of 1 and by analyzing all countries in the world the SEE countries has the following values: 0,5143 for Slovenia as a country with higher e-Participation index from all SEE countries and is ranked on the 20th place in the world; then come Croatia on 25th place; on 39th place is Bulgaria; Greece is on 48th place; 55th place with value of 0,2143 is for Macedonia and Turkey; after that is Moldova on 58th place; 64th place is for Romania; then on 76th place is Montenegro; on 86th Albania and on the last place in the group of SEE countries are Bosnia and Herzegovina together with Serbia on 135th place in the world and lowest e-Participation index in this SEE region of 0,0429. In the survey were analyzed 157 countries in the world. Europe like region has average of 0, 3236 for e-Participation index and some of the SEE countries are below that average. Most of them are developing countries or countries with some kinds of problems in the recent history.

These indicators reflect the e-Government in the SEE countries.

CONCLUSION

Living in a modern world we are surrounded with new technologies. Every day we hear about some innovations connected with the technologies. To join this trend we should use them. Very important to emphasize is the fact that technologies are not used just in the process of manufacturing, but also they are used for managing and selling the products. This refers more to the information technologies which gradually entered into the daily lives of individuals and have become an indispensable part of the companies. Internet as innovation to a large extent contributes to that. For these reasons the Government in one country is forced to offer the citizens and organizations a good IT infrastructure.

From the offered information in this paper we can conclude that the SEE countries although are in the step with world average of e-Government participation index they are still behind the countries from North and Western Europe and other developed countries in the world. Perhaps it is a reflection of the transition that has gone or is still going. Very important to note is that implementation of e-Government requires large investments. E-Government system needs sophisticated technology and people with knowledge, so we can say that as much as the country is developed so the possibilities for E-Government implementation are greater, and vice versa. Usually, developing countries as poorer have smaller readiness to apply e-Governance for many reasons, and that type of countries have more in SEE.

However, although with a delay, companies recognize the benefits that can be obtained from the usage of e-Government and begin to aspire to its adoption and use in larger scale, in more areas of their work. Acceptance of the e-Government increases among the countries in the regions and in the world as well. This leads to the application of unified rules in the system in each state and contributes to significant developments in the countries and the world economy.

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DIFFERENTIATION STRATEGY – CHALLENGES AND POSSIBILITIES FOR ALBANIAN COMPANIES

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Abstract

Many well-known business book authors and CEO of corporations have elaborated their ideas regarding the importance of each employee's team work ability.

I would like to raise a question in this article regarding employee treatment in team.

People differentiation is a process required from managers, in which employees are categorized according to their performance.

- *Employees with very good performance (successful), in first category, counting for 20 % of the total number.*
- *Employees with average performance, in second category, counting for 70 % of the total number.*
- *Employees with bad performance, in the third one, who should be replaced.*

Classifying employees, is not made with the only purpose of identifying performance, but also for decision taking reasons.

It is fair to ask if different treatment demotivate team work.

Majority of people are inclined to consider this as a division in 2 groups: strong and weak, powerful and fragile, winners and losers.

But this way of thinking it's not right. It is based more on power than in principles.

Single function and cross functional team are wide spread forms of team organizations in the word of business.

In the first category are classified the teams created within departments, where every member has the responsibility to reach his on targets in the region he covers. Meanwhile, second category teams, multifunctional, are the ones in the high level of management.

We think that the differentiation process, in the single function teams, is an effective process. Increasing competition between team members with the purpose of increasing commitment will result in increased revenues for the company.

Meanwhile, in cross functional teams, implementing the differentiation process would increase competition, but would negatively affect collaboration between members. We think that team organization it's a key factor to decide when implementing differentiation process.

Keywords: working, motivation, strategy, differentiation

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**SURVEY: MOTIVATION AT WORK AT YOUNG PEOPLE IN ALBANIA
'TARGET - GROUP' OF THE STUDY AND METHODS**

We will start this article showing the results of our research on motivation at work at young people in Albania. In the "target" of this survey on motivation at work in firms, institutions and organizations of the new Albanian staff who have 1 to 2 years who have graduated university. The age of this target group is 23-28 years old and they are employed, mostly in firms or institutions where they work within the professional spectrum provided by their educational program. In other words, we are dealing with a staff that can be called qualified and that is very sensitive for the leading way of the organization. The survey contains 29 questions, which is measured by job satisfaction, studying its elements, which are: the job itself, the quality of supervision, affiliates, promotion and salary. Total number of employees involved in the survey is 17 and all the surveyed employees belong to the age 23-28 years old. Gender of the people involved in this survey is almost equal: 9 males and 8 females (chart below).

As seen in the following chart, the number of managers and subordinates within the selected group for the survey is approximate: 9 leaders and 8 subordinates

THE IMPACT OF WORK VOLUME

The survey asked employees if they see it as a reasonable level of work required by the organization. Based on the responses resulted that the number of those who think that this is reasonable is 9 and the number of those who think it is unreasonable 8. Based on these data we can say that need more accurate information about the role of employees in an organization. This, because we have a number of employees who have a short time that they have started working and therefore they are confused for what they have to do.

This "misunderstanding " may negatively influence on the job satisfaction because the employees will be convinced if they are being rewarded (financially or morally) for the work they do.

WORK GROUP AND ITS IMPACT

Working in group, which is one of the elements that is used to measure the motivation in work, in the selected group, seems to have a great influence. It seems to have great impact on "job satisfaction" and the latter itself is "voted" from most of the employees getting 10 points and is followed by 6-points from productivity and absence and circulation with 5 points. It should be noted that the people involved in this survey could choose more than one option, so the total counting of the "votes" is higher than the number of surveys.

Taking in mind that all these employees are in young age, we can have this element as a factor that influences the strengthening of relationship between members of the work groups. But, we cannot let without mentioning even another important factor, which is almost the equal number of males and females. It is already proven that heterogeneous groups with an almost equal number of members of the opposite sex leads to the creation of stronger relationships between group members and also gives positive effects on productivity and job satisfaction .

In addition to the above said for the relationships between group members, strengthening relationships and its effects, we will see how the cooperation is estimated in our case, from the selected employees. If we refer to the following schedule, we come to the conclusion that group work is generally good estimated from the surveyed employees. But, it seems that regarding the

questions dealing with priorities and ways work in groups, sufficient information and efficiency of the group seems that the employees are reserved for these issues, as long as none of these questions has received more than 6 positive responses. While, the question that prevails on the group climate work, is one of the most rated from the surveyed employees compared to other work issues in the work group rating it with 11 positive responses (yes) comparing with 6 that the other issues have been rated.

Evidently we are dealing with well related groups, but on the other hand it is needed an interference from “above” to afford more information and to make all the members part of the decision making, in order to placate the unclearness between them.

WORK ENVIROMENT

According to the canvass’ data, it is visible that we are dealing with employees influenced a lot from the work environment. The questions asked resulted that some positive differences in the work environment will influence in the increase of the productivity by 36.1 % of the ones questioned and the pleasure at work by 30.6% of the ones questioned. Evidently, the change at work is a need and this should be a priority for the organization. Meanwhile, the influence in absences and circulations is very low, about 16.7% of the employees questioned. So, we have a positive relation of the employees questioned in the work environment, productivity and the pleasure at work, and a relatively weak relation between the work environment, deficiency and circulation. We have to clarify that 6 of the employees questioned are new employees and not accommodated completely and if this situations continues, may aggravate the productivity. In addition we are dealing with a young age which has created some kind of image for the work environment where it may be employed and these data shows that they are feeling the need of fast and great improvements in their work environment.

THE SALARY AND IT IMPORTANCE

The data received when they are asked if the salary is an important factor, gives us the impression that, even though we are dealing with a young age 20 – 30 years old, the salary is the most important factor. 35.3% of the employees completely agree that the salary is the most important factor for the job they so and if we add this number even 35.3% of those that answered “May be yes”, adding even 5.9% of those who are not sure, results that about 76.5% of the employees finds salary the most important factor directly or indirectly.

Meantime, as for the questions about the salary if it justifies the engagement at work, it is not very clear for the employees if it justifies their work. Only 29.4% of the employees questioned think that the salary justifies their work, 41.8% of the total questioned employees are not sure and 14.1% of the total questioned employees does not think that they are paid enough for the work they do. This shows that a part of these employees – possibly the young ones – have not clarified yet their role in the organization.

If we want to better understand that influence of a higher salary (productivity, pleasure at work or the decrease of absences and circulation), we can analyze the results taken from the questions about the influence of a high salary in their work. 30.8% of the ones questioned think that this will affect the productivity and pleasure at work for better. A considerable number of the employees questioned think that a high salary will influence even in the absences and rotation. According to this number, 17.9% think that a higher salary will influence negatively in the number of absences at work and 20.5% think that it will influence negatively in rotation.

CAREER

A considerable number of the employees questioned finds career like a direct indicator in rotation (the leave from the workplace). This might be related with the young employees and their ambition to make career. The question if they would move to another organization for another career, that have answered positively 52.9%, meanwhile 29.4% have left it as an alternative potential (may be yes), and only 17.6% of the total employees questioned hesitated. The possibility of promotion in career can be used from the organization to decrease the rotation of the employees.

THE SUPERVISION

Regarding to supervision we have different opinions. But, the majority of the respondents totally agree or they indirectly support the idea, the supervision beyond a preferred level negatively affects the productivity. When they were asked about supervision beyond a preferred level negatively affects the productivity, 29.4 % are totally agree that high levels of supervision, more than is necessary will affect negatively in the productivity, while 35.3 % assume “yes”, 23.5 % are not sure and 11.8 % don't think that a higher level of supervision will affect negatively.

BEING HAPPY WITH YOUR JOB

To understand how happy they are with their job (or how much the employees of this organization like their job), we asked: “Will you advise it if a friend of yours will express his wish of working in a job like yours, in the same organization?”. From the results it came out 10 from the respondents or 58.8 % will advise their friend to work in the organization, 17.6 % are not sure and 23.5 % responded that will never advice a job in this organization. It seems that the majority likes their organization, but we cannot underestimate that 41%, aren't happy with their job.

SURVEY CONCLUSIONS

A significant numbers of employees surveyed (8 from 17) think that from them is required a large volume of work. This means they don't know very well the role in the organization; this is why they need more information about their job

- Employees are happy with the collaboration between them
- Employees are not sure about efficiency, information and the priorities in a team work
- There exists a pleasant atmosphere between employees in the team work
- There are necessary some changes in the work place
- Salary is the most important factor of their work for the respondents of this survey
- A higher salary helps more in the productivity and work satisfaction, also less absences at work and less small turnovers (dismiss) for the employees of this organization
- The majority of the respondent of this survey tend to work for their professional career, this is why they are willing to work even in other organizations where they have bigger chances for professional career
- Higher levels of supervision affects negatively on productivity according to surveyed employees

-The majority of surveyed people, about 58 % like their job but we have a high percentage, about 42 % that potentially don't like their job

DIFFERENTIATION

The differentiation concept was applied from Jack Welch (Former CEO of GE). I will bring in a briefly way his thoughts on this concept; Now let's talk about the more controversial topic, differentiation among people. It's a process that requires managers to assess their employees and separate them into three categories in terms of performance: top 20 percent, middle 70, and bottom 10. Then—and this is key—it requires managers to *act* on that distinction. I emphasize the word “act” because all managers naturally differentiate—in their heads. But very few make it real.

When people differentiation is real, the top 20 percent of employees are showered with bonuses, stock options, praise, love, training, and a variety of rewards to their pocketbooks and souls. There can be no mistaking the stars at a company that differentiates. They are the best and are treated that way. The middle 70 percent are managed differently.

This group of people is enormously valuable to any company; you simply cannot function without their skills, energy, and commitment. After all, they are the majority of your employees. And that's the major challenge, and risk, in 20-70-10—keeping the middle 70 engaged and motivated.

That's why so much of managing the middle 70 is about training, positive feedback, and thoughtful goal setting. If individuals in this group have particular promise, they should be moved around among businesses and functions to increase their experience and knowledge and to test their leadership skills.

To be clear, managing the middle 70 is not about keeping people out of the bottom 10. It is not about saving poor performers. That would be a bad investment decision. Rather, differentiation is about managers looking at the middle 70, identifying people with potential to move up, and cultivating them. But *everyone* in the middle 70 needs to be motivated and made to feel as if they truly belong. You do not want to lose the vast majority of your middle 70—you want to improve them.

As for the bottom 10 percent in differentiation, there is no sugarcoating this—they have to go. That's more easily said than done; It's awful to fire people—I even hate that word. But if you have a candid organization with clear performance expectations and a performance evaluation process—a big if, obviously, but that should be everyone's goal—then people in the bottom 10 percent generally know who they are. When you tell them, they usually leave before you ask them to. No one wants to be in an organization where they aren't wanted. One of the best things about differentiation is that people in the bottom 10 percent of organizations very often go on to successful careers at companies and in pursuits where they truly belong and where they can excel.

That's how differentiation works in a nutshell. People sometimes ask where I came up with the idea. My answer is, I didn't invent differentiation! I learned it on the playground when I was a kid. When we were making a baseball team, the best players always got picked first, the fair players were put in the easy positions, usually second base or right field, and the least athletic ones had to watch from the sidelines. Everyone knew where he stood. The top kids wanted desperately to stay there, and got the reward of respect and the thrill of winning. The kids in the middle worked their tails off to get better, and sometimes they did, bringing up the quality of play for everyone. And the kids who couldn't make the cut usually found other pursuits, sports

and otherwise, that they enjoyed and excelled at. Not everyone can be a great ballplayer, and not every great ballplayer can be a great doctor, computer programmer, carpenter, musician, or poet.

Each one of us is good at something, and I just believe we are happiest and the most fulfilled when we're doing that.

It's true on the playground, and it's true in business (Welch, 2005, p.42).

IT IS FAIR TO ASK IT DIFFERENT TREATMENT DEMOTIVATES TEAM WORK

I will bring in a briefly way Stephen Covey thoughts on team member competition; One time I was asked to work with a company whose president was very concerned about the lack of cooperation among his people. "Our basic problem, Stephen, is that they're selfish," he said. "They just won't cooperate. I know if they would cooperate, we could produce so much more. Can you help us develop a human-relations program that will solve the problem?" "Is your problem the people or the paradigm?" I asked. "Look for yourself," he replied. So I did. And I found that there was a real selfishness, and unwillingness to cooperate, a resistance to authority, defensive communication. I could see that overdrawn Emotional Bank Accounts had created a culture of low trust. But I pressed the question. "Let's look at it deeper," I suggested. "Why don't your people cooperate? What is the reward for not cooperating?" "There's no reward for not cooperating," he assured me. "The rewards are much greater if they do cooperate." "Are they?" I asked. Behind a curtain on one wall of this man's office was a chart. On the chart were a number of racehorses all lined up on a track. Superimposed on the face of each horse was the face of one of his managers. At the end of the track was a beautiful travel poster of Bermuda, an idyllic picture of blue skies and fleecy clouds and a romantic couple walking hand in hand down a white sandy beach. Once a week, this man would bring all his people into this office and talk cooperation. "Let's all work together. We'll all make more money if we do." Then he would pull the curtain and show them the chart. "Now which of you is going to win the trip to Bermuda?" It was like telling one flower to grow and watering another, like saying "firings will continue until morale improves." He wanted cooperation. He wanted his people to work together, to share ideas, to all benefit from the effort. But he was setting them up in competition with each other. One manager's success meant failure for the other managers. As with many, many problems between people in business, family, and other relationships, the problem in this company was the result of a flawed paradigm. The president was trying to get the fruits of cooperation from a paradigm of competition. And when it didn't work, he wanted a technique, a program, a quick-fix antidote to make his people cooperate. But you can't change the fruit without changing the root. Working on the attitudes and behaviors would have been hacking at the leaves. So we focused instead on producing personal and organizational excellence in an entirely different way by developing information and reward systems which reinforced the value of cooperation. Whether you are the president of a company or the janitor, the moment you step from independence into interdependence in any capacity, you step into a leadership role. You are in a position of influencing other people. And the habit of effective interpersonal leadership is Think Win-Win.

Win-win is not a technique; it's a total philosophy of human interaction. Win-win is a frame of mind and heart that constantly seeks mutual benefit in all human interactions. Win-win means that agreements or solutions are mutually beneficial, mutually satisfying. With a win-win solution, all parties feel good about the decision and feel committed to the action plan.

Win-win sees life as a cooperative, not a competitive arena. Most people tend to think in terms of dichotomies: strong or weak, hardball or softball, win or lose. But that kind of thinking is fundamentally flawed. It's based on power and position rather than on principle. Win-win is

based on the paradigm that there is plenty for everybody, that one person's success is not achieved at the expense or exclusion of the success of others.

Win-win, it's not your way or my way; it's a better way, a higher way (Covey 1995, p.53).

DIFFERENTIATION ROLE IN DIFFERENT TYPES OF TEAMS

There are many different types of team, e.g.:Functional Teams, Cross-functional Teams, Project Teams, Virtual Teams, Remote Teams, Multi-cultural Teams.

Table 1: Different types of teams

Team Type	Characteristics	Challenges
Functional Team	The most frequent type, where the team work together on a daily basis – often a department team	a) The leader must be present b) Select the right approach for the team, each individual and the task c) Demonstrate real knowledge about each individual
Cross-functional Team	A team that comes together for specific reasons – often a board of directors or senior managers	As the leader is often the first among equals, the main challenge is to adopt the correct approach
Project Team	Set up for a specific purpose/time to undertake a particular task and then disbanded	a)Gain commitment to the goal and maintain motivation and morale b)Ensure people are appropriately organised c)Keep things on schedule d)Achieve the goal
Virtual Teams	Teams who rarely meet face-to-face but meet using technology, videoconferencing/e-mail. Often, people in similar roles but different locations.	a)Establish your credibility b)Manage the emotional element c)Get to know the different people d)Many of these teams start their life with a team-building event to assist in the above
Remote teams	Teams where the leader and the team are based indifferent locations – eg: sales teams.	a)Ensure sufficient time is spent with each team member b)Provide opportunities for regular contact
Multi-cultural Team	A team of people from differentcultural backgrounds – possibly following mergers ortakeovers or people working inan international context.	a)Owing to the diversity, the main challenge is to get to know and understand each other b)Be aware of the cultural differences.

Functional teams and cross functional teams are most known types of teams in the business world. In functional teams the members of the team have their own goal and are not depended

from each other to achieve their goals. In cross functional teams, members of the team have one goal as a team and they must collaborate with each other to achieve their goal.

DIFFERENTIATION ROLE IN NATIONAL CULTURE

Geert Hofstede's seminal research is the most commonly cited of all the cultural theorists in the field, we will bring in a briefly way the Hofstede model of six dimensions of national cultures.

Geert Hofstede, born as *Gerard Hendrik Hofstede* is an influential Dutch researcher in the fields of organizational studies and more concretely organizational culture, also cultural economics and management. He is a well-known pioneer in his research of cross-cultural groups and organizations and played a major role in developing a systematic framework for assessing and differentiating national cultures and organizational cultures. His studies demonstrated that there are national and regional cultural groups that influence behavior of societies and organizations (Wikipedia).

The Hofstede model of six dimensions of national cultures is taken from his article 8: —Dimensionalizing Cultures: The Hofstede Model in Context¹¹, 2011.

The six dimensions are labeled:

1. Power Distance, related to the different solutions to the basic problem of human inequality;
2. Uncertainty Avoidance, related to the level of stress in a society in the face of an unknown future;
3. Individualism versus Collectivism, related to the integration of individuals into primary groups;
4. Masculinity versus Femininity, related to the division of emotional roles between women and men;
5. Long Term versus Short Term Orientation, related to the choice of focus for people's efforts: the future or the present and past.
6. Indulgence versus Restraint, related to the gratification versus control of basic human desires related to enjoying life.

In this article we will bring in a briefly way the third dimension: Individualism versus Collectivism.

Individualism on the one side versus its opposite, Collectivism, as a societal, not an individual characteristic, is the degree to which people in a society are integrated into groups. On the individualist side we find cultures in which the ties between individuals are loose: everyone is expected to look after him/herself and his/her immediate family. On the collectivist side we find cultures in which people from birth onwards are integrated into strong, cohesive in-groups, often extended families (with uncles, aunts and grandparents) that continue protecting them in exchange for unquestioning loyalty, and oppose other in groups.

Again, the issue addressed by this dimension is an extremely fundamental one, regarding all societies in the world. 10

Table 2 lists a selection of differences between societies that validation research showed to be associated with this dimension.

Table 2: Ten Differences between Collectivist and Individualist Societies

Individualism	Collectivism
Everyone is supposed to take care of him- or herself and his or her immediate family only	People are born into extended families or clans which protect them in exchange for loyalty
"I" – consciousness	"We" –consciousness
Right of privacy	Stress on belonging
Speaking one's mind is healthy	Harmony should always be maintained
Others classified as individuals	Others classified as in-group or out-group
Personal opinion expected: one person one vote	Opinions and votes predetermined by in-group
Transgression of norms leads to guilt feelings	Transgression of norms leads to shame feelings
Languages in which the word "I" is indispensable	Languages in which the word "I" is avoided
Purpose of education is learning how to learn	Purpose of education is learning how to do
Task prevails over relationship	Relationship prevails over task

In Hofstede et al. (2010) Individualism Index scores are listed for 76 countries; Individualism tends to prevail in developed and Western countries, while collectivism prevails in less developed and Eastern countries; Japan takes a middle position on this dimension.

Table 3: Examples: Individualism Index Scores

State	Index score	State	Index score	State	Index score
USA	91	Sweden	71	Iran	41
Australia	90	France	71	Arab countries	38
UK	89	Germany	67	Greece	35
Canada	80	Israel	54	Mexico	30
Italy	76	Spain	51	Pakistan	14
Denmark	74	Japan	46	Venezuela	12

Source: Individualism scores (Hofstede, Hofstede, and Minkov, 2010)

EXAMPLE

A UK company found itself in danger of missing a deadline on an important merger and acquisition because its parent company in Japan delayed giving its approval to the deal. Only later did the UK subsidiary discover that the decision was delayed because of the consultative process, which meant that the Japanese staffs were given the opportunity to discuss the proposal and approve the decision to go ahead. As a result, not all of them were able to do so in the time available.

In this situation, the integrity of the collective decision-making process was considered more important to the Japanese than the rapid conclusion of the deal (Hurn and Tomalin, 2013, p.34).

It looks clear that in USA individualism index is highest compare with other countries and the example above give us the positive relation between culture and leadership. It is very important to understand the national culture before applying differentiation concept in an organization.

CONSLUIONS

From the survey of employees has been selected a limited number of simple employees and leaders. A part of the challenges and difficulties consist in the individual work culture, so we consider that the finding of this surveyor's number is valid to generalize the Albanian market. The reason lies in the fact that within a small territory like Albania in the work culture is relatively similar for most employees. However some workers features are similar with characteristics of other employees. Thus it is proved that the heterogeneous working groups, with an almost equal number of members of the opposite gender, leads to the creation of stronger ties between group members and also gives positive effects on productivity and job satisfaction.

Working conditions and environment that is created in an enterprise are an important factor that affects the quality of work and the decisions it takes a staff member of the company. In the Albanian practice, there are few cases where an employee moves from one company with a higher salary at another company where wage is lower but the quality of the work environment is higher. In general there is a positive correlation between the quality of the work environment with productivity and satisfaction at work.

The level of supervision also affects in the creation of the working environment. A surveillance beyond a level preferred by employees would create an inappropriate work environment adversely affecting labor productivity.

Despite the importance of the work environment, the main factor and with the primary impact in the decision, is the level of wage workers. It is to be noted that a part of the employees, especially the young ones, define their role in the organization depending on the salary level at which rewarded.

We believe that differentiation is the strategy that can succeed in Albanian companies. But, to have positive effects, a leader should recognize and categorize members of his staff in order to identify not only their performance but also making decisions about them.

Creating work groups and differentiation of employees in each team, putting them in competitive environments, leads us to believe that it increases employees' commitment by contributing directly to increased sales and revenue of the company.

At the end, we believe that the implementation of differentiation concept in work groups with one function, would be efficient because employees will be motivated, will increase

participation and the competition between each - other and consequently will increase the company's revenue. The implementation of differentiation concept in multifunction work groups, will bring competition between members of the team instead the interplay between them. It's important to mention that the implementation of differentiation concept depends from the culture of the organization. Applying the differentiation concept in organizations where individualism culture is not welcome, would cause major problems for the organization.

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**SMES OPEN INNOVATION MANAGEMENT: STRATEGY MAP FOR INNOVATION
DRIVEN COMPANY**

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Abstract

Over the last few years the open innovation paradigm has gained significant attention among many researchers who are studying on strategic management and innovation. Current research emphasizes that companies adapt their business models to profit not only from internal but also from external knowledge and ideas. The aim of this article is to help the management team to cope with the use of the balanced scorecard for implementation of open innovation strategies in small and medium-sized enterprises (SMEs). One of the ultimate goals is the construction of strategy map and inclusive measures of open innovation management. The implementation of open innovation strategies in small and medium-sized enterprises is a complex, mental and a highly professional activity that is directed towards the determination of the future objectives for the company growth. Hence, in a broader sense, this paper has to formulate the need for using the balanced scorecard as a guiding principle to build a strategy map, draw up an action plan for measuring key drivers as well as determine of critical success factors aimed at open innovation driven company.

Key words: Balanced Scorecard, Open Innovation, Strategic Management, Strategy Map.

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INTRODUCTION

With a move from industrial economy towards an economy that is now mainly considered by intangible assets, such as knowledge and innovative competence, company have to manage increasing level of complexity and uncertainty. “Innovation is no longer sole of company’s research and development division. Company that have mastered innovation – well known leaders such as Apple, BMW, Google, Netflix and Procter and Gamble, have gone beyond R&D to ensure that innovation is an integral part of their organizations and their extended – value chains. In doing so, these companies have not only achieved notoriety but also significant and valuable competitive advantage”³. Innovation is critical to stretch a competitive advantage for SMEs, particularly in the era that is followed by a major increase in competition among SMEs and spectacular global market change.

“Open innovation means pulling idea from myriad sources and understanding that each contributor brings a different perspective to the table”⁴. Most of the small companies are underfunded. Also, they need to be inventive with allocation of their limited resources. Furthermore, challenging the rising competition and fronting the growing R&D and innovation costs, small but also medium-sized enterprises can no longer live on their innovation efforts. They need to change their business model to embracing strategies of collaboration, rather than competition. Open innovation is a paradigm that assumes that companies can use external ideas as well as internal ideas to advance their technology. (Chesbrough, 2011).

The successful implementation of the scorecard method should translate a company’s mission and vision into a comprehensive set of performance indicators (Kaplan & Norton, 1993). It is very important to point out the need for companies’ strategy which is comprised by open innovation approaches. Our proposed innovation management tool is a balanced scorecard that integrates innovations (open) indicators with strategic goals and projects in organizations. Therefore, the balanced scorecard (BSC) can be studied not only as a simple and useful tool to track companies’ performance but also as a strategic innovation management tool. In the knowledge – based innovation economy which is indicated by intellectual capital contrary to physical assets, the balanced scorecard has to incorporate a growing trends of innovations and adjust itself towards an open innovation era.

Hence, in a broader sense, this paper has to formulate the need for using the balanced scorecard as a guiding principle to build a strategy map, draw up an action plan for measuring key drivers as well as determine of critical success factors aimed at open innovation driven company. The paper is structured as following: In section 2 we briefly introduced the open innovation concept, focusing on the innovation driven small and medium-sized enterprises (SMEs). Afterwards, we discuss the need for using the balanced scorecard as a guiding principle for implementation of open innovation strategies in small and medium-sized enterprises (SMEs). Section 4 identifies key success factors and key performance indicators in each of the dimensions as well as determine of critical success elements aimed at open innovation driven company. Section 5 discusses how to build a strategy map using the balanced scorecard model. Finally, we conclude and debate contributions of our study.

³ A.T. Kearney, Inc. Innovation Management, p.3, 2008

⁴ Joachim Ebert, Sumit Chandra, Andreas Liedtke, Strategies for Success and Leadership, 2008

OPEN INNOVATION AND SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs)

Usually, big organizations trusted on their own R&D divisions and support an idea about closed innovation model, where all innovations are under company's influence. The open innovation paradigm is a novel innovation strategy by which companies go beyond their R&D's innovation projects. Innovation outline is about illustrating how to bring innovations that add value to companies and customers. (O'Sullivan, 2009). In contrast to the closed innovation model, combining inflows and outflows of knowledge, these organizations are open to share ideas with many stakeholders (customers, vendors, other organizations, employees, institutes, universities....). Open innovation is already being adopted by large-sized and small and medium-sized companies. From technological point of view, open innovation is also by this time adopted by high-tech as well as low-tech industries⁵.

For SMEs, open innovation can mean cooperation with other small and medium-sized companies, providing relationships to jointly develop new services or products. SMEs do have the capacity for radical innovations – not just large companies⁶. The companies that have a tendency to use open innovations effectively, are those that are willing to combine both traditional model of innovation (i.e., internal) with open innovation forms, but do it with a combined set of new processes.

Makeover towards open innovation strategy needs essential changes of SMEs to transfer from closed to open innovation. Also this means that some of the innovations principles requires fundamental changes. Mainly, the principal “the smart people in the field work for us” should be transformed to new principal “we need to work with smart people inside and outside the company”. “We should control our innovations, so that our competitors don't profit from our ideas” be supposed to be converted to “we should profit from others' use of our innovations, and we should buy others innovations whenever it improve our business model”. The other principal that saying “if we create the best ideas in the industry, we will win” has to be changed with new one “if we make the best use of internal and external ideas we will win”. Lastly, “the company that gets an innovation to the market first will win” should be changed by new principal “building a better business model is better than getting to the market first”⁷.

In order to successfully achieve open innovation in practice at SMEs, innovation approach has to be incorporated in the corporative strategy. It extends not only to creating a company where innovation can bloom, but also providing clear directions about the goals, scale of innovation that is required to deliver the strategic goals of the business⁸. Therefore, management innovation system is needed as a framework that emphasizes the importance of open innovations. It helps translating innovation strategy into actions. We have argued in this article that the balanced scorecard provides a framework and enough flexibility for managing the implementation of open innovation approach at small and medium-sized enterprises while also facilitating its main functions:

- translation of company strategy and strategy objectives into actionable goals;
- communicating strategy through the organization;

⁵ Drechsler, W., Natter, N. (2012), Understanding a firm's openness decisions in innovation, *Journal of Business Research*, Vol. 65, No.3, pp. 438-445.

⁶ Acs, Z., Audretsch, D. (1987), Innovations in large and small firms, *Economics letters*, Vol. 23, pp. 109-112.

⁷ European Collaborative and Open Regional Strategies – EURIS, www.euris-programme.eu, (2011), Interregional Cooperation Programme INTERREG IVC, www.interreg4c.eu, Open Innovations Benefits for SMEs, pp. 6-7.

⁸ Nader Nada, Aly Turkiymaz, Ahmed El-Badawy, *SMEs Innovation Management Framework*, pp. 3.

- setting targets and actions to achieve those targets;
- reviewing performance and feedback about the strategy implementation.

USING THE BALANCED SCORECARD FOR MANAGING OPEN INNOVATION IN SMEs

The balanced scorecard (BSC) is a strategy-focused approach to performance the management that includes measures resulted from the organization's vision and mission. It is also a powerful management tool for strategy execution and useful measurement tool to track companies' performance⁹. BSCs include objectives, measures, targets and initiatives in grading of four perspectives such as financial, customer, internal business process and learning and growth. At the highest point of the framework is financial performance, which is determined by a customer value proposition. This is in close connection with the right set of business processes. At the base of the framework is learning and growth, which provide the capabilities and infrastructure for a continually evolving value proposition and processes¹⁰. The balanced scorecard lets managers to introduce four new processes that contribute to linking long-term objectives with short-term actions. All of them helps managers to build consensus about company's vision and mission, to communicate their strategy trough the organization, to integrate their business and financial plans and feedback and learning which gives companies the capacity about strategic learning¹¹.

Organizations of all sizes have benefited from the management tools and concepts that come with the balanced scorecard - a system for managers to communicate and monitor the progress of their business strategies. Balanced scorecards are also appropriate for SMSs. But for many small and medium-sized enterprises the concepts of the balanced scorecard get idealistic because they assume its design and implementation demand the budget, manpower and know-how of a large organization to be successful. Therefore, the small business should think about the balanced scorecard in a different way to the multinational, there is possibility that the balanced scorecard might be even more influential for the SMEs than it is for the large organizations. Moreover, SMEs should be able to implement BSC more quickly, as there are fewer people and less complex organizational processes. Many small and medium-sized companies have used individual approach to implementation of balanced scorecard in order to achieve more rational result (Toivanen, 2001).

In scholarly literature, many articles communicate the limitations of the balanced scorecard in the innovation economy. Mainly, they share opinion that the traditional BSC is neither appropriate nor useful to measure the innovations outcomes when implementing an open innovation model¹². Furthermore, the other limitations show up when companies need to collaborate with external partners to develop new solutions¹³.

⁹ Kaplan R. and Norton D., "Translating Strategy into Action: The Balanced Scorecard", Harvard Business School Press, Boston, MA (1996)

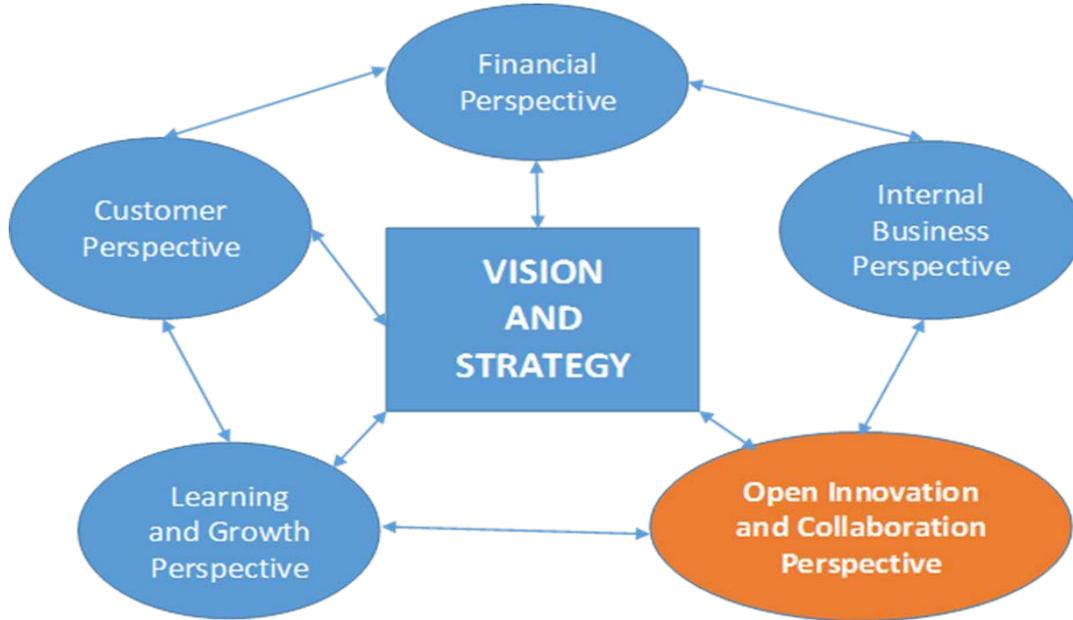
¹⁰ Mark L. Frigo, "Strategy and the Balanced Scorecard", Strategic Finance, November 2002

¹¹ Kaplan R. and Norton D., "Using the Balances Scorecard as a Strategic Management System", Harvard Business Review, 1996, pp. 75-85.

¹² Chesbrough ., "Open Innovation: The New Imperative for Creating and Profiting from Technology", Harvard Business School Press, Boston MA (2006)

¹³ Voelpel S. C., Leibold M. and Eckhoff R. A., "The Tyranny of the Balanced Scorecard in the Innovation Economy", Journal of Intellectual Capital, Vol. 7 No. 1, 2006, pp. 43-60.

Beside above mentioned remarks about the limitations of the balanced scorecard in the era of the innovation economy, this paper has to formulate the need for using the balanced scorecard in its traditional frames as a guiding principle to implement an open innovation initiatives at SMSs. In the following, some small adaption of the existing framework is needed for effective and successful usage of the BSC in implementation of open innovation strategy at SMSs. Therefore, we are proposing amendments to the balanced scorecard method to use it in open innovation projects. To better support the implementation of an open innovation strategy together with the overall business strategy in SMEs, we propose adaptations to the existing four perspectives in terms of their objectives, measures, targets and actions that would be more oriented towards open innovations. Also, it is suggested that creation of the new fifth perspective, “open innovation and collaboration” will more adroitly and explicitly communicate a company’s intended open innovation strategy. Exhibit 1 depicts open innovation balanced scorecard for SMEs. The description of a separate open innovation and collaboration perspective in Exhibit 1 suggest that a company develop goals and measures that directly communicate and highlight the firm’s open innovation strategy. The specific goals and measures will naturally differ across companies as companies will have differing core competencies and abilities to



compete. Nevertheless, some general issues for which goals and measures can be developed can be addressed as a starting point.

Exhibit 1. Adjusted Classic Balanced Scorecard: Five Perspectives

Exhibit 2 depicts some suggested goals and measures that can serve, at a very least, as that starting point. The fifth perspective, innovation and collaboration, emphasizes a joint idea generation among different partners such as companies, universities, customers, institutes and suppliers (Flores, 2009) and new value creation by developing novel products and services, processes and intangible assets in a small and medium-sized companies. Depending on the specific open innovation strategy, managers need to adopt indicators and create new ones that

reflect the company strategy. Furthermore, managers need to outline casual relationships between all five perspectives.

Also, this part describes in detail the necessary steps for the implementation of the balanced scorecard for open innovation in SMEs. At a beginning, the first step was to create a common understanding of the original concept of the balanced scorecard through literature.

Exhibit 2. Open Innovation and Collaboration Perspective - Goals and Measures

Issues Requiring Goals	Critical Success Factor
(1) Collaboration with different partners	<ul style="list-style-type: none"> - Collaboration with universities partners (per year) - Percentage of projects driven by customers, suppliers and other partners - Partner turnover rate
(2) Innovation capability of the company	<ul style="list-style-type: none"> - Lunch of new products and services based on external ideas (b) - Percentage of realized external ideas (c) - External patents usage rate (d)

Sources: (a) Flores at al. (2009); (b) (d) Chesbrough (2004); (c) Kaplan and Norton (1997);

First, Robert Kaplan and David Norton introduced the technique in a 1992 *Harvard Business Review* article. Meanwhile, numerous papers and researches have been conducted to improve the original BSC to different companies. Mainly, a number of articles and books have discussed the advantages and its application in the profit sector (e.g., Hoffecker and Goldenberg, 1994; Kaplan and Norton, 1992, 1993, 1996, 2001; Kurtzman, 1997; Newing, 1994, 1995; Schneiderman, 1999, 2004). Among the numerous successful users are: AT&T, Intel, Brown and Root, Deutsche Telekom and famous adopters in the service sector include the international accounting firms Ernst and Young and KPMG and many other companies in different fields of the industry. Since BSC is also appropriate for small and medium-sized companies, a sound understanding about the implementation of the balance scorecard in SMEs is required. The second step aimed at achieving a good understanding on the open innovation paradigm and performance impact of open innovation for SME's and to find out what the possible inputs for the BSC are based on this step. The small and medium-sized companies are pertinent source of innovation within the international system. They have the capacity for new innovation equal to the large-sized companies. However, they differ from those of big companies because they are more flexible, less formalized with limited financial resources¹⁴. The third step aimed at gaining more inputs for the new BSC based on questionnaire and interview executed internally and externally. The fourth step was to find out what the possible inputs for the BSC are based on previous steps, define the key success factors and formulate a preliminary balanced scorecard

¹⁴ Freeman J., Engel J., "Models of Innovations: Start-ups and Mature Corporations", *California Management Review*, Vol. 50 No. 1, 2007, pp. 94-119.

containing operational measures for the strategic objectives. The final step described the final design of the balanced scorecard.

KEY PERFORMANCE INDICATORS - MEASURING AND MANAGING OPEN INNOVATION IN SMEs

KPI's provide a good foundation for informed discussion and decision making process. They are the pointers which need to be measure, to be identify how well internal and external process are performing, and to contribute in a way to predict what will happened in the future. For each balanced scorecard's perspectives is exposed in Exhibit 1 has objectives to accomplish and there are certain relationships among them. The strategic mapping and linking of the variables helped the small and medium-sized companies to spell out the objectives, the drivers and the relevant metrics for the objectives. Some of the most applicable key performance indicators (KPI's) as a part of the measures element suggested to track and asses the performance of open innovation initiatives¹⁵ carried out at SMEs is shown in Exhibit 3.

Exhibit 3. Scorecard for Strategic Theme: Key Performance Indicators for Open Innovation in Small and Medium-Sized Companies

Perspective	Objective	Measure
Financial	Profit growth	<ul style="list-style-type: none"> - Percentage of cost savings based on new product / services lunch - Annual budget invested in collaborative project - Turnover using patents
	Maintain revenue market share	<ul style="list-style-type: none"> - Gross profit of the new product developed based to the collaborative project - Volume of cost savings based on share services -“Low hanging fruits” - Percentage of revenue market share based on retention & loyalty programs
Customer	Add high value customer	<ul style="list-style-type: none"> - Number of loyalty programs introduced together with the partners - Profit per retain customer - Time – to – market
	Retain high value customers	<ul style="list-style-type: none"> - Introduced share services together with external partners - Customer satisfaction ratio (Trim index) conduct with external company - Acquisition cost per new customer

¹⁵ Magyar A., “Measuring Impact of Research Projects on Company Performance”. MSc Thesis, Cranfield University (2008)

Internal process	Continue leadership in existing products Build leadership in new products / services Creation of infrastructure to improve capabilities to absorb external ideas	<ul style="list-style-type: none"> - Number of new products / services develop by the company per year - New retention program developed together with the partners - New technology introduced with partners together - Number of new services preferred by customers
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Perspective	Objective	Measure
Open innovation and collaboration	Collaboration with different partners Innovation capability of the company	<ul style="list-style-type: none"> - Collaboration with Universities per year - Percentage of projects driven by customers, suppliers and other partners - Partner turnover rate - Percentage of realized external ideas - External patents usage rates

Learning and growth	Train people to build skills and general competencies Acquisition of the talented staff Openness of the company Motivation of the partners	<ul style="list-style-type: none"> - Training programs per employee - Number of the new highly skilled employees per year hired - Number of collaborative projects In the company per year - Number of awards to the partners for their contribution to the mutual products /services / technology
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Sources: I. M. Pandey, “Balanced scorecard: Myth and Reality”, 2005 – **adjusted scorecard towards open innovations in SMEs**

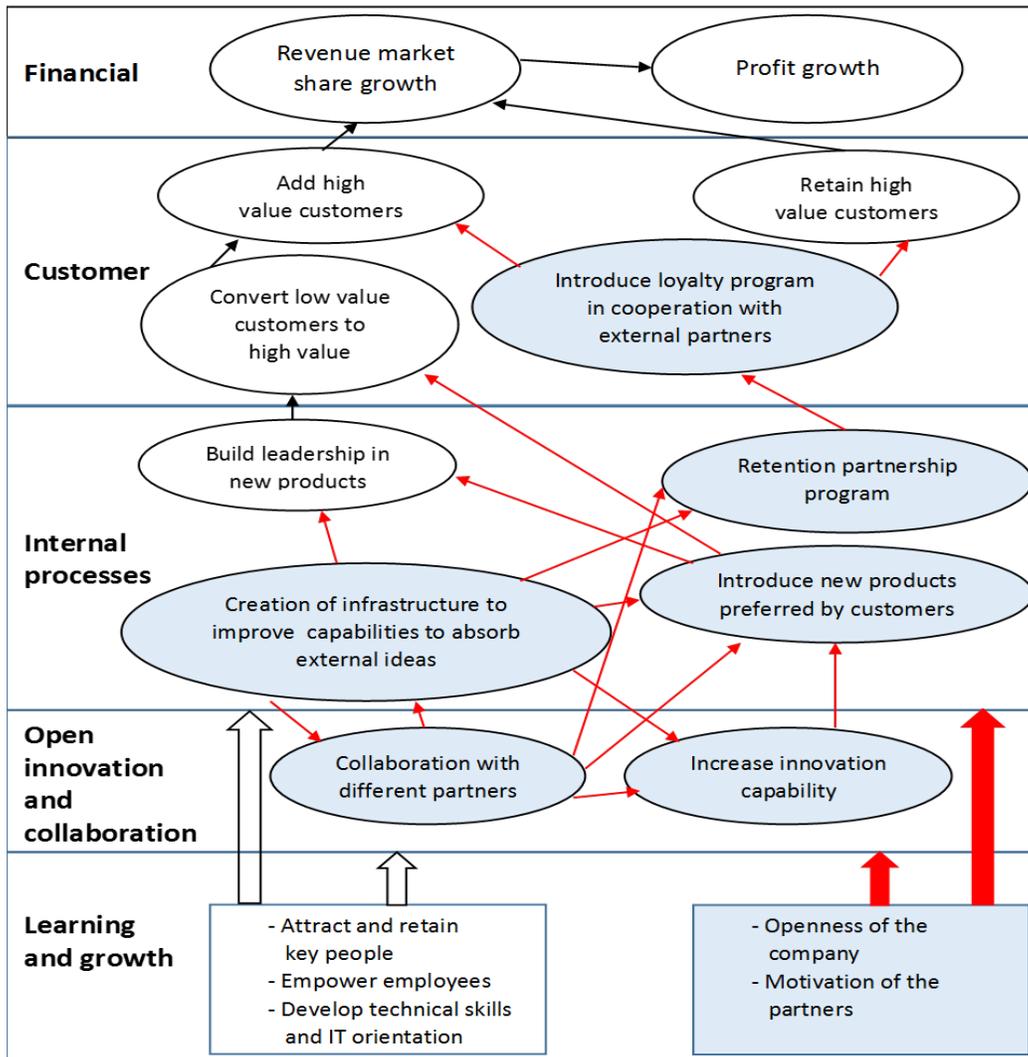
Balanced scorecard should not just be collections of financial and nonfinancial measures, structured in three to five perspectives. The best balanced scorecard reflect the strategy of the organizations. Strategy scorecards along with their graphical presentations on strategy maps provide a logical and comprehensive way to describe strategy¹⁶. Hence, they have to communicate clearly the SMEs desired strategy towards open innovations and its hypothesis about how these outcomes related to the open innovations can be achieved.

¹⁶ Kaplan R. and Norton D., “Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part I”, American Accounting Association, Accounting Horizons, Vol. 15 No. 1, 2001, pp. 87-104.

STRATEGY MAP FOR INNOVATION DRIVEN COMPANY

Traditionally the balanced scorecard are presented in two formats: either as a “scorecard” or alternatively as a “strategic map” as pointed on Exhibit 4. The strategic map concept has been introduced in order to help organizations in their efforts while they are linking different performance indicators (Kaplan and Norton, 1996). The strategic map also shows the linkages and interaction between various variables. The strategic map additionally defines logical cause-and-effect linkages between dissimilar aspects in the organizations. It is believed that when strategy is shown systematically in a map, it increases the chances of its success (Kaplan and Norton, 2001). Exhibit 4 depicts some suggested adaptations to the existing four perspectives in terms of their objectives, measures and actions that would be more oriented towards open innovations. Also, it shows the new fifth perspective, “open innovation and collaboration” together with its linkages and cause and effect relationships.

Exhibit 4. Strategic Map Linking for Strategic Theme: Strategic Map for Open Innovation in Small and Medium-Sized Companies



The chain of cause and effect should permeate all five perspectives of a balanced scorecard. For example, revenue market share growth maybe an outcome measure in the financial perspective. The driver of this financial measure could be retain high value customers, the result of a high degree of loyalty among existing customers. Investigates of customer preferences may disclose that loyalty program is highly valued by customers. Thus, loyalty program is expected to lead to higher customer loyalty, which, in turn is expected to lead to higher financial performance. The process is going on by determining what internal processes the company must excel at to introduce loyalty program. To introduce loyalty program, the business may need to realize retention partnership program and creation of infrastructure to improve capabilities to absorb external ideas, both factors that could be scorecard measures in the internal perspective. And how do small and medium-sized company improve capabilities to absorb external ideas and realize retention partnership program? By collaboration with different partners and increase innovation capability an objectives from open innovation and collaboration perspective. Finally, openness of the company, motivation of the partners, attract and retain key people, empower employees are ultimate objectives and measures that would be a candidates for the learning and grow perspective. All above mention explain how an entire chain of cause-and-effect relationships can be established as a vertical vector through the five perspective of the balanced scorecard.

CONCLUSION

Meeting the many challenges for improvement will require SMEs to undergo fundamental changes and to continuously seek new ways to create future value. Our literature review specifies that transformation towards open innovation requires essential modifications of SMEs to move from close to open innovation. Our paper highlights that managing open innovation in SMEs implies the usage of a strategic managerial system in order to support open innovation strategy. In scholarly literature, many articles communicate the limitations of the balanced scorecard in the innovation economy. Mainly, they share opinion that the traditional BSC is neither appropriate nor useful to measure the innovations outcomes when implementing an open innovation model. In this paper we offered balanced scorecard in its traditional and original frames as a guiding principle to implement an open innovation initiatives at SMSs. To better support the implementation of an open innovation strategy together with the overall business strategy in SME's, we propose adaptations to the existing four perspectives in terms of their objectives, measures, targets and actions that would be more oriented towards open innovations. Also, it is suggested that creation of the new fifth perspective, "open innovation and collaboration" will more adroitly and explicitly communicate a company's intended open innovation strategy. The BSC implementation will support the SMEs effort to discover and maximize the benefits and impacts that innovation and knowledge management deliver on the organization competitive edge and their open innovation business model.

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**ANALYSIS OF SMEs INNOVATION CAPACITY CONTRIBUTION TO VALUE
ADDED CREATION IN THE SEE COUNTRIES***

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Abstract

Small and medium enterprises (SMEs) are the vehicles of economic development, users and creators of technological knowledge, implementers of innovative activities and technological changes in the modern economy. The development level of small and medium enterprises is significantly determined, among other things, by the level and success of their innovative activities. This paper analyzes the achievements of the SMEs sector in South-East European (SEE) countries in various aspects of innovative activities and examines the contribution of innovation capacity of these enterprises to value added creation. The aim of the research is to identify the key segments of the innovative activities of SMEs in the SEE countries in respect of previously mentioned contributions, as well as to determine elements of stimulating policies and development strategies of SMEs in order to improve the innovation capacity and capability in the future.

Keywords: small and medium enterprises, innovation, value added

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INTRODUCTION

Small and medium enterprises (SMEs) play an important role in modern business conditions. Whether it is in terms of their share in the total number of enterprises, in the revenue or in the value added, the dominant role of SMEs is obvious. On the other hand, an essential prerequisite for progress and prosperity in a dynamic environment is flexibility, the ability to change and adapt to the turbulent demands of the modern market. The specific nature enables SMEs to meet these important requirements.

Small and medium enterprises are the creators of knowledge and innovations as a key development factor. In this regard, it is important to evaluate the performance of SMEs in these particular areas and suggest possible ways to improve their competences and innovation activities. This paper examines the performance of small and medium enterprises in the field of innovation in the South-East European (SEE) countries. For each of the analyzed countries we systematize the results in key innovation activities indicators of small and medium enterprises. We explore the correlation between these indicators and the value added generated by SMEs in SEE countries.

THEORETICAL BACKGROUND

Small and medium enterprises are globally identified as drivers of countries' economic development. Also, SMEs are characterized as the key drivers of innovation activity which is the backbone of sustainable growth. The key benefit of small and medium enterprises in this area is their flexibility and effective adaptation. Small and medium enterprises react quickly to market changes and have the power to efficiently respond to new market demands. Their ability to learn quickly and to focus on growth based on knowledge provides them good flexibility in using new technologies and innovative processes (Krstić et al., 2012). Different organizational competences are needed to survive in modern economic environment. In the process of globalization, the competitiveness of enterprises depends increasingly on skills to meet the specific needs and requirements of customers at the right time. This involves managing a large amount of knowledge through extensive use of modern information technology (Lundvall et al., 2002, p. 2).

Innovation is one of the key secrets of success in small and medium enterprises. The width of the innovation concept allows explaining a wide range of activities in enterprises. The innovation is going to be characterized by introducing new products or redesigning the existing, innovating marketing methods in order to expand sales opportunities, implementing new processes to improve key indicators of efficiency. Innovation is the core and the main driver of economic change. According to Schumpeter "radical" innovations lead to major changes in the global scale, while the "incremental" innovation run the process of changes continuously (OECD, 2005, p. 16). Due to its specificity, easy adaptability and flexibility, small and medium enterprises are the bearers of innovative activities. However, in practice, lack of resources combined with the market uncertainty, limits the commitment of the SMEs to the research and development (Tiwari and Buse, 2007, p. 7). This and other problems that prevent SMEs inventiveness need priority solving in every country.

Innovation based on knowledge and efficiency of the knowledge usage is an essential development resource. The economic development of SEE countries in the future and their competitiveness improvement should be based on all factors and resources that lead to creation of “new” economy or knowledge economy (Krstić and Stanišić, 2013, p. 152). It becomes clear that innovation activities result from using the intangible (intellectual) resources which integrate knowledge, skills, capabilities, competences, values of organizational culture, relations, technologies, intellectual property in the exploitation and commercialization of products in an enterprise (Krstić and Džunić, 2012, p. 2). Innovation is the knowledge-based outcome (Quintane, et al., 2011). Innovation is also the output of innovation process and innovation behavior in an enterprise (Tang, 2006). SEE countries, following the example of the developed world economy, must base their development, economic performance and competitiveness on the development of SMEs sector, and the development and promotion of innovative activities in small and medium enterprises.

SMEs CREATION OF VALUE ADDED IN SEE COUNTRIES

The role of SMEs is crucial in developed and developing countries. According to number of SMEs, their employment capacity and value added, SMEs sector has a significant role for a national economy. Important indicator, that often reflects the performance of small and medium enterprises and their role in an economy, is their participation in creating the value added. Value added is the value of all goods and services that are available for different types of use, except intermediate consumption. Table 1 analyzes the indicator of success of SMEs in SEE countries.

Table 1. Value added in SEE countries in 2013 (in million Euros and as % of value added of total enterprises)

Country	Micro		Small		Medium - sized		SMEs	
	Million €	Share						
Albania	618	27.2	581	25.6	355	15.6	1555	68.4
Bulgaria	2725	16.9	3347	20.8	3887	24.9	10064	62.6
Croatia	3656	18.0	3745	18.2	3979	19.5	11381	55.7
Macedonia	602	26.8	578	25.7	350	15.6	1530	68.1
Romania	7160	13.6	8891	16.9	10741	20.4	26792	50.9
Serbia	1885	13.1	2756	17.9	2808	19.5	7269	58.4
Turkey	31000	27.0	10000	8.7	23000	20.0	64000	55.7
<i>EU27</i>	<i>1259454</i>	<i>21.5</i>	<i>1084150</i>	<i>18.3</i>	<i>1086381</i>	<i>18.6</i>	<i>3429985</i>	<i>58.6</i>

Source: SBA Fact Sheets database 2013, http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/index_en.htm

Similar to the situation in developed countries in the case of value added creation, on the basis of Table 1, we notice that the role of small and medium-sized enterprises is also large in the SEE countries. The sample of SEE countries includes only seven countries (presented in Table 1), because there are no available updated and relevant information for Montenegro and Bosnia and Herzegovina. Participation of SMEs in the creation of value added in the SEE countries is between fifty and seventy percent. The smallest participation is recorded in Romania (50.9%), followed by Turkey and Croatia with a share of 55.7%. The largest share of small and medium-sized enterprises in the creation of value added among the SEE countries is recorded in Albania (68.4%) and Macedonia (68.1%). In comparison with the EU27 average (58.6%), four out of seven analyzed countries have smaller share (Croatia, Romania, Serbia and Turkey). When it comes to the structure of small and medium enterprises, the largest share in value added have micro enterprises in Albania, Macedonia and Turkey, analogous to the situation at the European Union level. Medium-sized enterprises have the highest share in Bulgaria, Croatia, Romania and Serbia.

Based on table 1, we conclude that the contribution of small and medium-sized enterprises in creation of the value added in the SEE countries is not negligible. In the developed countries, small and medium enterprises base their results and success on innovation, knowledge and technology readiness. In order to assess the situation of SMEs in the SEE countries, the following study analyzes their position in terms of innovative activities and overview the correlation between the success of innovative activities and realized value added.

RESEARCH METHODOLOGY

Information base of research (data on value added and data on innovation activities of small and medium enterprises) are reports of the European Commission on the implementation of the “Small Business Act” (SBA) for 2013. The “Small Business Act” for Europe reflects the Commission's political will to recognize the central role of SMEs in the EU economy and for the first time puts into place a comprehensive SMEs policy framework for the EU and its Member States (Saisana, 2012, p. 5). The implementation of the SBA has brought the issue of the role and importance of SMEs in the context of social and economic development of countries (European Commission, 2013, p. 9). Since 2008, the European Commission's Directorate-General for Enterprise and Industry (DG ENTR) produces annually the SBA country factsheets that serve as an additional source of information designed to improve evidence-based policy making, along ten established principles.

The ten principles of the „Small Business Act“ adopted by the European Commission in 2008 are: (1) Entrepreneurship, (2) Second chance, (3) Think small first, (4) Responsive administration, (5) State aid & Public procurement, (6) Access to finance, (7) Single market, (8) Skills and Innovation, (9) Environment, and (10) Internationalization (European Commission, 2008). The aim of this paper is to examine the results of the SEE countries in terms of the eighth principle which is vital for the functioning of SMEs - Skills and Innovation. Principle Skills and Innovation means promoting and upgrading skills in SMEs and all forms of innovation. Ten indicators are analyzed and measured under the principle Skills and Innovation: (1) SMEs introducing product or process innovations (%), (2) SMEs introducing marketing or organizational innovations (%), (3) SMEs innovating in-house (%), (4) Innovative SMEs

collaborating with others (%), (5) Sales of new-to-market and new-to-firm innovations (% turnover), (6) SMEs participating in EU funded research (number per 100.000 SMEs), (7) SMEs selling online (% of SMEs), (8) SMEs purchasing online (% of SMEs), (9) Enterprises providing training to their employees (%), (10) Employees' participation rate in education and training (% of total number of employees in micro firms).

The starting assumption of the study is that the skills and innovation are factor of vital importance for the functioning of small and medium-sized enterprises, which are, among other things, in correlation with value added created by SMEs in SEE countries. Methods of comparative analysis and method of correlation analysis are used in the research.

RESEARCH RESULTS AND DISCUSSIONS

In the purpose of carrying out the given task and testing starting assumption, the paper is structured in the following sections:

- a) Analysis of the results achieved in the field of skills and innovation in the SEE Europe countries;
- b) Examining the correlation between the values of innovative activities indicators and the value added of SMEs in the SEE countries.
- a) Analysis of the results achieved in the field of skills and innovation in the SEE countries

Table 2 shows the measured values of ten indicators within SBA principle - Skills and Innovation. Besides the already mentioned lack of data for Montenegro and Bosnia and Herzegovina, Albania is also not included in Table 2. In fact, from the ten analyzed indicators, for Albania, there is only information about the value of SMEs participating in EU funded research (number per 100.000 SMEs). According to the latest report, the value of this indicator for Albania is 2. There are no data for other 9 indicators for Albania. All this leads to the fact that the sample of SEE countries, which are the subject of the research, is finally reduced to six countries (Bulgaria, Croatia, Macedonia, Romania, Serbia and Turkey). Table 2, for the purpose of comparative analysis, shows the average value of each indicator at the EU level.

Table 2. Indicators of SBA principle – Skills and Innovation in SEE countries

	Bulgaria	Croatia	Macedonia	Romania	Serbia	Turkey	SEE	EU27
SMEs introducing product or process innovations (%)	21	31	39	18	18	30	26.17	34
SMEs introducing marketing or organiz. innovations (%)	17	32	31	26	18	50	29.00	39
SMEs innovating in house (%)	17	26	11	17	28	28	21.17	30
Innovative SMEs collaborating with others (%)	4	12	10	2	4	5	6.17	11
Sales of new to market and new to firm innovations (% turnover)	14	14	10	15	10	16	13.17	13
SMEs participating in EU	8	10	0	7	4	1	5.00	23

funded research (number per 100.000 SMEs)								
SMEs selling online (%)	4	23	5	5	12	8	9.50	13
SMEs purchasing online (%)	4	0	4	7	14	11	6.67	16
Enterprises providing training to their employees (%)	6	15	-	3	-	-	8.00	24
Employees' participation rate in education and training (% of total no. of employees)	3	3	5	3	3	6	3.83	11

Source: SBA Fact Sheets database, http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/index_en.htm

Measured values of all indicators, except the indicators SMEs participating in EU funded research, Employees' participation rate in education and training and Sales of new to market and new to firm innovations, presented in Table 2, include the percentage of small and medium-sized enterprises engaged in certain innovation activities. Indicator SMEs participating in EU funded research means the number of small and medium-sized enterprises participating in the European funds measured per 100,000 SMEs. Indicator Sales of new to market and new to firm innovations is measured as percentage of turnover.

Regarding the indicator SMEs introducing product or process innovations, the highest percentage of SMEs is recorded in Macedonia. The 39% of the total number of SMEs in Macedonia are engaged in the implementation process or product innovation. Also only in Macedonia, the percentage of SMEs is higher than the EU27 average. The lowest percentage share of SMEs, according to this indicator, is registered in Romania and Serbia. According to the indicator SMEs introducing marketing or organizational innovations, Turkey records the highest score (50% of total SMEs). In all other analyzed countries, the percentage of SMEs introducing marketing and organizational innovation is lower than the EU27 average (39%). The lowest percentage of participation is recorded in Bulgaria and Serbia. According to the indicator SMEs innovating in house, Serbia and Turkey are the best positioned countries (28% of SMEs). The lowest share of SMEs is recorded in Macedonia. However, all analyzed SEE countries have smaller share of SMEs according to this indicator comparing to the EU27 average. Regarding the indicator Innovative SMEs collaborating with others, the best score that is at par with the EU27 average is recorded by Macedonia and Croatia. In all other countries, extremely low percentage of innovative SMEs that generate mutual cooperation is recorded. According to the indicator Sales of new to market and new to firm innovations, SEE countries record fairly consistent results that are on par with the EU27 average. South-East European countries are in a precarious position when it comes to the indicator SMEs participating in EU funded research. Thus, there are no SMEs participating in EU funded research in Macedonia. In Turkey, only one out of 100,000 companies participates in EU funded research, while four companies participate in Serbia. According to the indicator, SMEs selling online, Croatia is the best positioned, where as many as 23% of small and medium-sized enterprises have developed systems of online sales. Croatia is followed by Serbia (12% SMEs), and other countries have weak development of on-line sales of small and medium-sized enterprises. Serbia is the best positioned towards the

indicator SMEs purchasing online since 14% of SMEs are using the online purchasing, while the average is 16% at the level of the European Union. According to the indicator Enterprises providing training to their employees, significant positive results are recorded only in Croatia. For the other countries, there are either no data or very low percentage of SMEs is engaged in this activity. The situation is similar with the indicator Employees' participation rate in education and training. SMEs in all of the analyzed countries from the South-East Europe do not have significant involvement in this activity.

Observed by countries, there are certain segments of the innovation activities of SMEs that require special promotion and in which the participation of SMEs is significantly below the EU average in each of the countries analyzed. For all forms of innovation, including in-house or in cooperation with others, Bulgarian SMEs are significantly behind their EU27 peers. In only one indicator, namely Sales of new-to-market and new-to-firm innovations, Bulgarian SMEs are in line with the EU27 average (European Commission, 2013, p. 12). Employees' participation rate in education and training, SMEs selling online, SMEs purchasing online and Innovative SMEs collaborating with others are distinguished as critical indicators of innovative activities. SMEs purchasing online and Employees' participation rate in education and training require special attention in Croatia. Croatian firms are better at collaborating with others and bringing innovation to markets than at introducing innovation and participating in EU-funded research (European Commission, 2013b, p. 10). In Macedonia, the low participation of SMEs is recorded in terms of indicators: SMEs participating in EU funded research, SMEs selling online, SMEs purchasing online and Employees' participation rate in education and training. It is particularly critical that SMEs in Macedonia have not yet taken advantage of EU-funded research (European Commission, 2013c, p. 10). The critical factors of innovation activities that should be improved especially in Romania are: Innovative SMEs collaborating with others, Enterprises providing training to their employees and Employees' participation rate in education and training, while in Serbia those are: SMEs participating in EU funded research, Innovative SMEs collaborating with others and Employees' participation rate in education and training. Turkey is the country with the best performance in terms of innovative activities among the analyzed countries of South-East Europe. Particularly low participation of SMEs in Turkey is recorded when it comes to SMEs participating in EU funded research.

b) Examining the correlation between the values of innovative activities indicators and the value added of SMEs in the SEE countries

Table 3 shows the interdependence between the values of each of the analyzed indicators of small and medium-sized enterprises' innovative activities and the participation of SMEs in the creation of value added in South-East European countries. Due to the incompleteness of the data, it is not possible to calculate the coefficient of correlation between indicators *Enterprises providing training to their employees* and value added.

Table3. Pearson correlation coefficient between indicators of SBA principle - Skills and Innovation and value added in the SEE countries

		Value Added
SMEs introducing product or process innovations (%)	Pearson Correlation	0.547
	Sig. (2-tailed)	0.262
	N	6
SMEs introducing marketing or organizational innovations (%)	Pearson Correlation	-0.201
	Sig. (2-tailed)	0.702
	N	6
SMEs innovating in house (%)	Pearson Correlation	-0.540
	Sig. (2-tailed)	0.269
	N	6
Innovative SMEs collaborating with others (%)	Pearson Correlation	0.395
	Sig. (2-tailed)	0.439
	N	6
Sales of new to market and new to firm innovations (% turnover)	Pearson Correlation	-0.657
	Sig. (2-tailed)	0.156
	N	6
SMEs participating in EU funded research (number per 100.000 SMEs)	Pearson Correlation	-0.444
	Sig. (2-tailed)	0.378
	N	6
SMEs selling online (% of SMEs)	Pearson Correlation	-0.299
	Sig. (2-tailed)	0.564
	N	6
SMEs purchasing online (% of SMEs)	Pearson Correlation	-0.215
	Sig. (2-tailed)	0.683
	N	6
Employees' participation rate in education and training (% of total no. of employees)	Pearson Correlation	0.261
	Sig. (2-tailed)	0.618
	N	6

Out of nine analyzed indicators, a positive correlation is observed between the values of three indicators and participation of SMEs in the SEE countries in value added. There is a moderate positive correlation between value added and two indicators - *SMEs introducing product or process innovations* (correlation coefficient of 0.547) and *Innovative SMEs collaborating with others* (correlation coefficient of 0.395). There is weak positive correlation among the indicators *Employees' participation rate in education and training*, and the value added. All other indicators are in negative correlation with the share of SMEs in the creation of value added in South-East Europe. Taking into account the data presented in Table 2 and Table 3, the initial assumption of the study is rejected. Innovative activity of SMEs in South-East European countries is unsatisfactory and below the EU27 average. Also, their level of innovation is not significantly associated with the share of SMEs in value added.

CONCLUSION

The results that small and medium-sized enterprises achieve in modern business conditions are of great importance for the development and competitiveness of the national

economy. They are dominant according to number, the share of total revenues, and the share of value added. This fact is valid for the developed countries, but also for the analyzed groups of the South-East European countries. More than half of the value added is created by small and medium-sized enterprises in all analysed countries.

In order to improve the business and performance in a dynamic business environment, small and medium enterprises have to base their success and results on knowledge, innovation, technological readiness, and other determinants of sustainable competitive advantage. However, the analyses have shown that SMEs in the SEE countries do not have a satisfactory level of innovative activity. We have identified a number of critical areas that need improvement and which are significantly below the EU27 average. Only one, out of ten analyzed indicators of the SEE countries, is in line with the EU27 average. It is about the participation of SMEs in South-East European countries in selling a new-to-market and new-to-firm innovations. Also, there is no significant positive correlation between the share of SMEs in the SEE countries, in different aspects of innovation activities, and their participation in the creation of value added.

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**AN INVESTIGATION INTO PROBLEMS FACING SMALL BUSINESS IN
ACHIEVING GROWTH IN ALBANIA**

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Abstract

Entrepreneurs and small firm success and failure have been the subject of extensive research. It is important to understand the external, internal and motivational factors in their endeavours for growth, the barriers faced during this journey and the assistance needed. In this paper we aim to outline and integrate the most important factors that affect the Albanian SME-s in their path for growth and success. Based on a random sampling of 69 enterprises marked as successful are selected. This research contributes to our understanding of barriers in several ways, some of which are considered here. First, it shows that owner-managers perceive certain barriers to be important and can make distinctions between barriers within and across classifications of barriers in terms of their importance to growth and development. Second, it suggests that characteristics of firms - age, size and sector - may affect perceptions of barriers. Third, it suggests that many barriers to growth are related, although these relationships do not tend to be examined. As suggested, financial barriers such as access to finance are related to institutional barriers. Also, access to finance may depend on skills or experience of owner-managers. It was also noted that access to skilled labour may depend on financial resources, and the ability to compete may depend on management skills, access to finance and regulation. This findings suggest that the growth of Albanian companies was conditioned by some factors as: the experiences and management capacities of the owner/manager; the general and technical educational level of employees and employer; the strategies the use to gain competitive advantage, the traditional relationship between employers and employees, the organizational culture and the predominant values; the legal and regulatory framework.

Keywords: entrepreneurs, small business, management skills, competitive strategies, barriers to growth.

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INTRODUCTION

The small business development literature argues that SMEs give at least three unique contributions to the economy:

1. SMEs are a particularly effective engine for job creation and therefore hold the key to employment and poverty reduction.
2. SMEs are championed as the “seedbed” for future industrial growth.
3. The presence of SMES in the economy increases competition and adds flexibility to the industrial structure, thus SMEs can add dynamism and flexibility to business activity and improve economic performance. (Carlson 1996).

MAIN PURPOSE AND KEY QUESTIONS

This paper addresses important issues that have configured the path to growth of small and medium enterprises in Albania. The preliminary study about the subject revealed that, although entrepreneurs are operating in the same environment, they face different problems in different situations. As a result some businesses fail and others are successful and have known only growth.

For purposes of this study are taken into consideration two subgroups of businesses, those with up to 50 employees (micro and small), and those with 50-250 employees (medium) which in the last 10 years had experienced a steady growth. The main question arises: *What is the pathway these businesses have followed in order to grow and succeed?*

In relation to this question, three more questions are posed:

1. What were the factors that influence the growth of Albanian SME-s?
2. Who were the people?

METHODOLOGY

To realize the study, have been used data obtained from the survey of 69 small and medium businesses, materials from contemporary literature, reports or surveys of specialized centres. On the classification of small and medium businesses, was used criterion of the number of employees. Based on the Enterprise Classification, adopted by government on October 30 2008, small businesses are those with less than 50 employees and medium businesses with up to 250 workers. The selection of businesses that would be interviewed was done randomly from a list of businesses in Tirana, taken from INSTAT. We tried that in choosing the sample to cover geographically through out the city of Tirana.

For the purpose of obtaining a correct information and cover a wider range of problems, the construction of the questionnaire was devoted special attention. Questions were formulated clearly, while some questions were repeated twice in different ways, in order to determine the accuracy of answers. Of the 100 questionnaires distributed, 20 of them were considered invalid due to insufficiency of information while 11 businesses refused to cooperate. Processing of the questionnaires was done by SSPS for Windows program, thus avoiding potential losses of data and increasing their level of accuracy. In reaching conclusions, during the processing was taken into account the results with the strongest correlation.

Secondary data were also obtained by studying different papers on the finance of firms, business entrepreneurship, business journals, books, business associations, governmental institutions, online libraries and internet researches, Central Bank of Albania annual reports and conferences, etc.

Research boundaries: Despite the news that brings the study, we are aware that it contains several limitations. The whole study is based on responses given by the

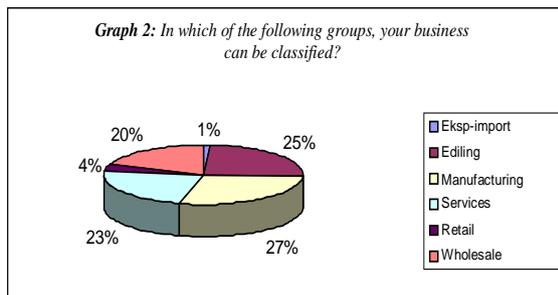
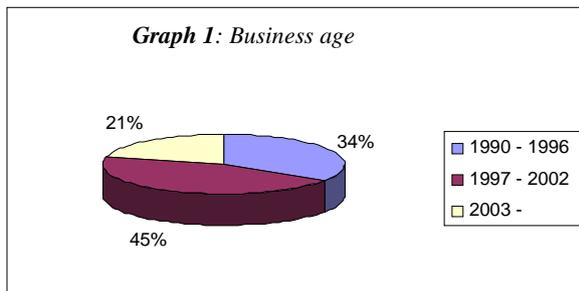
owners/managers of businesses. The value of the study is accordingly with seriousness and honesty of the responses of managers. In addition, the success of a firm may be affected by other factors, subjective or objective, which requires the greatest care in interpreting the results. On the other hand, first, empirical research was conducted primarily in Tirana, in fact industrial centre of Albania. However, despite the mentioned limitations, results from the study show that recognition of factors contributing to growth is very important for the recognition of business activity in Albania. We hope that they will serve for other intensive studies in this field. Finally, the results of this study, we think that can help to improve the running of these businesses.

**RESULTS ANALYSIS
GENERAL BACKGROUND OF THE SAMPLE**

- The form and ownership of the business. SME legal forms are: sole proprietorship (commonly known in Albania as physical person, which are generally micro enterprises), joint partnerships, limited partnerships, limited liability companies:

The processing of questionnaires shows that 68 percent of businesses were sole proprietorships, 17 percent Limited liability companies, 8 percent joint partnerships, and 4 percent governmental organizations and foundations. In the study sample, dominant businesses with up to 60 workers (65 percent), and then come businesses with 61-100 employees (13 percent). *Business age.* The survey shows that most of the SME's interviewed (45 percent) have a 10-15 year old age. So, most of businesses are created in the years 1991-1996, a period that constitutes a "boom" of private business in Albania. The 1997 crisis had its effect in restraining Albanian businesses. In 1998-2003 we have a period of modest growth.

- Business nature. Through this question we aimed to study the distribution of businesses according to their activity. Based on the survey, results that is more or less uniform distribution of businesses in the manufacturing sector, service and the construction (about 23 percent).



What were the factors that influence the growth of Albanian SME-s?

There have been numerous approaches studying the factors contributing to the growth of firms. The theoretical models as well as empirical research (Niosi, 2000) point at many of the same important factors: conducting R&D, engaging in alliances with other businesses, competence in funding, protecting their IP and finding a market niche. Furthermore, previous studies have been assessing the contribution of various factors to growth without considering the growth stage of the firm (Hanks, 1993), its industry or the important management practices in which they might be engaging.

Classifications of barriers to growth even more narrow in scope have been devised. For the purposes of this study, they have been divided into four sub-sections based on the following classifications of barriers: financial, skills related, institutional and market related (Rachel R. Doern, 2008)

- **Business growth.** Before discussing the problems faced by businesses in their difficult path to growth, it is interesting to discuss how growth is measured. In most cases those who respond to the questionnaire, were hesitant to give exact figures of profit. We discovered that they can yield two types of indicators: a) annual sales and the growth, and b) the annual percentage increase or decrease profit before tax. For the purpose so the current research it is useful to note that sales growth has been the most widely mentioned by the managers/owners of the sample.

About 60 percent of businesses consider their growth as average. Also, about 67 percent of respondents claimed that the running of their business has been or "profitable" or "almost as lucrative as they had expected". It is interesting that about 11 percent of respondents considered their business running "almost as hard" or "more difficult" than they anticipated.

Table 1: Attitudes of managers/owners in terms of profit and the difficulty of achievements

Managing my business has been:	Frequency of responses
More lucrative as expected	38
Almost as lucrative as expected	29
Less profitable than expected	12
More difficult as I expected	10
Almost as hard as I expected	6
Less difficult than I expected	5

Businessmen's optimism is based on the economic growth of the country, and creating favourable environment for businesses. When asked "what are the main barriers to business growth", the respondents ranked the first "lack of capital", meaning 30.8 percent of the respondents. Further, as other factors limiting growth are rated "lack of demand in the market", "corruption", "lack of managerial skills" and "lack of distribution channels."

A. Financial barriers

In transition economies, financial barriers to the growth and development of small businesses and entrepreneurship are said to be heightened by an underdeveloped institutional environment in these economies (Chilosi, 2001; Pissarides, 1999). It has been argued that because small businesses in transition economies tend to rely on internal resources or private sources of funding, this is a sign of the enormity of financial barriers facing these businesses (Chilosi, 2001).

Providing funds for business start-up, it seems that most has been the result of using their own funds. About 70 percent of respondents reinvest profits in the business. However, about 33.6 percent of respondents said they had difficulties in relationships with the bank. Their main claims were "not granting credit" and "long procedures". About 50 percent of the respondents claim to have difficulty getting a loan, while 34 percent do not have relationships with the bank.

So the low level of business credit in Albania is visible. This is due to the high level of risk, level of interest rates and preferences of banks to grant loans to SMEs. Although trade is the economic activity that dominates the market and ensures high and fast profits, the banks prefer the industry, as an activity that is more consolidated, as long-term support for the Albanian economy and provides more stable banking relationships with customers.

The high cost of debt capital was one of the most frequently reported barriers to growth. Lack of access to capital was the next most frequently reported financial barrier. The high cost of debt capital referred to interest rates on loans and collateral requirements. The high cost of

capital was reported by 56percent of the participants. The view that interest rates were too high was shared both by those participants who had accessed bank loans and those who had not.

B. Skills related barriers

Skills-related barriers include, but are not limited to, a lack of education, experience or skills of the owner-manager or employees. They may negatively affect decision making processes and business growth ultimately (Casson, 1982).

The biggest challenge facing entrepreneurs is finding and keeping talented people. For years, high-growth firms were focused on finding money. Today, capital is more readily available. Now firms struggle to find qualified people to fuel and sustain growth.

In terms of education levels, there is some evidence to support the claim that in transition economies people are well educated (especially in the sciences, maths and engineering) and this may have positive implications for firm growth (Estrin et al., 2006). In meantime, in these economies, management and marketing skills are difficult to attract.

- Profileofentrepreneurs/owners. From the interviews is shown that75percent of owners/managersofbusiness have been graduated. This indicates relatively satisfactory level of educationofrespondents. Given thefactthatmanagerialskillscan be cultivatedbyeducation, it is to beconsideredasimperativeduty training oftheseowners/managers.

To the question, "Have you participatedinanytrainingprogram", 34.3 percent of respondents answered "yes". Sowe are dealing within adequa tepreparation of the owners/managersin thefield of management. We insist againonthe factthat regardless of personal capabilities, the ability tomanage can/should be educated. Businessmenwhohave participated intraining programs were pertaining to age 30-40 years (16percent) and 40-50years (24percent).

- Management of human resources. To the question "What are the criteria forpersonnel employment", 44percent ofbusinessesrateas animportantcriterion "specialty", 25 percent "experience", and19.5percent "education". The differenceofresponsescan beexplained bysizeofbusinessandthe areawhereit operates. Medium size businessesrequirespecialists inrelevantfields, while small businesses require employeeswithexperiencewhoshouldgiveimmediateresultsat work.

Business owners try to keep employees at work via the "motivation" (40 percent), "differentiation of wages" (29.6 percent), "extra compensation" (14 percent). Almost every contemporary theory of motivation recognizes that employees are not homogeneous. They have different needs. Therefore, to maximize the motivation of the workforce, managers must be flexible. The above results are the source to increase the standard of living of workers and increase their demand for increased revenue. Also, the application of wage differentiation is related to the fact that the owners/managers in order to enhance the performance of their employees apply wage differentiation for high performance.

To the question "What are the claims you have against the employees" about53percentof the total of respondents rankas the most important"quality work", 12percent"respect for clients", around 15 percent" loyalty "and 19 percent "realization oftasks". Further other requirements are listedas"independence inaction" and"thedesireforpersonal growth".

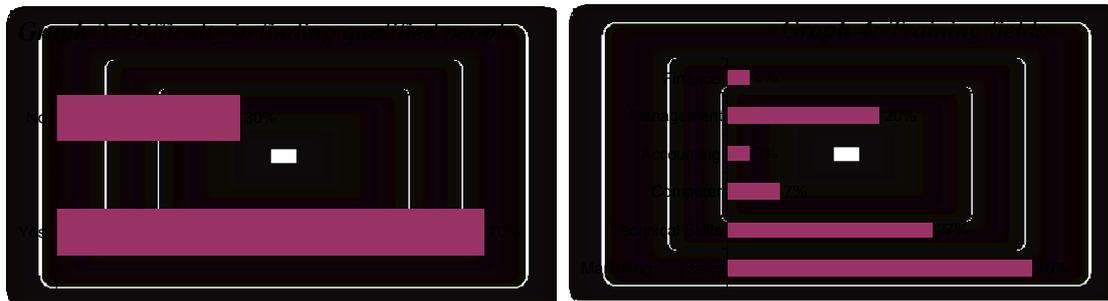
Table2: What are theclaimsthatyouhaveonyour employees?

	Percent
Quality of work	53
Respect for clients	12
Realizationoftasks	19
Loyalty	15
Willingness topersonal growth	2
Independence inaction	1

To the question "Have you had problems in finding skilled workers", 30percent ofbusinesses says "no". The differenceof those who answer"yes", list theproblemssuchas "training", "experience", "level of confidence" and"lack of information regardingthe labour market".

When businesses were asked in which areas do they need more training for their staff, sales and marketing was the most preferred area of training, management and technical skills are preferred for 20% and 27% of the interviewed respectively. This shows the lack of skills of the labour force, especially in marketing, technical skills and management. The least preferred fields of training are quality control and budgeting which were not chosen by any of the interviewed.

From the responsesgiven bymanagersto the above question, results that businesses are demanding more and more people trained. Leadersof the sebusinessesestimatethat the chancesfortraininginthe coming yearswillrisefortwomain reasons: because of the increasingcompetitionandincreasedof the trainingservicesin the Albanian market. Companies that operate in the so-called modern in dustries invest more intraining than companies operating intraditional industries. This has to do with the fact that these kinds of industries are newin the Albanian environment.



- Business advice: One factor that emerged consistently was the importance of business advice. Firms that thrived during an otherwise turbulent period largely attributed their success to previous business experience or timely business advice from outside the firm.

"Are you looking for adviceonyour activity?", only47percentof respondentsfeel the need forconsultancy. Theabovefigurefalls short ofdesired: while theowners/managersdo nothavethenecessaryeducation, do not participate intraining programsdo notneedconsulting, too. Thiscanbe considered ahandicapofAlbanian businesses. However, it is positive the fact that some of the respondents feel the need to enhance their management skills.If all the Albanian business entrepreneurs will be felt in the same way, it would be a good sign for the future of the economy.

Time management. Albanian entrepreneurs evaluate the effective useoftimeasone ofthe weakestareasofmanagement. The reason for this inefficientuseofworking timeisconsiderednationalmanagerialculture. In other words, even if acompany makes effortsto cultivateanew cultureof useofthe working time,nationalcultureinthisdirection willhaveitsimpact.

Albanian entrepreneurshopethatduringthe years2011-2015, use oftimewill haveasignificant improvementcomparedwithancestor years. Theythinkthat thisindicatorin2015will bemorethan"good". According to experts inthis field, inefficientmanagementoftimehas its sourceintheentrepreneurs'reluctancetodelegatetosubordinatesseveral types ofroutinejob. This behaviournot onlyreflectslackof trust insubordinates, but mayperhapsbe regardedasarelief of theregimeleft behind, where thedirectorswere entirely responsibleforanyaction takenin the enterprise.

C. Institutional barriers

The development of entrepreneurship in transition economies is said to be sensitive to the institutional environment (Estrin, Meyer and Bytchkova, 2006). Institutions provide the 'rules of the game' that shape economic activities they include legal and regulatory institutions, customs and norms.

When businesses were asked about their perceptions on different aspects of their experience with the government, they answered that their major problems in interacting with government rules like the unregulated competition from informal sector, corruption and the lack of clear regulation in some areas.

When the interviewed were asked about the public services, most of them are not satisfied from the level of these services, especially the police protection, and electricity supply. The firms that face the major problems in issuing licenses and permits are businesses operating in the construction sector, due to the length of procedures and relatively high costs.

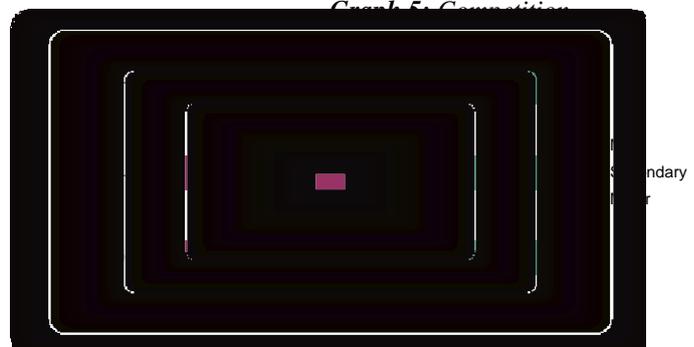
60% of the interviewed answered that tax rates are a major problem, but telecommunication costs and public order are a major problem for 70% of the interviewed.

D. Market related barriers

Whereas institutional barriers concern laws and regulations, customs and norms, market-related barriers include those that revolve around the structure of markets and behaviour of competitors (ACOST, 1990).

- Competition. A lot of studies in mature market economies have identified intense competition as a major barrier to growth (eg, Hay and Kamshad, 1994; Moy and Luk, 2003).

When businesses were asked about the local competition, 60% of the interviewed answered that they are the main competitors and 27% answered that local businesses were their minor competitors. Regarding national competition, 20% of the interviewed answered that they are the main competitors and 47% answered that local businesses were their minor competitors. 30% of the interviewed identified importers as main competitors.



As we can find from these data, business main competitors perceived are local businesses, which operate in the same area.

- The orientation of the entrepreneurs to market and their interest for the costs. Analysis of the degree of orientation towards market indicates that it will be improved enough during this decade. Based on responses given by managers/ owners of the businesses interviewed, we conclude that market orientation in the years 2015 will be more than "good."

But it is difficult to give response to the claim, if Albanian leaders are really more market-oriented or this estimation is over rated. However, studies conducted in this regard have shown that knowledge of the market is much improved.

Marketing researching might be the least well known and applicable method used (in Albania) in order to manage the small business successfully. Most of the managers don't believe that the information provided by the market research or market survey is worthier than the proper expenditures on such issue. This might be due to their lack of knowledge how to gather and process the research figures.

According to the questionnaire results, only 18% of small business (29) pretended to apply a market research. Fourteen out of those businesses declare to conduct a formal written research. 10 out of 12 firms declared to conduct such research with employees of their firms.

It is still difficult to answer the question if the Albanian managers are becoming more orientated toward the market or this might be overvalued. The researches resulted that the knowledge on the market is strongly improved.

CONSLUIONS

While the conditions for small business growth and development in Albania appeared mainly to be negative, recent years also have witnessed some positive changes. For instance, the Albanian economy has stabilized and is showing signs of growth. Purchasing power throughout the country has been improved. New legislation has been introduced to reduce the regulatory burden on businesses.

From the analyses derive some conclusions:

Albanian businessmen are optimistic for the future. They have specified as main barriers to business growth, the lack of capital, the high cost of debt capital, lack of demand in the market and lack of managerial skills. We find an awareness of owners about the need of qualified people via motivation and wage differentiation. They are optimistic regarding trained people in the future.

The story shows that though entrepreneurs do not have the necessary education, they do not participate in training programs. However, it is positive the fact that some of the respondents feel the need to enhance managerial skills.

Albania's business environment suffers from a high degree of institutional rigidities, which partly explains why roughly one quarter of economic activity is performed outside laws and regulations and only half of the labour force is registered with the social security.

Corruption remains an issue of concern in Albania. According to recent polls that gauge public perceptions, the institutions most affected are public administration, customs, tax offices, political parties and the judiciary. Judges are subject to intimidation, pressure, and bribery, and the pace of judicial reform remains very slow.

One of the main constraints faced by the enterprises in Albania is competition from companies in the grey economy. SMEs are faced with increasing competitive pressure stemming from globalization, enlargement and the opening up of markets spurred by new technologies and innovation. SMEs will need to find ways to tackle these challenges, because the challenges are likely to persist and to increase in the future. To survive and win in such a competitive fight, to grow in such an environment, they must also develop their comparative advantages. And this requires: *knowledge, financial resources and economic flexibility*.

It is still difficult to answer the question if the Albanian managers are becoming more orientated toward the market or this might be overvalued. The researches resulted that the knowledge on the market is strongly improved. Customer orientation, finding a market niche and quality of service were key marketing strategies for this group of owners/managers. Marketing research was unknown for most of the respondents. Only 18 percent of the respondents applied a market research.

Albanian entrepreneurs are open to changes and willing to take risk. Here we have reservations about whether they are aware of the risk and as a result have also revised his expectations? Delegation of authority on Albanian businesses shows that the entrepreneurs or owners of firms are not yet convinced of the crucial role of managers in the success of their business. These include the fact that the salaries of managers are not at appropriate levels. Autocratic style that prevails in Albanian businesses does not allow employee participation in decisions and negatively affects their motivation. Effective coping with growing competition and the achievement of performance targets, among others will require the decentralization of organizational structures and delegation of authority to subordinates.

Objectives of Albanian entrepreneurs tend to be stable over time. They constantly put the emphasis on cost reduction, increased profits, increased market share and financial independence. However, with the concept of reducing the costs, it is often abused by the managers. The fact that employees' rights are not protected, allows them to keep wages low by providing low-cost labour. At the same time not well acquainted with the concepts of other costs, such as financial, management liquidity, working capital, etc. Personal objectives of the Albanian managers are addressed towards maximizing their income and providing financial independence. They emphasize growth of profit, almost ignoring the other aims of the organization which would help in achieving long-term objectives.

As a result of the mentality inherited from the past and inexperience we see the idea of business uncertainty and almost no recognition of strategic management. Perennial experience of western developed countries has shown that the success or failure of business companies was a primary factor in the level of professionalism of the managerial team.

Albanian owners/managers use as a basic element of competition, lower cost through cost leadership strategy. Also, customer orientation, finding a niche market and quality service were key marketing strategies for the group of respondents. Tracking these key strategies depends on the nature of the business.

Albanian businessmen declare that the idea of business from year to year is becoming clearer. However, they are not so aware about planning process. They ranked as competitive advantages product quality, low cost and firm's reputation. Most of the firms used the competitive strategies of defenders and analysers.

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**INNOVATION POLIICIES AND ENTREPRENEURESHIP
WITH SPECIAL OVERVIEW IN THE REPUBLIC OF KOSOVO**

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Demiri Kujtim, MSc ²

Abstract

The Republic of Kosovo is the newest state in the South East Europe. And by knowing this it's understandable that it has more economic problems than other countries in the region. More than 99% in Kosovo are SME-s. According to this percentage we know that the SME-s development has a key role in the economic development of our country. There are a lot of problems that the businesses are facing everyday in our country. And this is the reason why we chose to do a research in the field of innovation policies and entrepreneurship. As we know, innovation activities that the businesses will undertake – stimulate entrepreneurship and by all this we will have economic growth. If there are strong innovation policies, there will have new business ideas, new products in the market, new technology usage... Without innovation the businesses will not have any change, as Albert Einstein said:

“If you always do what you always did, you will always get what you always got”

This paper is more focused to study the situation of innovation in the Republic of Kosovo, but we will link it with entrepreneurship because as Schumpeter argued that an entrepreneur is an innovator, we think that the entrepreneurship and innovation do not exist without each other. Also our research will be focused on legal acknowledge of innovation and entrepreneurship in RKS.

The paper will be divided in two parts: the theoretical part which will include definitions related to entrepreneurship and innovation from different authors, and the second part will be a research in the Republic of Kosovo.

For the theoretical part we will use a secondary data and for the research part we will use secondary and primary data. The primary data we will get from the survey that we're doing through a questionnaire in 150 SME-s in our country.

Keywords: Innovation and entrepreneurship, government policies and law's, risk factors, influencing factors, expectations.

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INTRODUCTION

As most of us, knows that the entrepreneurship has a very important role in the economic development of one country. In recent times it's very important to mention that the people have understood the importance of entrepreneurship, and day by day they are doing more and more studies of entrepreneurship and are trying to let others know about the importance of entrepreneurship. But, an important or key factor to the entrepreneurship we must freely say that is innovation. Entrepreneurship is interconnected with innovation, and it's very important for one country to have a very strong innovation policies.

This paper is more focused to study about the situation of innovation in the Republic of Kosovo, but we will link it with entrepreneurship because as Schumpeter argued that an entrepreneur is an innovator – an individual who carries out one of the following five tasks: (1) the creation of a new good or a new quality; (2) the creation of a new method of production; (3) the opening of a new market; (4) the capture of a new source of supply; (5) or the creation of a new organization or industry (Schumpeter, 1949, pg. 66), we think that the entrepreneurship and innovation do not exist without each other. In this paper, we will try to explain the concept of entrepreneurship and innovation, the importance of innovation and entrepreneurship for the economic development of one country and how much is the government helping the SME-s in the Republic of Kosovo through innovation policies if there is any innovation policy.

So the objectives of our study are:

1. To explain what is entrepreneurship and innovation, also its importance?
2. How much is the government of RKS doing to stimulate the innovation?
3. How much are innovative the businesses in the RKS, and what kind of innovation?
4. How much do they know about the laws that exist about the businesses?
5. Are laws supporting business innovation in RKS?
6. The most important factors that influence business innovation?
7. Favorite cooperators in an innovation process?
8. Risk factors for innovation process in RKS?
9. Financial resources for innovation?
10. What changes do they expect in the field of innovation support?

Hypothesis of our study are:

1. H0: Risk Factors for Innovation process in the RKS impacts the innovation plan of the businesses
H1: Risk Factors for Innovation process in the RKS does not impact the innovation plan of the businesses
2. H0: Factors that influence innovation impacted the businesses last innovation experience.
H1: Factors that influence innovation hasn't impact the businesses last innovation experience
3. H0: Expecting changes from the government in the field of innovation will decrease the risk factors of innovation.
H1: Expecting changes from the government in the field of innovation will not decrease the risk factors of innovation.

The paper will be divided in two parts: the theoretical part which will include definitions related to entrepreneurship and innovation from different authors, and the second part will be a research in the Republic of Kosovo.

For the theoretical part we will use a secondary data and for the research part we will use secondary and primary data. The secondary data for the research part we have assured from the

Institutions of the Government of Republic of Kosovo and from the report of OECD (Organization for Economic Cooperation and Development) called “The evaluation of Innovation System in Kosovo” (March, 2013), while the primary data we will get from the survey that we’re going to do through a questionnaire in 150 SME-s in our country.

THEORETICAL FRAMEWORK

A long time ago and till in recent times scholars have studied and are studying the importance of entrepreneurship. Here we will mention some of the theories of entrepreneurship that different authors have done throughout the history.

According to van Praag (1999), Richard Cantillon was the first economist to acknowledge the entrepreneur as a key economic factor in his posthumous “*Essai sur la nature du commerce en general*” first published in 1755 (Cantillon, 1959). Cantillon saw the entrepreneur as responsible for all exchange and circulation in the economy, for Cantillon entrepreneur is an individual that equilibrates supply and demand in the economy and in this function bears risk or uncertainty.³

The early neo-classical economist, Alfred Marshall, also devoted attention to the entrepreneur. Marshall introduced an innovating function of the entrepreneur by emphasizing that the entrepreneur continuously seeks opportunities to minimize costs.⁴ In sum, it was very difficult to understand the role of entrepreneurship through these early theories, and that’s why different authors have developed other theories regarding the role of entrepreneurship.

The other main theory of entrepreneurship in the early 20th century was developed by Frank Knight in his “*Risk, Uncertainty, and Profit*”, first published in 1921. An important contribution of Knight was to recognize the distinction between risk and uncertainty. Knight elaborated his theory in the paper “*Profits and Entrepreneurial Functions*” from 1942 (Knight, 1942). Here Knight explicitly argues that entrepreneurs are owners of companies. In order to earn a positive profit, the entrepreneur carries out three tasks (Knight, 1942): (1) he initiates useful changes or innovations, (2) he adapts to changes in the economic environment; and (3) he assumes the consequences on uncertainty related to the company.⁵

And finally we will mention the recent theory, Reynolds (2005) who says that, entrepreneurship – the entrepreneurial function can be conceptualized as the discovery of opportunities and the subsequent creation of new economic activity, often via the creation of a new organization.⁶

“Entrepreneurship” recently in the public debates is advocating as a key economic factor. As we have seen, in the literature we can find different definitions about the entrepreneurship and entrepreneur but we will mention here the most generalized and understandable: *Entrepreneurship* is the process of identifying the chances and starting a new business by which it takes both the risks and the rewards associated with the business.

³Jens Iversen, Rasmus Jorgensen and Nikollaj Malchow Moller (2008). *Foundations and trends in entrepreneurship: Defining and Measuring Entrepreneurship*, Volume 4, Pg.4

⁴Alfred Marshall (1964), *Principles of Economics*

⁵ Jens Iversen, Rasmus Jorgensen and Nikollaj Malchow Moller (2008). *Foundations and trends in entrepreneurship: Defining and Measuring Entrepreneurship*, Volume 4, Pg.5-7

⁶ Alvaro Cuervo, Domingo Ribeiro and Salvador Roig (2007). *Entrepreneurship: Concepts, Theory and Perspective*, Pg. 2

Entrepreneur is a person who starts a new business, and which accepts to take the risk in order to make money.

Innovation matters – but it doesn't happen automatically. It is driven by entrepreneurship – a potent mixture of vision, passion, energy, enthusiasm, insight, judgment and plain hard work which enables good ideas to become a reality. The power behind changing products, processes and services comes from individuals – whether acting alone or embedded within organizations – which make innovation happen.⁷

Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation. And they need to know and to apply the principles of successful innovation.⁸

An innovative business is one which lives and breathes “outside the box”. It is not just good ideas, it is a combination of good ideas, motivated staff and an instinctive understanding of what your customers wants.⁹

An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations (OECD/Eurostat, 2005). Innovation depends on access to finance, availability of a skilled work force and market conditions that system innovator face including the state of competition and intellectual property rights. Another important factor is linkages, which may be mediated by networks and clusters, may be international in nature and may be capable of facilitating technology transfer and diffusion.¹⁰

Public policy and governance are important shapers of innovation performance. From direct funding of education and R&D to various regulatory frameworks, public policy and governance have a significant impact on innovation activities. A full-fledged innovation policy is expected to cover a wide breadth of traditional policy domains, well beyond a narrow focus on research, to include education, tax, industry, private finance, competition, environment, among others.¹¹

Innovation depends significantly on overall conditions in the economy, governance, education, and infrastructure. Such framework conditions are particularly problematic in developing countries, but experience shows not only those proactive innovation policies are possible and effective but also that they help create an environment for broader reforms.¹²

The impact of government policies in innovation of businesses we can compare with the gardener. The government can facilitate the articulation and implementation of innovative initiatives, since innovators need basic technical, financial, and other support (watering the plant). The government can reduce the obstacles to innovation in competition and in regulatory and legal frameworks (removing the pests and weeds). Government sponsored research and development (R&D) structures, it can respond to the needs and demands of surrounding

⁷John Bessant and Joe Tidd (2011), *Innovation and Entrepreneurship*, Second Edition, Pg. 10

⁸Peter F. Drucker (1985), *Innovation and Entrepreneurship*, Pg. 17

⁹Richard Branson (1998), *Innovation lecture*

¹⁰www.innovationpolicyplatform.org

¹¹www.innovationpolicyplatform.org

¹²The World Bank (2010), *Innovation Policies: A guide for developing countries*, Pg.2

communities (fertilizing the soil). And finally the educational system can help form a receptive and creative population (preparing the ground). For each of these functions, economically advanced as well as less advanced countries offer good practices that can be adapted to local contexts.¹³

RESEARCH PART

In our country it's very important to motivate the small and medium businesses to undertake innovation activities and to stimulate entrepreneurship, because it will impact the economic development of Republic of Kosovo. In the table below you can see the number of businesses classified by the number of employers, as we can see more than 90% are SME-s:¹⁴

Table 1 – Businesses classified by number of employers

Classification	Number of employers	Number of businesses	of (%)
Micro-Businesses	1-9 employers	86,855	98.42
Small-Businesses	10-49 employers	1,183	1.34
Medium-Businesses	50-249 employers	163	0.18
Big-Businesses	250-... employers	44	0.05
Total		88,245	100%

The government of the Republic of Kosovo has formulated a strategy for development of SME-s in Kosovo through the years 2012-2016, which has the main focus on creating a sustainable economic climate by stimulating entrepreneurship and innovation.¹⁵

Also one of the objectives on this strategy is to develop and create an innovation center for businesses, which will contribute in the development of SME-s.¹⁶

Kosovo has some business societies and business organizations which facilitate the entrepreneurship and business development, also they promote the business sector interests. Some of them are: The Chamber of Commerce in Kosovo, The American Chamber of Trade, The Alliance of Businesses in Kosovo, Center for Business Support in Kosovo and RIINVEST Institute. All of these organizations and societies operate independently from the government of Kosovo.

To see the real situation of innovation in businesses we have done a research in 150 SME-s in the Republic of Kosovo. After analyzing the results we will be able to give a response on the objectives of our study that we mentioned earlier.

The research we have done through a questionnaire, which is compound by 15 questions. We will interpret all the questions one by one below.

- Business Type and The Number of Employers

From the analyses we can see that the number of businesses that participated on this sample is 150 from which: 38 or 25.3 % are services oriented businesses, 62 or 41.3 % are trade

¹³ The World Bank (2010), *Innovation Policies: A guide for developing countries*, Pg.2-3

¹⁴ Agency for Registration of Businesses in RKS, 31/09/2011

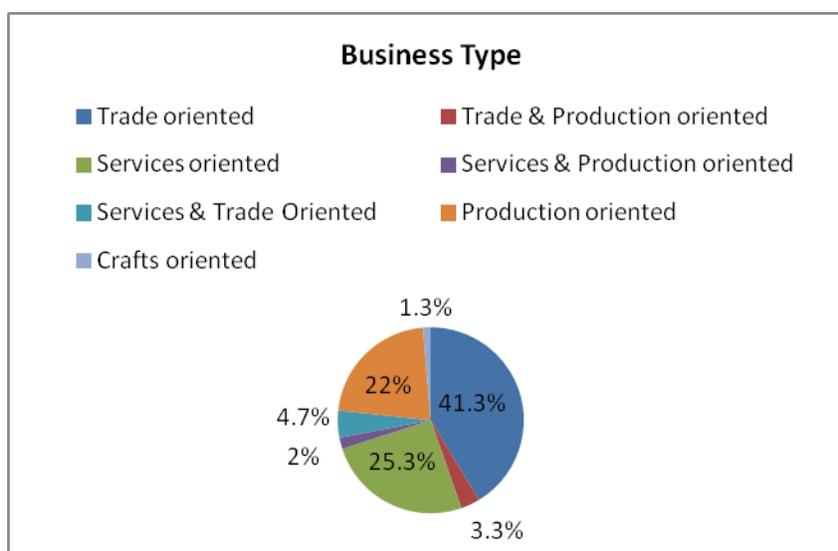
¹⁵ Government of the Republic of Kosovo (July 2011), *Strategy for development of SME-s in Republic of Kosovo*, Pg. 1- 54

¹⁶ Government of the Republic of Kosovo (July 2011), *Strategy for development of SME-s in Republic of Kosovo*, Pg. 30

oriented businesses, 33 or 22.0 % are production oriented businesses, 2 or 1.3 % are crafts oriented businesses, 3 or 2.0 % are services & production oriented, 7 or 4.7 % are services & trade oriented and 5 or 3.3 % are trade & production oriented businesses.

Table 2 - Business Type and The Number of Employers

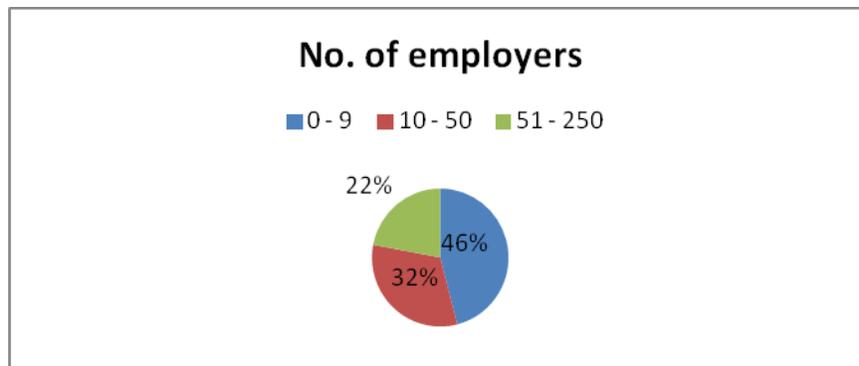
Business Type	Frequency	Percent	Valid Percent	Cumulative Percent
Services oriented	38	25.3	25.3	25.3
Trade oriented	62	41.3	41.3	66.7
Production oriented	33	22.0	22.0	88.7
Crafts oriented	2	1.3	1.3	90.0
Services & Production oriented	3	2.0	2.0	92.0
Services & Trade oriented	7	4.7	4.7	96.7
Trade & Production oriented	5	3.3	3.3	100.0
Total	150	100.0	100.0	



From the analyses we can see that the number of businesses classified by the number of employers is: 69 or 46.0 % are microbusinesses, 48 or 32.0 % are small businesses and 33 or 22.0 % are medium businesses.

Table 3 – Businesses classification

Number of Employers	Frequency	Percent	Valid Percent	Cumulative Percent
0 - 9	69	46.0	46.0	46.0
10 - 50	48	32.0	32.0	78.0
51 - 250	33	22.0	22.0	100.0
Total	150	100.0	100.0	



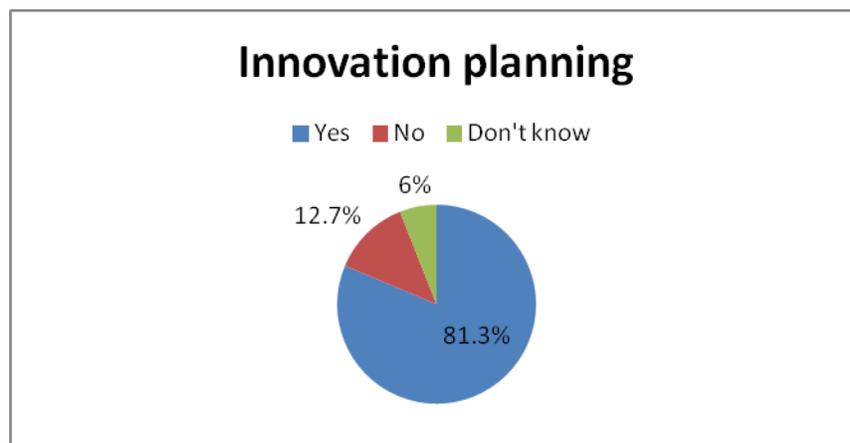
And as we can see the biggest number of businesses are micro businesses, 0-9 employers.

▪ Innovation plan

From the results from SPSS Software and from the graph below we can see that we have to do with very innovative businesses, from which: 81.3 % answered that they are planning to undertake innovation activity, 12.7 % do not plan to undertake innovation activities and 6.0 % don't know if they're going to undertake any innovation.

Table 4 – Business Innovation Plan

Innovation Plan	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	122	81.3	81.3	81.3
No	19	12.7	12.7	94.0
Don't know	9	6.0	6.0	100.0
Total	150	100.0	100.0	



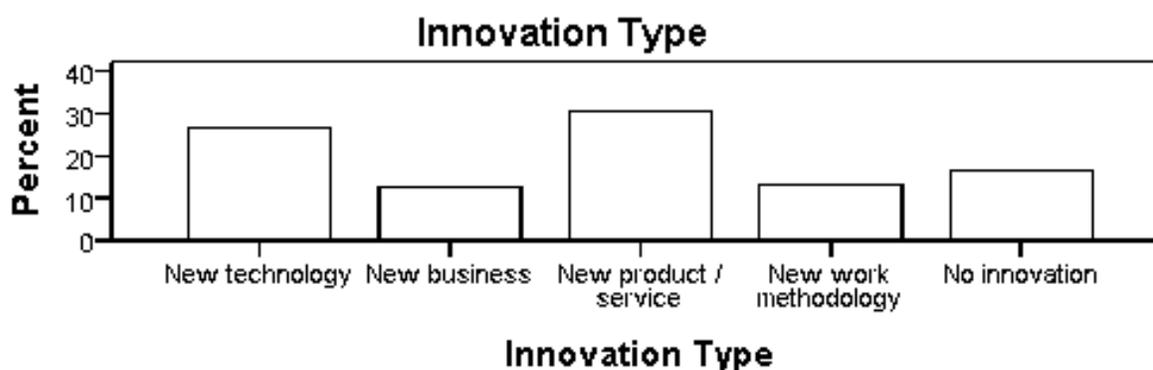
From the results we can see that the businesses are very innovative.

▪ Innovation type

From the results below we can see that the businesses in our sample are focused: 30.0 % want to introduce in the market a new product /service, 26.7 % of the businesses want to start using a new technology, 16.7 % don't want to undertake any innovation activity, 13.3 wants to start using a new work methodology and 12.7 % wants to start a new business.

Table 5 – Business Innovation Type

Innovation Type	Frequency	Percent	Valid Percent	Cumulative Percent
New technology	40	26.7	26.7	26.7
New business	19	12.7	12.7	39.3
New product / service	46	30.7	30.7	70.0
New work methodology	20	13.3	13.3	83.3
No innovation	25	16.7	16.7	100.0
Total	150	100.0	100.0	



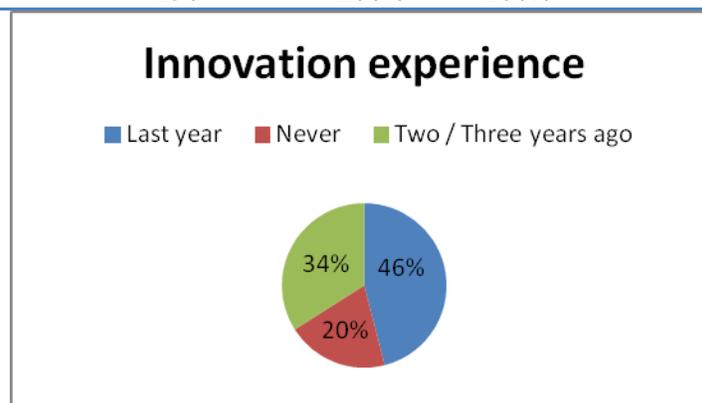
As we can see from the results the businesses are more focused to bring in the market new product or service and to make changes in the usage of technology.

▪ Last innovation activity

From the results we can see that: 46.0 % of the businesses have undertaken innovation activity last year, 34.0 % two or three years ago and 20.0 % never.

Table 6 – Innovation experience

Last innovation experience	Frequency	Percent	Valid Percent	Cumulative Percent
Last year	69	46.0	46.0	46.0
Two or three years ago	51	34.0	34.0	80.0
Never	30	20.0	20.0	100.0
Total	150	100.0	100.0	

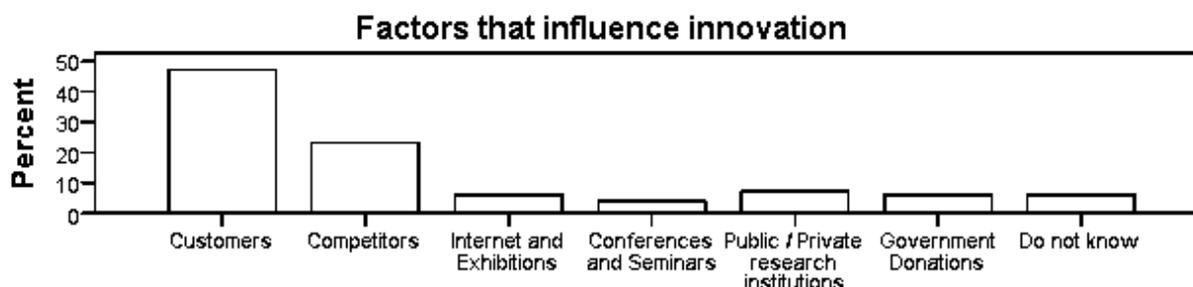


- Most important factors that influence innovation

From the results we can see that 47.3 % of the businesses answered that the most important factors that influence innovation are customers, 23.3 % competitors, 6.0 % internet and exhibitions, 4.0 % conferences and seminars, 7.3 % public/private research institutions, 6.0 % government donations and 6.0 % answered that they do not know.

Table 7 – Factors that influence innovation

Factors that influence innovation	Frequency	Percent	Valid Percent	Cumulative %
Customers	71	47.3	47.3	47.3
Competitors	35	23.3	23.3	70.7
Internet and Exhibitions	9	6.0	6.0	76.7
Conferences and Seminars	6	4.0	4.0	80.7
Public / Private research inst.	11	7.3	7.3	88.0
Government Donations	9	6.0	6.0	94.0
Do not know	9	6.0	6.0	100.0
Total	150	100.0	100.0	



Factors that influence innovation

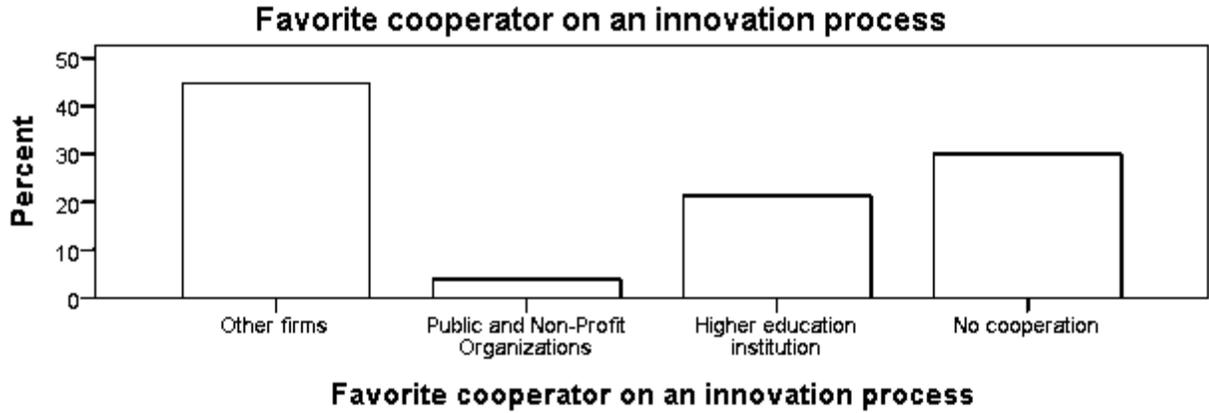
As we can see from the results the most important factors that influence business innovation activities are customers and competitors.

- Favorite cooperator in an innovation process

From the results below we can see that: 44.7 % of the businesses in an innovation activity would cooperate with other firms, 30.0 % no cooperation, 21.3 % would cooperate with higher education institutions and 4.0 % would cooperate with public and non-profit organizations.

Table 8 – Innovation cooperators

Favorite cooperator on an innovation proc.	Frequency	Percent	Valid %	Cumulative %
Other firms	67	44.7	44.7	44.7
Public and Non-Profit Organizations	6	4.0	4.0	48.7
Higher education institution	32	21.3	21.3	70.0
No cooperation	45	30.0	30.0	100.0
Total	150	100.0	100.0	

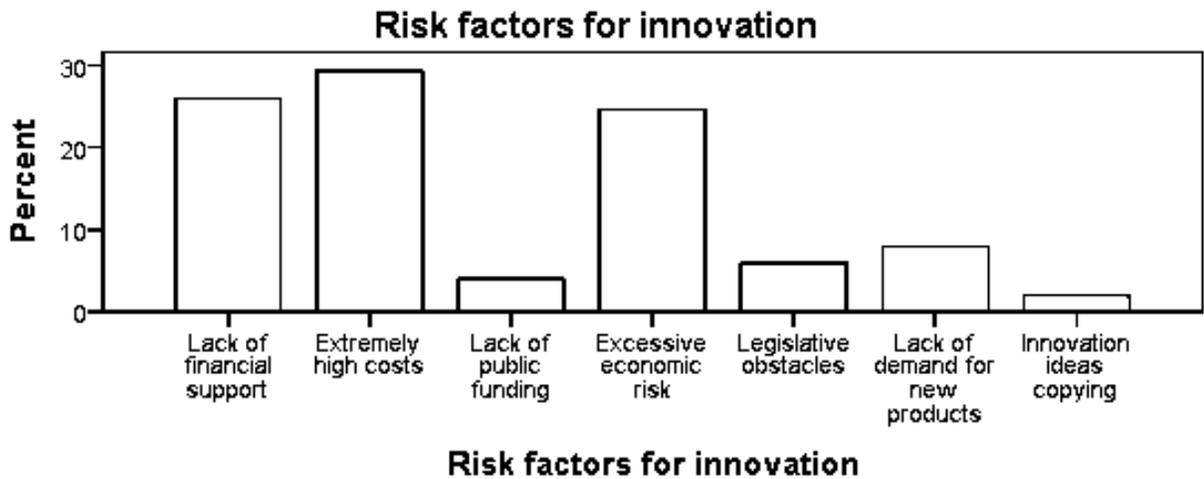


▪ Risk factors for innovation process in the Republic of Kosovo

From the results we can see that: 29.3 % of the businesses ranked the extremely high costs as the most risk factors for innovation process in RKS, 26.0 % answered for the lack of financial support, 24.7 excessive economic risks, 8.0 % lack of demand for new product/service, 6.0 % ranked legislative obstacles, 4.0 % ranked lack of public funding and 2.0 % said that a risk factor is also the copy of their innovation ideas from others.

Table 9 – Innovation risk factors

Risk factors for innovation	Frequency	Percent	Valid Percent	Cumulative %
Lack of financial support	39	26.0	26.0	26.0
Extremely high costs	44	29.3	29.3	55.3
Lack of public funding	6	4.0	4.0	59.3
Excessive economic risk	37	24.7	24.7	84.0
Legislative obstacles	9	6.0	6.0	90.0
Lack of demand for new prod.	12	8.0	8.0	98.0
Innovation ideas copying	3	2.0	2.0	100.0
Total	150	100.0	100.0	

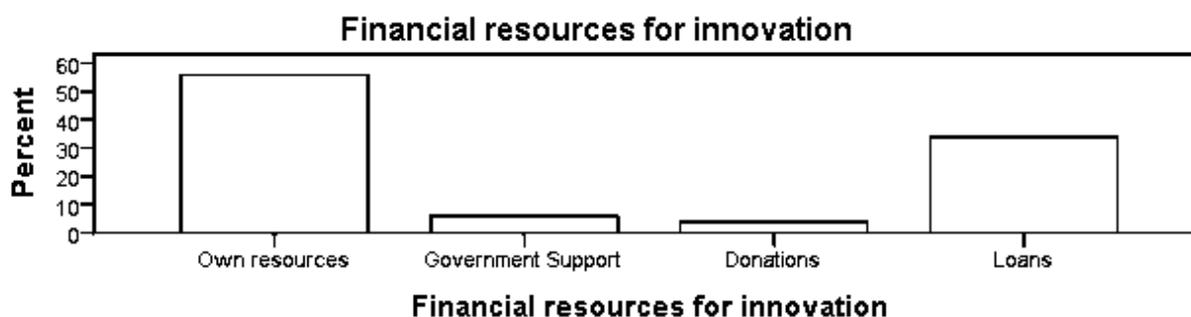


- Financial resources for innovation

From the results below we can see that: 56.0 % of the businesses for innovation activity use own resources, 34.0 % loans, 6.0 % government support and 4.0 % donations.

Table 10 - Financial resources for innovation

Financial resources for innovation	Frequency	Percent	Valid %	Cumulative %
Own resources	84	56.0	56.0	56.0
Government Support	9	6.0	6.0	62.0
Donations	6	4.0	4.0	66.0
Loans	51	34.0	34.0	100.0
Total	150	100.0	100.0	



From the results we can see that the government support for business innovations is very low.

- Government donation benefit/ If yes, what kind of benefit

From the results below we can see that only 18 businesses have benefited from the government.

Table 11 – Government support

Government donation benefit	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	18	12.0	12.0	12.0
No	132	88.0	88.0	100.0
Total	150	100.0	100.0	

The government supported the businesses through: financial support, innovation process advises and machinery.

Table 12 - Government Support Type

Government Support Type	Frequency	Percent	Valid Percent	Cumulative Percent
Financial Support	6	4.0	4.0	4.0
Innovation process advises	3	2.0	2.0	6.0
Machinery	3	2.0	2.0	8.0

None	138	92.0	92.0	100.0
Total	150	100.0	100.0	

From the results we can see that the government support for the Small and Medium Enterprises in the Republic of Kosovo is still very low that is very concerning.

- Legal acknowledgement and Legal Support of Innovation in the Republic of Kosovo
From the results we can see that 68.7 % of the businesses have knowledge's about the applicable laws in the RKS under 50.0 % and 31.3 % of the businesses have knowledge's about the applicable laws in RKS more than 50.0 %. And, I freely must say that this is not a good thing because if the businesses don't know about the laws how can they apply them?

Table 13 - Legal Acknowledgment

Legal Acknowledgment	Frequency	Percent	Valid Percent	Cumulative Percent
0% - 25%	55	36.7	36.7	36.7
26% - 50%	48	32.0	32.0	68.7
51% - 75%	35	23.3	23.3	92.0
76% - 100%	12	8.0	8.0	100.0
Total	150	100.0	100.0	

Also, from the results we can see that: 48.7 % of the businesses think that the applicable laws in the RKS do not support the business innovation, 38.0 % think that the laws support business innovation and 13.3 % answered that they don't know if the applicable laws support the business innovation.

Table 14 – Legal support

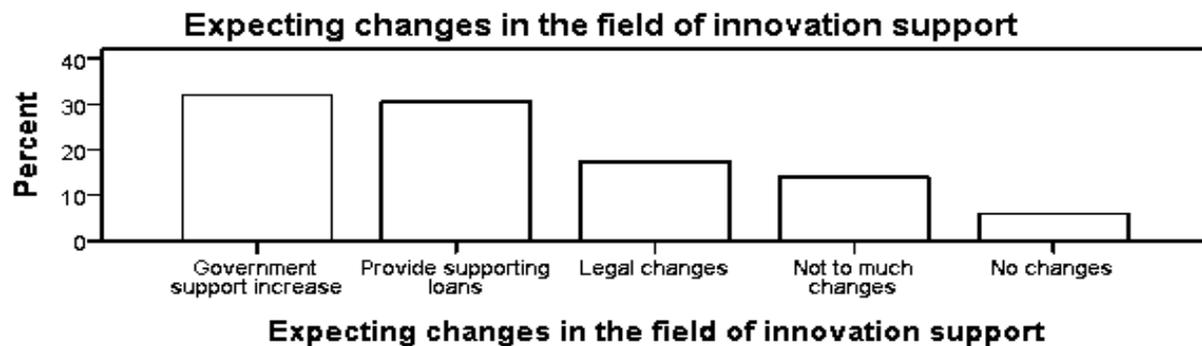
Business Innovation Legal Support	Frequency	Percent	Valid Percent	Cumulative %
Yes	57	38.0	38.0	38.0
No	73	48.7	48.7	86.7
Don't know	20	13.3	13.3	100.0
Total	150	100.0	100.0	

One of the questions in questionnaire was: If the applicable laws support your business, in which kind it supported your business? And the answers for this question from all the businesses were the decrease of the income tax that the government has done from 20.0 % to 10.0 %. They mentioned that by this reduction in income tax they could use that money to an innovation activity. Also they mentioned legal support through legal easies in the field of production and trade.

- Changes expected in the field of innovation support
From the results we can see that: 32.0 % expect government support increase, 30.7 % of the businesses expect from the government to provide supporting loans (like providing loans with lower interest rates for innovative businesses), 17.3 % expect legal changes, 14.0 % expect not too much changes, 6.0 % do not expect changes.

Table 15 - Expecting changes in the field of innovation support

Expecting changes	Frequency	Percent	Valid Percent	Cumulative Percent
Government support increase	48	32.0	32.0	32.0
Provide supporting loans	46	30.7	30.7	62.7
Legal changes	26	17.3	17.3	80.0
Not to much changes	21	14.0	14.0	94.0
No changes	9	6.0	6.0	100.0
Total	150	100.0	100.0	



HYPOTHESIS TESTING

1)

H0: Risk Factors for Innovation process in the RKS impacts the innovation plan of the businesses

H1: Risk Factors for Innovation process in the RKS does not impact the innovation plan of the businesses

ANOVA

Innovation Plan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.724	6	.287	.931	.475
Within Groups	44.149	143	.309		
Total	45.873	149			

As we can see from the results of SPSS Software the significance level is 0.475 that is higher than 0.05, this means that we do not reject the null hypothesis, so we accept it.

2)

H0: Factors that influence innovation impacted the businesses last innovation experience.

H1: Factors that influence innovation hasn't impact the businesses last innovation experience.

ANOVA

Last innovation experience

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20.681	6	3.447	7.230	.000
Within Groups	68.179	143	.477		
Total	88.860	149			

From the results analyzing by SPSS Software we can see that the level of significance is 0.000 that is lower than 0.05, this means that we reject the null hypothesis, so we accept the alternative hypothesis that means that factors that influence innovation hasn't impacted the businesses last innovation experience.

3)

H0: Expecting changes from the government in the field of innovation will decrease the risk factors of innovation.

H1: Expecting changes from the government in the field of innovation will not decrease the risk factors of innovation.

ANOVA

Risk factors for innovation

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	39.622	4	9.906	3.712	.007
Within Groups	386.971	145	2.669		
Total	426.593	149			

From the results we can see that the level of significance is 0.007 that is lower than 0.05, this means that we reject the null hypothesis, so we accept the alternative hypothesis.

CONCLUSION

Through this study we could see a lot of definitions of entrepreneurship, innovation and innovation policies from different authors, but we want to add that all these have a key role in the economic development of one country. We are saying this because as we know in every country the biggest number of employer's works in the private sector, by stimulating innovation we will impact positively in entrepreneurship development and through this we stimulate new business ideas and by this we will have more new work places. According to this, innovation and entrepreneurship has a positive impact in the economy of one country by decreasing the unemployment rate, by contributing in the state budget by paying taxes and also by presenting in the market different products and services that is very good for the customers.

We should make a lot of researches regarding innovation policies because as we know by identifying best practices from developed countries we can adapt those innovation policies in our country and it will stimulate innovation and entrepreneurship development.

We freely must say that we have fulfilled the objectives of this study, because we have arrived to:

- Explain the importance of innovation policies, innovation and entrepreneurship,
- From the research we saw that the government of RKS it's not doing too much to stimulate innovation in our country, because, as we saw from 150 businesses only 18 has benefited from government donations.
- From the results of research we saw that the businesses in RKS are very innovative, they always plan to do innovations in technology, work methodology, products and services, to start new businesses, ext.
- From the results e negative thing that we've found is that for more than 70.0 % of the Small and Medium Enterprises the knowledge's about the applicable business laws in RKS is under 50.0 %. And, this is really a concern for us because if the businesses don't know about the business laws how can they apply them or how can benefit from them. Also, from the survey we found that the level of the support of business innovation from the government is not satisfactory. Most of the businesses the only thing that they mentioned as a benefit from laws was the decrease of the income tax, from 20.0 %- 10.0 %.
- Also, we've arrived to identify the: the factors that influence business innovation, risk factors in an innovation process, financial resources for innovation and favorite cooperators in an innovation process.
 - And, finally we must say that most of the businesses are very optimistic in the expected changes. They expect changes in: provided loans, government support and legal changes.

So, all this study we will finish with recommendations' that we have in this field:

- The government should create and implement as soon as possible one innovative policy because in our country there is still no innovation policy.
- Should establish centers for innovation support and business support, also public centers for research and development.
- Should decrease the taxes for innovation businesses.
- Should provide loans with lower interest rates for innovation businesses.
- Should increase the financial support for innovative businesses.
- And finally the government should start to do legal changes, to promote laws for businesses and to fight more seriously against corruption.

If, all of these changes will be implemented, the Republic of Kosovo would provide a very sustainable economic clime for businesses where every business will be treated in the same way and will be motivated to innovate. And, all this would contribute positively in the economic development of our country.

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IMPACT OF IS NETWORK VIRTUALISATION (SDN) ON BUSINESS IMPROVEMENT

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Abstract

The research problem is expressed in the question , how in the long term , improve the overall business process management systems ie. to meet the special needs of small and medium-sized enterprises and thus increase productivity and profitability. A possible solution to this problem is adequate information technology that includes and regulates all relevant activities of a given business system. It should be noted that the accelerated development and wider acceptance of the concept of automation of business processes using ICT, information systems architecture is becoming more complex and maintenance in order to function properly is more difficult. It is now one of the biggest unsolved problems in which the constant work and looking for more modern solutions. Everyday increasing number of users and increase the complexity of the architecture of the existing information systems, the problem becomes acute.

Although there are currently many tools that facilitate the above actions in the management of IS as a whole and network subsystems, mechanisms for network management are still in the "initial" level, such as executing a configuration at a very low level, the individual settings multitude of network devices by different manufacturers, and modes of communication between the lower levels that make a greater whole .

In recent years, there is the concept of virtualization resources information system. System virtualization today takes the form of cloud computing and a new form of software-defined network (SDN). Software-defined network (SDN) as a concept is a new way to approach the organization and improving the performance of the network system, and therefore the information system as a whole. The above concepts of cloud computing and SDN - a positive impact on the economic aspects of the business system.

Keywords: software-defined networking, entrepreneurship, information technology, cloud computing

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INTRODUCTION

There has been growing up expert discussion due to operate networks' costs, which seemed to be too high and growing too fast, without possibility to engage enough people to manage it.

The process of networks function virtualization (NFV), in the form of software defined controls, is defined as a concept, which was launched by group of network services providers in the SDN and OpenFlow World Congress in October 2012. NFV reduces the amount of hardware required for the functioning of the network services. Network functions performed by routers, firewalls, load balancers and application deliverers are a combination of hardware and application software. Through the process of virtualization these devices become software system which "lives" on the virtual machines (VMs).

Networks function virtualization provides consolidation of the elasticity and scalability of network functions. This technology enables greater agility and accelerating the development of new services for network operators, resulting in lower operating (OPEX) and capital expenditure (CAPEX).

Networks function virtualization enable network function development (such as firewall, DNS, load balancers, etc). Software defined network accelerate inovation by weakening of the link between the hardware and control - application software. Both technologies, software defined network and networks function virtualization, are optimised for dynamic cloud.

This paper attempts to analyse relationship between NFV and SDN/OpenFlow technologies, their technological aspects and an essential economic aspect.

SDN AND NFV TECHNOLOGIES – TECHNOLOGICAL ASPECT

Software defined networking (SDN) is a set of technologies for network management, which tries to solve many limitations imposed by current networking technologies (such as rapidly developing cloud computing technology). Cloud computing represents technology that is subject of investment - 31% of total budget (Schlack, 2014, p.6). In SDN concept, which introduces abstraction model of network functions, managing network method has been changing. The very idea of separating control functions from forwarding traffic is not new, however, definition of function of network equipment via programming is a newer approach. In legacy system routers define topology by using protocols. Switches use MAC addresses by examining the appropriate fields in the incoming frames. Based on given data, these devices provide forwarding table where the obtained IP and MAC address binds for the corresponding ports which are used for packets forwarding.

In SDN system management processes are saved on the SDN controller that has the knowledge of the network topology. Using OpenFlow protocol SDN controller manages routers and scrolls with the help of the programming process of given device. Communication between controllers, routers and scrolls takes place through "interface down", so-called southbound interfaces. Northbound interface allows network information to number of applications in the form of abstract representations of network systems. Thanks to given abstract display network and northbound interface developer can create an

application to manage and control the network without having information about the routers and switches. Controller of information hides and shows the network abstractly, and allows to network applications access to equipment through open northbound APIs. Also, it enables changing position of virtual servers from one to another physical server.

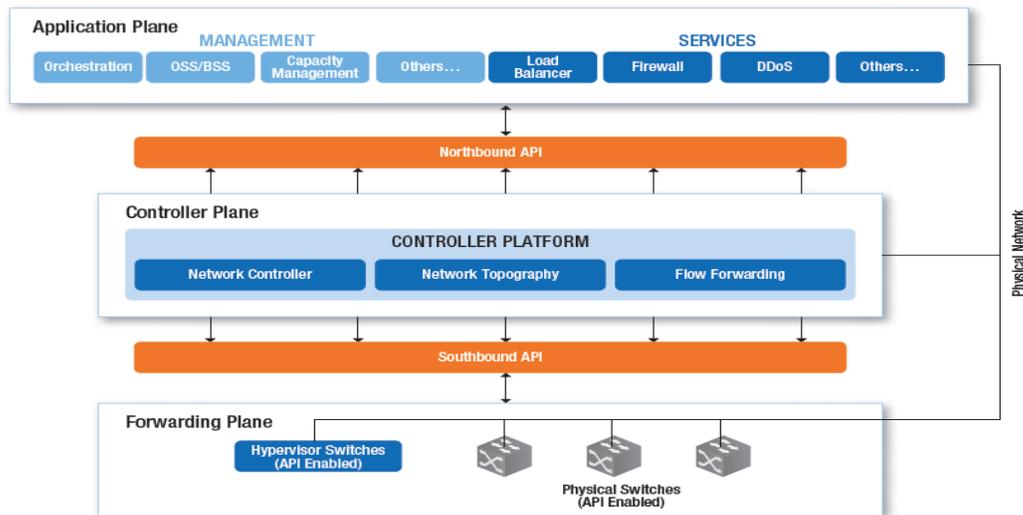


Figure 1.: Software-Defined Networking (Open Data Center Alliance (ODCA))

The final major users of SDN and OpenFlow are large systems which in their own structure possess large data centers (such as Google, Facebook, Amazon, eBay, etc.), shared networks (such as university network systems) and network of high-performance (such as financial sector).

Organizations that need to optimize one or more critical applications for their network (cloud providers) should consider the possibilities of SDN and OpenFlow. For the most of other business systems, the initial focus of SDN implementation would be in their data center.

The key to successful SDN is in implementation of a hypervisor. The first part of the network intelligence is at the hypervisor. When the hypervisor manages network virtualization, network applications can be integrated into it. Hypervisor integration greatly simplifies the network architecture.

SDN is the initial stage and has been evolving rapidly. Therefore, in order to create and update SDN plan, employees in the IT sector of business system need to be ongoing education about new developments in this area. This certainly involves analyzing of SDN application in the industry. Again, it includes consideration of statements about certain products, announcements, technologies that are new or have evolved. At the same it should be considered the results of testing the interoperability of SDN solutions and the work of organizations such as the Open daylight consortium.

In the process of information system development and application of NFV or SDN and Open Flow technology, it is necessary to sufficiently understand the given technologies, and based on that define the development goals of the business system.

SDN AND NFV ECONOMIC ASPECTS

For the development team there are economic arguments that are mapped to the technological characteristics of the information system. The following can be defined: the first, improving asset utilization, ie. servers anywhere in the data center. Then, increasing the flexibility in the physical aspects of network systems. Virtualization of specific network components can be implemented using existing network hardware without major changes. It should be indicated the improvements in security due to virtualization of network resources. For example, it could be done using distributed firewalls and automatization, that is less expensive approach than hardware (which is often operationally impossible).

When it comes to a global view of the development of information system, we have to consider also education as the initial phase. The major part of this education can be achieved by reading articles and white papers, and through seminars and workshops. IT organizations also need to consider taking on a open source products that are easily accessible, as well as should make experiments with these solutions to gain deeper insight into their strengths and weaknesses. Then, management, security, network function, testing and certification, integration with the existing environment, need to take place as further action in the development process.

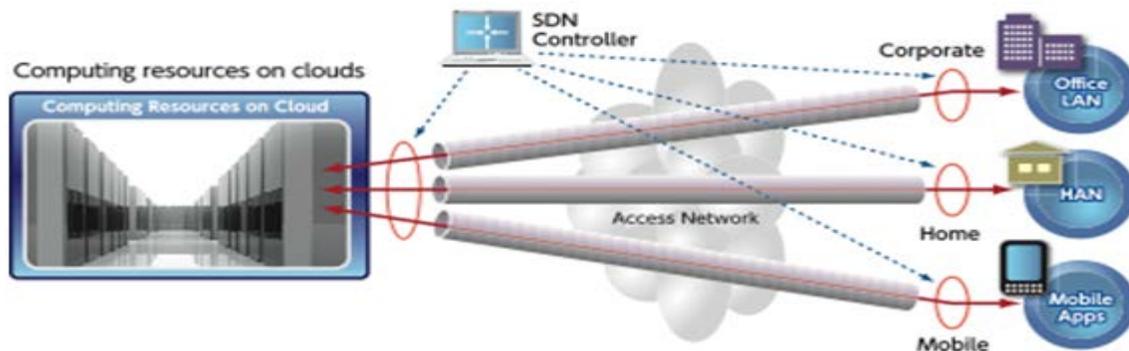


Figure 2. : SDN solution

Source: <http://gl.access-company.com/products/cloudsolution/sdn-solutions/> (accessed 07.08.2014.)

Software-defined networking (SDN) still fails to capture the imagination of European companies, according to the latest survey from TechTarget and Computer Weekly. European annual survey of IT priorities in 2014 showed that only 9% of IT departments in the sample, plan to put the technology into practice over the next 12 months, which is the same percentage at the beginning of 2013. This figure has dropped even lower, at less than 6%, when speaking exclusively to the UK company.

CONCLUSION

There is a need for developing eventually some form of a business case to justify the SDN application. The business case can be based on numerous factors, including all of the savings associated with automating administrative tasks, that comes with SDN. It may also be possible to identify ways in which the implementation of software defined networks supports other IT initiatives, such as basic transition to cloud computing.

There is no doubt over the next few years that this network platform will have a significant impact on the corporate network. Therefore, it is necessary to develop evaluation plan for the potential implementation of SDN.

When planning for SDN, it should consider new developments in industry and planning process has to include ongoing education. We are still in the early stages of software-defined networking (SDN) and the plan needs to be a "living" thing.

For the most users of these concepts, the initial focus of SDN is to implement in their data center. It is recommended that user asks its leading suppliers about information on key events, as well as follows the standards of the community and an organization of companies that are part of the development of these systems. Testing of SDN technology capabilities can be performed in a pilot project to assess the impact on network reliability.

When it comes to legacy networks, SDN changes network infrastructure, but these changes will not be sufficient to make traditional network disappear. SDN, virtualization and IPv6 coexist with their predecessors. SDN devices will coexist with SDN and legacy network components for some time. These two systems will be best managed with a certain tools that support the unique aspects of each access network.

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INTELLIGENT MOVING SERVICE ROBOT NAVIGATION TECHNIQUE USING RFID
TECHNOLOGY FOR TRANSPORTATION INSIDE SMEs

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Abstract

Radio Frequency Identification (RFID) is a revolution in industrial control, because it has the potential to simplify and make more robust tracking of parts or part carriers through manufacture, storage, distribution, and at the end of the supply chain. [1] We try to present intelligent mobile robot navigation technique using radio frequency identification (RFID) technology. RFID systems use radio waves to transfer data from electronic devices (TAG) to the reader, and then the reader forwards the received data to the control unit further processing. In today's digitized world, radio frequency identification (RFID) is becoming a major way of digital identification for people, animals, objects, buildings, etc. A navigation processing of the characteristics of the analog signal RFID is a very good alternative to the different types of navigations. Mobile robot has to navigate in unknown areas without a system vision and planned map of the robot -workspace. We setting up RFID in 3-D space, so that the lines connecting their projections in the field define free time along robot can (or wants to) move. This algorithm is able to find the target in an unknown work space, and also track the desired trajectory with high accuracy. The proposed solution provides a modular, computationally efficient, and cost-effective alternative to other navigation techniques for service robots, such as, for example somewhere in industry.

Keywords: RFID, Mobile Robot, Service Robot, Navigation, Intelligent Systems

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INTRODUCTION

Bar code technology is currently the most for the labeling of products that allows unique identification of products and accelerates their flow from the manufacturer to the end customer. This technology has only one flaw, and that is the necessity for access product to its bar code could be read. Radio frequency identification (RFID) was conceived as a simple replacement of bar codes where the product identification carried out wirelessly via radio waves. Using such a system removes certain limitations that exist when using bar codes, such as need for immediate visibility of the code by the reader, a small distance at which it can be read, problems with wear and tear or damage the label with barcode labels, slow at reading larger quantities of products, and the like.

RFID stands for radio frequency identification. It is a technology that uses radio frequency waves or changing magnetic field for exchanging information between the portable device / memory and computers. The basic components of an RFID system are the transponder and reader / writer. Transponder chip that is transferable in its memory contains data, and the reader device at a distance can read data stored in the memory transponder. Usually it's a unique identification number, in addition may contain some other data. The reader can read forwarded to other systems, usually to a microcontroller or computer.

Universal Biochip would replace all existing cards that people use today (ID card, driving license, passport, health insurance card, credit cards, etc...). Existing biochips to store small amounts of information in length from 10 to 15 characters. In the future we expect the development of technologies that will enable the storage of larger amounts of information. Opponents point out that our technology this technology too leads to a situation where "big brother" can have absolute control over us and to all personal information.

RFID SYSTEMS

Radio frequency identification (RFID) the technology of wireless transmission of information that is used to identify individual objects using radio waves.

An RFID system consists of three basic components, shown in Figure 1.0:

1. *Tag (Transponder)*, which consists of a semiconductor integrated circuit, an antenna, and sometimes the battery.
2. Second reader, which consists of an antenna, a radio frequency (RF) hardware and other control electronic modules.
3. Third controller or control, whose role often takes personal computer or workstation that does the job and database management through software.

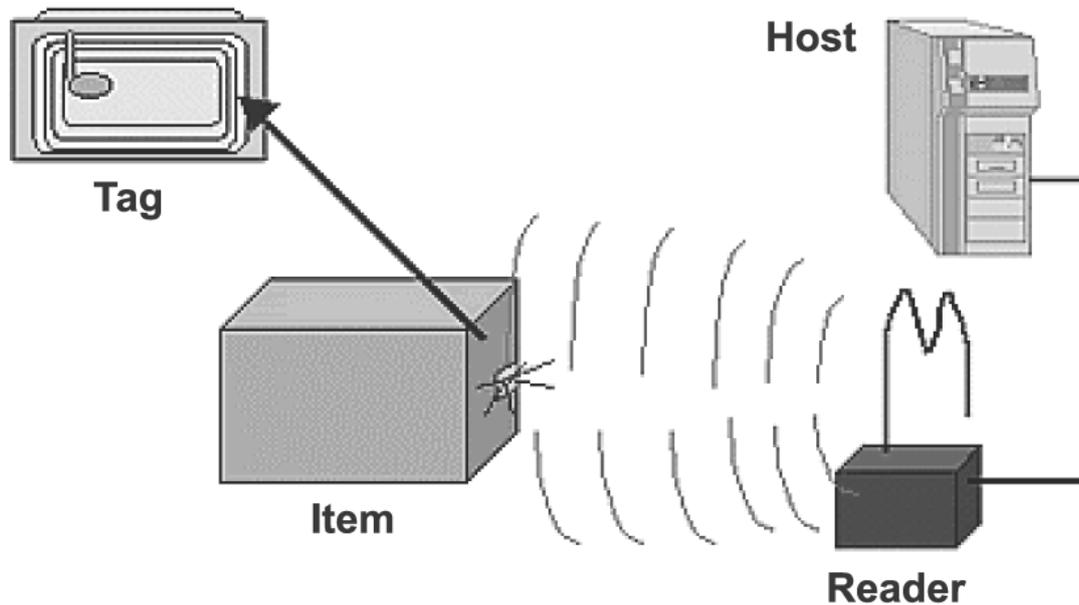


Figure 1.0 RFID system

RFID TAG (TRANSPONDER)

Each tag is principally a provider of information on which can be written a whole range of information (related to the origin, composition, quantity, etc...) That the same product is uniquely identified and distinguished from the other. RFID tags or transponders allow these "read" and "write" data.

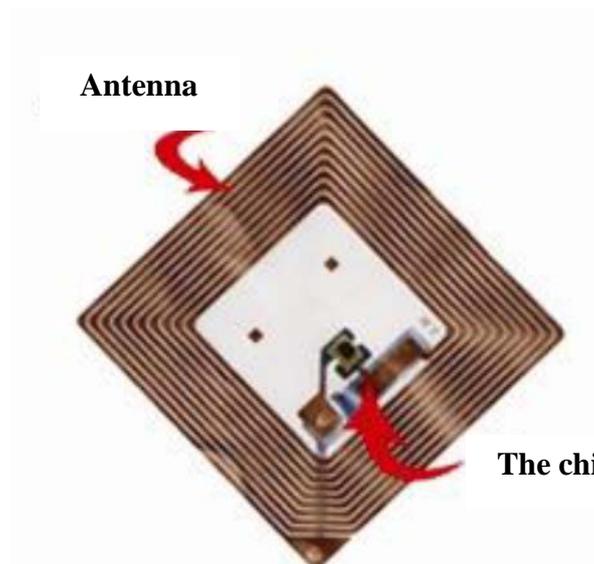


Figure 1.1: Display of the antenna and the chip with a passive RFID transponder

Passive tag - Do not contain internal power supply, but their power from the current electronic stimulation of the antenna arriving input radio frequency signal sent by the reader.

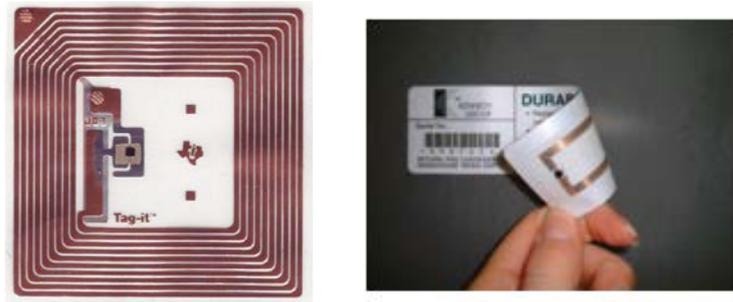


Figure 1.2: Passive RFID transponder label

Contain a battery that is used for their own power supply (which results in a finite useful life of up to several years), which enables them to reach up to several kilometers.



Figure 1.3: Active RFID transponder

THE PHYSICAL DESIGN TAG (TRANSPONDER)

Physically, generally three types of RFID tags:

- tag (transponder)
- "Smart" labels
- RFID circuit board (PCB).



Figure 1.4: Different types of RFID transponder

Generally, RFID readers consisted of three parts: Antennas, RF modules (which are responsible for communication with the RFID tag included) and the controller, which is responsible for communication with the controller. In Figure 1.6 shows some of the structures of RFID reader.



Figure 1.5: Examples of RFID readers

Antennas readers are most complicated part of RFID, when it comes to designing the antenna. For shorter frequency band (less than 10 cm) antenna are integrated in the reader for longer range eg. 3 to 5 m, antennas are generally external, and are related to a distance to the reader.

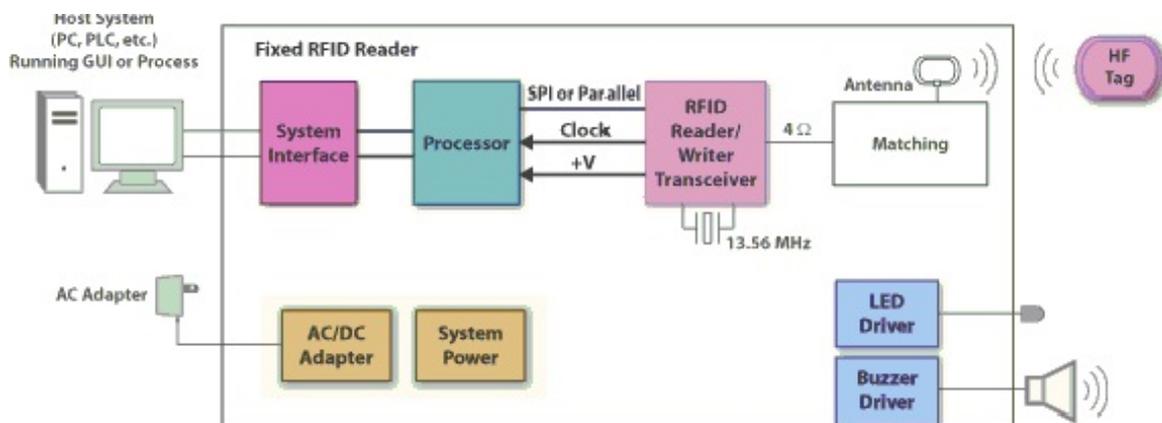


Figure 1.6: Examples of RFID reader with external antenna

Characteristics of RFID readers are:

- Operating Frequency (HF or UF)
- Support for different protocols tags (ISO, EPC),
- Different regulatory regions of the world,
- Networking multiple readers,
- The ability to manage multiple antennas etc...

RFID COMPUTER OR CONTROLLER

A necessary part of any RFID system is a computer system. It consists of computer hardware, and the software for data processing associated with the reader computer system.

This software is also called RFID middleware, or application that operates between applications and networks.

Therefore, the RFID controller is the "brain" of the entire RFID system. They have the task of networking a large number of RFID readers and the central information processing. The controller in a network is usually a personal computer, PLC, a workstation or a micro controller. It uses the information provided by the reader to:

- a) stocks tracked and informed about the state procurement of goods in the warehouse and the need for new supply,
- b) monitor the movement of objects through the system and directed to specific production processes,
- c) Determined the identity of the authorized users with access to the system contactless (RFID tag's in the form of a card), etc...

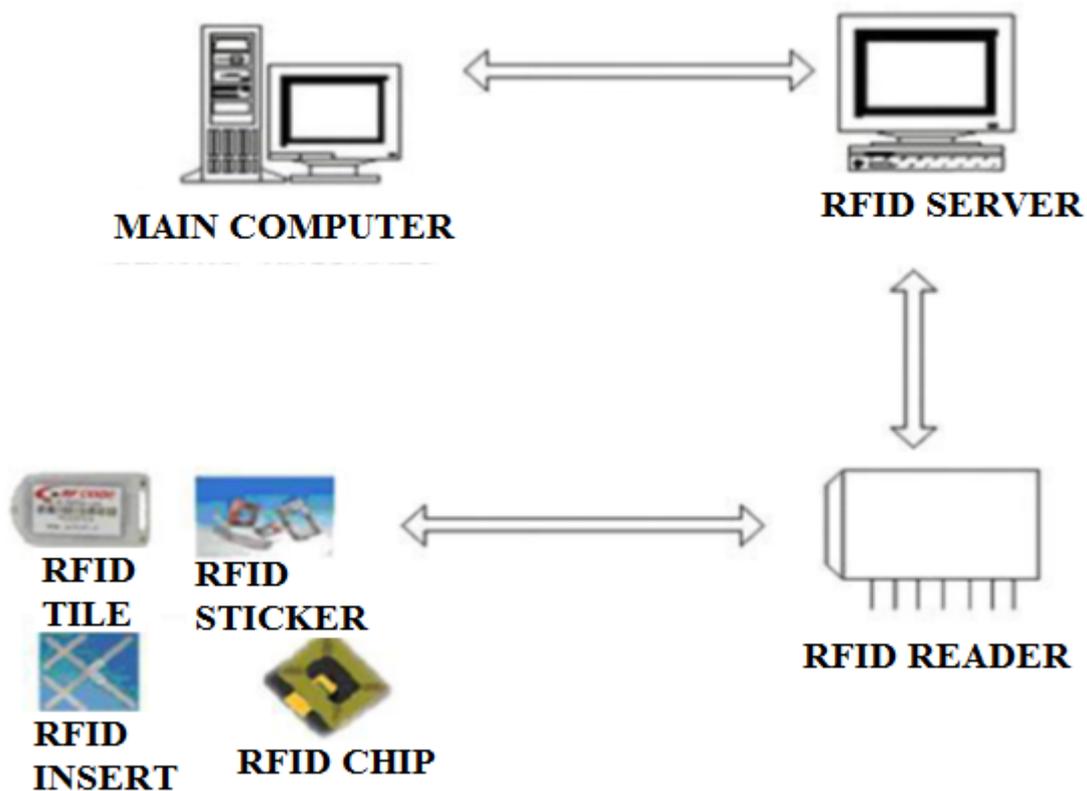


Figure 1.7: Structure of the RFID system to the controller

WORKING PRINCIPLE OF RFID SYSTEMS

The goal of any RFID system is simpler and faster to compile information about each unique product in a digital format that allows the fastest further processing thereof. In Figure 2.2 shows a simplified model of the functioning of the RFID system, its elements and the relationships between them. RFID tag, which is located on or in the product, is being irradiated radio waves emitted by the reader and its antenna.

HANDHELDS

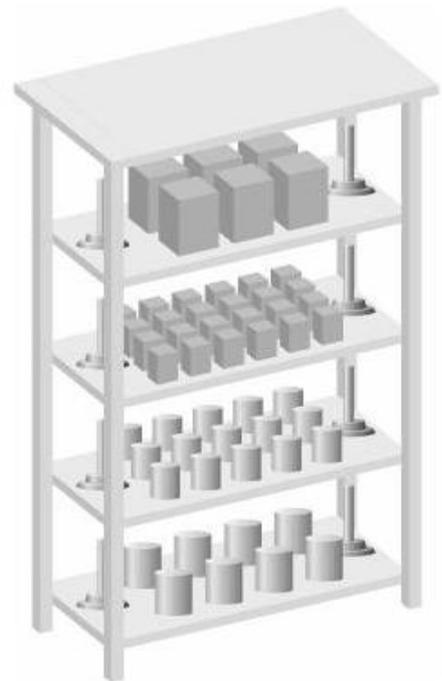
Handhelds with integrated antennas and controllers allow you to scan tagged items do in situations when it is expensive or impossible to relocate them to the reader. The use of handheld RFID reader is similar to the use of conventional bar code reader.



Figure 1.8: Motorola handheld RFID reader and the use of RFID handheld reader

SMART SHELVES

The application of which says a lot, which is very little applied in practice as RFID "smart" (smart) shelves. These policies represent a system in which the built-in antennas to recognize the placing and taking items from the shelves and read all the items off the shelf, at the request of the user. In this way, real-time monitoring allows items on shelving in the shop.



THE USE OF RFID TECHNOLOGY IN LIBRARY

The warehouse can be set fixed RFID reader that will control the complete entry and exit of books in library. Each passage of book through the warehouse door activates the reader who reads the goods leaving and entering the warehouse. In this way it is possible to automatically read the traffic of goods and maintain updated records of storage conditions.



Figure 1.9: Using RFID technology in library

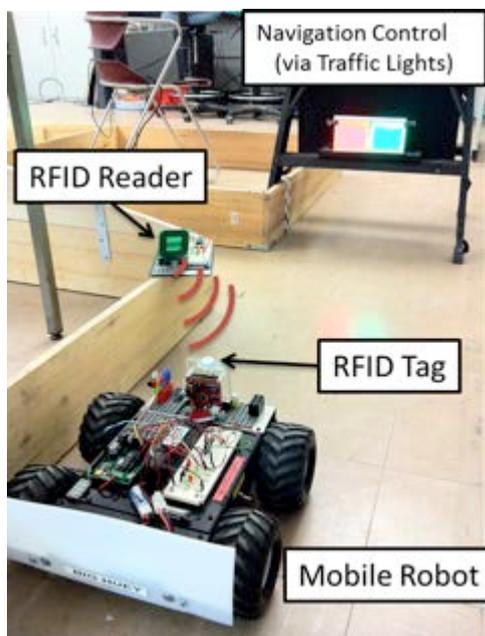
APPLICATION OF RFID TECHNOLOGY IN THE PROCESS OF ASSEMBLY AND DISASSEMBLY OF EQUIPMENT

[10], [7], and [11] Example assembly is shown in Figure 1.10 is conducted as follows: a conveyor belt parts that come to carry an RFID tag. RFID tag with UID (Unique Identifier) is the unique identifier upon arrival at the first job reads through the RFID reader. Perceiving the UID is compared with a UID from the database, and then the database "pulls" the set of instructions technological assembly process in terms of visual presentation on the monitor in front of the workers. Accessories are then deposited on the bar, where I am on one of the following posts by reading the signal from the RFID tag performs identification (recognition) accessories.



Figure 1.10 RFID system for supply chain management

RFID ROBOT LOCALIZATION SETUP



The ability to know the real time location of a robot itself is the pre-condition for other tasks that are commanded such as navigation [12]. Not every localisation problem has the same difficulty. Problems are characterized by different factors. The main factor is the type of knowledge that is given at the beginning and during the operating procedure [13]. The initial robot pose is supposed to be known in *position tracking*, and approaches for it are always connected with presumption of small error exists. This type of problem is a local problem because of the locality of uncertainty. In contrast, the initial robot pose is unknown in *global localisation*. The robot has little or no information concerning its primary environment. Position tracking is included in global localisation. The global localisation problem has a variant, *kidnapped robot problem*. It is more difficult than the former. The kidnapped robot is a

place recognition problem triggered when robots are in an unknown environment [14]. Static environments are environments where the only variable quantity (state) is the robot's pose. In other words, except for the position of mobile robot, all objects keep fixed in such an environment. Location estimation can be effective.

Single-robot localisation deals with only one robot. It is the most widely applied method to robot localisation. All data is gathered together in a single robot platform and interaction event is not required. It is more of convenience than multi-robot localisation [13]. A multi-robot localisation problem can be tackled by localising each robot independently. However, there is an opportunity to obtain better results if robots have the ability to detect each other. Once a robot identifies the relative position of another one, internal beliefs of both of them can be refined based on the estimation of the other one. As a result, both of the robots harvest improvement of precision. This approach is especially attractive for global localisation so as to diminish the uncertainty [14]. Those dimensions represent the four most essential traits of the robot localisation problem. Also there are many representatives that have the effect on the hardness of the problem such as data lost during motion.

ADVANTAGES AND DISADVANTAGES RFID TECHNOLOGY

Advantages:

- ✓ No visibility, empty space between the reader and the transponder;
- ✓ It is possible to read and write data without any contact with the object;
- ✓ Traceability of products by type, model, etc.;
- ✓ Monitoring the production process through time;
- ✓ Monitoring information to control;
- ✓ The shape of the transponder can be varied, adapted to the application;
- ✓ The transponder can fit on the smallest space;
- ✓ The transponder is resistant to the reflection of light, and it does not interfere with either a complete lack of light;
- ✓ The transponder has a very long life, there is the possibility of reusing the same
- ✓ transponders (type for multiple uses) reduce costs, and requires no maintenance;
- ✓ Transponder can be read and / or write information to it at any time;
- ✓ Materials that are not made of metal, paper, wood, plastic, etc...
- ✓ The transponder can have a large capacity memory to store data.
- ✓ Etc...

Disadvantages:

- ☒ The introduction of a fully functional RFID system is not easy
- ☒ The number of companies that use RFID tags is relatively small and limited to the major retail chains
- ☒ Bar code technology in the mass implementation for 40 years
- ☒ Complete design philosophy is based on the possibilities and advantages of bar code Technology
- ☒ It is necessary to completely change the philosophy of design and construction information system, in particular the specialized logistics distribution and trade system, which will be based on the use of RFID technology
- ☒ The problems of harmonization of standards / frequency of work in various countries
- ☒ Etc...

CONCLUSION

One of the futures of RFID systems is the concept called the Internet of Things. This concept refers to the unique identification of the object and their virtual representation on the Internet. Radio frequency identification here is seen as a great solution in the identification of objects, and the Internet of things, and is the basis of this concept is based on RFID technology.

Development of Industry fourth generation also is largely based on RFID technology. The leading role in the industry takes it upon so-called fourth generation. Smart Factory where RFID technology is used to identify objects, egg. One of the futures of RFID systems is the concept called the Internet of Things. This concept refers to the unique identification of the object and their virtual representation on the Internet. Radio frequency identification here is seen as a great solution in the identification of objects, and the Internet of things, and is the basis of this concept is based on RFID technology.

Smart Factory where RFID technology is used to identify objects, eg. Along linear strips directs further process control facility or by completing over him further proceedings, etc.. In the future will become inevitable use of RFID technology in a variety of industrial systems, Internet et al.

This paper is considered one of the mechatronic system for automatic identification of objects or objects. Identification was used RFID technology that is technically the latest technology of identifying objects or structures. Design of RFID systems requires knowledge of the functioning of the hardware parts, or components or devices that are used (communication module, reader / writer, tag, control, network interfaces, etc..).

This issue refers to the capability of RFID technology to support a product throughout its complete life cycle. It is easy to imagine that for all the stages that a product goes through, and for its potentially long lifetime, a single tag may not be capable to support all upcoming interaction needs. However, the “upgrading” of RFID tags is a somewhat neglected feature of RFID-enabled products. To have the technology and processes available to support it could have a high impact on industry, but we are certainly far from having them readily available, and creating them would require a significant effort.

Many of the open problems listed are correlated, for example reading reliability and operation in harsh environments, and many of them could withstand a solution due to fundamental physical or economic reasons. To maximize the benefits, this should certainly be taken into consideration when selecting research topics.

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**THEORETICAL ASPECTS OF INTERNATIONAL FINANCIAL CRISIS
TRANSMISSION WITH PARTICULAR REFERENCE ON WESTERN BALKANS**

Lazaroski Spiro¹,

Zdraveski Dejan²

Abstract

The recent global financial crisis reminded us about the multifaceted nature of financial crises. This paper is focused on the theoretical aspects of international financial crisis transmission. At the outset, a critically review on the existing theoretical literature on the relationship and transmission channels between global financial recession and the real economy will be undertaken. After, we set out the context of investigation by means of descriptive analysis of recent economic development in the Western Balkans, with particular emphasis on the impact of the global financial crisis with special reference to the Western Balkan economies. At the end, concluding remarks will be offered with acknowledgment of related avenues of research.

Keywords: global financial crisis, transmission channels, real economy, Western Balkans

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INTRODUCTION

The worst financial crisis in the history of United States and the rest of the world started in 1929 followed by economic recession and depression. The adverse impact was characterized by an economic output decrease, suggesting that the financial crises are connected with economic downturns (Rogoff, Reinhart, 2008). (Keneth Rogoff, 2008).The Worlds' economy faced the second worst financial crisis in 2007 (Hall, 2010) followed by economic recession, firstly affecting the USA and afterwards affecting the rest of the world. The beginning of the current crisis is traced to housing and credit boom in the United States. According to Mishkin (2010), the synopsis of the financial crisis includes two major phases. The first phase, from August 2007 to 2008, was triggered by the mortgage subprime crisis connected to housing price decline (after the initial peak 2005) and occasioned huge losses on mortgage backed securities. The second phase started after the fall of Lehman Brothers, September 15th 2008, marking the development of the subprime crisis into a virulent global financial and economic recession. The global financial crisis promoted economic recessions spreading with fast pace over the developed and developing countries, thus affecting the financial markets and output over the globe. Emerging Europe was not immediately affected by the global financial crisis. Although the region was resilient to the crisis at the beginning (from 2007 and first three quarters of 2008), in the last quarter, from 2008 to 2009, all of the European Emerging countries and consequently the Western Balkan (hereafter WB) countries were faced with the adverse economic impact of the global financial shock. This in a turn hampered the EU integration process of WB countries. The paper will be structured as follows. First, we will focus on the theoretical aspects of international financial crisis transmission; second, we will address the question of the recent economic development of WB countries before the beginning of the global financial crisis and after by means of descriptive analysis; and, at the end, concluding remarks followed by complementary avenues of research will be offered.

THEORETICAL ASPECTS OF INTERNATIONAL FINANCIAL CRISIS TRANSMISSION

THEORETICAL ASPECTS OF THE FORMS OF FINANCIAL CRISES

The recent global financial crisis reminded us about the multifaceted nature of financial crises. If we discuss the origin, financial crises can arise from private and/or public agents and they can have either domestic and/or foreign origin. Financial crises have common elements but they can be very different concerning the form, i.e. type. They are often associated with: substantial changes in credit volume and asset prices; severe disruptions in financial intermediation and supply of external financing to various sources; large scale balance sheets problems in firms, households, government and the financial sector; large scale government involvement etc. (Claessens and Kose, 2013). According to Reinhart and Rogoff (2009) four types of financial crises can be distinguished: currency crisis; balance of payment crisis or sudden stop; sovereign debt crisis and bank runs and banking crisis. **Currency crisis** involves a speculative attack on the currency, which can result in devaluation (depreciation). In turn, this can force the authorities to defend the currency value by spending large amount of international financial reserves, sharply raising the interest rates and/or imposing capital controls in order to prevent capital flight. Three generations of models are acknowledged in the theory for explaining the currency crisis. The first generation of models were formally introduced by Krugman (1979) and Flood and Garber (1984). "Krugman's contribution was to show how inconsistencies between domestic economic

conditions (economic fundamentals) and an exchange rate commitment leads to the collapse of the currency peg” (Eichengreen et al., 1997). The second generation of models stressed the possibility of multiple equilibria. Obstfeld (1986) introduced the idea of multiple equilibria and “self-fulfilling prophecies”. “Self-fulfilling prophecies” are possible if the investor is attacking the currency simply because they expect that other investors will follow the attack on the currency peg. The possibility of multiple equilibria arises when market participants are not questioning whether the current policy is compatible with the indefinite maintenance of the currency peg, but they anticipate that a successful attack will alter the central bank policy to maintain the current peg. So instead of the current macroeconomic fundamentals, the expected altered macroeconomic fundamentals (inconsistent with the pegged exchange rate regime) can lead to speculative currency attack.

Two equilibria thus exist: the first one features no attack, no change in fundamentals, and indefinite maintenance of the peg; the second one, features a speculative attack followed by a change in fundamentals which validates, *ex post*, the exchange-rate change that speculators expected to take place (Eichengreen et al. 1997). The third generation models are based on the idea of balance sheet contagion spreading as a currency crisis. If the country is experiencing financial and/or corporate sector vulnerabilities expressed as impaired balance sheets, even though the macroeconomic fundamentals (fiscal position is in surplus, the current account deficit manageable) are consistent with the current exchange rate regime, currency crisis still can arise. Chang and Velasko (2000) have studied the relationship between exchange rates, balance sheets and macroeconomic outcomes in a small economy. Accordingly, a large adverse foreign shock (let say fall in export demand) in a small open country with highly “dollarized” liabilities can be magnified by impairing the balance sheets of the companies and the banking sector which eventually will lead the banking crisis to become a currency crisis.

A **sudden stop crisis** can be identified as a large (usually unexpected) fall in international capital inflows or a sharp reversal of aggregate capital flows to a country, usually accompanied with sharp rise in its credit spreads (Claessens, Kose, 2013). This models resemble to the third generation currency crisis models, and the initial idea is that sudden capital stop in a small open economy can be provoked by a global shock (increase in the interest rates, changes in commodity prices) that can be propagate and amplified through the balance sheets of the companies and banking sectors substantially affecting real economic activity. Usually, these models appeal to Fisherian channels (debt deflation theory), the financial accelerator mechanism as well as to frictions in the labor market in order to generate a real output drop during a sudden capital stop.

Sovereign debt crises can be observed when the country cannot (or is unwilling) to service its foreign debt, or domestic public debt crises when the government cannot meet domestic fiscal obligations in real terms. If the government cannot, or is unwilling to meet domestic fiscal responsibilities; it can explicitly default; or resort to an inflation (in order to lower the real debt obligations); or employ another form of financial repression. The debt crises can take the form of private debt when the other economic agents (corporations, households, banks etc.) cannot meet their debt obligations to foreign and/or domestic providers.

The **banking crises** are most common type of financial crises, however, least understood (Claessens, Kose, 2013). Probably this is the main reason that an extensive literature refers to an identity between banking and financial crises. Kaminski and Reinhart (1999) mark the beginning of a banking crisis by two types of events: bank runs that lead to the closure, merging, or takeover by the public sector of one or more financial institutions; and, if there are no runs, the closure, merging, takeover, or large-scale government assistance of an important financial institution (or group of institutions) that marks the start of a similar

outcome for the other financial institutions. Leaven and Valencia (2008) define systematic banking crisis as an event in which a country's corporate and financial sectors experience a large number of defaults produced by the difficulties of repaying contracts on time.

The banking sector is extremely fragile, because of the role of liquidity creation and maturity transformation. Banks and other similar financial institutions operate with highly leveraged balance sheets; hence, banking crisis can rise simply as a coordination problem. A bank run can occur when a large number of deponents withdraw their deposits simply because they think that the bank is insolvent or might become so in future. As a bank run proceeds, i.e. as more costumers withdraw their deposits, the likelihood of banking default increases, which encourages further withdrawals ... and so on. This self-fulfilling momentum can destabilize the bank, to the point where it (the bank) faces default as it can't liquidate its assets fast enough to cover its short-term liabilities. The initial idea of bank run is discussed by Diamond and Dybvig (1983).

The forms of financial crises can exist separately or they can follow and overlap to each other. When there is an overlap between the currency, banking, sudden capital stop and sovereign debt crisis, then there is pronounced effect on the real economic activity.

Emerging Europe was strongly hit by the GFC. Measured and compared by the size of the output decline the region was hit harder than any other region in the world. (Berglöf et al., 2009) Although the drop of real economic activity was significant, there was particular variation within the group of Emerging Europe, imposing the difference in the initial pre-crisis condition that may help to explain the different response of the output due to the external shock. Therefore the most important questions derived from the literature regarding the GFC are focused on the incidence, the intensity, the transmission channels and the possibility to create an early warning mechanism.

THE GLOBAL FINANCIAL CRISIS INCIDENCE AND INTENSITY

The literature on the macroeconomic incidence and intensity is growing rapidly. Most of the studies concerning the GFC, has been focused on the time of the impact, the measurement and the crisis intensity.

There is a consensus among the authors about the beginning of the global financial crisis. Although it has originated in the US economy as subprime mortgage crisis, the international development started after the fall of Lehman Brothers, September 2008. The Emerging market economies were not affected as the same time as the developed world; instead, they were affected with delay and there was a significant degree of variation of the output losses as the result of the GFC.

The related studies are especially interested in investigating the possibility to link several macroeconomic and financial pre-conditions with different output outcomes. There is no consensus among the authors as to what macroeconomic and financial pre-conditions in countries that can explain why there is a big deviation of the output fall in the emerging economies. Frankel and Saravelos (2011) and Babecký et al. (2012) investigate a large number of financial and macroeconomic variables that should have a predictive power for countries' resilience or incidence of crisis.

Lane and Milesi-Ferreti (2010) by focusing on the cross-country incidence and severity of the 2008-2009 GFC argued that a small set of systematically related pre-crisis macroeconomic and financial factors can explain a great deal of the output decline. On the other hand, Rose and Spiegel (2010, b) found that it is problematic to identify indicators in the pre-crisis data that will suggest differences in the impact of the GFC on real economic activity.

THE CHANNELS FOR INTERNATIONAL CRISIS TRANSMISSION

Broadly speaking we can explore several channels of international transmission: trade linkages; financial linkages; the financial structure and domestic macroeconomic vulnerabilities; and the political and institutional framework (Berkman et al., 2009). The related studies which are focused on the transmission channels include trade and financial linkages as the most important for transmitting the crisis. Imbs (2010), using monthly data on industrial production for OECD and non OECD countries found that financial channels are more important for transmission of the GFC among the OECD countries, while, for the non OECD countries the trade mechanism had an important role. Lane and Milesi-Ferretti (2010) briefly sketched several transmission channels and several pre-crisis factors that can explain the intensity of these channels. The direct channel for transmission was mainly the finance link that incorporated a direct exposure to U.S. assets backed by subprime mortgages. Several advanced European economies with large banking systems were exposed to the GFC by the subprime shock. A related channel of international financial transmission was the global increase of risk aversion mainly related to systematic underpricing of the risk for a number of “risky countries” providing them with cheap credits and large debt tolerance in the previous period, and, hence, occurrence of real estate and asset bubbles within the economy making them susceptible to external shocks. According to Lane and Milesi-Ferretti (2010) the third and fourth channels for transmission are foreign banks pulling back funds, thereby imposing credit constraints, and global collapse of trade and demand for durables and investment goods. Cetorelli and Goldberg (2010) examined the adverse liquidity shock on the banking systems of the developed countries and by which channels it was transmitted to the emerging market economies. Namely, the financial channel was investigated, including three separate channels for transmission: a) the contraction in direct cross border lending by the foreign banks; b) the contraction of the local lending by foreign banks affiliation in emerging economies and c) contraction of the loan supply as a result of the adverse funding shock on their balance sheets as a result of the decline in the interbank cross border lending.

Blanchard et al. (2010) were focused on the two channels that clearly matter for the GFC, the trade and the financial channels, arguing that the both channels were relevant for transmitting the crisis although the strength is not as someone expected.

Creating an early warning system for predicting the crisis incidence

Another avenue of theoretical and empirical research is the possibility of creating an early warning system for predicting the crisis incidence. This avenue closely corresponds with the theories on the crisis occurrence and the financial crisis transmission. Different modeling approaches have been suggested over the years in order to create an early warning system to inform on the possibility of financial crisis.

The first category of models, investigates the statistical significance of various indicators regarding the probability of occurrence of a financial crisis in a number of countries. Eichengreen, Rose and Wyplosz (1996) while investigating theoretically and empirically the probability of the occurrence of currency crises find evidence of contagion that easily spreads between countries that are closely interrelated by international trade linkages. The second category of early warning indicators includes a number of signaling approaches popularized by Kaminski and Reinhart (1998). The approach defines several variables as the leading indicators of crisis occurrence and when they send a signal above some already defined threshold there is an expectation of financial crisis occurrence.

The third category contains empirical models that apply a number of qualitative and quantitative techniques to analyze various variables around crisis occurrence in order to predict the time when the crisis will occur. Instead of investigating the occurrence of the

crisis as a result of an external shock they are focused on investigating the behavior of the variables around the crisis and their predictive power with respect to financial crises.

The most recent studies employ different innovative methodologies in order to identify the crisis before it starts. These techniques include binary recursive trees, artificial neural network, genetic algorithms for selecting the appropriate variables in the models, Markov switching models etc. (Frankel and Saravelos, 2012).

DESCRIPTIVE ANALYSIS OF THE RECENT ECONOMIC TRENDS IN WESTERN BALKAN COUNTRIES

STYLIZED FACTS OF THE ECONOMIC GROWTH IN WB COUNTRIES

Traditionally, economic development and economic growth were used interchangeably. They refer to the ability of an economy to generate and sustain annual increase of GDP or GDP per capita, thus reflecting the idea of permanent increase of the level of economic activity in the economies. Today, there is an emerging consensus among the economists that economic development should include improvements of living conditions, a more equitable distribution of the income and to include the cost of environmental damage, thus, referring that there is difference between the two terms. The most common quantitative measures of the economic growth and development are: gross domestic product (GDP), GDP per-capita and the percentage change of the real GDP (i.e. the growth rate). Following facts and figures can give as an insight of the recent economic development of WB.

GDP in the WB countries is considerably small compared with the EU 27. In 2007, combined GDP of the WB countries was 140.8 billion \$ (IMF, 2012) compared to 16.994 billion \$ for the EU (i.e. only 0.83%). Another quantitative measure of economic development is the GDP per capita. The World Bank classifies the economies according to level of GDP per capita calculated by WB Atlas method into 4 groups: low income, \$1,005 or less; lower middle income, \$1,006 - \$3,975; upper middle income, \$3,976 - \$12,275; and high income, \$12,276 or more (WB, 2010). In the ten years period before the GFC (1997-2007), WB countries started as low or lower middle income countries at the beginning of explored period, except Croatia with 4.400\$ GDP per capita, settled into the upper middle income group. During the 2007, EU acceding state Croatia, with 13.382 \$ GDP per capita, entered into the high income group, while the candidate countries from WB (Macedonia with 3997 \$, Montenegro 5758\$ and Serbia with 5.277\$ GDP per capita) entered into upper middle group and the potential candidate countries from WB settled into the lower middle group (Albania, Bosnia and Herzegovina and Kosovo) (appendix 8.2). Another key indicator of economic development is the rate of real GDP growth reflecting the percent change of the GDP in the WB countries. During the first five years (1997-2002) there is significant difference between the growth rates over the explored economies (appendix 8.3). In 1997, Albania after the "pyramid schemes" and bankruptcy of over 25 firms, 2000 dead people after the riots and over 2/3 of population investing in those firms (Jarvis, 2000), has reached bottom with negative GDP percent change of -10.2. Serbia and Kosovo were involved in conflict during 1999 thus reflecting negatively on economic growth for both of the countries. In 1999, Serbia noted negative GDP percent change of -11.2. Macedonia after the conflict in 2001 has experienced negative GDP percent change of -4.5% on one hand, and on the other hand, in the same year Kosovo had 26 % positive GDP. In the period 2003-2008, before the beginning of the GFC, the WB countries rate of growth started to converge due to positive economic constellation, increased relations with EU and improved stability in the region. Just before the beginning of the GFC they have reached an average rate of growth of 5.2 %. (IMF, WEOD, 2014)

When the financial crisis hits the WB countries, late 2008 and beginning of 2009, they have all evidenced negative growth rates (except Kosovo and Albania, although both of them evidenced significant slowdown) and more important until 2013 they haven't recovered to the previous pace of economic growth. From 2009 until to 2013 the average rate of growth for the WB countries was 0.7% (appendix 8.4).

CONCLUSION

Global financial crisis has spread over the developed and the developing world with fast pace as a result the channels of international financial transmission. The global risk, the global banks and the real channels of transmission as: exports, imports have been proven to be the most explored and the most significant channels of transmission. Given the financial nature of the global financial crisis, the financial channels of transmission have been proven to be significant for the developed world. The real channels, however, are more significant for the developing world.

The Western Balkan countries were affected with delay. Although the global financial crisis affected the developed and the developing world at the end of the 2008, the Western Balkan region was affected for the large part of 2009. The economies have recovered over the next period (i.e. from 2010 onwards), however, they didn't recovered to the previous pace. This in a turn poses the question of creating a flexible economic framework that should be resilient to external shock such as the global financial crisis. Therefore, creating a wide range of small and medium enterprises with flexible sources of financing, in a turn can add to the flexibility of the companies and countries to become more resilient to external shock such as the global financial crisis. A related avenue of research may be a microeconomic analysis of the importance of innovation process of SME's in Western Balkans region, which in a turn can enable more competitive companies to the global market. This in a turn will improve the competitive position of the Western Balkan region compared to the other World regions.

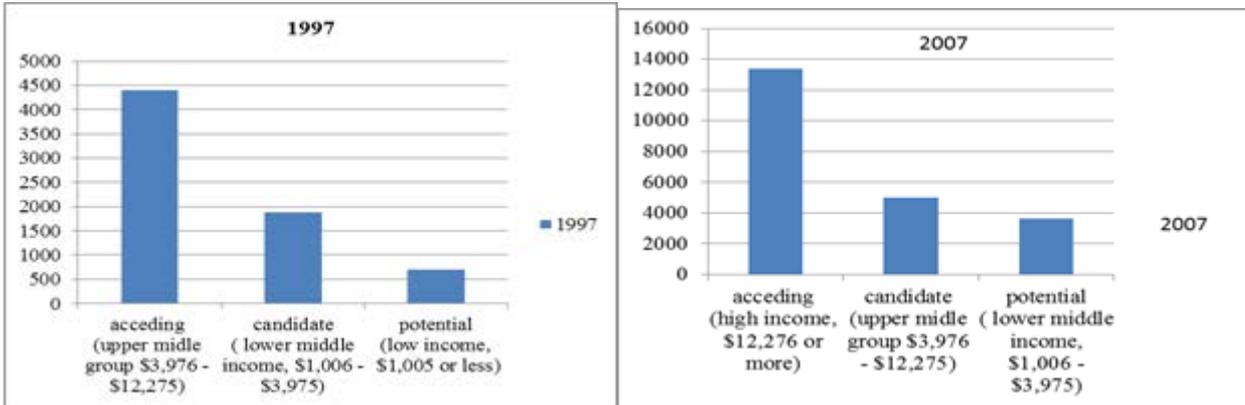
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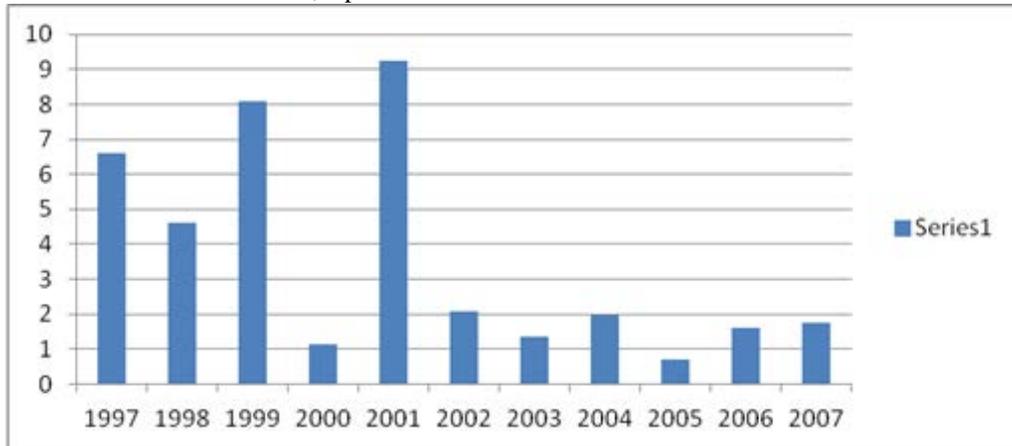
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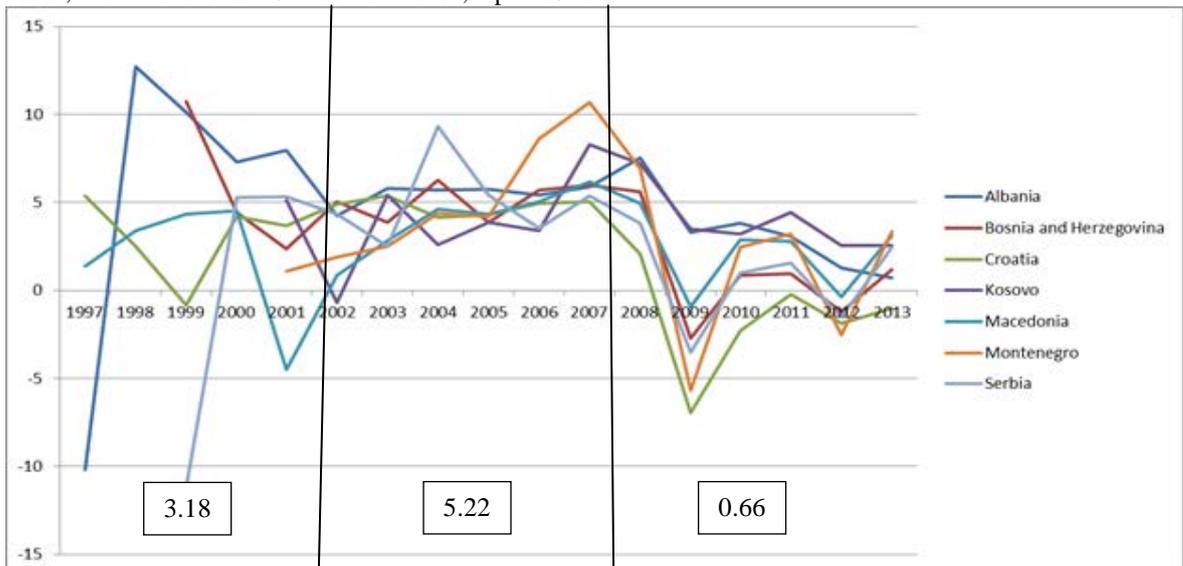
1 APPENDIX



Appendix 1: Average GDP per capita for the WB countries and stage of EU integration Source: IMF, World Economic Outlook Database, April 2012



Appendix 2: Standard deviation of the GDP percent change in the WB countries by years 1997 -2007 Source: IMF, World Economic Outlook Database, April 2012



Appendix 3. Percent change of GDP constant price for the Western Balkans 1997 - 2013 Source: IMF, World Economic Outlook Database, April 2014

INNOVATION CAPACITIES OF SMALL BUSINESS AS A DEVELOPMENT POTENTIAL OF ECONOMY

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Marić Slobodan, PhD²

Abstract

Since entrepreneurs by many authors, notably Schumpeter, characterized essentially as innovators, entrepreneurial activities that are the core of economic development. This approach has the absolute theoretical foundation in Schumpeter's "creative destruction process" as a result of the innovative activities of entrepreneurs who disturb the existing equilibrium thus creating opportunities for new business ventures release resources and markets. Striving to achieve a new equilibrium through innovative activities of entrepreneurs creating new businesses leads to economic growth.

Such innovations as the major determinant and the main resource of economic growth, so the scope of innovative activities of entrepreneurial ventures is one measure of development potential of the economy. The underlying idea of the work is aimed at testing the reliability level of innovation as an economic resource by analysis of the scope of innovative activities of entrepreneurs, economic growth rates and levels of economic development. Great innovative entrepreneurial venture is the result of a high tolerance for change of management process and the entrepreneurial leadership style.

Analysis is based on the GEM data by selected variables of the project, that make up the sum of the basic concept of this work, while the sample size and the nature of the data to enable the application of parametric statistical techniques (ANOVA and correlation analysis) in order to achieve the research goals.

The results of research will directly answer the set research questions in terms of connectivity the scope of innovative activities of entrepreneurial enterprise, economic growth rates and the level of development of the economy. In a roundabout way, the research results will point out the connection between the volume of entrepreneurial activities by stages of the entrepreneurial process, as the main source and generator of innovations and indicators of economic growth and development.

Keywords: Innovation, Small Business, Development, Economy

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INTRODUCTION

Because of its importance and the role they play in today's business environment, entrepreneurship and small businesses are highly topical and dynamic area of the world of theory and practice. When searching for the most complete definition which reflects entrepreneurship, leads to the conclusion that there are no generally valid and unique views on the matter. Definition of entrepreneurship by the number of authors in the current world literature about the existence of substantial differences in the perception of the term entrepreneurship, which results in the appearance of different types of entrepreneurship and making a distinction between company owners, managers and entrepreneurs. In this context, entrepreneurship is viewed in different ways, but is usually associated with activities such as starting a business - self-employment, adapting to changes in the environment, innovation, pursuit of new business opportunities, all of which generate a variety of criteria on which to confirm entrepreneurial activity.

In recent times, research on entrepreneurship, defined as entrepreneurship in two fundamentally different ways. On the one hand, entrepreneurship is the property or quality of the organization / business environment in favor of attitudes which go to small entrepreneurial organizations - Aldrich and Austen, rapid growth - Drucker, innovative - Back, flexible and adaptable - Birch. According to another embodiment, entrepreneurship is regarded as a characteristic behavior of employees and managers in the company or individual entrepreneur, not a feature of the company or business environment. Entrepreneurial people are looking for opportunities to acquire additional value either for themselves or for a company - Burgelman, where for the first time coming up with the idea of "corporate entrepreneurship" or entrepreneurship in a large corporate environment, as it is more often called.

If you want to bow down to one of the exposed population in the understanding of entrepreneurship leading to the experiences and opportunities in the domestic business environment, we can say that the truth is somewhere in the middle, and that none of the previously mentioned two extreme explanations are not complete. To lead to the emergence of entrepreneurship, the existence of a favorable business climate, which is owned by the organization, and employees with certain tendencies and characteristics that make an entrepreneur. In doing so, it implies the existence of a favorable external political and economic environment. In other situations where a lack of these fundamental conditions, entrepreneurship is not manifest in the form described in the previous section of the text. *Preduzetništvo može biti definisano kao inovativno ponašanje povezano sa strategijskom orijentacijom u traganju za profitabilnosti i rastom (Smith-Sandler at all, 2003). U narednom delu navode se definicije preduzetništva od strane različitih autora koji naglasak stavljaju na veliki rast, preuzimanje rizika i inovacije.*

- Bateman and Snell define entrepreneurship as the process of forming new organizational values (Bateman, TS and SA Snell, 2005);
- Entrepreneurship is apparently discontinuous process of combining the resources necessary for the production of new goods and services (Stoner J., A., F., Freeman, R., E., D. Gilbert, R, 2002);
- Entrepreneurship is the process of creating a new value which is dedicated time and effort, accompanied with financial, psychological and social risk, and the resulting

rewards of monetary and personal satisfaction and independence (Hisrich, R., Peters, M., Shepherd, D., 2004).

Entrepreneurship as a source of innovation lies not only in the establishment of new enterprises. The growing dynamic markets and competition creates strong pressure on the organization and so they are forced to continued growth if they are to ensure survival. Large organizations are constantly searching for a model of management which should provide the flexibility, innovation and growth, which actually looks more like a quest for entrepreneurship within the organization - internal entrepreneurship. Just previously mentioned is the first and fundamental difference between the internal entrepreneurship and entrepreneurship and this is the context in which it achieves an entrepreneurial act. The next important difference is innovating entrepreneurs innovate for themselves, while internal entrepreneurs to innovate on behalf of existing organizvacije. The two main differences between the internal entrepreneurship and entrepreneurship generate a number of other differences such as the level of autonomy, the degree of risk taken, the type of awards that are expected as well as other specifics. What is even more important in the context of this topic is that entrepreneurs can choose their own while internal entrepreneurs need to be selected and to be observed or to be alone impose organization. The authors in this area use different terms to mean the internal entrepreneurship: corporate entrepreneurship - Burgelman is one of the first authors who came up with the idea of internal entrepreneurship, corporate entrepreneurship and internal corporate undertaken (Krachardat, 1995). Regardless of the name internal entrepreneurship refers to the creation of new businesses within existing organizations / companies to increase efficiency and thus the competitive position or, more precisely, "the introduction and implementation of major innovations for the company by one or more employees who work inside "(Carrier, 1996). But what is interesting, the term internal entrepreneurship is used to identify and marked entrepreneurship exclusively in large enterprises. Internal entrepreneurship, which is defined as entrepreneurship within an existing company tells us that it must be a large organization, rather entrepreneurship is desirable in all companies regardless of their size, but it should be noted that the conditions for the emergence and development of entrepreneurship favorable to small businesses because their flexibility and efficiency in the decision-making process and the degree of freedom that are employed are important conditions in the process of innovation.

SMALL BUSINESS AND ENTERPRENEURIAL BEHAVIOR, INNOVATION CAPACITIES AND DEVELOPMENT

The environment provides the conditions for the growth of small businesses that can be exploited (Davidson, 1989). Numerous studies analyze the environment through the influence of location, industry, and market impact on small businesses. Specifics of an environment can be represented by the degree of economies of scale (Audretsch, 1995), the trade union organization of workers within industries (Acs and Audretsch, 1990) as well as the possibilities of innovation (Vivarelli and Audretsch, 1998), all of which can have an impact on the growth of small businesses . It is also known that the growth of small businesses is conditioned by the growth of the industry (Audretsch and Mahmood, 1994) and mature markets (Baldwin and Gellatly, 2003). Preliminary analysis environment relate to the aggregate level, which means that the environment has a certain impact on all small businesses in specific industries, markets, and locations. Results of previous studies suggest that small companies grow strive to improve profitability and expand market niches (Storey, 1996) that are too tight and seem not clearly

defined in terms of objective, industry and market width. It is all that can be an advantage in defining the environment for small businesses in a variety of dimensions, which are the result of subjective perceptions of small business owners and include heterogeneity, hostility, dynamism, structure, consumers and competition (Pelham and Wilson, 1995). Dynamism of environment is characterized by instability and continuity changes where growth opportunities arise as a result of social, political, technological and economic changes. A hostile environment is a generator of risk for the company through the development of competition or reduction in demand for products of companies which will significantly reduce the growth opportunities for small business. Heterogeneity of the environment includes its complexity in terms of the different market segments with different characteristics and needs within the same industry. However, heterogeneous markets are much more acceptable for small businesses in order to identify and develop specific niche market compared to markets where demand is homogeneous and therefore hostile environment in the context of small businesses can be a generator of business opportunities.

Previously elaborated dimensions of the environment that directly represent the conditions of implementation of entrepreneurial ventures are comprehensive and detail are included in the GEM conceptual framework of environment, where the authors Levi and Autio (2008) as part of his work examines the theoretical basis and a test of the GEM model in more detail the conceptual framework of entrepreneurial and the general economic environment by establishing mutual relations and connections with certain forms of entrepreneurial activities, is treating the environment as a primary source of initial pulse of entrepreneurial behavior. This conceptual model of the entrepreneurial environment is supported and fully supported by state of classic Austrian school of economics in all its aspects. What is the view of this model also evident is that each stage of development accompanied by appropriate environmental factors, which pays special attention to the legend of management Peter Drucker (1985) points out that the innovations happening as a result of conditions within an appropriate environment. Environmental factors act in a manner so that business must take advantage of changes in the transition from one to the next phase of development. Connection between entrepreneurship and economic trends became explicit at what point present the results of numerous studies and surveys such as the GEM project. Traditional analysis of economic growth has not secured a significant place and role of entrepreneurs, entrepreneurship and the entrepreneurial process in its creation (Bosma and Levie, 2009). Economic growth and development are generally explained to a number of factors, both economic and non economic (Bleaney and Nishiyama, 2002), no direct correlation with entrepreneurship. Viewed historically, the greatest contribution to the development of the theory of entrepreneurship and its role is attributed to the Austrian economist J. Schumpeter (1934) in which entrepreneurship takes all the economic changes that disturb the existing balance and leads to creative destruction. It is evident that many economists emphasize the importance of large enterprise when it comes to economic growth, particularly in crisis situations, both in developed countries and in developing countries but also as a means for solving the development problems of countries in transition (Giamartino, 1991). Small and medium-sized enterprises and entrepreneurship are cited as the most effective instrument for the transformation of the former socialist countries from centralized planning to market economies (Smallbone & Welter, 2001), however, even highly developed countries can not deny this development leverage even formally opting in policy documents.

So the European Union is setting a goal that is called the most competitive economy by 2020 as one of the strategies chosen sector SMEs. All of these guidelines in the development of

the European Union (EU) is defined by the European Charter for Small Enterprises (adopted at the European Council in Feira, Portugal, 19-20 June 2000), initiated by the European Commission, and the Declaration (signed in Maribor, Slovenia, 23 April 2003) on the policy that obliges all candidate countries for accession to the EU to assist the achievement of the objectives of the European Union (UNECE, 2000-2001). The link between entrepreneurship and economic growth supported in developed countries as it is in the United States in the second half of the 20th century (Birch, 1987). SMEs play an important role in all economies and are key generators of employment and income, as well as creators of innovation and growth. In the OECD area, SMEs employ more than half of the workforce in the private sector. In the European Union, they account for over 99 percent of all businesses. In addition, 91% of these enterprises are micro-enterprises with fewer than 10 workers. Given their importance in all economies, they are essential for economic recovery (OECD, 2009). There is no doubt that the main role in the development of developed countries played a big company, however, with the advent of crises 70s (of crisis 73/74 and 78/79) showed his weakness and the ability to adapt to new situations. Developed countries have found their salvation in the small business facilities that are in these situations successfully redeem impacts of the crisis, thanks to its flexibility and innovation of small businesses were faster and better adapted to the new circumstances in the economy. Based on the previous analysis of exposed positions it can be seen that the role and characteristics of entrepreneurial activity in all stages of economic development is identical but different forms of entrepreneurship and structure of entrepreneurial activity vary depending on the achieved level of development of an economy (Sternberg and Wennekers, 2005).

From the before mentioned can be concluded that entrepreneurial activities depend on different sets of parameters compared to existing business activities. Some models presented so far assume the existence of two different business processes that are entirely based and supported the arguments of scholars in the field of entrepreneurship peretežno Austrian School including Schumpeter (1934), Kirzner (1997) and other economists who have recognized the role of entrepreneurship in economic development such as Leibenstein (1968), Baumol (2002) and Acs (2004). Basically both sets of conditions is a model of social, cultural and political context or as Leibenstein (1968) called the "socio-cultural and political boundaries." These fundamental factors may include national culture and universal values (Smith, Petersen and Schwartz, 2002), national wealth in terms of the ability of the government to directly support the entrepreneurial environment and the existence of a specific political and economic system. Furthermore, these circumstances may be related to population growth (Hunt and Levie, 2004) and economic growth (Lundstrom and Stevenson, 2005). It also represents the relationship of entrepreneurship and economic growth through two distinct business processes based on different conditions. It is an undeniable fact that the first economists to entrepreneurs linked with economic growth was Schumpeter, who was acquitted of the prevailing approach to comparative statistics, and recognize the economy as self-transformed system with an entrepreneur as agent of change (Schumpeter, 1934). Schumpeter entrepreneurs represent the innovators who create the conditions for profit by creating a temporary monopoly by organizational and technological innovation. With their activities constantly disturb the existing equilibrium state which favored existing business actors, forcing them to react to emerging threats. This process of "creative destruction" (Schumpeter, 1947) is manifested in the improvement of productivity and hence higher economic growth. This approach is improved and developed further by Leibenstein (1968), Baumol (2002) and Acs (2004), which is the latest in a series developed a new theory of growth with the explicit role Schumpeter's entrepreneurs as transformers of knowledge into

economic knowledge and significant participants in economic growth. As we said Schumpeter's entrepreneur violates state economic equilibrium through the process of innovation as an alternative observation entrepreneurship and economic growth came from another part of austrian economists such as Ludwig von Mises (1949), Hayek (1978) and Kirzner (1997), which emphasize the role of the entrepreneur as the inventor of favorable market conditions stating that "in every real and living economy every participant was always an entrepreneur" (Mises 1949, Kirzner, 1997). From this it further follows that the fundamental question is not who they are entrepreneurs, but what they do, under which conditions and with what consequences (Murphy et al., 1991, Baumol, 1996, Shane and Venkataraman, 2000). Many come to the conclusion that Schumpeter and Kirzner's approaches are more complementary than contradictory (Baumol, 2003, Shane, 2003), while the entrepreneurs of both approaches in each case, the participants of economic growth.

Despite the well-argued the role of entrepreneurs in economic growth and development, the main levers of power of entrepreneurship and its contribution to economic developments reflected in the innovative capabilities that result in the final innovation. Innovation for entrepreneurs and economy are representing 'the engine that drives revenue growth' (Patterson, 1998). Also, innovation is the basis for organizational survival (Hurley and Hult, 1998). Innovation has been defined as the generation, acceptance, and implementation of new ideas, processes, products, or services (Thompson, 1965). On this way, the innovation process widely involves the knowledge management process, including acquisition, dissemination, and use of new knowledge (Moorman and Miner, 1998, Verona, 1999). Innovation and growth have been described as two factors that create wealth for a firm and national economy (Ireland et al., 2001). The power of innovation as the main result of entrepreneurial behavior is reflected in the ability to create new and retain existing demand and market share as a basic condition for survival, growth and development observed at all levels of the economy.

DATA AND METHODOLOGY

Data and variables

The main source of data analyzed factors (variables) activities of entrepreneurial process in this paper are the results of research on the GEM project in 2009. Criterion for the selection of countries for accession to the sample was the availability of data on selected variables, participating GEM project in 2009. Countries are grouped into three stages of economic development, according to the WEF methodology as explained in the GCI (Global Competitiveness Report 2009-2010, Schwab, 2009) and to the Factor - driven economies as the country's lowest level of development, efficiency - driven economies as the medium development levels and Innovation - driven economies as a group of developed countries. The data source for the characteristic level of economic development, as well as for economic growth, the International Monetary Fund (International Monetary Fund), World Economic Outlook Database, October 2010th. Level of economic development is represented by GDP per capita in the United States \$ (GDP per Capita in US \$ on PPP Basis), which is also the basis for the classification of countries according to stages of economic development.

Research variables which are selected and a significant part of the entrepreneurial process as EB (Owner - manager of an established business more than 3.5 years old) and TEA (Total Early-Stage Entrepreneurial Activity). Characteristic labeled TEA (Total Early-Stage Entrepreneurial Activity) index, a major indicator of the amount of entrepreneurial activity in this study and includes the previous two indicators. Characteristic estabbu (Owner - manager of

an established business more than 3.5 years old) is an indicator preduzetnikčih activity last stages of the entrepreneurial process, includes individuals who fit the owner or entrepreneur make certain income of more than 3.5 years of operation.

The scope of innovative activities of entrepreneurial ventures is presented selected variables related to new technologies, new products and new customers as measured by three levels of high, middle and low.

Hypotheses and methodology

Central research aim is related to determining the scope of innovative activities depending on the level of economic development of the observed groups of countries through the stages of the entrepreneurial process. The available data of the selected features allow the implementation analysis in the form of determining the difference between the groups with different degrees of development of the country, by selected stages of the entrepreneurial process TEA and EB. Number of observations in the sample (number of participating GEM project in 2009) allows and instructs the application of parametric statistical techniques, which, due to their sensitivity to reproduce precise and accurate conclusions.

In accordance with all the theoretical positions outlined in this paper, and based on the available data of selected research variables set following research proposition:

H1: There is a statistically significant difference between defined groups of countries with different degrees of economic development to the extent of innovative entrepreneurial ventures;

H2: Entrepreneurial ventures some dinner mature stage (more stages of the entrepreneurial process) is characterized by a greater volume of innovation.

Testing the hypotheses will be performed one-factor analysis of variance - ANOVA method.

ANALISYS OF RESULTS AND DISCUSSION

As a result of having demonstrated problem-orientation based on previous research findings and theoretical views presented, but also defined the research infrastructure of the observed phenomena on the basis of available data, the selected variables and problem-recommended methodology we present Table 1 as the main result of this paper. The results point to the level of innovation of entrepreneurial behavior, measured variables, new customers, new products and new technologies, the phases of the entrepreneurial process, TEA (Total Early-Stage Entrepreneurial Activity) and EB (Owner - manager of an established business more than 3.5 years old) depending on the achieved level of economic development, defined group of countries, Factor - driven economies as the country's lowest level of development, efficiency - driven economies as the medium development levels and Innovation - driven economies as a group of developed countries, as a major determinant of entrepreneurial conditions .

Table 1. ANOVA scope of the innovation activities in dependence of level of economic development

		Sum of Squares	df	Mean Square	F	Sig.
TEA [7/09] % Active in technology sectors (high or medium)	Between Groups	41,722	2	20,861	4,994	.010
	Within Groups	217,230	52	4,178		
	Total	258,952	54			
EB [7/09] % Active in technology sectors (high or medium)	Between Groups	111,691	2	55,845	5,222	.009
	Within Groups	556,051	52	10,693		
	Total	667,742	54			
% 18-64 TEA [7/09] % within	Between Groups	175,701	2	87,850	1,041	.360

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TEA: product new to all customers	Within Groups	4386,978	52	84,365		
	Total	4562,679	54			
% 18-64 TEA [7/09] % within	Between Groups	416,371	2	208,185	1,629	,206
TEA: product new to some customers	Within Groups	6646,489	52	127,817		
	Total	7062,859	54			
% 18-64 TEA [7/09] % within	Between Groups	715,708	2	357,854	1,199	,310
TEA: product new to none customers	Within Groups	15522,004	52	298,500		
	Total	16237,712	54			
% 18-64 EB [7/09] % within EB: product new to all customers	Between Groups	81,053	2	40,526	,462	,632
	Within Groups	4558,165	52	87,657		
	Total	4639,218	54			
% 18-64 EB [7/09] % within EB: product new to some customers	Between Groups	16,917	2	8,459	,064	,938
	Within Groups	6889,094	52	132,483		
	Total	6906,011	54			
% 18-64 EB [7/09] % within EB: product new to none customers	Between Groups	167,140	2	83,570	,275	,761
	Within Groups	15793,008	52	303,712		
	Total	15960,148	54			
% 18-64 TEA [7/09] % within TEA: Many businesses offer same product	Between Groups	292,219	2	146,110	1,153	,324
	Within Groups	6590,435	52	126,739		
	Total	6882,655	54			
% 18-64 TEA [7/09] % within TEA: Few businesses offer same product	Between Groups	156,484	2	78,242	,835	,439
	Within Groups	4870,895	52	93,671		
	Total	5027,379	54			
% 18-64 TEA [7/09] % within TEA: None businesses offer same product	Between Groups	26,730	2	13,365	,611	,547
	Within Groups	1137,753	52	21,880		
	Total	1164,483	54			
% 18-64 EB [7/09] % within EB: Many businesses offer same product	Between Groups	246,962	2	123,481	1,437	,247
	Within Groups	4467,572	52	85,915		
	Total	4714,533	54			
% 18-64 EB [7/09] % within EB: Few businesses offer same product	Between Groups	202,332	2	101,166	1,468	,240
	Within Groups	3584,196	52	68,927		
	Total	3786,528	54			
% 18-64 EB [7/09] % within EB: None businesses offer same product	Between Groups	20,712	2	10,356	1,153	,324
	Within Groups	467,068	52	8,982		
	Total	487,780	54			
% 18-64 TEA [7/09] % within TEA: Uses very latest technology (only available since last year)	Between Groups	497,537	2	248,768	3,756	,030
	Within Groups	3444,288	52	66,236		
	Total	3941,825	54			
% 18-64 TEA [7/09] % within TEA: Uses new technology (1 to 5 years)	Between Groups	2,389	2	1,195	,020	,980
	Within Groups	3129,411	52	60,181		
	Total	3131,800	54			
% 18-64 TEA [7/09] % within TEA: Uses no new technology	Between Groups	492,589	2	246,295	1,343	,270
	Within Groups	9536,416	52	183,393		
	Total	10029,005	54			
% 18-64 EB [7/09] % within EB: Uses very latest technology (only available since last year)	Between Groups	1301,007	2	650,504	7,550	,001
	Within Groups	4480,405	52	86,162		
	Total	5781,412	54			
% 18-64 EB [7/09] % within EB: Uses new technology (1 to 5 years)	Between Groups	485,404	2	242,702	4,077	,023
	Within Groups	3095,899	52	59,537		
	Total	3581,303	54			
% 18-64 EB [7/09] % within EB: Uses no new technology	Between Groups	3142,754	2	1571,377	7,795	,001
	Within Groups	10482,180	52	201,580		
	Total	13624,934	54			

Source: Author's calculation

An important segment of the research results represent the first two variables in Table 1, which is related to the level of entrepreneurial activity of selected stages of the entrepreneurial process, TEA and EB within the technology sector. Technology sector for this problem-orientation is the litmus test, if we observe the level of innovation according to the achieved level of economic development as a determinant of business conditions. Technology sector is characterized by sector based on knowledge, which directly results in the most innovative sectors. From Table 1 it is evident that according to the selected variables entrepreneurial process

TEA and EB there is a statistically significant difference between defined groups of countries with different degrees of development according to the scope of the present entrepreneurial ventures in the technology sector. And for the TEA $F(2, 217.230) = 4.994, p = .010$, and EB level $F(2, 556.051) = 5.222, p = .009$. When we look at the TEA phase of the entrepreneurial process by comparing subsequent Tukey HSD test showed significant differentiation between the mean values of only the first and third group of countries, and a significantly higher percentage of entrepreneurial ventures within the TEA phase of the entrepreneurial process is present in highly developed countries named as Innovation driven economies. Looking at a more mature stage of the entrepreneurial process EB statistically significant difference was identified between both the first and third groups, and between the second and third group of countries, and a significantly higher percentage of entrepreneurial ventures within the EB stages of the entrepreneurial process is present in highly developed countries named as Innovation driven economies as compared to Factor driven economies and in relation to efficiency-driven economies. In this case, the level of economic development as a determinant of entrepreneurial conditions is significant in the mature phase of the entrepreneurial process when it comes to inclusion within the technology sector. These results allow us to state its position on the innovative behavior of the late stages of the entrepreneurial process, such as in the case of EB, significantly influence entrepreneurial conditions represented the degree of achieved development of the country, while in the early stages of entrepreneurial ventures are less sensitive to these differences.

The following analysis of deflection on the scope of innovative activity measured by selected variables, new customers, new products and new technologies, depending on the level of economic development of defined groups of countries within the results presented in Table 1, it is easily seen that for innovation as a result of entrepreneurial behavior, measured new products and new customers, level of development as a determinant peduzetničkih conditions were not significant. Conclusion This is true regardless of the degree of maturity preduzentičkog enterprise. The only difference was expressed in terms of the scope of innovation depending on the level of development achieved was recorded for the new technology as a measure of innovative behavior, and especially in the mature phase of the entrepreneurial process such as EB for all three levels of technological modernity (18-64% EB [7/09] % within EB: Uses very latest technology (only available since last year) - $F(2, 4480.405) = 7.550, p = .001$; 18-64% EB [7/09] % within EB: Uses new technology (1 to 5 years) - $F(2, 3095.899) = 4.077, p = .023$; 18-64% EB [7/09] % within EB: Uses no new technology - $F(2, 10482.180) = 7.795, p = .001$). While in the early stages of the entrepreneurial process as TEA, the level of economic development showed a difference only at the level of the most advanced technological solutions (18-64% TEA [7/09] % within TEA: Uses very latest technology (only available since last year) $F(2, 3444.288) = 3.756, p = .030$). This result corresponds with the economic logic as the use of modern technology and conditional resource capabilities entrepreneurial ventures to innovated in this area.

CONCLUSION

The main strength of entrepreneurial ventures make innovation as the main and only valid results entrepreneurial behavior, which as such are unlimited economic resource in terms of the necessary resources for economic growth and development. The scope of entrepreneurial ventures and its contribution to economic development, especially through economic growth, determined by the entrepreneurial conditions are directly dependent on the achieved level of

economic development of the respective business environments. But also the entrepreneurial potential in terms of innovation capacity is determined by the degree of maturity of entrepreneurial ventures, and achieved preduzetničkook stage in the development process. Thus, we can gain insight into the higher stages in the development of entrepreneurial processes exert a greater ability to generate the basic results of the entrepreneurial process innovation. Thus, we can conclude that:

- the level of economic development as a determinant of entrepreneurial conditions is significant in the mature phase of the entrepreneurial process when it comes to inclusion within the technology sector.

In the second part of the analysis focused on the extent of innovative activity, depending on the achieved level of economic development as a determinant of entrepreneurial conditions, we conclude that:

- The level of economic development as a determinant of entrepreneurial conditions is important in the structure of the innovations that relate exclusively to innovation in the field of technology. Within this indicator of innovation in the mature stages of the entrepreneurial process at all three levels, but in the earlier stages of the entrepreneurial process, only the highest level of technological modernity.

On the basis of previous findings in this paper both experienced research assumptions are verified at what point and presented quantitative results.

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APENDIX

Table 1. Multiple Comparisons observed variables
Tukey HSD

Dependent Variable	(I) COUNTRY GROUP GCR REPORT 2009-2010 3 CAT	(J) COUNTRY GROUP GCR REPORT 2009-2010 3 CAT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
TEA [7/09] % Active in technology sectors (high or medium)	Stage 1: factor driven	Stage 2: efficiency driven	-.93883	,72784	,407	-2,6948	,8172
		Stage 3: innovation driven	-2,26984*	,74632	,010	-4,0704	-,4693
	Stage 2: efficiency driven	Stage 1: factor driven	,93883	,72784	,407	-,8172	2,6948
		Stage 3: innovation driven	-1,33101	,62490	,094	-2,8387	,1766
	Stage 3: innovation driven	Stage 1: factor driven	2,26984*	,74632	,010	,4693	4,0704
		Stage 2: efficiency driven	1,33101	,62490	,094	-,1766	2,8387
EB [7/09] % Active in technology sectors (high or medium)	Stage 1: factor driven	Stage 2: efficiency driven	-.85459	1,16449	,745	-3,6640	1,9548
		Stage 3: innovation driven	-3,44658*	1,19406	,015	-6,3274	-,5658
	Stage 2: efficiency driven	Stage 1: factor driven	,85459	1,16449	,745	-1,9548	3,6640
		Stage 3: innovation driven	-2,59199*	,99980	,033	-5,0041	-,1799
	Stage 3: innovation driven	Stage 1: factor driven	3,44658*	1,19406	,015	,5658	6,3274
		Stage 2: efficiency driven	2,59199*	,99980	,033	,1799	5,0041
% 18-64 TEA [7/09] % within TEA: Uses very latest technology (only available since last year)	Stage 1: factor driven	Stage 2: efficiency driven	7,84130*	2,89819	,025	,8491	14,8335
		Stage 3: innovation driven	6,15085	2,97179	,106	-1,0189	13,3206
	Stage 2: efficiency driven	Stage 1: factor driven	-7,84130*	2,89819	,025	-14,8335	-,8491
		Stage 3: innovation driven	-1,69045	2,48830	,776	-7,6937	4,3128
	Stage 3: innovation driven	Stage 1: factor driven	-6,15085	2,97179	,106	-13,3206	1,0189
		Stage 2: efficiency driven	1,69045	2,48830	,776	-4,3128	7,6937
% 18-64 EB [7/09] % within EB: Uses very latest technology (only available since last year)	Stage 1: factor driven	Stage 2: efficiency driven	11,55786*	3,30549	,003	3,5830	19,5327
		Stage 3: innovation driven	12,00587*	3,38943	,002	3,8286	20,1832
	Stage 2: efficiency driven	Stage 1: factor driven	-11,55786*	3,30549	,003	-19,5327	-3,5830
		Stage 3: innovation driven	,44801	2,83800	,986	-6,3989	7,2949
	Stage 3: innovation driven	Stage 1: factor driven	-12,00587*	3,38943	,002	-20,1832	-3,8286
		Stage 2: efficiency driven	-,44801	2,83800	,986	-7,2949	6,3989
% 18-64 EB [7/09] % within EB: Uses new technology (1	Stage 1: factor driven	Stage 2: efficiency driven	4,24057	2,74771	,279	-2,3885	10,8697
		Stage 3: innovation driven	7,98254*	2,81748	,018	1,1851	14,7800
	Stage 2: efficiency driven	Stage 1: factor driven	-4,24057	2,74771	,279	-10,8697	2,3885

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to 5 years)	efficiency driven	Stage 3: innovation driven	3,74196	2,35910	,261	-1,9496	9,4335
	Stage 3: innovation driven	Stage 1: factor driven	-7,98254*	2,81748	,018	-14,7800	-1,1851
		Stage 2: efficiency driven	-3,74196	2,35910	,261	-9,4335	1,9496
	Stage 1: factor driven	Stage 2: efficiency driven	-15,79844*	5,05596	,008	-27,9964	-3,6005
		Stage 3: innovation driven	-19,98841*	5,18434	,001	-32,4961	-7,4807
% 18-64 EB [7/09]	Stage 2: efficiency driven	Stage 1: factor driven	15,79844*	5,05596	,008	3,6005	27,9964
% within EB: Uses no new technology		Stage 3: innovation driven	-4,18997	4,34090	,602	-14,6628	6,2829
	Stage 3: innovation driven	Stage 1: factor driven	19,98841*	5,18434	,001	7,4807	32,4961
		Stage 2: efficiency driven	4,18997	4,34090	,602	-6,2829	14,6628

*. The mean difference is significant at the 0.05 level.

Source: Author's calculation

MODEL CID: CREATING COMPETITIVE ADVANTAGE THROUGH INNOVATION

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Abstract

The basic model which is elaborate in this scientific paper is based on a thesis that innovative management is process, which is result on: creativity, innovativeness and development. For this model it is used acronym CID. Meaning of this acronym indicates that innovations prevailed in organizations and they are basics for reaching competitive advantage. Analyzing this model, shows that baseline is creativity of individuals and organizations which allows generating a lots of potential ideas for innovations. Innovativeness is result of a process of innovation which it is necessary to be managed, strategies in organization for innovations, research and development, projects for innovation which leads to third element- an element of development. Development of new product is result from the process of innovations. These elements lead to creating innovative organization where innovations will be incorporated as system ability for reaching competitive advantage.

Keywords: innovations, organization, creativity, innovativeness, development.

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INTRODUCTION

Today, innovation is condition without which can be (Condition sine qua non). The term innovation is incorporated in our language. The question is: to what is known about innovation and the concept is understood? How this knowledge is shared? To achieve competitive advantage organizations must innovate: not just once but repeatedly, in all products, services and business functions. Profitable innovation did not "happen" themselves. They must be designed and managed, and some organizations are successful at it because they are not only able to survive but also an opportunity to influence the development of the business.

In R. Macedonia this paper represents an initial attempt which might be called the "outgoing" to promote innovation management and to determine the real and actual characteristics of innovation management in the business world, and to initiate actions for further research in this extremely important area. This paper is an authentic model created CID. Feature of the model is chain- system-process access. This access started with Michael E. Porter and its "The Value Chain and Competitive Advantage" promote in 1985, continuing with BPR (Business Process Reengineering) and TQM (Total Quality Management). BPR is promotes in early 90-ties. It began as a technique for the private sector to enable organizations to redesign their work to improve products, reduce costs and become more competitive. TQM is based on the premise that the quality of products and processes is the responsibility of everyone involved in the creation of products and/or services. This implies the involvement of management, workforce, suppliers and customers in order to meet and satisfy the needs and expectations of customers.

CID AS CHAIN- SYSTEM-PROCESS ACCESS

In recent years the concept of innovation has seen significant development. In the past, innovation was seen as a development that resulted from research performed by researchers. More recently, innovation is seen as a specific result of individual actions but rather as a process, or the process of problem solving or process of transforming ideas into potential commercial value in the market (Polenakovik, Markovska, 2013, p. 3). The analysis of numerous definitions of innovation suggests that all contained the term "new".

It can also be seen that innovation is not only a result of R&D. R&D is only one element. In this context, innovation include: changes in the products and/ or processes, degree of novelty that ranges from brand new products and/ or processes to improved products and/ or processes, different sources of innovation (creativity, technology, organizational learning), commercial and social value of the individual, organizational and national level (Polenakovik, Markovska, 2013, p.5). The question is what is subject of innovation management? Object of study in innovation management and innovation in their impact on the overall growth and development of organizations in order to achieve competitive advantage. Innovation management is a set of formal and informal rules, principles, norms, assumptions and orientations that enables organizations to build organizational infrastructure of innovation. In this context, innovation management is a whole that allows obtaining competitive advantage through three basic elements:

1. Creativity.
2. Innovativeness.
3. Development of new product/service.

These three elements allow organizations to achieve competitive advantage which is measured by the organizational ability to perform the work in an efficient and effective manner and to produce new and better products apart from its competitors. Basic blocks that build competitive advantage: efficiency, quality, customer satisfaction and innovation (Gareth R. Jones, Jennifer M. George, Charles W. L. Hill, 1996).

CREATIVITY- STARTING POINT FOR ENCOURAGING INNOVATION

What means creativity? What creativity associate? The answer to those questions illustrates what constitutes creativity. Many images are based on the creativity of incompleteness. In business, for example, many people associate creativity with innovation in terms of introducing new or improved products and/or processes. Creativity is the most fundamental of all competencies in organizations because creativity is what makes "something" better and newer. Basically refers to the process of creating original ideas and understanding of existing ideas in new ways that will be used for an idea that will be useful and applicable. The idea should have a significant impact on the achievement of the objectives of the organization. To better understand creativity is important to distinguish between creativity and innovation. Creativity is the "raw material" that turns into innovation. Creativity is a necessary step within the innovation process that is used to present network of generating new ideas, approaches or actions (Bruce R. Barringer, R. Duane Ireland, 2010). The basis of creativity is creative thinking. How works creative thinking? New ideas arise when two or more ideas are brought into relation, connect, unite and integrate; previously there was no relation between them. It is a combination of two previously not combined thoughts, products or processes. For example, the idea of a machine for mowing the grass is obtained from the job of the innovator. Namely, he was involved in the process of weaving carpets. During the work notes that the shearing machine which overlooked the velvet carpets over such things. That situation reminded him of grass growing in his yard that had to cut every Saturday. His inventiveness and wisdom helps to make cylinder lawnmower around the cylinder and placed rows of blades that are connected via a lever that will move. After this initial discovery, he works long time on perfecting the idea machine for mowing the grass. The basis of creative thinking is solving problems. Problems should be transformed into thinking that provokes challenges. Before you start to think about generating ideas, it is necessary to transform the problem into a challenge. If you start to generate ideas to solve the wrong problem, you can get lots of good ideas but they may be lost solutions. But with the properly identified problem good and useful ideas will arise. Nearly every idea is a potential solution to the problem. For example, the corrector innovation arises as a result of the problems that had Bette Nesmith, who worked as a secretary to the director. At the time it was introduced the typewriter, its head bought for his secretary. She was delighted with the new electric machine, as long struggle with the mechanical model and hoped to heal the sick and fingers from the beating of the keys. Unused to the pressure of the soft keys did many mistakes and failed to write a single letter. She constantly thought of ways to find the problem, but she couldn't think for any solution. She remembered that artists put white color "dzheso" over mistakes during the shot. And the solution to the problem was found. She put water in small vial tempera and smeared it with aquarelle brush on the place where she had made a mistake. She started to use this method to fix. Creative people begin to research the problem. So today creativity soar and organizational level. Creative people are considered to have the following features: a free spirit, intuitive, fun, different, open to new opportunities, flexible, persistent, tolerant, eager to learn, change, focused on exploring new opportunities

and so on. (Samuel Certo, S. Trevis Certo, 2008). Organizations should take steps to encourage and support creativity. In this direction, to encourage creativity, entrepreneurs and managers need to understand the process of creativity, to know how to choose people with creative skills, to be able to stimulate creative behavior and to provide an organizational climate that will nurture creativity.

INNOVATIVENESS AS AN ORGANIZATIONAL FEATURE

Strategic goal of the organization is to achieve competitive advantage through innovation. Organizations have a clear view that the winners will be those whose products may be different from the products of competitors and thus remain competitive. Innovation management aims to help organizations to manage the innovation activities that will enable you to become successful innovators. Require innovation strategy because their goal is to allow the survival of organizations. The question is what is innovation? Innovation is an organizational ability to bring new products to market through a combination of strategic orientation with innovative behavior (Polenakovik, Markovska, 2013, p. 73). Key aspects of innovation are: process innovation, innovation strategies, innovative projects and research and development. The process of innovation requires creating frame, structure that organizes the accumulated knowledge, enables people to manage the process of innovation, and unifying set of principles in action oriented. The purpose of the innovation framework should be useful for all types of organizations, whether small or large, public or private, etc. The principal innovation activities undertaken in the process of innovation must be identified and organized. You need to know how to create and manage the innovation process and how to develop an innovative culture that encourages creative and innovative spirit of employees in the organization. Innovations require strategy because their goal is to allow the survival of organizations or, as Peter Drucker: "The organization that in era of innovation is not able to innovate, is doomed to fail and disappear". In other words, organizations in the modern competitive environment have a ability- "to be innovative or to fade" (Drucker, 2009, p. 179). Peter Drucker stresses that innovations are an organized, systematic and rational work ", followed by analysis, market research, analysis of demographic trends and so on. (Drucker, 2009, p. 177). In that context, innovation represents process that should be managed. Therefore innovation means managing of all activities in the process of generating ideas, technological development, production and marketing of a new (improved productivity) or production process. Many organizations develop a systematic process of innovation that begins with the question "why". Since the beginning of the process of innovation starts with a number of ideas at the beginning and a small number of ideas in the end, the process of innovation is represent with funnel, where the ideas come in a wide part of the funnel and through hard work transformed into inner part of the funnel and the end result is innovation that is launched in the market. Entrepreneurs and managers need to ask questions: What changes and trends occurring in the competitive environment? What kind of competition facing the organization? What are the strengths and weaknesses of the competition? What products and/ or processes have to offer? The answers to these questions allow managers and entrepreneurs to think strategically. Strategic thinking is to have a long-term view and to consider how the organization is related to the competitive environment (Polenakovik, Markovska, 2013, p. 96). The basis of innovation strategy is a strategy of the organization that acts as an intermediary between the organization and the environment in the area of innovation. Innovation strategies must constantly be adjusted to the technological, marketing, manufacturing and other functional strategies. R&D for a long time is subject of interests.

The change in market development and economic growth of the past to today's highly competitive, global markets reflects the way R & D is organized and managed. Successful examples from the past as Bell Lab, Xerox Parc replaced by organizations that market-oriented as 3M, Toyota, Sony, etc. R&D within organizations is the central figure of the capacity for learning. R&D office is tasked to predict the future in order to build a better future for the organization. R&D plans should include a precise view of the future. Innovation projects enable organizations to improve investment in R&D in order to create value for customers. The management of the portfolio of projects allows better mix of projects and efficiency in creating innovation. The management of the portfolio of projects creates a process that allows the selection and prioritization of projects that are profitable in the long sustained period of time. This research methodology create an environment that eliminate potential projects and without giving priority to projects that contribute to stability, competitiveness and sustainability of the organization (Robert G. Cooper, Scott J. Edget and Elko J. Kleinschmidt).

DEVELOPMENT OF NEW PRODUCTS/ SERVICES AS RESULT OF INNOVATION

The real challenge for organizations is to develop and grow. The subject of interest is the development of new products. Innovations represent the introduction, development of new products, something "new". What does "new" products? Are changes in product packaging is a new product? The product has several dimensions. The dimensions of the product include (Trott, 2004, p.408):

- Quality.
- Characteristics.
- Technology.
- Packing.
- Brand.
- Price.
- Level of service.

Each of these dimensions can change. Each change leads to a new dimension. Even the smallest changes in any of those dimensions are called a "new product". New products replace existing products. On market they appear with great speed as a result of: development of manufacturers, technology development, demographic features, and differentiation of products. The degree of novelty is an indicator of the difference between the new product and existing products. Changes (depending on perspective) range from minor, incremental to major, radical. But it is very important to increase the awareness and attitudes towards the achievement of long-term commercial success of the organization rather than polemics to decide what is and what is the new product. In this view, development of new products is a complex process that is based on scientific methods, knowledge and information and that takes time, effort, preparation and collaboration with various experts. It is important to emphasize that the development of the new product is accompanied by a certain degree of risk, which means only a fraction of the ideas remain implemented in a product that will meet the needs of customers (Trott, 2004, p. 409). New product development includes activities for organizations to design and launch products to market. Many of these activities involve more intellectual than physical activity (Oden, 1997, 119). Organizations that develop new products a detailed development process of new products that differ between organizations. Numerous authors give their opinions regarding the development stages of the new product.

Analyzing the development stages of a new product can be concluded that the development of new product begins with: the idea that a potential model concept is then transferred to the design of the product to eventually result in a commercial product to market. The phases of the development process of new product describe the actions through which the concept of the product is transferred from one level to the next level. Developing new products is divided into three phases: (Oden, 1997, pp. 119-219).

1. Concept development.
2. Technical development.
3. Business development.

Concept development is divided into two sub-phases: idea generation and evaluation of the concept. Stage of technical development is divided into three sub-phases: preliminary design, final design and testing and production. Phase of business development has one sub-phase: introduction of new products to market.

CONCLUSION

Training organizations for introducing innovation is detailed and complex issue. If organizations want to demonstrate success in innovation practice, it is appropriate to model and approach that is the cornerstone of future work. Many cases indicate that one of the main reasons for failure is the lack of innovation to a valid model that organizations can follow. It is desirable that organizations working or want to work with innovation to know that a major determinant of innovation management needed to integrate the organizations themselves and thus create conditions to become innovative organizations. Innovative Management assumes focusing on creativity, innovation and development as processes that support innovation. The theoretical elaboration of innovative management allows discussion of basic assumptions that for organizations to become innovative and achieve competitive advantage is to introduce chain- system-process access CID access on organizational level. In this way organizations can achieve competitive advantage in today's modern and dynamic environment. Research confirms that innovative organizations are able to use innovation to improve their processes or to distinguish their products and/ or services are competitive, measuring in terms of market share, profitability and growth. The focus on innovation lately is redirected to creating value and is credited with a successful driving force in many organizations.

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DECISION SUPPORT SYSTEMS-LOGISTIC SUPPORT TO THE PROCESS OF DECISIONS MAKING IN THE MACEDONIAN COMPANIES

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Abstract

The process of deciding is a part of the things that each manager has to do during his work. We make decisions every day, in accordance with the things connected to the classical functions, as: planning, organizing, managing with the employees, the management in general and control. The process of deciding is not an individual process, i.e. isolated function of the management but it is in realization with all the business functions. The managers (the decisions makers) at all the levels make decisions that sometimes they are “small” and sometimes they are “big”. However no matter whether the made decisions will realize or not all their decision makers go through the decision-making processes. Therefore, this process should first be well acquainted, and then you can manage with it. In all approaches that are present in the contemporary management theory, the term decision-making means rational choice of one of the possible alternatives.

The Decision Support Systems (DSS) give logistic support to the process of making decisions in the contemporary companies. DSS are complex computer programs which based on the input data from the database can predict the activities of the real system and some future circumstances.

In this project will be implemented a method of objective collection, analyzes, and interpretation of the data, by which the research process gets a scientific character. This methodological approach has been used through the gathered information about the application of the modern Decision Support Systems through systematic, empirical and analytical research of the previously shaped hypothesis. In order to research the condition in our country is used the method of the structure survey, by which we will get information about the implementation of DSS in the business entities in Macedonia.

As priority objectives that are established by this project are the following:

- *Assessment and conclusion on the application of Decision Support Systems;*
- *Indicating the benefits of implementation of the Decision Support Systems;*
- *Providing strategic guidance under which the companies will develop in the implementation of the contemporary Decision Support Systems.*

Keywords: decisions, decision-making, Decision Support Systems, companies.

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INTRODUCTION

The process of deciding is a part of the things that each manager has to do during his work. We make decisions every day, in accordance with the things connected to the classical functions, as: planning, organizing, managing with the employees, the management in general and control. The process of deciding is not an individual process, i.e. isolated function of the management but it is in realization with all the business functions. The managers (the decisions makers) at all the levels make decisions that sometimes they are “small” and sometimes they are “big”. However no matter whether the made decisions will realize or not all their decision makers go through the decision-making processes. Therefore, this process should first be well acquainted, and then you can manage with it. In all approaches that are present in the contemporary management theory, the term decision-making means rational choice of one of the possible alternatives.

On the other side, the decision theory (Cooke, S. And Slack, N., 1991, Making Management Decision, second edition, Prentice Hall, New York, page 13), and the quantitative methods and models as well, were previously developed independently from the information technology and information systems. Namely a whole range of quantitative methods and models emerged (linear programming, network planning, simulation, dynamic programming, theory of waiting lines and others.) that have no mutual elements. This development of quantitative methods and models entered in a crisis that is caused by the adjustment problem methods rather than (vice versa), *i.e.* insisting to optimal and not real decisions or orientation towards achieving the goal, regardless the means that will be spent, not existing an adequate theory of key problem areas etc. The efforts to overcome the crisis in the use of quantitative methods and models in the decision process led to the end of the seventies of the twentieth century appeared to support decision-support system.

Decision Support Systems are information systems, that are similar and complementary to the standard information systems and have an aim mainly to support business for decisions - making processes. They are a symbiosis of the information systems, the use of a range of functional knowledge, and the current process of decision – making.

The Decision Support Systems (James A. O’Brien, 2006, Introduction to Information Systems, College of Business Administration Northern Arizona University, McGraw-Hill, page 330) generally are defined as information systems that are built to help the decision maker in the solving the poorly-structured decision-making problems. Their main goal is to provide qualitative information for the decision-making process, in order to increase the efficiency in decision-making. The main characteristics of these systems are: oriented decision-making, orientation towards solving the poorly-structured problems and orientation towards the final user. The decision-making systems help and support the decision-maker in the process of decision-making, but they do not make this process automatic, because they do not replace the man in "judgment" about the problems of decision-making and related human functions. They help the decision-maker to make more qualitative decisions, so it is said that they serve to improve the effectiveness (the quality), instead of (the speed) of the process of decision-making.

DSS should provide the manager time exact information, that will be at the same time accurate, relevant and complete. DSS must give the information in an adequate form in order to be easy to understand and manage. The information presented with the DSS could be a result, or could be taken from outside sources. The DSS could present either internal or

external facts, different opinions and predictions that could help the manager. That is the reason why he wants the right information, at the right time and in the right form.

DECISION SUPPORT SYSTEMS-LOGISTIC SUPPORT TO THE PROCESS OF DECISIONS MAKING IN THE MACEDONIAN COMPANIES

Information Decision Support Systems are based on a set of procedures which are used by the data processing models and making decisions models. The central place have neither the data nor the information, but the decisions. The analysis system has a form of a prototype and the description of the things is semi-structured. The system outputs are relational views while the software basis is a generator of the program.

DSS should provide adequate information to the Manager, at the same time will be accurate, relevant and complete. DSS must give information in a form to be easy to understand and manage. DSS can also display internal and external facts, then different opinions and forecasts which would have helped manager. Because he wants the right information, at the right time and in the right form.

The main feature of the system to support decision-making is that the user brings business decisions interact with the output information from the information system, which provides important advantages over previous types of information systems, in the form of:

- various reports,
- use graphics and other output options,
- reducing the volume written documents,
- eliminate most of the paper input information,
- introducing electronic mail.

Information system to support decision making is intended to address problems of top management in the company, so it must be interactive, time-synchronized and interdisciplinary. Creators of this system should be its beneficiaries to use certain information already contained in existing databases in the company or outside. Such information, if needed, to rearrange, and depending on the specific needs and requirements, and then analyzed using static optimization techniques, and in some cases the techniques of simulation.

In order to identify the use of decision support systems in the companies in the Republic of Macedonia was needed to conduct a survey. The statistic sample was created out of 30 companies from various fields in order to get more relevant results about the use of the Decision Support Systems in the companies. The survey was focused on three main aspects:

- Basic indicators for existence of the Decision Support Systems in the companies;
- Using the Decision Support Systems;
- Strategic aspects.

In the first part the emphasis was added on the computer use, the Internet and the computer networks in the companies.

From the 30 companies surveyed, while performing everyday routine tasks, all the 30 companies said that they use computers (figure 1).

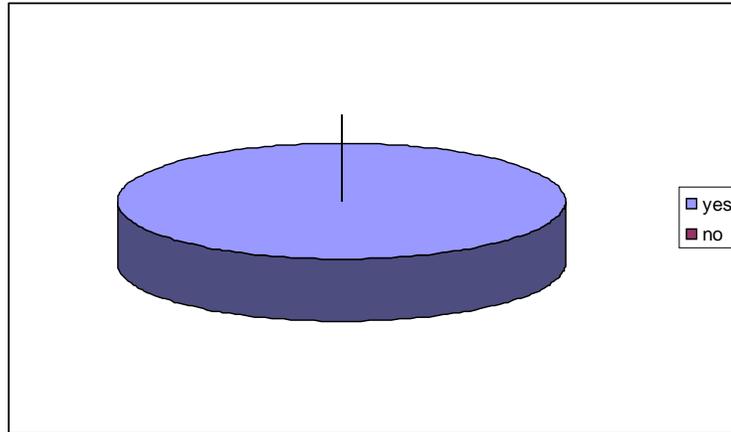


Figure 1: Use of computers in the companies.

According to the answers of the companies, 20 of them allow Internet access to their working places (figure 2).

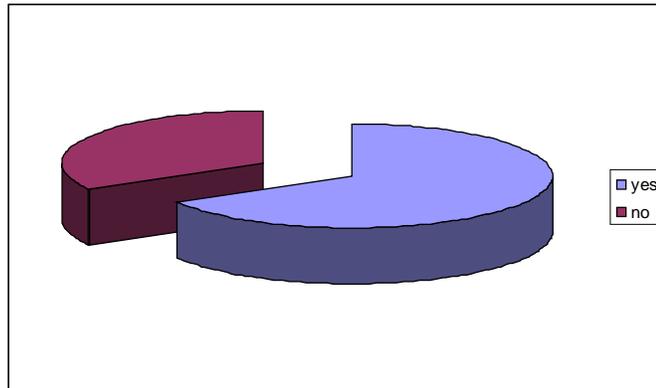


Figure 2: Do the companies allow internet access.

The third question in the conducted survey was *Whether in their company they have implemented a local computer network*. According to the answer of the interviewed companies, half of them have implemented a *local computer network* (figure 3).

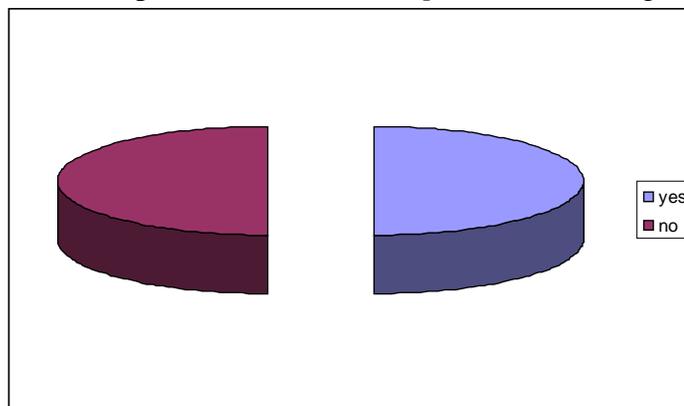


Figure 3: Whether the companies have implemented a local computer network.

The 19 companies surveyed responded positively know that you are intelligent systems that support decision-making in companies which presented 63% of the total surveyed businesses (figure 4).

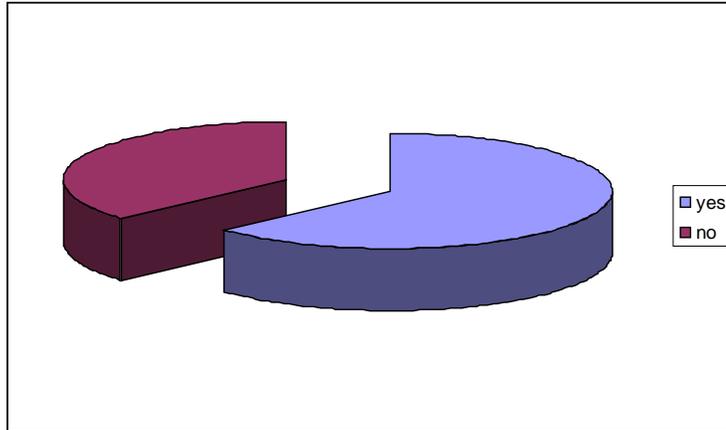


Figure 4: Do the companies use intelligent systems that support decision-making.

In the second part of the survey, the stress was on the use of the Decision Support Systems. Namely, the question *whether the companies use the Decision Support Systems, in the process of decision-making*, from 30 surveyed business subjects only 12 said yes, 18 said they do not even use the Decision Support Systems in the process of decision-making (figure 5).

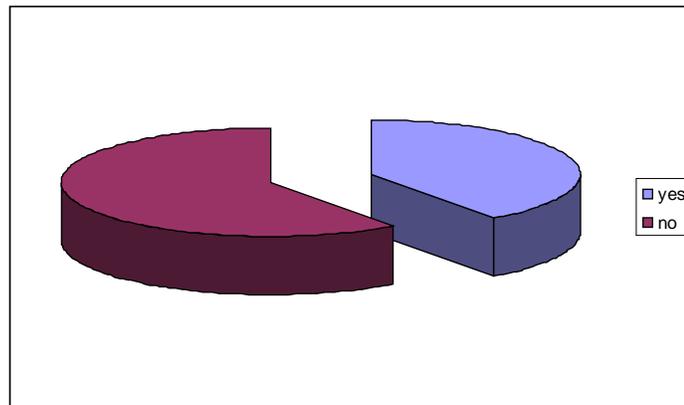


Figure 5: Whether the companies use the Decision Support Systems, in the process of decision-making.

From the interviewed companies, 16 of them are informed about a statistic software on the Internet that could be used as a support in the process of decision-making. From the surveyed business subjects 14 answered that they are not informed about the statistic software on the Internet (figure 6).

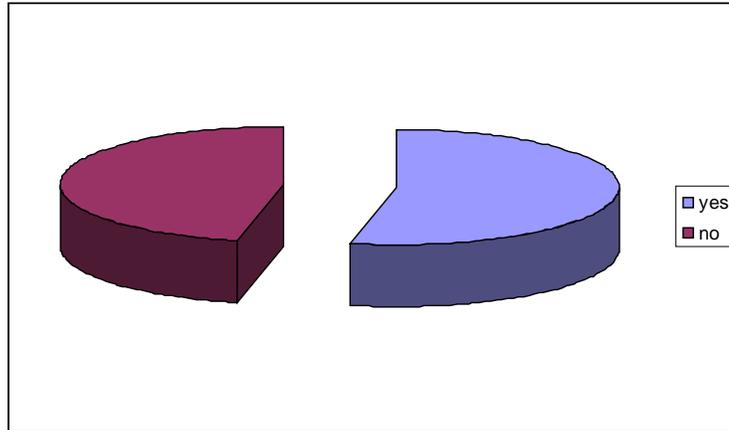


Figure 6: Are the companies informed about a statistic software on the Internet that could be used as a support in the process of decision-making.

On the question *whether the manager is trained to work with a statistic software*, 14 companies answered yes and 16 companies answered no (figure 7).

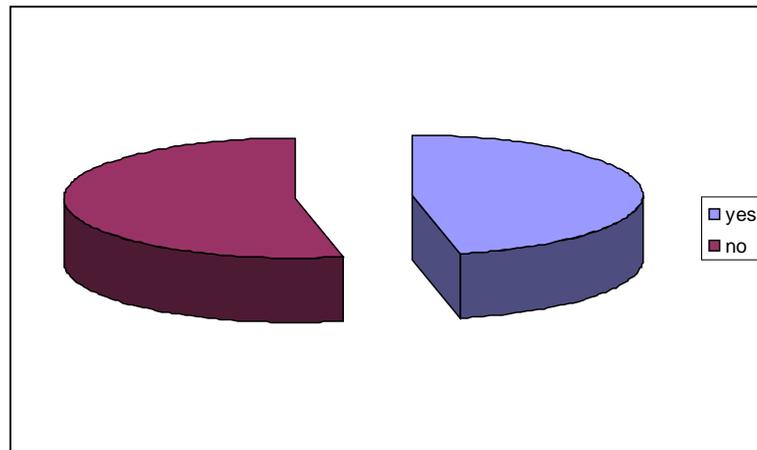


Figure 7: Whether the manager is trained to work with a statistic software.

Of the interviewed companies only 12 have developed their own Decision Support System, and 18 of them gave negative answer (figure 8).

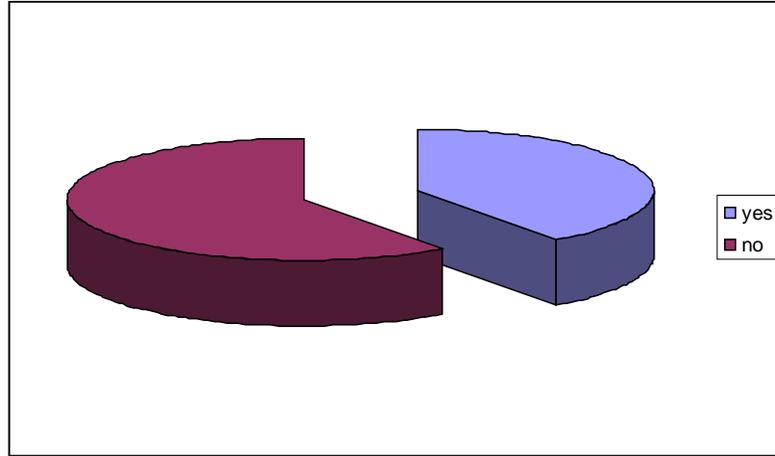


Figure 8: Did the companies developed their own Decision Support System.

The stress on the third part of the survey was on the strategic aspects set by the companies.

24 of the interviewed business subjects answered that they plan to develop a Decision Support System and the other 6 companies gave negative answer (figure 9).

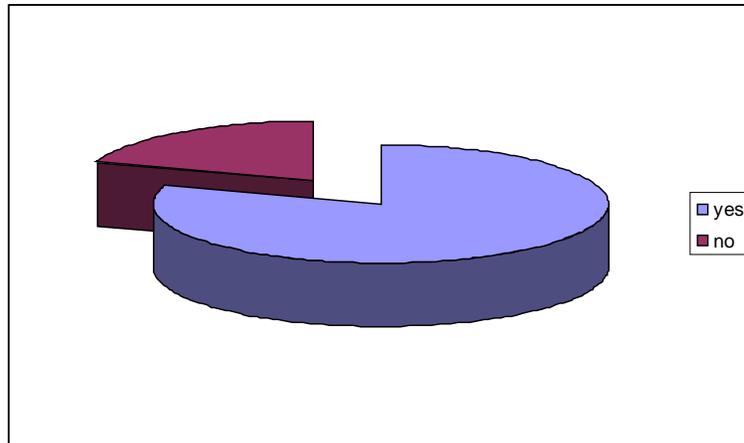


Figure 9: Do the companies plan to develop a Decision Support System.

Only 6 interviewed business subjects answered positively the question whether they have Decision Support System Department, and the other companies answered that they have no need of such Departments (figure 10).

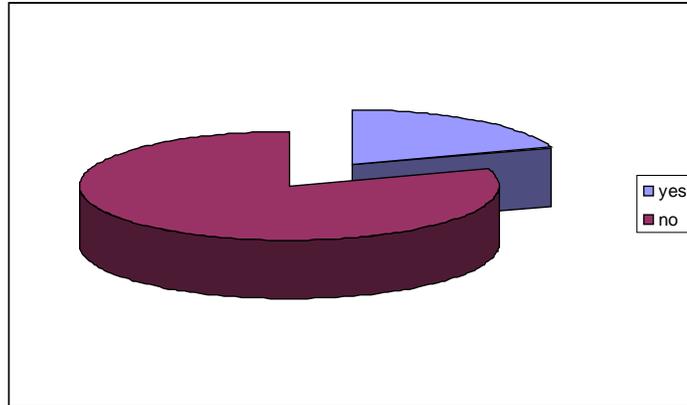


Figure 10: Do the companies have Decision Support System Department.

Only 10 out of 30 companies answered that in their mission and vision have a strategy for the Decision Support System development (figure 11).

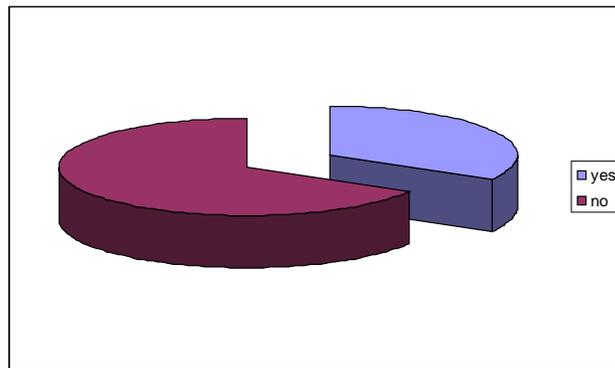


Figure 11: Do the companies in their mission and vision have a strategy for the Decision Support System development.

Of the 30 surveyed companies, 12 answered that they are informed about their opponents' level of development of the Decision Support System (figure 12).

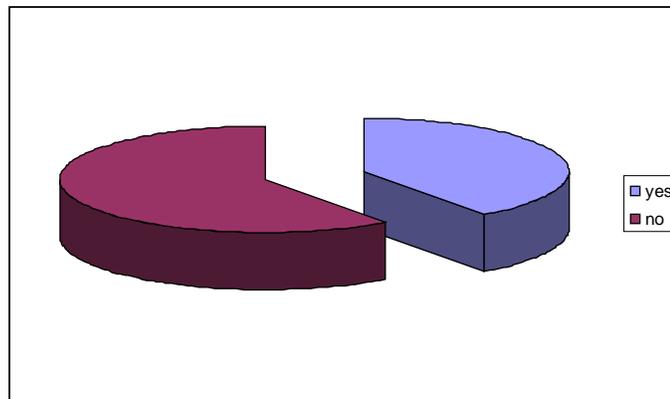


Figure 12: Are the companies informed about their opponents' level of development of the Decision Support System.

The question Do You think that the Decision Support Systems would reflect positively on the work of the company, 17 companies answered positively and the other 13 think that they will not have use of these systems (figure 13).

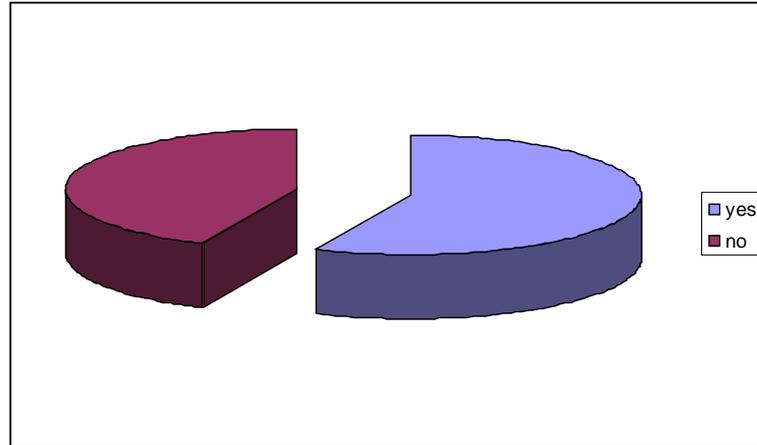


Figure 13: What the companies think about if the Decision Support Systems would reflect positively on the work of the company.

22 of the surveyed business subjects answered that their company can use a Decision Support System, and the remaining 8 companies give negative answer (figure 14).

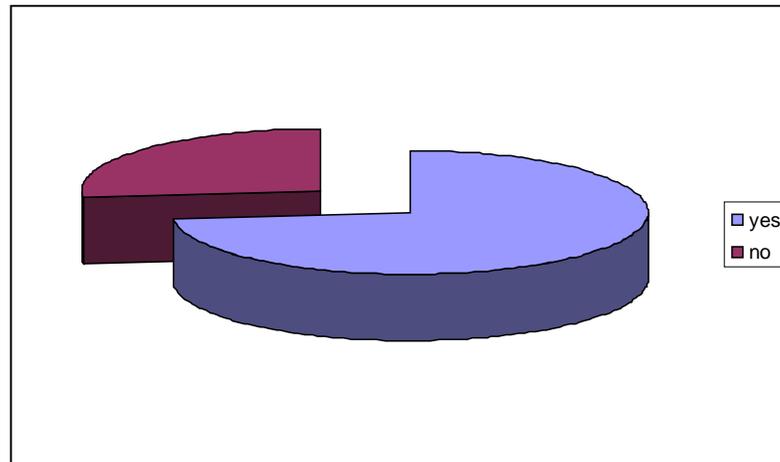


Figure 14: Can the companies use a Decision Support System.

The data presented in table1, are tested by the Kohran (Kosta S, 2004, Statistics, Faculty of Economics - Prilep, page 297) test which is used when more than two groups of extracts are equalized in their original properties, and each element of the extract meets or does not meet a feature, depending on the appropriate factor. In this test the value R_k based on the formula is determined:

$$R_k = \frac{(k-1) \left[k \sum_{j=1}^k G_j^2 - \left(\sum_{j=1}^k G_j \right)^2 \right]}{k \sum_{i=1}^n n_i - \sum_{i=1}^n n_i^2}$$

where

k – number of columns;

n – number of elements in the extract;

$G_j, j = 1, 2, \dots, k$ - sum of positive answers in j – column;

$n_i, i = 1, 2, \dots, n$ - sum of positive answers in i – column ;

The value R_k is compared to the chart value $X_{(\alpha,r)}$ for $r = k - 1$ free degrees

If $R_k < X_{(\alpha,r)}$, null hypothesis is accepted with probability $(1 - \alpha)$, and if $R_k \geq X_{(\alpha,r)}$, the hypothesis is rejected H_0 , with risk α .

We set the statistical hypotheses:

H_0 - The companies do not use Decision Support Systems.

H_1 - The companies use Decision Support Systems

The necessary calculations are given in table 2.1.

Data obtained from the chart are replaced in the corresponding formula:

$$R_k = \frac{(k-1) \left[k \sum_{j=1}^k G_j^2 - \left(\sum_{j=1}^k G_j \right)^2 \right]}{k \sum_{i=1}^n n_i - \sum_{i=1}^n n_i^2} =$$

$$= \frac{(14-1) \left[14(30^2 + 20^2 + 15^2 + 19^2 + 12^2 + 16^2 + 14^2 + 12^2 + 24^2 + 6^2 + 10^2 + 12^2 + 17^2 + 22^2) - 229^2 \right]}{14 * 229 - 2005}$$

$$= 77.17$$

For $r = k - 1 = 14 - 1 = 13$ free degrees and threshold of significance 0,05 from the statistical chart the theoretical value is shown:

$$X_{(0,05;13)}^2 = 22,362$$

Because $R_k = 77,17 > X_{(0,05;13)}^2 = 22,362$, the null hypothesis is rejected it can be concluded that the business subjects in the Republic of Macedonia use Decision Support Systems.

SMEs DEVELOPMENT AND INNOVATION: BUILDING COMPETITIVE FUTURE OF SEE

Companies	Answers (1-the company answers was YES; 2- the company answers was NO)														n _i	n _i ²
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV		
Prima	1	0	0	1	1	1	1	1	1	0	0	0	1	0	8	64
Alfigo	1	0	0	0	0	1	0	0	1	0	0	0	0	1	4	16
Biser	1	1	1	1	1	0	1	1	1	1	1	0	1	1	12	144
Vasidora	1	1	0	0	0	1	0	0	1	0	1	0	1	0	6	36
Geras Cuvev	1	0	0	0	0	0	0	0	0	0	0	1	1	1	4	16
Elektromehanika	1	0	0	0	0	1	1	0	0	0	1	0	0	0	4	16
Zito Vardar	1	1	1	1	1	0	1	1	1	0	0	0	0	1	9	81
Ginis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	196
K-15 Production	1	1	1	1	1	0	1	0	0	0	0	0	1	1	8	64
Kolid	1	1	0	1	0	0	0	0	0	0	0	1	1	0	5	25
Lerina	1	1	1	1	1	1	0	1	1	0	0	0	1	1	10	100
Makedonska Zora	1	0	0	0	0	0	0	0	1	0	0	1	1	0	4	16
Maks	1	0	0	1	0	1	1	0	1	0	1	0	0	0	6	36
Marval-Promet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	196
Megasoft	1	1	1	1	1	0	0	1	1	1	0	1	1	1	11	121
Zegin	1	1	0	1	0	0	0	0	1	0	0	0	1	1	6	36
My Market	1	0	1	1	0	1	1	0	1	0	1	0	1	1	9	81
Neptun	1	1	0	0	0	0	0	1	0	0	1	1	0	1	6	36
Kabel net	1	1	1	1	1	0	1	1	1	0	0	1	1	1	11	121
Nova Promet	1	0	0	1	0	0	0	0	1	0	0	0	0	1	4	16
Resana	1	0	1	0	1	1	0	1	1	0	0	0	1	1	8	64
RTS Elektro	1	1	0	1	0	1	1	0	1	0	0	0	0	1	7	49
Riversoft	1	1	1	1	1	1	1	1	1	1	0	0	1	1	12	144
Sabotko	1	1	0	1	1	0	0	1	1	1	1	0	1	1	10	100
Savana enterieri	1	1	0	0	0	1	1	0	1	0	0	1	0	1	7	49
Tarbsmak	1	1	1	1	0	0	0	0	1	0	0	0	0	1	6	36
Total TV	1	1	1	0	0	0	0	0	1	0	0	0	0	1	5	25
Helena	1	1	0	1	0	1	0	0	1	0	0	1	0	1	7	49
Horizont	1	1	1	0	0	1	0	0	1	0	0	1	0	0	6	36
Jordan	1	0	1	0	0	1	1	0	0	0	1	1	0	0	6	36
Sum:	30	20	15	19	12	16	14	12	24	6	10	12	17	22	229	2005

CONCLUSION

Problems are part of the operations of all companies of the origin and through the entire course of their work. Simple problems have simple solutions or wear simple, easy and fast. In complex or semi-structured and unstructured problems making decisions and finding the right solution is a complex and difficult process. Unlike global companies solutions to such problems have been discovered with the help of systems for decision support, while saving the most expensive resource or time, our Macedonian companies seek help from experts, or people who are experts in the given issue.

If Macedonian companies are aware of the dynamic environment in which you work to follow global trends that require the use of systems to support decision making.

In this context, Macedonian companies should tend to accept the global trends, that dictate rapid development, but only through the fast adaptation of the new states and economy development caused by the opponents, the t changing regulations, openness of economies, the companies in the high economically developed countries penetrate much faster on the markets than those in the not developed countries and developing countries, and change the constellations on the market.

Based on this, the process of implementation of the Decision Support System in the companies in the Republic of Macedonia needs fastening through the fulfillment of the following conditions:

- The use of computers and information technology should be present in all the companies, and therefore will the tasks will be performed on a faster and more effective way, that are strategically planned;

- The implementation of LAN networks in a large percentage will increase the flow of information in companies and therefore they will have to seek the fastest way possible and in the shortest period of time, to be installed;

- The global electronic network, the Internet, should be used in the everyday activities of companies, primarily to keep pace with the innovations offered by the top global corporations and the possibilities of adjusting the domestic economy to global trends and in that percentage as the financial strength of the companies is;

- The managers are forced to make and to implement particular decisions by which they will regulate the normal function and implementation of the corrective action at all levels. Hence, emerge the logical necessity of making decisions that are in function of the effective business deciding, in these companies the Decisions Support Systems should be fully implemented. Increasing the awareness of the management teams in the companies for the positive aspects of the Decision Support Systems use, in fact allows permanent training of the employees whose tasks are directly connected to the process of decision making and implementation of the innovative processes, that despite the experience, the experts' opinion is necessary.

Because Macedonian economy's structure is on the side of small and medium-sized companies, where the financial power for innovations and application of new techniques and technologies is at a very low level, the business subjects need to recognize the effects of the Decision Support Systems use. Most of them are available on the Internet, or they can taken from the other companies, and to use them as a model for a Decision support System which

will be upgraded with the specific features of the company and will be suitable to meet the needs in making better decisions.

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CHANGE MANAGEMENT AS A DRIVER OF PRODUCTIVITY OF SMEs

Memedi Xhevair, MSc. ¹

Abstract

Changes include changing the organizational strategy, organization and/or culture as a result of changes in its environment, structure, technology and people. In order to be able to realize the change in organizations they must be encouraged by management or the part of organizations where process changes are planned to be implemented. In order to initiate a change in management, organizations must identify the reasons for change, to develop awareness of the necessity for change, and decide to start the process of change. The purpose of this paper is to identify and theoretically elaborate on the three main factors that have proven crucial in managing change, namely: people, processes and culture. This approach allows identifying the key factors that enable organizations to achieve competitive advantage in the market.

Keywords: change, competitive advantage, managers, process, culture.

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INTRODUCTION

Change Management as a scientific research discipline is still attracting the attention of many researchers, scientists, organizational experts and leaders of the 21st century. Problems and challenges which they are facing today are a result of the speed and complexity of changes. Nowadays, changes are constant thus organizational leaders who foresee changes respond promptly and responsibly to them. There are organizations that foresee changes and consequently develop new products and/or services. These organizations are market leaders in the field in which they operate. Some other organizations are followers which are adapting to changes but there are also some organizations that do not survive in the dynamic environment in which they operate. Therefore, research has shown that the change management plays an important role in organizational work and it enables organizations to consider changing their way of work, dedicating themselves to creativity and the development of models of change management.

Ichac Adizes, who is well known in the field of change management, considers that changes are permanent and cause problems, while problems seek solutions. So, the basis of management lies in making decisions which have their source in the problems and changes “derives” from changes (Adizes, 1998). Ichac Adizes considers that: "The goal of management is to solve the problems of today and prepare for problems of tomorrow. This is necessary because of the changes. When there are no problems, there is no need for management, and problems are gone only when we are dead. To govern means to be alive and being alive means going through the changes and the problems they are causing (Adizes, 1998).

FACTORS THAT INFLUENCE ON CHANGE MANAGEMENT

There are many interpretations about the term “changes”. According to the Oxford dictionary change means: "to make something different" or "to be different". It is about a process through which something becomes different. According to Webster dictionary, changes are interpreted as "passing from one state to another, change in position, character or appearance, the exterior appearance”. Changes need to be supported by the organizational structure and staff. The organizational structure increases the adaptation and flexibility. But one of the most important points are employees because they form the organization. The culture of organizations includes their mode of operation, norms and attitudes. These facts are critical in each change and it is very difficult to change them. Personal modifications that require skills or habits of leadership or communication can be hardly identified but ineffectiveness can be easily recognized through problems and conflicts in human resources management. Thereby, basic factors that influence on change management are:

- Human resources.
- The process of change.
- Organizational culture.

HUMAN RESOURCES AS A FACTOR IN CHANGE MANAGEMENT

Changes in human resources can be caused as a result of changes in technology or the desire to upgrade the quality of the workforce. Organizations can make decisions to improve the level of achievement among employees or there might be a need for new perspectives on the performance of the duty. Perspectives and expectations of employees are often in the focus of

organizational changes. Change of staff may include recruitment and selection of policies and procedures, training and development, award systems, and/or leadership and communication.

Managers and employees are likely to support the change if it is focused on the real causes of the problem and offers an effective solution. The neutral response "wait and see" is probably the most frequent response of employees to changes. As always, many employees may at first show resistance. A lot of managers understand the resistance in a bad manner. Is it really so? What if employees notice the problems of changing policies and the manager has not foreseen that? How the change will affect the organizational "social system?" When there is resistance, managers should consider and explore the proposed change in order to find a solution that will be acceptable to all.

An individual or a group that undertakes the task of introducing and managing changes in organizations is known as an agent of change. Agents of change can be internal (within the organization) as managers and employees appointed to supervise the process of change. Agents of change can also be external, such as external consultants.

Internal agents of change have certain advantages in managing the process of change. They know very well the history of the organization, its system, policies and culture. Since they have to work in organizations with the results that they will achieve from the changes, internal agents of change need to be very careful while managing with changes. There are also disadvantages when internal change agents guide the process. They can be associated with certain factions within the organization and can easily be accused of preference. Internal agents of change can also be affected by the situation to have an objective view on what should be done. It would be good if leaders of change in organizations are young. They are more flexible as opposed to general managers and are more oriented towards people. A big number of leaders of changes are women. Leaders of change make a balance between technical and interpersonal skills. They are solid decision-makers who focus on performance results. They also know how to energize people and to align them in the same direction. Leaders of change are capable to act with more than one leadership style and can change the mode of operation from teamwork to command and control, depending on the situation. They also know how to cope with uncertainty (Nelson and Quick, 2006, pp. 599-614). If the change is strategic in nature, a team of leaders can be appointed to realize the change. The team hires leaders with different skills, expertise and influence who will be able to work together in harmony in order to successfully implement the change.

External agents of change possess external objective view for organizations. They may be preferred by employees because of their objectivity and impartiality. External agents of change are facing certain problems. Their knowledge of organizational history can be limited and they can also be seen with suspicion by employees. External agents of change have more power to direct changes if employees perceive them as agents of change who are reliable, possess expertise, credibility, etc.

Agents of change need different competencies in various stages of the change process. Leadership, communication, training and participation have different levels of impact as the process continues and therefore, agents of change must be flexible in working through the various stages of the process. Effective change leaders build strong relationships within the team, between teams and employees. Maintaining this relationship is hard, so successful leaders are "connecting" and "not connecting" with different groups during the process. Adaptability is a crucial skill for internal and external agents of change.

THE PROCESS OF CHANGE AS A FACTOR IN CHANGE MANAGEMENT

There are many accessible models developed by many authors dealing with this issue. Why is necessary or important to understand the models of organizational change? They are helping the access towards changes in the macro level – a level in which many institutional leaders approach towards changes. These models help to identify (Dimitrovski, 2012, p. 210):

- Why changes occur (driving forces of changes);
- How will changes occur (stages, phases, size, time and features of the process);
- What will happen (content of changes, results, methods of measurement);

Every change management model represents different ideology with own aspects for nature of employees and organizations. Every model helps to understand different aspects of changes. Approaches and models are developed in order to understand transition of individuals through the phases of management of changes and enhancement of initiatives for organizational development.

Models of change represent simplified picture of reality, i.e. a sample upon which certain products are being built or activity is being realized (Vujic, 2008, pp 28-29). Regardless whether the change is understood as a opportunity or as a threat, whether it was expected or not, every change generates one or several problems. Problems can't be ignored but we must find ways to solve them. The skills and wisdom consists in choosing the model that will solve most of the problems. It is better to create a quality solution instead of three bad decisions hastily conceived and proposed. It is better more managers with joint efforts to solve a problem qualitatively instead of one manager at the same time to be burden with more problems.

Preparation is a key element in change management because it reconciles planned changes with available resources. Expectations should not exceed the actual possibilities. When a good solution for a real problem is found or created, we must decide how to implement this new solution. Thus, there must be awareness that the changes that are created will cause new problems. Most often it is typical resistance to change, regardless of their initiator. Each problem requires confronting it and its successful resolution. Every delay in resolving the problem creates a new problem. Every change poses certain problems. Problems require solutions. Solutions require implementation of specific decision. There are two ways to solve problems. The first way is to reduce the pace of changes, which is impossible because in most cases it does not depend on anyone. The second way is to learn quickly and to solve problems effectively. The difference between successful and unsuccessful managers, and between successful and unsuccessful business corporations is that one find appropriate solutions to the key problems and implement them effectively, while the others are reluctant to face the problems and create bad solutions or they implement good solutions but with no results. You cannot make a good decision and then ignore it. It is also pointless to implement a bad decision. If you adopt a good decision and it is effectively implemented, it means that there is a good management. Therefore, it should be known that for decision-making the same principles that are important for the implementation of decisions are not relevant and vice versa.

The concept of change management consists of planned and managed changes in strategies, structures and processes in business corporations. Change Management deals with issues of strategic management, management of processes, management of human capital, relationships and problems in communication and processing of information. The theory and concepts are aimed at explaining the reasons and the process as it is (Vujic, 2008, pp. 28-29).

The models and programs are usually based on some theories and concepts. They roughly describe certain phenomenon or object in the real world. Models of change management are directed towards designing the activities to be undertaken in order to effectively manage the process. Because the patterns of change represent a simplified picture of reality, which can vary from situation to situation, the necessity of making the different models is imposed, each of which will consider some aspects of the changes. The models explain a change or an object in the real world, their mission has prescriptive and not descriptive character - they tend to prescribe, rather than describe the changes. Besides theoretical knowledge in the development of models a major role has empirical experience of the authors of these models. The best models and programs of change combine theoretical knowledge with practical experience. Models of change management consist of activities that managers or holders of changes need to take to implement change successfully. These activities are usually divided into stages, steps or strategies.

ORGANIZATIONAL CULTURE AS A FACTOR IN CHANGES MANAGEMENT

We cannot take a position that changes can happen without a proper organizational culture. Especially when it comes to organizational changes they cannot be functional without any organizational culture that supports changes, the development of new products/services. When considering the relationship between organizational culture and organizational change it is especially important to start from the knowledge that organizational culture is relatively permanent category, culture is shared between members and the general community through social symbols (words, rituals, clothing) whose meaning is shared between members and the fact that organizational change involves the introduction of new symbols in organizational culture and change the meaning of some of the existing symbols (Polenakovik and Markovska, 2013, pp. 223-227). If organizations want to be successful the need for change in the organizational culture is indispensable. This is a difficult step that the organization should undertake but the organizational culture that supports the transformation of the idea into a profitable reality opens the way to conquer new markets and retaining the existing ones. The new organizational culture should *support the accepted vision, mission and strategy* of the organization. There is a need of identifying and planning activities which, if undertaken, will lead the organization toward the desired vision. It will also represent the operationalisation of the mission for certain levels and parts of the organization and will represent realization of specified steps from the accepted strategy.

CONCLUSION

Today's business environment demands continuous improvement of organizational processes that have an impact on productivity and profitability. It requires organizations to be open and ready for changes. All organizations, whether private or public property must be managed, otherwise they might not be functional. The task of all organizations is to create new values and profits. The changes occurring in organizations are affected by three main factors including: employees, process of changes and organizational culture.

An employee who has the task of introducing and managing changes in organizations is known as *agent of changes*. Agents of changes can be internal (within the organization) as managers and employees appointed to monitor the process of change. Agents of change can also be external, such as external consultants. They know very well the history of the organization, its

system, policies and culture. Since they have to work in organizations with the results that they will achieve from the changes, internal agents of change need to be very careful while managing with changes.

The process of change includes various models which with their characteristics lead to awareness of the reasons for the changes that occur, how changes occur and what will result from the changes. In this context, each model of change offers something new and different. A personal ideology is incorporated in each model with additional practical solutions, organizational environment and experiences. In order to have complete picture of the changes, they need to be treated complexly and multidisciplinary.

But in order to have successful, continuous and consistent changes, the organizational culture must encourage and nurture it. Changes represent the product of knowledge and the combination of autonomy and responsibility. Culture directed towards changes is one in which employees are encouraged continuously to accumulate knowledge. It is a culture where open communication is the norm, in which employees have easy and complete access to information. It is an environment where all employees are empowered to act with their accumulated wisdom in order to generate continuous changes.

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INTERNATIONAL PRODUCT POLICY

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Abstract

When companies do not use a marketing approach in their business, their full attention is focused on their product and they refuse to acknowledge that there is not an irreplaceable product or producer. This is very important in international business, because the sustainable attraction of a product on the international market is not based only on the product, but also includes the other three instruments of the marketing mix – price, promotion and distribution.

The product is the core element of the marketing mix and is very important in international market planning. From the producers point of view a big challenge are the processes of internationalization and globalization which require a new approach in the international product policy, as part of the marketing program.

Today's contemporary consumer does not buy the product's characteristics, but assesses the use of the certain product whether it satisfies his/hers needs or not. The product in international marketing does not only include the tangible characteristics but also the intangible and it is known under the name of "total product". In order for a product to have a bigger market value it is necessary for it to have a usable value. This can be achieved through a well planned and executed international product policy which will be the main focus of this paper.

Keywords: international marketing, policy planning, marketing mix

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INTRODUCTION

In international markets, as in domestic markets, the product is at the heart of the firm's marketing strategy, with the other elements of the marketing mix, such as advertising, price and distribution, playing a supporting role to ensure market awareness, acceptance and availability. It is, therefore, the international product policies and strategies that are central to the health and long-term development of the firm.

In this paper we focus upon some of the key factors that influence international product policy and influence its development within the firm. In doing this, it needs to be emphasized that the term 'product' is used generically and refers not only to a physical product, but also to services and franchises, as well as to the packaging, warranties, and after-sales service. In other words, therefore, the product is the total package that the buyer receives.

THE NATURE AND THE PROCESS OF DEVELOPING THE INTERNATIONAL PRODUCT POLICY

The starting point for determining the nature and shape of international product policy is the range of products that the company sells domestically. In the majority of cases, firms either sell exactly the same product overseas, or modify it only slightly. Relatively rarely do firms make substantial changes to their product range or develop completely new and different products for their international markets. The major reason for this is the rationale for international marketing in many cases is that the firm is attempting to increase demand in the most cost-effective and least risky manner. It is, therefore, generally rather too costly to begin modifying the product in any significant way, since much of the firm's experience, knowledge, and competitive advantage stems from its domestic line.

With this in mind, the two questions that the marketer then faces in developing an international product policy are, firstly: to what extent are the firm's existing products broadly suitable for international markets? and secondly: if changes in specification are to be made, what are they to be? (Gilligan Colin, Hird Martin ,p.153) Having arrived at an answer to these, the marketer can then move on to decide upon the product-related features, including packaging, labeling, trademarks, guarantees, and the brand names that are to be used. However, before we go on to examine these areas, it is worth emphasizing that many companies move into foreign markets by selling their name and expertise in the form of the brand or the patent on the product or production processes, rather than becoming involved in selling the physical product itself. It can be seen most clearly in the rapid development of franchising over the past decade or so by companies involved in such diverse markets as fast foods, soft drinks, fashions, cosmetics, aerospace, white goods, glass and chemicals.

Nevertheless, despite the rapid and continuing growth of franchising, international product policy for a majority of companies is still a decision that they make largely on their own. Ideally, the international marketer would like to be able to sell a standardized product across most, if not all, of the markets in which he is operating. The benefits of this are quite clearly considerable and stem from the economies of scale that result not only in the area of production, but also in research and development, and marketing. It is from a far greater recognition of these sorts of benefits that much of the discussion in recent years about global brands and product

standardization has stemmed. The arguments regarding product adaption for individual markets are, however, equally well developed and centre around the different uses to which products are put in various markets, differences in consumer tastes, differing government regulations regarding product safety and specifications, and indeed a managerial culture within the firm which encourages individual operating units to make decisions that are tailored specifically to the needs of their markets.

The question of standardization or adaptation is, therefore, a fundamental aspect of international marketing strategy and one which manifests itself not only in the case of product decisions, but also in other areas such as advertising and promotion. The decision on whether to standardize and opt for global brands therefore has quite obvious and major implications not only for day-to-day marketing activity, but more fundamentally for the organization as a whole and the managerial philosophy that is pursued. This can be illustrated by considering the way in which increasingly global strategies have given impetus to a policy of merger and takeover by international companies as a means of enhancing the possibilities of global brand and market domination.

INTERNATIONAL PRODUCT POLICY – INFLUENCE, OBJECTIVES AND STRATEGIES

International product policies have been affected by a variety of other issues in recent years, including the question of the appropriateness of products in particular markets. The governments of emerging and Third World nations, for example, together with international agencies such as UNCTAD, are increasingly beginning to question the appropriateness for Third World markets of products originating in the more advanced nations and have posed a series of questions, including (Gilligan Colin, Hird Martin ,p.156):

1. Does the technology of the products support the goals of the country's development policy?
2. Is the finished product or service useful and acceptable to the intended user?
3. Does the production process make economic use of inputs? - The Indian government, for example, has ruled that certain products should only be manufactured in labour-intensive cottage industries rather than in highly capital-intensive factories.
4. Do the production processes and finished products fit the culture and environment of particular countries? It is in this area that Third World nations have become conscious of the issues of 'to cacolanisation' via the particular imported culture that accompanies certain products.

Without doubt, the importance of these sorts of issues will grow as Third World nations formulate firmer attitudes towards international companies and their products. One further issue that needs to be borne in mind when developing international product policy is the way in which products from particular countries are subject to stereotyping.

Most typically this is in the form of national images for quality, price and reliability, particularly with regard to technological goods. The sorts of differences that exist have been highlighted by a variety of studies. Products imported into the United States by Western European nations, for example, are heavily stereotyped by American buyers.' Typically, for example, it is the case that West German products are viewed more favorable than Italian or French products in terms of quality. Similarly, the American market often perceives British

products as being old fashioned. Japanese products, by way of contrast, benefit from a highly favourable image in the US market, although achieving this has been a slow and expensive process.

Product policy consists of two interrelated activities: management of the firm's existing product range, and the development of new or modified products. The underlying objective of international product policy should therefore be seen in terms of the development of the optimum mix of products that is to be offered internationally; the optimum mix being, of course, the one which contributes most directly to the firm's overall corporate objectives. Typically, these are expressed in terms of growth and profits, although it needs to be remembered that the extent to which these are pursued will depend upon two major constraints: firstly, the extent to which the firm is willing to pursue potentially risky but profitable strategies, and secondly, the extent to which the firm is truly committed to international operations.

CHANGES IN THE POLICY DUE TO THE INTERNATIONAL PRODUCT LIFE CYCLE

Like human beings, products also have a life cycle. They are conceived at a prenatal stage and take birth at the introductory stage. They grow like human beings, reach a maturity stage and eventually decline in their acceptance at the market place, till eventually meeting their resting place in the annals of product history. International products also pass through four different stages of yielding profits, gaining market shares, overcoming competition and, finally, succumbing to the competitive pressures or till the international marketing firms themselves decide to come out with a substitute or innovation. (Gilligan Colin, Hird Martin ,p.160) The product life cycle refers to the four different stages: introduction, growth, maturity and decline. The figure below draws a typical product life cycle.

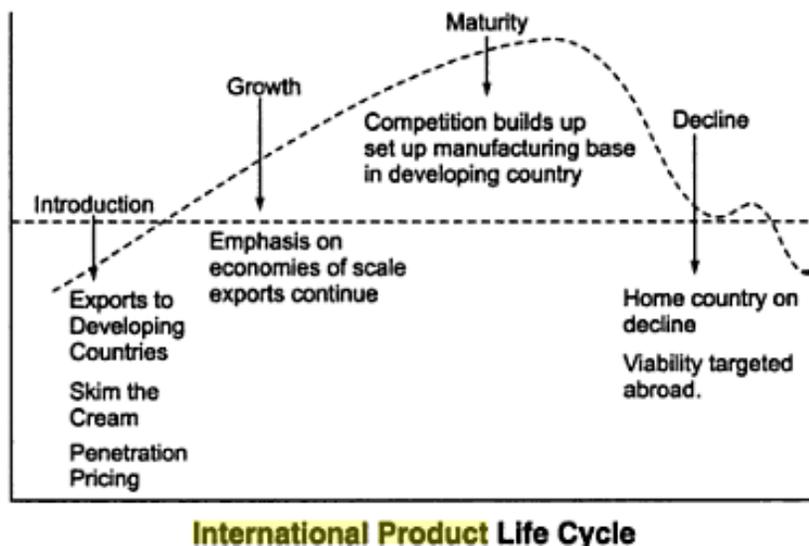


Figure 1 – International product Life Cycle

The international product life cycle is a theoretical model describing how an industry evolves over time and across national borders. This theory also charts the development of a company's marketing program when competing on both domestic and foreign fronts. International product life cycle concepts combine economic principles, such as market development and economies of scale, with product life cycle marketing and other standard business models. (Paul Justin, 191)

The four primary elements of the international product life cycle theory are: the structure of the demand for the product, manufacturing, international competition and marketing strategy, and the marketing strategy of the company that invented or innovated the product. These elements are categorized depending on the product's stage in the traditional product life cycle. Introduction, growth, maturity, and decline are the stages of the basic product life cycle.

During the introduction stage, the product is new and not completely understood by most consumers. Customers that do understand the product may be willing to pay a higher price for a cutting-edge good or service. Production is dependent on skilled laborers producing in short runs with rapidly changing manufacturing methods. The innovator markets mostly domestically, occasionally branching out to sell the product to consumers in other developed countries. International competition is usually nonexistent during the introduction stage of the international product life cycle, but during the growth stage competitors in developed markets begin to copy the product and sell domestically. These competitors may also branch out and begin exporting, often starting with the country that initially innovated the product. The growth stage is also marked by an emerging product standard based on mass production. Price wars often begin as the innovator breaks into an increasing amount of developed countries, introducing the product to new and untapped markets.

At some point, the product enters the maturity stage of the international product life cycle and even the global marketplace becomes saturated, meaning that almost everyone who would buy the product has bought it, either from the innovating company or one of its competitors. Businesses compete for the remaining consumers through lowered prices and advanced product features. Production is stable, with a focus on cost-cutting manufacturing methods, so that lowered prices may be passed on to value-conscious consumers. (Paul Justin, p.195)

Product innovators must guard both foreign and domestic markets from international competition, while finally breaking into riskier developing markets in search of new customers. When the product reaches the decline stage, the innovators may move production into these developing countries in an effort to boost sales and keep costs low. During decline, the product may become obsolete in most developed countries, or the price is driven so low that the market becomes close to 100% saturated.

STANDARDIZATION VERSUS DIFFERENTIATION OF PRODUCTS ON THE INTERNATIONAL MARKET

Companies marketing many industrial, and indeed most consumer goods, are still faced with major decisions regarding their product strategy in terms of standardizing or differentiating their product offering. However, before we present too severe a dichotomy between these issues and global branding, it is important to remember that global branding can also involve differentiated product offerings of the brand for major segments. This is illustrated in the case of

Coca Cola which pursues a global branding strategy, but which at the same time recognizes the significance of particular segments such as the slimming market, and with Diet coke has modified the product accordingly.

For many companies, however, the major issue is the extent to which a product needs to be modified in order to ensure its acceptability. The obvious danger, of course, is of modifying the product too much and too frequently. Overall, therefore, the decision regarding which approach to adopt must be governed by cost-revenue analysis and the implications for profitability. Quite clearly companies should attempt to standardize, wherever possible.

CONCLUSION

Based on everything that was discussed in this paper, we should emphasize that companies should try to sell their products on the international market, but their international presence requires a strategic and well-thought approach and development of proper product policy in order to achieve the best results.

The possibilities for the product policy development include a lot of options that companies must analyze before making their final decision and after the proper development all the available resources should be invested in achieving the goals that were set at the beginning.

Like it was pointed out the company must make a lot of tough decisions but they are necessary in order to have the chances of achieving success. A company without a strategy and policy has no chance of achieving success especially on the international market where the competition is bigger and only the best and the most prepared succeed in the race of getting new customers and market share.

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**SMEs DEVELOPMENT AND INNOVATION: EXEMPLES OF RURAL TOURISM
IN REPUBLIC OF MACEDONIA**

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Abstract

The small and medium enterprises, their development and the innovations seen through examples from entrepreneurs and family businesses which deal with the rural tourism in Republic of Macedonia, are the subject of this paper. Following will be given the general characteristics of small and medium enterprises and their role and participation in the tourist sector with particular focus on the rural tourism. At the end of the paper will be given comments, suggestions and recommendations about the perspectives of the small and medium enterprises which are one of the main factors for the tourism development and popularization of traveling to rural environments.

Key words: SMEs, innovation, rural tourism, Republic of Macedonia

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INNOVATIONS AND RURAL TOURISM

Tourism is the world's largest industry and makes a major contribution to the economies of most developed and developing countries. Tourism is being used as a ubiquitous vehicle for economic development and diversification and an integral element of economic development policy at a local, regional and national level (Jones, Haven-Tang, 2005). According to the World Tourism Organization (WTO), tourists arrival at international level in 2013 have reached 1,087 million. Tourist spending amounted to 1.159 billion U.S. dollars, and the tourism industry accounts for 9% of global gross domestic product. Every eleventh employed person in the world is employed in this sector (UNWTO, 2014).

One of the most frequently repeated observations about tourism concerns the rate of growth of activities, tourist flows, employment and economic impacts over recent decades. That is undeniable, but it should not be understood to imply that tourism was previously a largely unchanging form of activity that is now being revolutionized by new technologies (for example, internet bookings), new markets (especially in Asia), and new organizational forms (such as budget airlines). Tourism has always been subject to changes, reflecting shifts in tastes and preferences, technologies and politico-economic conditions (Hall, Williams, 2008). And the history of tourism is littered by landmark innovations such as the emergence of new centers of pilgrimage, the introduction of rail travel, and the popularization of credit cards.

Tourism is increasingly characterized by changes in markets and consumer preferences, in drives for competitiveness, in technology, in the organization of factors of production (especially new sources of workers, and new forms of investment). As a result, the products and processes of tourism are constantly being modified, seemingly at an increasing rate. These changes are bound together in complex patterns of innovation that are evident throughout the tourism sector, whether in transport, entertainment or hospitality. They are also manifested at different scales – whether the individual, the firm, the tourist resort, the destination or the national tourism system.

Interest in innovation research and investigation in innovation processes in service industry has surged in recent decades (Alsos, Eide, Madsen, 2014). There is indeed something magical about innovations. They are the essential motor of growth in market economies. The ability to innovate is crucial not only to the survival of individual companies, but to the entire economy of a modern nation (OECD, 2006). It is important therefore to see innovation as systemic, or as integral to the tourism system as a whole. Of course, when asked to name the most significant innovations in tourism, particular brands come to mind, whether individual entrepreneurs such as Thomas Cook, Vladimir Raitz (Middleton, Lickorish, 2005) or major corporations such as South West Airlines or American Express. Similarly, when asked “to place” innovation, specific places immediately come to mind, whether Las Vegas, Legoland or Orlando, Florida. But tourism innovation is not the preserve of elite places and elite individuals. Rather innovation pervades all corners of the tourism system, whether it is the small hotel that creates its first web site, the restaurant that introduces new dishes to appeal to an emerging tourism market, or in the case of rural tourism. Rural tourism can be defined as the tourism industry located in rural areas, and it consists of enterprises which are rural in scale, that is, small scale enterprises (Ronningen, 2010). Rural tourism covers a range of services provided through the cooperation of many actors including accommodation providers, other service providers as well as local residents (Raffai, 2013). These actors all contribute to creating the harmonious and complex experience, which encompasses all travel-related processes from the guests' choice of destination (e.g. pre-booking telephone inquiry, practical menu system of the hosts' website) to all the stimuli and impressions from the stay (e.g. the hospitality of the locals, the opening hours of the souvenir shops, the tidiness of streets and squares, the choice of programs).

Several innovations are driving changes in rural tourism, among them Internet developments, marketing initiatives and new forms of collaboration (Mahroum et al, 2007). In common with other rural sectors, there are three main types of rural tourism innovation:

- Rurally-demanded innovation: tourism by its very nature generates demand for innovation aimed at external users, such as transport systems that serve tourists and visitors. But these innovations also impact on the supply chain, with food tourism contributing to the growing urban demand for organic, quality and regionally demarcated foods.
- Rurally-generated innovation: rural areas have been at the forefront of heritage innovations.
- General purpose innovations: developed for universal use, such as the development of global positioning systems (for climbers and walkers, but also for land monitoring and planning) or the Internet, they also have a strong impact on rural tourism.

Tourism innovation is distinctive and this applies in particular to rural tourism on following:

- Tourism experiences are shaped by the encounters between tourism services and product providers and the tourists themselves. Co-production of services and experiences by users and producers can be an effective platform for generating consumer-friendly innovations around rural tourism.
- The service encounter is at the heart of the rural tourism experience, not least because rural businesses are relatively small. This means that direct interaction with customers can be a main source of innovation, particularly user-led innovation.
- Rural tourism is more highly seasonal than urban tourism because outdoor pursuits, and nature and landscapes, are so dependent on the climate. Tourism activities also peak at weekends, particularly short breaks and day visits. Such fluctuating demand poses major challenges for many tourism producers because vacant bed spaces or restaurant tables are lost revenue opportunities. Consequently, there is considerable interest in yield management tools as a means of flattening out peaks in the demand curve.
- Rural tourism experiences reflect the tourist's experience of a range of tourism enterprises that together resemble a supply chain – in transport, accommodation, tourist attractions and restaurants – as well as the rural landscape. Innovations are therefore strongly mutually dependent and an improvement in one area will yield benefits throughout the supply chain. For example, an innovative attempt to extend the season of a tourism attraction will rely on hotels also innovating by opening year-round and on suitable transport provision outside the main holiday period.
- Many rural tourism experiences – for example, walking in the countryside, or visiting historic villages – are shaped by the local community. The farmers whose lands they walk across or the residents of the villages they frequent help shape their experience. This calls for innovation in visitor management, and for partnerships that involve not only tourism businesses but also local communities.
- Rural tourism businesses are relatively small, not least because many have grown organically and incrementally from farms, or from private households (for example, offering bed and breakfast). This has implications for innovation in terms of their flexibility and the resources they can bring to bear on developing innovations.

SMEs DEVELOPMENT AND TOURISM

SMEs play a dominant role in the tourism industry worldwide (Page, Ataljevic, 2009). Small and medium-sized enterprises are often family run with emphasis upon individuality and product differentiation and are crucial to the national economies of Europe, which offer employment opportunities and support to local businesses that supply goods and services (Thomas and Augustyn, 2007). They are a major source of entrepreneurial skills, innovation and employment. The European tourism industry today is characterized by the high prevalence of SMEs and so it will be in the future (Cavlek, 2002). In order to highlight this phenomenon, we focused on the distribution of the number of enterprises, employees and turnover by companies size class: micro (employing 1 to 9 persons), small (employing 10 to 49 people), medium (employing 50 to 249 people) and large (employing more than 250 persons). Since food and beverage activities are, almost by definition, micro companies, the analysis is limited to the hospitality and the travel organizer industries. According to TOURISMLink (2012), if these two sub-sectors are considered, large enterprises account for only 0.2% of the total number of active companies making the rest 99.8% belonging to the so-called SMEs (micro, small and medium enterprises) in Europe. Even though almost nonexistent (especially in new EU member states), it should be acknowledged that large companies are responsible for 20% of the European tourist labor force and for 30% of the turnover yielded in the industry.

Regarding the small and medium enterprises business environment, it could be said that is similar with the environment in European Union. Namely, support for SMEs is one of the European Commission’s priorities for economic growth, job creation and economic and social cohesion. Thus, among other strategies developed, Republic of Macedonia has adopted the Strategy for innovation for the period 2012 – 2020.

Table 1 Number of active business entities by sectors of activity according to the National Classification of Activities NKD Rev. 2 and by number of persons employed, 2013 (estimated data)

Sectors of activity	Total	%	Number of business entities by number of persons employed					
			0*	1-9	10-19	20-49	50-249	250+
Total	71 290	100,0	4 415	60 599	2 989	1 787	1 291	209
Agriculture, forestry and fishing	2 866	4,0	158	2 608	35	30	33	2
Mining and quarrying	164	0,2	9	106	25	16	4	4
Manufacturing	7 918	11,1	371	6 004	666	468	347	62
Electricity, gas, steam and air conditioning supply	132	0,2	21	93	4	4	7	3
Water supply, sewerage, waste management and remediation activities	306	0,4	16	211	21	22	27	9
Construction	4 322	6,1	191	3 595	287	166	78	5

Wholesale and retail trade; repair of motor vehicles and motorcycles	25 429	35,7	765	23 373	820	341	115	15
Transportation and storage	6 095	8,5	80	5 623	241	100	44	7
Accommodation and food service activities	4 482	6,3	138	3 918	300	102	23	1
Information and communication	1 446	2,0	209	1 081	87	37	25	7
Financial and insurance activities	390	0,5	58	273	11	19	17	12
Real estate activities	485	0,7	88	357	20	14	5	1
Professional, scientific and technical activities	5 817	8,2	297	5 292	159	53	14	2
Administrative and support service activities	1 514	2,1	443	931	56	42	25	17
Public administration and defense; compulsory social security	258	0,4	8	30	34	78	77	31
Education	1 025	1,4	53	468	44	159	296	5
Human health and social work activities	3 315	4,7	36	2 978	85	78	116	22
Arts, entertainment and recreation	1 179	1,7	397	656	46	42	34	4
Other service activities	4 147	5,8	1 077	3 002	48	16	4	0

Source: State Statistical Office (<http://www.stat.gov.mk/>), * Including business entities with unascertained number of persons employed

Observing table 1, it could be concluded that the majority of legal entities in the tourist sector are consisted of small and medium enterprises, while only one enterprise (in accordance to the employee number) belongs in the category of large enterprise. There is similar situation in the remaining sectors such as: agricultural, construction, and manufacturing sector.

According to the State Statistical Office data (State Statistical Office, 2014), the share of innovative business entities in the period 2010-2012 was 42.8%. Innovative business entities are defined as entities that have introduced a product, process, organizational or marketing innovation in the reference period. Of the total number of innovative business entities, 24.7% have introduced product and process innovations. Of the total number of innovative business entities, 46.4% have introduced organizational and marketing innovations. Of the total number of innovative business entities, 18.2% have introduced product, process, organizational and marketing innovations, at the same time.

As far as the innovation process and activities of enterprises in the accommodation and food services, 40.6% of all enterprises during the period 2010-2012 have developed some form of innovation, while 59.4% lack innovative activities. Of the total number of innovative business entities in accommodation and food service activities, 17% have introduced product

and process innovations, 44.7% have introduced organizational and marketing innovations and 5.7% have introduced product, process, organizational and marketing innovations.

RURAL TOURISM INNOVATION IN REPUBLIC OF MACEDONIA, THE CASE OF VILLA DIHOVO

The Strategy for Tourism of Republic of Macedonia (2009) is defining rural tourism as a new tourism activity, and accordingly ten rural tourism locations have been defined. These locations are: Brajcino, Vevcani, Galicnik, Zenovci, Berovo, Pehcevo, Bansko, Smolare, Mokrino and Kolesino. The Strategy for development of rural tourism in Republic of Macedonia, presented in 2012, is giving recommendation for development of 15 rural tourism destinations, these are: Rural area of Skopje, Krushevo, Pelagonia, Ethno and spa region of Belasica, Tikves, Maleshevijska region, Azot, Kumanovo region, Osogovo region, Polog, Mavrovo-Rostushe region, Ohrid – Prespa region and ethno-eco regions Vevcani and Debar – Kicevo region. These locations could be supplemented with the appropriate villages, in the regions: Lazaropole, Varvara, Makedonski brod, Demir Kapija, Krusevo, villages in the Prespa and Pelister region, Lesnovo, Dojran, Vladimirovo, Babino, Jance, and others. Taleska (2009) is pointing out that approximately 60 villages have the necessary capacity for development of rural tourism. There is lack of adequate information regarding the number of facilities offering services in the rural tourism. According to Metodijeski (2012), there are around 250 – 300 facilities in the rural areas, offering their services. Majority of these facilities are located in three regions: South- West region, East region and the Pelagonia region, where villa Dihovo is located.

Located in Dihovo, a relaxing village in the foothills of Mt Pelister, villa Dihovo is a friendly, family-run guesthouse serving homemade traditional food and drink, and offering plenty of outdoor activities for those wishing to explore the forested mountains, lakes and river immediately accessible from the village (<http://villadihovo.com/>). The guest house is complemented by a spacious enclosed lawn and vegetable gardens just outside. The villa is a restored traditional house, built in 1928, in the typical Macedonian stone-and-wood style. The three guest rooms are all built of natural wood, with traditional carpets and décor. Each room has a double bed, and two additional single beds, cupboards and a wardrobe. Currently, there is one shared bathroom with shower (constantly supplied with hot water).

The villa's downstairs living room serves as a common area equipped with a kitchen and refrigerator that can be freely used by guests. Being made of stone, and also furnished in traditional style, it has a relaxing, rustic feel, staying cool in summer and kept warm by a working fireplace in winter. Outside, above the villa's garden, guests can enjoy a home-cooked meal or drinks under the covered patio's lengthy wooden table. The lawn, which offers sunbeds and a hammock, is also equipped with summer kitchen and inbuilt oven. Guests may also enjoy having their meals on private tables on the lawn in summer. The villa operates year-round.

Innovative approach in the case of villa Dihovo is the price for accommodation. The price is to be decided by the guests at the end of their stay.

Villa Dihovo offers a variety of home-cooked Macedonian specialties, made with fruits and vegetables coming from our own private gardens. We also serve domestic brandy and wine in wooden barrels, as well a range of homebrewed beers. The villa also offers free wireless internet to its guests, and provides 24-hour reception desk service. Villa Dihovo also offers therapeutic sport massage upon request. Within the villa's grounds, guest can enjoy morning aerobics, field hockey and other fun games on our spacious lawn, or simply relax with a book or sunbathe.

Being surrounded by forests, Dihovo is perfect for hiking and river walks, on your own or with professional guide and dog, if desired. Dihovo's outdoor, spring-water pool is very popular with people of all ages and good for a dip on a hot summer's day. There are also nearby natural rock pools for swimming in the River Sapungica, which runs through the village. Visitors can also enjoy an exhilarating 700-metre river walk, leapfrogging boulders along the way. In addition, organized hiking trips to Mt Pelister, and the crystal-clear lakes (Pelisterki Oci) near its summit, can be arranged; the 8km-long trek takes about 4 hours. Mountain biking is also possible here. In winter, guests can enjoy skiing on Mt Pelister. Villa Dihovo staff can provide all necessary equipment and gladly offer ski instruction for beginners. Villa Dihovo can assist guests keen to make cultural excursions, such as to nearby Bitola (known as the City of the Consuls in Ottoman times), which offers good shopping, cafés and nightlife. Other attractions include nearby monasteries and the impressive ruins of the ancient city of Herakleia, only 2 km south of the city. An interesting fact that should be pointed out is the inclusion of villa Dihovo in the national promotional campaign "Explore Macedonia" having the objective to present the potential of Pelsiter (<http://www.istracijamakedonija.com.mk/>).

SUGGESTIONS FOR SMEs DEVELOPMENT IN RURAL TOURISM IN REPUBLIC OF MACEDONIA

The tourism sector play's a crucial role in developed and developing countries. While this sector is highly developed in the advanced economies, its development in the transitional countries is in the early stages. Thus the country and its enterprises should direct their efforts in developing the tourism sector, or more precisely, development of the rural tourism and innovations of products and services. For the purpose of achieving this objective, there are few suggestions to be made, for the purpose of promoting and expansion of rural tourism activities, such as:

- Above all, the focus should be given on developing innovative products and services;
- Developing and improving the tourism facilities in rural tourism areas;
- Development of a unique region (or village) specific services and products (for instance, a special tours in the Pehcevo region for promotion of the specific meat eating plant);
- Improved communication between rural tourism providers and the national and international tourism agencies, for the purpose of increased awareness regarding the product offers.

National strategies that have been implemented are providing solid starting point for development of the tourism sector. In order for the objectives of these strategies to be fulfilled, primarily, the tourist sector should establish a close relation and cooperation with the adequate governmental bodies. In addition, they should ensure on time fulfillment of the strategy, and set their objectives accordingly.

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CHARISMATIC LEADERSHIP AS MAJOR SOURCE OF COMPETITIVE ADVANTAGE FOR SMALL AND MEDIUM ENTERPRISES

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Abstract

Today's global business conditions expressed through strong and relentless market competition, technological, information and communication advances and changing consumer behavior, are making difficult the market fight of small and medium enterprises (SMEs).

In such difficult conditions for business operation, tangible resources (financial, technological, physical and organizational) are increasingly losing their primacy compared to the invisible (human resources, innovation, reputation) ones. Among invisible, human resources are becoming more important for the survival, growth and development of these enterprises.

In order to be a major source of competitive advantage, human resources need to be proactively managed. This points out the need for a leader with charisma, knowledge, skills and abilities in order to lead the employees in achieving the mission, vision and goals of the enterprise. In this point of view, charismatic leader is one that has influence, inspires, motivates and instills confidence among followers.

The charismatic leader, thanks to the characteristics that he possesses and which differ him from other leaders, is the key factor for the business success of SMEs.

Keywords: leader, charisma, competitive advantage, small and medium enterprises

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INTRODUCTION

Competitive advantage refers to the strategy i.e. the combination of resources, activities and policies that differentiate the enterprise from other enterprises and that also provide its survival and competitiveness on the market. To create competitive advantage, the enterprise must first conduct an analysis of the external (political, economic, social and technological factors) and internal environment (own abilities and resources) through PEST and SWOT analysis. Depending on the potential impact on the operation of the enterprise, these analyzes classify external factors into opportunities and threats, while internal factors in strengths and weaknesses of the enterprise. The final result is a combination of strategies that provide:

- Taking advantage of enterprise's own strengths and market opportunities;
- Transformation of enterprise's own weaknesses into strengths and market threats into market opportunities (if it is possible) and
- Avoid, overcome or minimize the impact of enterprise's own weaknesses and market threats.

From economic aspect, the enterprise should choose one strategy that allows the achievement of maximum results with minimum resources spent. In today's turbulent environment this means the enterprise to choose the strategy that will provide the fastest, most efficient and most innovative way to adapt to daily changes in the environment and thus will be able to maintain and strengthen its competitive position on the market. For this purpose, every enterprise needs a leader who will properly guide employees towards achieving the vision and mission.

THE SIGNIFICANCE OF THE SMALL AND MEDIUM ENTERPRISES IN MACEDONIA

The importance of the small and medium enterprises (SMEs) for socio-economic growth and development of every country is already widely recognized. Globally, SMEs account for 90% of all companies. At regional level, particularly in the European Union, SMEs account for 99.8% of all businesses providing two out of three jobs in the private sector and contributing more than half of the total value created by businesses (Eurostat, 2013). In Macedonia, the economic impact of SMEs is also significant. The share of SMEs in the total number of businesses over the last five years is presented in Table 1.

Table 1: Small and medium enterprises in Macedonia in the period 2009-2013

Year Enterprise	2009	2010	2011	2012	2013
Micro	38.107	39.999	46.322	53.117	49.935
Small	31.873	34.702	25.984	20.341	20.241
Medium	533	584	607	631	683
SMEs	70.513	75.285	72.913	74.089	70.859
Total	70.710	75.497	73.118	74.424	71.290
SMEs (%)	99,72	99,72	99,72	99,55	99,40

Source: State Statistical Office of Macedonia

The share of SMEs in Macedonia is 99% of the total number of active economic entities, contributing 68% to GDP and providing two thirds of the jobs. Because of their

significant contribution to economic growth and development, it is necessary to identify all sources of competitive advantage of these enterprises. As one of them appears charismatic leadership.

THE NECESSITY OF TRANSFORMING THE TRANSACTIONAL IN CHARISMATIC LEADERSHIP AS A SEGMENT OF TRANSFORMATIONAL LEADERSHIP

In terms of intense competition, changing external environment and limited resources, SMEs are faced with the challenge of transforming the transactional in charismatic leadership in order to survive or improve their competitive position on the market. This cannot be achieved without recognizing the fact that although the reasons for most problems come from external factors, the solutions lie within the enterprise, particularly in motivation, efficiency and commitment of human resources in achieving the vision set by the leader.

The fact is that small and medium enterprises, as well as large enterprises, are primarily focused on survival. But what differs these types of enterprises is that SMEs do not use leadership ie laissez-faire leadership or apply transactional leadership which means focusing on short term results, following strict rules, procedures and standards, preferring certainty and consistency, focusing on efficiency (cost reduction), motivating employees through reward and punishment, dominance of mind in decision making. This means that the competitive advantage of these enterprises is based on the basic functions of management, planning (short term), organization and control.

The use of laissez-faire or transactional leadership is effective in cases where the internal and external factors affecting the operations do not change over time, the problems that appear are simple, well known and there are clearly defined ways for solving them (Smith). However, this is not a feature of today's business environment. On the contrary, daily changes in the external environment require appropriate changes by the enterprise in order to maintain or improve its competitive position on the market. Every change begins with the initiative by the leader. Because transaction leader does not want changes, this style proves to be ineffective in today's conditions for business operating of SMEs. Any attempt to change the transaction in transformational or charismatic leader is very difficult and often ends in failure because involves changing the characteristics of the leader as a person, but they are often difficult to change or unchangeable variables (Nikezić, Dašić and Bojić, 2012). Numerous theoretical and empirical research show that the effectiveness of the enterprise largely depends on the model of leadership implemented. Thus, most of the conducted studies show that there is a greater relationship between transformational leadership and performance of the enterprise whether the goals are set at organizational or individual level (Lowe et al., 1999) compared with transactional leadership. In terms of effectiveness, satisfaction and supernormal effort, laissez-faire model proves to be the least effective and because of that it should be used rarely, the next model is transactional leadership based on passive leaders who intervene after the occurrence of deviations. Namely, this model is useful for large enterprises where the leader controls many followers, but, causes anxiety, hostility and stress if it is used in great extent. Because of this, we recommend its use in combination with transformational leadership as dominant. Transactional leadership based on corrective measures can provide positive performance in situations where risk can be predicted. This can be achieved through constant monitoring of activities that could have a negative impact and their comparison with previously established standards (Bass, 1998).

Studies also show that the turbulent business environment increases the probability of developing transformational leadership because in such rapidly changing environment leader is able to identify the possibility to change the existing situation and create a vision that will

be followed by followers. This means that transformational leadership is applicable in organic type of enterprises that are not highly structured, where there is a strong ethical culture and absence of routine tasks. In contrast, transactional leadership is characteristic for stable business environment where the factors of influence are constant or change over long time, which means it is efficient in highly structured enterprises where tasks are routine. Although turbulent business environment and crises are important factors for the emergence of transformational leadership, this does not mean that they automatically activate charisma, on contrary, characteristics, values and ideals of the leader are the main sources of charisma (House, 1977).

THE CHARISMATIC LEADER AS A KEY SOURCE OF COMPETITIVE ADVANTAGE OF SMES

As a term, charismatic leadership is mentioned in 1947 when Weber speaks of charismatic leader as leader with superhuman, supernatural and heroic attributes (Weber, 1947). Unlike Weber who talks about "revolutionary" charisma, later theorists define charisma on a "peaceful" way. Thus, according to Conger and Kanungo (1998) and Sashkin (1998) charismatic leaders are idealized by followers thanks to their numerous features: the ability to inspire, motivate, respect and understand the needs of followers by showing emotions; commitment in achieving the vision; courage to change the state status-quo; implementation and use of ethical standards and social responsibility. In essence, charisma means the ability of the leader to inspire, motivate and support the employees, who in turn attain supernormal results neglecting personal goals, problems and difficulties in operation. Charisma means emotional expression, self-esteem, confidence, determination, internal stability, intellectual stimulation, passion and commitment to his own vision. Charismatic leaders know who they are and what they believe in and have the power to convey confidence in their own vision to the followers.

The essence of the charismatic leader is set by Weber (1968), which continues to be supported and strengthened by later authors. It is about three key elements:

- 1) The existence of vision and mission - Without this element leader cannot be considered as charismatic, regardless of the personal qualities that he possesses (Bryman, 1992 p.41)
- 2) Possession of outstanding and exceptional qualities, which means confidence, dedication, moral values, faith in its own beliefs (House and Howell, 1992)
- 3) The power to influence followers, which includes the ability to gain their support and commitment (Conger, 1999)

In 1998, Conger and Kanungo have developed a scale of charismatic leadership consisting of 20 elements. The reliability and validity of the scale have been confirmed by several studies. In fact, the scale includes five factors that determine the extent to which leaders:

- 1) Recognize and respond to the opportunities and constraints in the environment (eg, recognition of the skills and abilities of employees in the enterprise)
- 2) Show sensitivity to the needs and desires of the team members (eg, impact on others through the development of mutual respect and understanding),
- 3) Spread inspiring vision (eg, setting motivating organizational purposes)
- 4) Take a personal risk, in part because of inspiring followers through personal example and
- 5) Show unconventional behavior (eg, use of non-traditional means of achieving organizational goals).

These five elements are included in the three phases of this leadership style:

First phase, examining and identifying the opportunities and threats in the environment, as well as the needs and desires of employees,

Second stage, creating and spreading a vision that matches determined possibilities and preferences and

Third stage, implementing the vision taking personal risk and unconventional behavior in order this example to be followed by the followers.

As factors that reinforce the benefits of charismatic leaders appear:

Crises - Charismatic leadership is particularly effective after accidents in the workplace. Employees like more leaders that set, monitor and disseminate inspiring vision than leaders that seek and integrate the views of all staff and managers.

Uncertainty - The effectiveness of charismatic leadership is greater when the environment is variable and uncertain (strong market competition, frequent changes in legal regulations). In such cases, promoting inspiring vision for the future that will inspire all employees increases the connection between employees and reduces the feeling of insecurity (De Hoogh, et al., 2004). In terms of turbulent environment, the implementation of charismatic leadership by setting guidelines has positive impact on profitability, and thus on the competitive advantage of the enterprise (Waldman, Ramirez, House and Puranam, 2001).

Need for belonging - The introduction of charismatic leadership is effective in enterprises where there is no cooperation between employees ie they are not related to each other and do not follow rules (Den Hartog, De Hoogh and Keegan, 2007).

These factors are characteristic of today's turbulent business conditions expressed by strong competition, information, communication and technological development, changing consumer needs and demands, which points out the need for development of charismatic leadership as a precondition for greater efficiency, productivity and profitability, ie for maintaining and strengthening the competitive position of all enterprises, especially of small and medium ones considering the fact that they are generators of economic growth and development of any country.

CONCLUSION

Leader with charisma emerges as an imperative for the competitiveness not only for large, but also for small and medium enterprises. The challenges brought by globalization require better, faster and more efficient response of all enterprises in order to preserve and enhance their competitive position. In this regard, the employees, especially the leader, have become a key source of competitive advantage for enterprises. The leader with charisma is the person who has the ability to create a strong belief in his own vision among employees.

According to our research, transformational leadership and transactional leadership based on awards and praise have a positive impact on the effectiveness of the enterprise, while transactional leadership based on preventive corrective measures or interventions after the occurrence of deviations have a negative impact, especially in small and medium enterprises. This suggests the need for a gradual acceptance and implementation of transformational and charismatic leadership to a greater extent by these enterprises.

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**ASSESSING THE IMPORTANCE OF AN INFLATION STABLE ENVIRONMENT ON
SMEs DEVELOPMENT IN CASE OF NEW MEMBER STATES USING A NEW
KEYNESIAN PHILLIPS CURVE APPROACH**

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Abstract

The objective of this paper is to identify the main factors which drive inflation in case of some New Member States which present similarities between them, namely Czech Republic, Romania, Hungary and Poland, highlighting the importance of a stable inflationary environment for achieving sustainable growth and competitiveness. Among these factors are included: inflation persistence, inflation expectations, import prices inflation and real economy variables. In order to determine the degree of inertia, the impact of forward looking expectations and assess the inflationary pressures steaming from real economy a reduced form hybrid New Keynesian Phillips Curve is estimated. The paper study an alternative proxy for real marginal cost gap in the hybrid New Keynesian Phillips Curve in order to improve the empirical results and to provide a more detailed insight into the causes of inflationary process. Alternatively, the research focuses on the role of the monetary policy in controlling the various sources of inflation in case of New Member States in the view of European Union integration. The New Member States undergo an ample convergence process towards European structures which profoundly affect the macroeconomic policy transmission channels within these economies and impact the competitiveness of all firms including SMEs. That is way a stable inflationary environment is of utmost importance in order to reduce the costs associated with unanticipated inflation that determine wealth redistribution effects from creditors to debtors, distort investment decisions towards real assets and eventually negatively affects the relative price signals and resource allocation.

Keywords: SMEs performance, inflation dynamics, GMM estimation, real marginal cost.

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INTRODUCTION

Small and Medium Enterprises (SME's) are widely considered as the driving force behind the economic growth, in both developed and emerging economies, through job creation, innovation and social integration. SME sector contributes to the extension of the productive capacities, involving resources at all levels of the economy and stimulates a more flexible economic system in which small, medium and large firms are interconnected.

The contribution made by SME sector to overall economic development has become widely recognized in many of the industrialized or developing economies. Based on data covering a number of thirty-seven countries, over a time span between 1960 and 1990, Hu (2010) argues that SMEs are beneficial to economic growth, highlighting considerable diversity in terms of the patterns of the contribution, in the sense that SMEs in the high-income economies will generally favour entrepreneurship, while in the emerging economies they will tend to stimulate the job creation. Carlsson et al. (1999) sustain that SMEs enrich an economy's key competitive advantage through their diversified new ideas, and argue that entrepreneurship is a necessary element in the achievement of long-run macroeconomic prosperity. Entrepreneurship promotes competitiveness between economic agents, boost trade volume, thus fostering economic activities. Acs (1992) argues that SMEs have been replacing large firms in leading economic activities.

There is a large bunch of literature advocating the role of SMEs in the development of both industrialized and emerging economies, focusing on their impact on employment creation, productivity growth and innovation. González-Loureiro and Pita-Castelo (2012) argue that innovation is a key for achieving a competitive product, being, together with knowledge, important intangible resources which properly managed create more value in a firm. Cheng and Tao (1999) claim that these kind of intangible resources point towards sustainable competitive advantages, and thus towards growth.

Beck et al. (2005) explores the relationship between the relative size of the SME sector, GDP growth and poverty alleviation using a sample of 45 countries and find a positive link between the importance of SMEs and economic growth. However, he doubts the conclusions that SMEs exert a causal impact on growth, alleviation of poverty and income inequality. Financially more developed countries tend to have bigger firms, which suggest that financial development eases constraints and permits them to grow. Hallberg (2001) and Kumar et al. (2001) suggest that firm size distribution is a function of domestic endowments, technologies, policies and institutions.

The stability of macroeconomic environment plays a crucial role in the development and organization of SMEs. Among the factors that contribute to the growth of SMEs is price stability, along with stable exchange rate and GDP growth performance. Low and stable inflation is a goal of utmost importance that most central banks follow. This is the main premises in order to achieve sustainable economic growth and, what is more important, a stable macroeconomic environment for enterprises. Shiffer and Weder (2001) carried out a research study and confirmed through a survey covering 80 countries that inflation did affect SMEs' performance along the years.

An unstable macroeconomic environment can cause serious problems for the economic agents. For instance, unstable and high inflation can cause uncertainty regarding the results and outcomes of the enterprises' economic activity and profitability and even

more can cause economic agents to engage in nonproductive activities. Moreover, a key condition for SMEs to develop their economic activity is the easy access to financial resources, favourable and accessible loans being only available in a stable macroeconomic environment. In other words, high inflation triggers high and volatile interest rates which may become a burden for SMEs given the fact that the structure of their capital mostly requires short term financing. What is even more important is the fact that interest rates on loans to SMEs in many countries are still very high although lending conditions majorly affected by the crisis have improved. This is mainly due to the fact that there is a great proportion of non-performing loans belonging to SMEs. Nevertheless, another issue SMEs confront with in an inflationary environment is the lack of ability to pass on price increases to the customers given the low market power SMEs are characterized by.

Nevertheless, central banks encounter several obstacles in their way to achieve price stability. For example, price rigidities in wages means that even if monetary policy acts in order to reduce inflation, some wage contracts are not affected by this kind of actions in the short term. Therefore, there are some costs – such as rise in unemployment or decline of the output - achieving and maintaining price stability in the short run, induced by wages that are unlikely to adjust due to price rigidities.

All in all, monetary policy has a decisive part in anchoring inflation expectations in order to reduce and maintain a low level of inflation. This kind of outcome will nevertheless create the premises for sustainable economic growth and will definitely foster economic activity contributing to the development and performance of SMEs.

In this context, the analysis of inflation determinants is highly important as it aims to determine the factors that might exert inflationary pressures both in the short and in the long run. The Phillips Curve has become a standard framework for the analysis of inflation dynamics for both explaining the inflationary sources and as a tool for forecasting its future evolution. The early specifications of the Phillips Curve, developed by Phillips (1958) and Samuelson and Solow (1960) are based on empirically founded relationship between the inflation rate or the nominal wage growth rate and the unemployment rate. However, the statistical relationship between the variables was found to be instable and even to break down in the 1970's. The development of the New Keynesian economics, based on micro-foundations and rational expectations, proved the theoretical relationship between aggregate economic activity and inflation expectations. The New Keynesian Phillips Curve (NKPC) is based on the seminal work of Taylor (1980) and Calvo (1983) and is explicitly derived from an optimization process, assuming staggered price setting by forward looking, monopolistically competing firms. As a result of the optimization process, current inflation is related to future expected inflation and real marginal cost. Also, the parameters of the NKPC are directly linked to the behaviour of agents and are thus exempt from the Lucas critique. The hybrid version of the NKPC is due to Gali and Gertler (1999) and it additionally incorporates inflation inertia in order to explain the linking between nominal and real sides of the economy.

Because the real marginal cost is not statistically available at aggregate level, there is much controversy in the literature regarding the appropriate proxy for this variable. Gali and Gertler (1999) and Gali, Gertler and Lopez-Salido (2005) use the unit labour cost as a proxy, while Gwin and VanHoose (2008) and Matheson (2008) investigate the use of a number of other variables as proxy for the real marginal cost. Taking into account the characteristics of the emerging economies a specific proxy for aggregate economic activity

in the Phillips curve was used. In the following sections, a reduced form of the hybrid new Keynesian Phillips curve is estimated, using an enriched proxy for real marginal cost, in the case of four Central and Eastern European (CEE) countries with certain similarities regarding the process of euro area integration: Poland, Hungary, Czech Republic and Romania.

The rest of the paper is organized as follows. In section 2 is discussed the specific of inflation dynamics in CEE countries and the reason for including in the analysis some specific economic variables. In section 3 is described the methodological approach used to conduct the analysis and in section 4 are presented the results of the estimates. Section 5 concludes.

CHARACTERISTICS OF INFLATION DYNAMICS IN CEE COUNTRIES

Determining the causes of inflation is particularly important in case of the New Member States of European Union as they attempt to fulfil the Maastricht criteria in the view of acceding to the euro zone. As an emerging economy there are some specific features which characterize the disinflationary process in countries from Central and Eastern Europe.

An important feature of these economies refers to the high share of administered prices in the consumption basket³. The necessity of aligning the price of certain goods such as heat energy, gas, electricity, to European levels, still necessitates price adjustments which influence CPI inflation. Also, the discretionary way in which administered prices are set, induces volatility in the evolution of CPI inflation. It is the common view of practitioners and theoreticians that regulated prices as well as vegetables, fruit and eggs and fuels prices depend mainly on factors exogenous to the economy and, hence, distort CPI inflation especially if they have an important contribution to the basket.

Moreover, the vulnerability to supply shocks characterizes the CEE economies. This mainly refers to the way in which the price of oil and unprocessed food affects CPI inflation. The higher the share of fuel and food is in the consumption basket, the more significant effect does a sharp rise in these prices have on headline inflation. This effect is especially important since monetary policy cannot curb inflation pressures resulting from a surge in raw material prices. The only effect that the monetary policy has is on the second round effects generated by these inflationary pressures. These economies have consumption baskets which comprise high shares of goods whose prices cannot be effectively affected by monetary policy measures like items with administered prices, food and fuels.

The catching-up process which all New Member States have embarked on refers to the reduction of the existing gaps of GDP per capita, wages and prices compared to the euro area countries. The reduction of these gaps requested for an appropriate convergence towards euro area income levels could lead to fiscal and external imbalances. Also, wage increases in excess of productivity growth could result in higher production costs and, hence, in higher inflation and loss of international competitiveness. The real convergence

³ In 2014, items with administrate prices have a proportion in the harmonized consumption basket of roughly 10.7% in case of Czech Republic, 17.4% in Hungary, 14.3% in Poland and 14.4% in Romania.

process could also induce inflation pressures through the non-tradable goods prices, specifically through the Balassa-Samuelson effect.

The role of monetary policy is extremely important in the case of controlling excess demand. Especially in an inflation targeting environment, specific to all the countries included in the analysis, central bank should curb excess demand using the monetary policy interest rate. Consequently, the effectiveness of the monetary policy is determined by the effectiveness of the monetary policy transmission mechanisms.

Inflation expectations determine the way in which wages and prices are set, hence influencing future inflation. Typically, inflation expectations are modelled as a combination between forward looking and backward looking expectations. However, the proportion awarded to the forward and backward looking components is crucial. Since all the four countries included in the analyses adopted the inflation targeting monetary strategy it can be concluded that they expected to drive down inflation persistence (see Benati (2008)). This is another issue that will be debated within this paper as it is widely known that emerging markets seem to experience a higher degree of inflation inertia than developed economies. The more important is the backward looking component in formation of inflation expectations, the more persistent inflation will be and, hence, monetary policy will be less effective in lowering the inflation rate.

The way that inflation expectations are formed is also determined by the credibility of monetary policy: more weight on forward looking expectations is an indicative that wage- and price-setters are confident in the ability of the central bank in achieving its goal, while more backward looking expectations have the exact opposite meaning. In the next sections, the relative importance of inertia and forward looking expectations in the formation of current inflation in CEE countries will be measured.

METHODOLOGY

The New Keynesian Phillips Curve (NKPC) is based on the seminal work of Taylor (1980) and Calvo (1983) and is explicitly derived from an optimization process, assuming staggered price setting by forward looking, monopolistically competing firms. As a result of the optimization process, current inflation is related to future expected inflation and real marginal cost. Also, the parameters of the NKPC are directly linked to the behaviour of agents and are thus exempt from the Lucas critique. The hybrid version of the NKPC is due to Galí and Gertler (1999) and it additionally incorporates inflation inertia in order to explain the linking between nominal and real variables.

In order to derive the log-linearised form of the NKPC it is assumed that in a monopolistically competing firm environment, firms adjust their prices with a fixed probability of $1 - \theta$, while the remaining proportion, θ is the proportion of firms which keep their prices unchanged. Of the proportion of the firms that reset their price, a fraction $1 - \omega$ set their prices in a forward looking manner (they reset their prices optimally according to the baseline model of Calvo), while the remaining ω use a backward looking rule of thumb (they are unable to re-optimize their prices so they index their prices to last's period inflation rate or in other words when setting their prices they take into account the recent history of aggregate price behavior):

$$p_t^b = p_{t-1}^* + \pi_{t-1}$$

where p_{t-1}^* is the average reset price in $t-1$. So as it can be seen from the previous equation the backward looking firms use the price in the last period and correct it with inflation (they use lagged inflation).

Taking these aspects into consideration the price can be expressed as a convex combination between the backward and forward looking components:

$$p_t^* = \omega \cdot p_t^b + (1 - \omega) \cdot p_t^f$$

After log-linearization, a hybrid version of the new Keynesian Phillips curve for aggregate inflation is obtained. The real marginal cost is proxied by a combination between deviations of factor prices around the steady-state:

$$\pi_t = \frac{1}{1+\beta} \cdot \pi_{t-1} + \frac{\beta}{1+\beta} \cdot E_t[\pi_{t+1}] + \lambda \cdot (\alpha \cdot \hat{y}_t - (1 - \alpha) \cdot \hat{w}_t) + \varepsilon_t \quad (1)$$

where $\lambda = \frac{(1-\omega) \cdot (1-\theta) \cdot (1-\beta \cdot \theta)}{\phi}$, β is the discount factor

and $\phi = \theta + \omega \cdot [1 - \theta \cdot (1 - \beta)]$.

Also, the expression for the real marginal cost gap is:

$$r\widehat{mc}_t = \alpha \cdot \hat{y}_t - (1 - \alpha) \cdot \hat{w}_t \quad (2)$$

and $\pi_{t+1} = E_t \pi_{t+1} + e_{t+1}$ where e_{t+1} is an inflation shock which under the assumption of rational expectations will be orthogonal to the information set in period t .

This form of real marginal cost suggests identification of a richer approximation than a simple measure of real Gross Domestic Product deviation from its trend level or a measure based only on costs of labour. The improved proxy of the real marginal cost gap distinguishes two types of inflation pressures exerted by the real side of the economy. One is associated with the decreasing returns to production factors which determine marginal costs to rise simultaneously with the increase of production volume. This type of inflation pressure is proxied by a measure of output gap. The other one is related to the position of real wage costs relative to their equilibrium level. If the real wage gap is positive, it has an inflationary effect determined by the increasing price of production factor and vice-versa. This improved proxy of real marginal cost provides insightful details of the inflationary pressures coming from the real economy. Moreover, such an improved real marginal cost proxy can distinguish between a possible different cyclical behaviour of real wages and output, which may be determined by higher rigidity of nominal wages compared to prices.

Therefore, in order to analyse inflation dynamics in CEE countries, the following classic version of the reduced form hybrid NKPC developed by Gali and Gertler (1999) and extended for open economies by Leith and Malley (2007) is employed:

$$\pi_t = \gamma_b \cdot \pi_{t-1} + \gamma_f \cdot E_t[\pi_{t+1}] + \lambda \cdot r\widehat{mc}_t + \varepsilon_t \quad (3)$$

where π_t is inflation at time t , $E_t[\pi_{t+1}]$ is the rational expectation of inflation for the next period, $r\widehat{mc}_t$ is the real marginal cost, approximated as described in equation (2) and ε_t is the error term. The coefficient γ_b shows the inflation persistence or inflation inertia, while γ_f shows the relative importance of forward looking expectations in the formation of current inflation. The reduced form coefficients are directly linked to the structural ones as it follows: $\gamma_b = \omega \cdot \phi^{-1}$ and $\gamma_f = \beta \cdot \theta \cdot \phi^{-1}$.

These coefficients are not restricted to sum to one, as in the theoretical equation (1), and different statistical tests will be employed in order to test the validity of this relation.

DATA AND EMPIRICAL RESULTS

In this section, the reduced form of the hybrid new Keynesian Phillips curve presented in equation (3) is estimated, using the enriched proxy of real marginal cost described in equation (2), in the case of four Central and Eastern European (CEE) countries with certain similarities regarding the process of euro integration: Poland, Hungary, Czech Republic and Romania. Quarterly data for the core measure of inflation⁴, output gap, real GDP and wages in the business sector for the period 2000Q1 – 2014Q1 was obtained from the websites of the central banks and from Eurostat’s database. The income shares of capital and labour were calibrated to one-third and two-thirds⁵, respectively, according to standard usage both in the literature and central banking practice, at least in the above mentioned countries. Considering the presence of rational expectations in the equation, semi-structural parameters are estimated using generalized method of moments (GMM), as in Gali et al. (2001). Generalized Method of Moments (GMM) framework is employed due to measurement and simultaneity issues. Assuming that the anticipation of inflation for next period is formed under rational expectations, the forecast error is uncorrelated with past information. Since there is likely that the real marginal cost proxy to be an inexact approximation and some current information to be unavailable at the time that expectations are formed, lags of dependent and independent variables are used as instruments.

GMM estimation is particularly appealing owing to the fact that it requires only relevant and valid instruments and no assumptions over the model (unlike other estimation methods which require further assumptions, like maximum likelihood). Consequently GMM uses specified moments, whereas ML for example uses the entire distribution (so GMM requires less assumptions, the parameters are robust but also may be less efficient). The orthogonality condition, for the reduced form model, is given by:

$$E_t\{[\pi_t - \gamma_f \cdot \pi_{t+1} - \gamma_b \cdot \pi_{t-1} - \lambda \cdot (\alpha \cdot \hat{y}_t - (1 - \alpha) \cdot \hat{w}_t)] \cdot z_{t-1}\} = 0 \quad (4)$$

where \hat{y}_t is a measure of output gap, \hat{w}_t represents the gap of real wage in the business sector and z_t is the vector of instruments. The instruments used in the estimation have been chosen in each case individually, since there is likelihood that the inflation dynamics poses country-specific features. These includes lags of core inflation and different CPI subcomponents inflation rates which are correlated with the core inflation, lag of the real interest rate, lags of the exchange rate against euro and lags of the endogenous variables. In order to test the validity of the over-identifying restrictions the *J-test* is used.

However, there are some drawbacks of the estimation method that must be taken into account. First of all, the period for which the estimation is performed is quite short and it must be pointed that all four countries are emerging economies with some particularities that must be considered. Secondly, all these countries have switched to a different monetary policy (for example, Romania (in 2005), Hungary (in 2001)) and instrumental

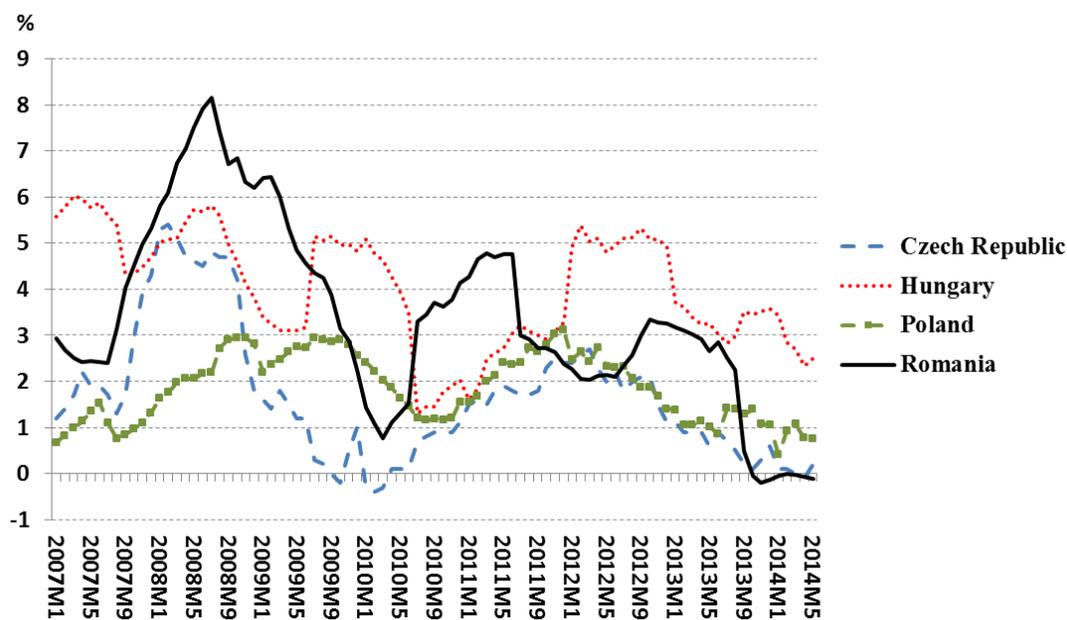
⁴ This inflation measure excludes from the overall CPI a number of components exogenous in terms of the scope of monetary policy action, which are different in each case. More details on core inflation measures which are relevant from the monetary policy point of view in each country included in the analysis can be found in the Section 1 of the paper and on the central bank’s websites.

⁵ I.e. approximately equal to income-based share of capital and labour in gross value added from the national accounts.

variables estimation may be sensible to such changes. The instruments were used accordingly to each country and not the same set of instruments for all countries. This may be a drawback for the comparison among countries but we must take into consideration that inflation in each country has its particular traits and must be modeled individually. The final instruments were used according to their qualities (relevant and exogenous) and to the availability of time series. Apart from testing the relative performance of an improved proxy of real marginal cost, the empirical analysis aims to evaluate the degree of inertia, the impact of forward looking expectations and the inflationary pressures steaming from real economy. In the specific literature were estimated Phillips curves for different inflation measures: GDP deflator, consumer price index inflation (CPI inflation), import price inflation and producer price inflation. In what regards the current analysis, as explained variable it is used a monetary policy relevant inflation rate specific for each country because it excludes from total CPI basket different components with volatile prices. It is the common view of practitioners and theoreticians that volatile prices depend mainly on factors exogenous to the economy and, hence, distort CPI inflation especially if they have an important contribution to the basket.

In case of the Czech Republic the monetary policy relevant inflation is defined as headline inflation adjusted for first-round effects of changes to indirect taxes, in Poland and Hungary the core inflation excludes from headline consumption basket food and energy prices while in Romania the corresponding measure excludes from the overall CPI a number of prices as: administered prices, volatile prices (of vegetables, fruit, eggs and fuels), tobacco and alcohol prices.

Figure 1 presents the monetary policy relevant inflation rates in the case of the four New Member States included in the analysis.



Sources: Czech National Bank, Central Bank of Hungary, Central Bank of Poland, Romanian National Bank

Figure 1. Monetary Policy Relevant Inflation Rate in four New Member States

The main results of the estimations are reported in **Table 1** together with some additional statistics. A few important conclusions emerge from this table.

Table 1. Estimation results of the New Keynesian Phillips Curve for four New Member States

	Coefficient on expected future inflation (c_1)	Coefficient on lagged inflation (c_2)	Coefficient on real marginal cost (c_3)
Poland			
Estimated value	0.57	0.4	0.017
Standard error	(0.0798) ^{***}	(0.0731) ^{***}	(0.0097) [*]
\bar{R}^2	0.74		
Hungary			
Estimated value	0.51	0.45	0.053
Standard error	(0.0139) ^{***}	(0.119) ^{***}	(0.0241) ^{**}
\bar{R}^2	0.41		
Romania			
Estimated value	0.56	0.48	0.018
Standard error	(0.0065) ^{***}	(0.0052) ^{***}	(0.0014) ^{***}
\bar{R}^2	0.70		
Czech Republic			
Estimated value	0.71	0.31	0.095
Standard error	(0.1091) ^{***}	(0.0998) ^{***}	(0.0462) ^{**}
\bar{R}^2	0.07		

Notes: *Significant at 10 percent level; **Significant at 5 percent level; ***Significant at 1 percent level.

Compared with the simpler approach in which it is used as a proxy for real marginal cost only the output gap, the improved specification is characterized by a greater adjusted R -squared. For testing the better performances of the new specification, it is also compared with the simpler approach for forecasting purposes. For out of sample tests the period 2000Q1 – 2010Q4 is used for estimations and the remaining of the interval, until 2014Q1 is then used to gauge the out-of sample forecast performance of the two version of the Phillips curve. The both in-sample and out-of-sample forecasting performance have improved in terms of root mean squared errors when compared with the simpler version of the Phillips curve based only on output gap as a proxy for real marginal cost⁶. Also, the J statistic does not reject the null hypothesis that the overidentifying restrictions are valid in neither of the cases. The inflation inertia coefficient is relatively high in case of Romania and Hungary showing the fact that the persistence component is an important factor in explaining inflation dynamics. Romania, and in a less extent Hungary, have experienced high inflation rates in early 2000's and started the disinflationary process later than its peers. These probably affected the inflation expectations formation mechanism which is still highly adaptive.

⁶ The results are available on request from author.

Other countries, characterized by low and stable inflation rates for a longer period of time managed to firmly anchored inflation expectations through the conduct of monetary policy, benefitting from a much smaller contribution of inertia to inflation. As suggested by the data, from the four country included in the analysis, the disinflationary process from Czech Republic is the less inertial.

In addition, the theoretical unit-sum restriction imposed by the model on the coefficients of lagged inflation and expected future inflation cannot be rejected by the Wald test at 1 percent significance level. This proves the fact that the data sustain the principle of monetary neutrality in the long-run.

CONCLUSIONS

Inflation dynamics is a highly important issue in the development and organization of SMEs within the New Member States. First of all, the dynamics of inflation in these countries is of particular importance in the convergence process to the euro area. The New Keynesian Phillips Curve provides the latest approach and is of particular interest due to the fact that it is based on microeconomic foundations and tries to explain what factors drive inflation in the short and medium term by relating this variable to the real economy. Secondly, a stable macroeconomic environment characterised by low inflation undoubtedly contributes to performance of SMEs.

The present paper characterizes inflation dynamics in case of four Central and Eastern European economies for the period 2000Q1-2014Q1 using the reduced form of a closed economy hybrid New Keynesian Phillips Curve. The main objective of the research is to identify the main factors which drive inflation in case of some New Member States which present similarities between them, namely Czech Republic, Romania, Hungary and Poland, highlighting the importance of a stable inflationary environment for achieving sustainable growth and competitiveness. These factors include inflation persistence, inflation expectations and real economy variables. As a proxy for the latter variable an improved proxy of real marginal cost designed to replace a simpler measure of output gap or a measure based only on costs of labour is employed. The improved proxy distinguishes two types of inflation pressures coming from the real economy, one associated with the decreasing returns to production factors which determine marginal costs to rise simultaneously with the increase of production volume and the other one related to the position of real wage costs relative to their equilibrium level. This improved proxy of real marginal cost provides insightful details of the inflationary pressures coming from the real economy. The empirical results showed an improved performance of the New Keynesian Phillips Curve when the new proxy of the real marginal cost gap is used. Apart from testing the relative performance of an improved proxy of real marginal cost, the empirical analysis aims to evaluate the degree of inertia, the impact of forward looking expectations and the inflationary pressures steaming from real economy employing Generalized Method of Moments (GMM) framework due to measurement and simultaneity issues. The inflation inertia coefficient is relatively higher in case of Romania and Hungary when compared with Czech Republic and Poland showing the fact that the persistence component is a more important factor in explaining inflation dynamics in the case of the first two economies. This is common in case of transition economies that experienced high rates of inflation and where inflation expectations have a high adaptive component. Also, the inflation

persistence coefficient and the inflation expectation coefficient statistically sum to one proving the fact that the data sustain the principle of neutrality.

Alternatively, the research focuses on the role of the monetary policy in controlling the various sources of inflation in case of New Member States in the view of European Union integration. The New Member States undergo an ample convergence process towards European structures which profoundly affect the macroeconomic policy transmission channels within these economies and impact the competitiveness of all firms including SMEs. That is why a stable inflationary environment is of utmost importance in order to reduce the costs associated with unanticipated inflation that determine wealth redistribution effects from creditors to debtors, distort investment decisions towards real assets and eventually negatively affects the relative price signals and resource allocation.

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INNOVATION IN SEE SOCIAL ENTREPRENEURSHIP. COMPARING SERBIAN AND ITALIAN CASE STUDY

Nikolic Marija¹

Abstract

Emerging trends force a search for more innovative solutions to the sustainable improvements. But ideas will not work unless they can be translated into practice by organizational and institutional innovation. Therefore new models of businesses have appeared, different solutions for burning problems are found and people take initiative and develop new knowledge and skills. Social entrepreneurs can be one of the most important sources of innovation. Social entrepreneurs are innovators who take risk to realize an untested idea for a positive social change without being limited by resources currently in hand. Social entrepreneurship can present vital part of sustainable development through the contribution of individual entrepreneurs to it. On the one hand, social entrepreneurs cater to the basic needs of individuals, and on the other hand, are able to fill a vacuum of effective institutions to coordinate the best use and distribution of limited assets. Moreover, by acting according to the needs of future generations social entrepreneurs contributes to future development.

First social enterprises were established in Italy in 1991. Social entrepreneurship in Serbia is in its beginnings. The idea of modern social entrepreneurship in Serbia emerged in 2000 after democratic changes, through a process of cultural and political rapprochement with the European Union.

The aim of this paper is to highlight the importance of social innovation for further sustainable development of Serbia. To achieve this goal, the current state of social entrepreneurship in Serbia will be presented with a comparative analysis of two case studies concerning two social enterprises, one from Italy and the other from Serbia. Referring to the Italian model as a benchmark, it will be possible to outline the current state of social innovation application in Serbia, using the probable gap with Italy as a cue for some constructive advice for further development of social business.

Keywords: social entrepreneurship, social innovation, Serbian social enterprise, Italian social enterprise, Case Study Methodology.

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INTRODUCTION

Social entrepreneurs can be one of the most important sources of innovation. Sustainable development includes social entrepreneurship (SE) as ideal solution for different social problems. But ideas will not work unless they can be translated into practice by organizational and institutional innovation with establishment of financial independents. Therefore the social enterprise industry is rapidly evolving.

In the following we will first theoretically explain what defines SE and give short overview of current state of SE in Italy and Serbia. Further will be present case study of San Patrignano, an internationally big model of social enterprise, originally from Italy, and Nasa kuca, case from Serbia, as rare successful example which has potential for increase. At the end we will conclude lessons which can be learned from the San Patrignano as benchmark.

SOCIAL ENTREPRENEURSHIP. SOME EVIDENCE FROM LITERATURE

Social entrepreneurs can be one of the most important sources of innovation. Social entrepreneurs are innovators which take risk to realize an untested idea for positive social change. With a mission to create and sustain social value, they act boldly without being limited by resources currently in hand (Dees, 1998) and as Brinckerhoff (2000) emphasize they take risk on the behalf of the people their organization serves.

The concept of entrepreneurship is known for years from Cantillon and Smith through Schumpeter, Menger, Mises, Hayek, Knight and Drucker. Even from the meaning of word “entrepreneur” which comes from French for “taking the initiative to the bridge” is obvious that innovation, risk and organisational effort are essential for achieving planned value. Entrepreneurship can be seen as the process of start-up company (Bennett, 1991), as the process of enlarging companies (Kyro, 2001) or as the process of making company’s advantage through innovation (Keogh and Polonsky, 1998).

Similar to commercial, social entrepreneurship (SE) can be seen as “business-like approach” to social innovation (Pomerantz, 2003). Social entrepreneurship can be also explained as “the use of entrepreneurial behaviour for social ends rather than for profit objectives, or alternatively, that the profits generated are used for the benefit of a specific disadvantaged group” (Hibert, Hogg2002). Some authors equalise it to the art “of simultaneously obtaining both a financial and social return on investment” (the Institute of social entrepreneurship 2002).

Seelos and Mair (2004) give perspective of SE through sustainable development (SD) by defining its unique role as “the contribution of individual entrepreneurs to SD”. According to them SE caters to the basic needs of individuals, on one hand, and on other is able to fill a vacuum of effective institutions to coordinate the best use and distribution of limited assets. Moreover, by acting according to needs of future generations SE contributes to future development. Further they highlight evidence that creative forces of entrepreneurs and innovation in structure, funding, resources and business models can succeed in meeting problems and human needs.

There are various structures and organizations of SE, but they all have in common clear social and public aim. The idea that is behind social entrepreneurship is that products, processes or profit of an organization are “social”. It does not just earn profit but also makes wide and sustainable socially useful activity i.e. social value. The EMES (research network

around SE concept) approach indicate economic and social indicators which allow identifying brand new social enterprises and lead to designate as social enterprises older organizations: a continuous activity producing goods and/or selling services, a significant level of economic risk, a minimum amount of paid work, an explicit aim to benefit the community, an initiative launched by a group of citizens or civil society organizations, a limited profit distribution, a high degree of autonomy, a decision-making power not based on capital ownership, a participatory nature which involves various parties affected by the activity.

Schaltegger and Wagner sublimates characteristics of different kinds of sustainable oriented entrepreneurship and for social one declares that core motive is “contribution to solving societal problem and creation of value for society”, main goal is “achieve societal goal and secure funding to achieve this” and economic goals are just means to it because societal goals represents ends. Challenge in organization structure is to change focus from societal issues to integration with economic issues.

Altogether with various definitions of the term SE arise different definitions of the social entrepreneur and its characteristics (Dees, Brinckerhoff, Waddock and Post, Thompson, Bornstein). Therefore Dees (2001) calls them “change agents in social sector” who adopt mission to create and sustain social value, recognize and relentlessly pursue new opportunities to serve that mission, engage in a process of continuous innovation, adaptation and learning, act boldly without being limited by resources currently in hand and exhibit a heightened sense of accountability to the constituencies served and for the outcomes created”.

Most common psychological attributes of social entrepreneurs are: innovativeness, achievement orientation, independence, sense of control over destiny, low risk-aversion, tolerance for ambiguity and community awareness and social concern (Morris; Bosterin and David). Waddock and James (1991) highlight leadership characteristics of social entrepreneurs: they make a vision from the extremely complex social problem, they use their personal credibility to build the necessary network, and they build sense of collective purpose in themselves and for others who join the effort.

SOCIAL ENTREPRENEURSHIP IN ITALY

The first social enterprises were been established in Italy in 1991, the cooperative (cooperative) with legal form (the law 381/91) called "social cooperatives" (cooperative social). New social cooperatives covered the activities of care (management of social and health care and educational services, home care and accommodation for vulnerable populations, the care of children, cultural activities and initiatives for the protection of the environment), or training activities. Very soon after these "innovations" many other countries began to follow the Italian example. In Portugal there are "cooperative social solidarity" (Cooperatives de solidariedade social), in France, "a cooperative society of collective interest" (cooperative society d'interet collectif - SCIC) in England form "community interest company", which provides services mainly at the local level in areas such as transport in the local community, social housing, providing childcare services, etc..

In Italy the social cooperatives had a very good resilience even against the crisis (level of employment increased by 17% from 2007 to 2011, in 2012 the numbers did not decline). Nevertheless, the world of social enterprise in Italy is much bigger than that of the social cooperatives and can include different legal forms such as the associations, when they run partly commercial activities, and the foundations. All together these different legal forms reached a number of 80,000 social enterprises employing more than 1 million of people in 2013. These

data can also vary according to what the different statistics include in the sector of the so-called “not for profit enterprise” (Giovanni Festa, Traversi, 2013).

The Law 118/05 defined the requirements to be met in order to become a Social Enterprises: having a mission of “general interest”, producing goods of social utility, managing the organization with a deep involvement of workers and beneficiaries, reinvesting the revenues in the firm activity, redacting both a balance and a social report.

The Eighth Annual Report of the Observatory of ISNet on competitiveness and economic value of social enterprises highlighted that 2014 is a year of growth in Italy. For 26.7% of the organizations the current year will be year of growth (compared to 19% in 2013), for 49% of organizations will be stable and trouble to 24.3% (from a perspective of strong decrease compared to the year just ended). Employment will increase in perspective; 22.7% of the cooperatives (compared to 16.3% in 2013) plans to increase the paid staff, 64% will remain unchanged and for 13.3% will decrease (against 24.7% in 2013).

In Italy at national level does not exist specific public infrastructures to support social entrepreneurship, but there are some at local level such as incubators with a social missions funded by regional or municipal grants or support and consultancy services provided by the Chambers of commerce. There is on the other hand a developed system of support from private organizations and umbrella associations (Giovanni Festa, Traversi, 2013).

SOCIAL ENTREPRENEURSHIP IN SERBIA

Social entrepreneurship in Serbia is at its beginnings. The idea of modern social entrepreneurship in Serbia emerged through a process of cultural and political rapprochement with the European Union, concretely in 2000 after democratic changes. As an idea imported from the other regions, SE in Serbia has been promoted by international organizations and funds and some local non- government organizations. In that period, in social terms, there was favorable ground to experiment with social entrepreneurship in Serbia, as the social problems were large (Serbia is emerging from a decade of UN sanctions and a deep economic and social crisis), and the state was unable to solve social problems in a satisfactory manner.

Serbia does not have statistics of social enterprises. However, further will be presented some data taken from the project “Mapping of social enterprises“done in 2008.

Sector of social enterprises in Serbia is heterogeneous and is made up of six basic types of organizations which have different social goals, activities, market niche, market outcomes and social integration models. They are cooperatives, NGOs, the spin-off companies, companies for vocational training and employment of persons with disabilities, the agencies for small and medium enterprises and business incubators. Regional distribution shows that the concentration of social enterprises is slightly higher in the region of Vojvodina because of numerous agricultural co-operatives. Nevertheless concentration of the other type of social enterprises is higher in Central Serbia.

Among social enterprises registered in this study: 3/4 of the total number is cooperatives (more than 1/2 agricultural and 1/6 youth), followed by associations of citizens with 1/7 of the total number (1/10 to support vulnerable groups), while the share of other modest or minimal. In the sector of social enterprises in Serbia, there is a great variety of social functions, both in the forms that focus on self-help, and the ones that are oriented to social goals. The civil society organizations focused on specific vulnerable groups of society that have developed in response to growing social needs and problems of social inclusion. Lately, there are more of those who are

focused on environmental protection and local development - and especially in underdeveloped areas.

Further, from the research is concluded that decision making in the social enterprise is autonomous, at least in the narrow sense which implies independence of equity interests and direct state intervention. Social enterprises are supported in various forms and by various actors, but the largest share of it consists of cash and non-cash donations. This shows that a large number of social enterprises are in unfavorable situation, since their goals are in part dependent on donor interests. Income from market activities are mainly spent on maintenance organization and a new production cycle, not for the development of the organization and the achievement of social goals. This in turn shows that the social enterprise sector is currently characterized by a more "survival economy" than "growing and innovative economy."

In Serbia, there is a need for social entrepreneurship, there are inspiring experience and concrete support from the environment (through various programs and projects) and most importantly, there is a tradition of a joint appearance on the market with a social mission and authentic recent experience recognized in 6 legal forms. For development of SE in Serbia into a viable sector some specificity of Serbia, that differ from the model identified in the European environment and are similar to the other Eastern European countries, must be taken account.

On the other hand, the two most common problems faced by social enterprises are lack of money and an unfavorable legal framework. Suggestion of new law of social entrepreneurship and employment in social companies was put on public hearing in June 2013. At the moment this law is at hold.

For the majority of those who are not included in the area of social entrepreneurship major problem is the lack of entrepreneurial aptitude and appropriate knowledge and skills. For these reasons, further efforts should be on the development of these three important elements that can support the development of social entrepreneurship in Serbia: the legal framework, financing and human resources.

METHODOLOGY

The aim of this paper is to present the state of the art innovation in the field of social entrepreneurship in Serbia. The research methodology used to reach this goal is Case Study Methodology. To check the level of innovation in the model of Serbia, it was compared with a benchmark Italian in a related field. In fact, social enterprises presented in this paper are: "San Patrignano" social enterprise Italian for recovering addicts, and "Nasa Kuca", an association for the support of the persons with mental disabilities. Information on the activities undertaken in the social enterprise San Patrignano have been collected through the analysis of secondary textual sources; while, with reference to case studies Nasa Kuca, were used primary sources, being able to have direct talks with the social entrepreneur in charge. In the following paragraphs the two case studies will be presented and furthermore also the main findings. Lessons learned and conclusions at the end.

CASE STUDIES PRESENTATION

CASE STUDY IN ITALY: SAN PATRIGNANO

San Patrignano is an Italian social business that has been around even before the idea of "social business" existed. This free drug rehabilitation program, which has welcomed over

20.000 people, also has revenue-generating streams to support itself. The products and services range from a pizzeria and home design to horse shows and graphic arts.

In an attempt to answer the call for a more structured, systematic model of intervention to face drug addiction, the San Patrignano Community was legally established by Vincenzo Muccioli and his family in 1979, on the hills above Rimini (Emilia Romagna region). Vincenzo lived in a place where the problem of drug addiction was an epidemic among youth. In conversations with these young people he realized the necessity to view the problem in a different light, as a social threat far more complex than a simple disease. The need for an organization focused on social outcasts rather than drug-related diseases was the innovation for foundation of this institution.

The path from ambitious idea to the international scene was long and with ups and downs but in 1996 the first “Vincenzo Muccioli Challenge” international show jumping competition was held, with the world’s top riders taking part. The following year, the Community received certification as a non-governmental organization (NGO) and the status of Special Consultant to the Economic and Social Council of the United Nations. Dedicated to showcasing excellence in the field of food and hospitality in 2004 the Community even conceived and held the first “Squisito!” food and wine show, an event that was to be repeated every year. Other important year is 2006 when the Schwab Foundation, organiser of the Davos World Economic Forum, awarded Andrea Muccioli the title “Social Entrepreneur of the Year”. Moreover 2006 marked the start of the 2You project, conceived by San Patrignano and implemented in 20 cities around Italy. The goal of these centers, which are managed in partnership with five major associations, is to contribute to the education of school-aged young people, while fighting social problems and the dropout phenomenon.

Values of San Patrignano are:

Providing a heartfelt welcome and recovery to socially marginalized individuals and drug addicts without any social, political or religious discrimination whatsoever.

Offering the service completely free of charge to those taken in and their families, without any form of government subsidy.

Freeing residents from any type of addiction and/or social exclusion through individual recovery programs, based on values such as dignity, honesty, responsibility and respect for oneself and for others.

Using professional training programs as a tool to enable the complete re-integration into society of Community residents.

Carrying out drug prevention initiatives aimed at young people adopting a „peer education” approach through real life stories and video and web tools.

Raising funds through its own production and manufacturing activities, as well as public and private funding, in order to fulfill its mission.

The funds required to maintain the young residents and facilities come in part from the activities and goods and services produced, based on the principles of self-management, and for the remaining part from private donations and contributions. Fundraising thus plays an essential role.

The rehabilitation community operates thanks to 109 volunteers and 313 collaborators and consultants; 32.5% of whom followed a rehabilitation program themselves. The community is also home to about 70 children, numerous families and some of the people who are following a rehabilitation program as an alternative to a prison sentence.

On the basis of sociological and toxicological research carried out by the Universities of Bologna, Urbino and Pavia on a sample of former residents, the percentage of people who fully recover after completing their rehabilitation program at San Patrignano is over 72%.

CASE STUDY IN SERBIA: NASA KUCA

Association for the support of the persons with disabilities “Nasa Kuca” (Our house) has been established in order to provide services and employment for the persons with disabilities. Main objectives of the initiative are also: research and consultations, training of trainers and training of users, networking with local governments (municipality of Zvezdara, Belgrade), Chamber of Commerce and business, production activities and media promotion.

The Association was established in 2007 by group of parents of persons with disabilities as a result of the parents' need to organize themselves and provide the necessary conditions for inclusion of their children in the community. Nasa Kuca as a day care centre provides different kinds of activities, primarily oriented on vocational training, developing of social skills and enabling conditions for employment and social inclusion of disabled.

Employment of people with mental disabilities in Serbia is problematic and the rate of unemployment that affects persons with disabilities is very high (87%) because regulatory limitations concerning working capacity of the people with disabilities. This population is generally excluded; therefore the founders discovered main driving force for mission of Nasa Kuca. Association advocates for human rights and the rights of persons with disabilities, providing support to families, advocates for the change and implementation of legislation, for the improvement of existing and development of new services and supporting services at the local level.

As a necessary condition for the inclusion of young people in the community as part of the Day Care Centre support programs for employment are developed. The programs are designed to facilitate access to jobs in open and closed environment, help young people to achieve in a professional way and acquire new knowledge and skills. As part of work engagement are considered interests, desires and possibilities of every person. Support teams in the employment support young people to prepare for a job, adapt to the new conditions of employment.

During the 7 years of its functioning, the association developed business together with “Bakers of Serbia” company producing paper bags. Collaboration with municipality, community and local entrepreneurs is established. The expectations of the Association regard expanding experience in other cities and regions, expanding production on other paper items: napkins, boxes, etc., networking with catering companies and other agencies which provide services for elderly due to distribution of products, expanding activities to delivery of medicines and food for people in need. The practice has innovative character, providing support for mentally disabled people.

The positive experience with the launch of production led the team of employment support of Nasa Kuca to expand the activities implemented by the service "Kitchen on wheels" - a food delivery service to old hardly moving and sick persons. Service "kitchen on wheels" was created in cooperation of the municipality Zemun, the Association for Support of Persons with Developmental Disabilities "Our House" and companies catering "Top rest". Initiative "Kitchen

on Wheels", created through a public-private partnership, with the aim to respond to community needs and contribute to improving the quality of life of people from different social groups.

From the interview with responsible persons from Nasa kuca we find out that their biggest problems are insufficient legal help, institutions support, financial support and concrete public concern and help.

REPORTING CASE STUDY'S FINDINGS

Committed individuals to the mission are first condition needed for successful social business. Moreover, they have to act boldly regardless of the limitations they have in financial, organizational or other aspects. A mission has to be dedicated to creation of social value, not private benefits of individuals. All people involved have to believe in innovative idea that is core of the social business; therefore very strong common identity can provide transfer of basic idea and values. Further, social entrepreneurs have to develop skills and knowledge for the best allocation of limited assets and ability for continuous implementation of innovations.

In Serbia the biggest problems for development of social entrepreneurship lies in the legal framework, financing and human resources. This is evident on individual social entrepreneurs; they stay without institutional and government support. Suggestion of new law of social entrepreneurship and employment in social companies was put on public hearing in June 2013, but because of inconsistencies at the moment this law is at hold. Higher government interference would also lead to higher public awareness of contributions of social entrepreneurs. Nevertheless, from case on San Patrignano it is evident that innovative idea can turn into sustainable business even in time when social entrepreneurship was not defined yet.

Besides devotion to mission of creating social value with continuous innovation and learning Serbian social entrepreneurs can learn from case of San Patrignano how networking and fund- raising are important.

It is necessary to create network from various sectors in economy and thereby creating need for social entrepreneurship. The size of network indicates the number of different people an entrepreneur is communicating to during the business establishment process and even after the establishment. A higher number of people means receiving diversified information meaning a higher number of contacts increases the chances of receiving and using useful information for the growth of the business. Therefore the size of the network may be one of the most important factors explaining successful establishment of new businesses. The networking with others is carried out because the entrepreneur mostly depends on the information, raw materials, technology or knowledge, in order to make enterprises financially independent and further continuously develop. San Patrignano has very large Italian and international network; opposite to Serbian case where this network just starts with establishment and public must be more animated concerning the problem of the persons with disabilities, in this case.

Fundraising is about more than just applying for grants. It involves creatively thinking about what resources you need and where these might come from, and it doesn't always have to be about money. A social enterprise may look at fundraising in terms of obtaining preferential loans or selling some equity in the enterprise to outside investors. All approaches are competitive processes. Social enterprises will have to compete for investors' attention and find innovative and creative ways to make better use of resources. In San Patrignano create incentives for local communities to cooperate in the funding of social ventures.

CONCLUSION

Social entrepreneurs are innovators who take risk to realize an untested idea for a positive social change without being limited by resources currently in hand. Acting according to needs of future generations they contribute to future sustainable development.

In Serbia, there is a need for social entrepreneurship, there are inspiring experience and concrete support from the environment and most importantly, there is a tradition of a joint appearance on the market with a social mission. On the other hand, the most common problems faced by social enterprises are lack of money, an unfavourable legal framework and lack of adequately trained human resources.

From Italian examples can be learned how important are dedicated innovators with devotion to create social value, how big influence has networking and innovative approach to fundrais

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RESEARCH AND DEVELOPMENT IN POST-TRANSITION: THE CASE STUDY OF WESTERN BALKAN COUNTRIES

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Abstract

The research and development (R&D) represent a crucial input to the innovation process and encompass the premarket activities performed by a number of agents such as: public scientific institutions, universities, inventors, and firms. Although different in nature and funded by various sources, R&D expenditures significantly determine the innovation capacity of a given country. The issue of a suboptimal allocation of resources to R&D in a free market economy due to the appropriability problem, high amount of fixed costs and related uncertainty has been widely elaborated in the literature. In this context, there are various policy measures that can be undertaken for correcting market failure and solving the problem of R&D under provision.

The low innovation potential of post-transition countries including Western Balkan countries (WBC) may inter aliam stem from the insufficient capacity to provide conditions for efficient R&D. Namely, the long process of transition in this group of countries has had tremendous economic, political and social impact. As a consequence, the Western Balkan countries experienced erosion of their R&D potential, while their national innovation systems remained underdeveloped. Hence, the aim of this paper is twofold: First, to explore the scope and nature of R&D in WBC as determinants of their innovation capacity and, second to assess the impact of R&D on the economic development in the region. For this purpose we apply a panel data analysis in order to relate the R&D indicators to those of the economic development and growth in the WBC. As a consequence, we expect to come up with policy recommendations that will contribute to better R&D performance and will assist transformation of the WBC into 'innovation learners'.

Keywords: R&D, innovation, post-transition, Western Balkan.

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INTRODUCTION

The long period of transition has undoubtedly had tremendous consequences on the economic development of the Western Balkan countries³. All of the Western Balkan countries (WBC) decisively believe that their future lies in the European Union (EU) and have already undertaken measures for meeting the conditions for EU accession. However, there still remain a number of challenges for the future socio-political and economic development of the Western Balkan region⁴. This is particularly relevant with respect to intensifying regional cooperation, strengthening good governance and increasing prosperity via sustainable economic growth.

The sustainable economic growth of the WBC will only be possible via open markets and foreign investments. Thus, a positive investment climate including legal certainty and zero-tolerance policy on corruption are indispensable for development of the small and medium sized enterprises. Furthermore, the economic reforms should account for overcoming of the WBC current account deficits, increasing competitiveness via regional value chains, improving the region's logistical connections to the European markets and developing effective academic and vocational training as a precondition for reducing youth unemployment. In this context, firm investments in R&D are fundamental to enhancing the region's "absorptive capacity" *i.e.* its ability to adapt and adopt foreign technology, to benefit from spillover effects from foreign direct investments (FDI), and to gain from other sources of knowledge transfer.

Historically, the funding of R&D was shared between two domestic sources: the government and private business (Greenhalgh and Rogers, 2010). Governments exert a strong influence on the innovation process through the financing and steering of public organisations that are directly involved in knowledge generation and diffusion, and through the provision of financial and regulatory incentives to all actors of the innovation system. In addition, R&D investment increases the possibility of achieving a higher standard of technology in firms and regions, which would allow them to introduce new and superior products and/or processes, resulting in higher levels of income and growth (Bilbao-Osorio and Rodríguez-Pose, 2004).

The economic reforms in the WBC during the period of transition have put the science, technology and innovation policies as second priority which led to deterioration of their research capacities. Given that the Balkan region lags behind the rest of the EU in technology accumulation and innovation capacities, the above described outline calls for application of new growth models which would emphasize the role of innovation and research (Švarc, 2014a). As a consequence of the renewed emphasis on research and innovation, it has been expected that the region will gradually converge with the R&D and policy targets set by the EU (World Bank, 2013a).

The aim of this paper is twofold: First, to explore the scope and nature of R&D in WBC as determinants of their innovation capacity and, second to assess the impact of R&D on the economic development in the region. For this purpose we apply a panel data analysis in order to relate the R&D indicators to those of the economic growth in the WBC. As a consequence, we expect to come up with policy recommendations that will contribute to better R&D performance and will assist transformation of the WBC into "innovation learners". Hence, the paper is

³As Western Balkan countries are considered the following: Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia;

⁴ Final Declaration by the Chair of the Conference on the Western Balkans, Berlin, 28 August 2014.

structured as follows: First, we provide a brief introduction followed by elaboration of the theoretical framework regarding the R&D and their impact on the economic growth. In the third section we provide an empirical assessment of the R&D impact on the economic growth in WBC, whereas the last section encompasses the concluding remarks and policy recommendations.

THEORETICAL BACKGROUND

The R&D as a specific group of activities is mainly focused on increasing the productivity level of the companies which, in turns would lead to higher levels of economic growth. In general, R&D activities are conducted by specialized units or centres belonging to a company, or can be outsourced to a contract research organisation, universities, or state agencies. Although different in nature and funded by various sources, R&D significantly determine the innovation capacity of a given country. The issue of a suboptimal allocation of resources to R&D in a free market economy due to the appropriability problem, high amount of fixed costs and related uncertainty has been widely elaborated in the literature (Greenhalgh and Rogers, 2010). In this context, there are various policy measures that can be undertaken for correcting market failure and solving the problem of R&D underprovision. Moreover, R&D represent an important component of a country's National Innovation System (NIS) viewed as a complex interrelated system which consists of three sectors: industry, universities and the government. This concept of NIS is also known as a Triple Helix model defined as a set of components, relationships and functions that generate and promote innovation (Švarc, 2014b).

The impact of R&D through innovation on the economic growth has been for a long time in the focus of the researchers' and policymakers' debates. The neoclassical model of economic growth also called the "Solow model" was among the first to account the role of new technology alongside the capital and labour as determinant of the economy's output. In addition, a lot of models from a theoretical point of view demonstrate the role of R&D as a growth engine and point out the reason why government must intervene in order to achieve an optimum level of R&D (Snowdon and Vane, 2005; Pessoa, 2010).

During the mid-1980s several economists, most notably Paul Romer and Robert Lucas, sought to construct alternative models of growth where the long-run growth of income per capita depends on investment decisions rather than unexplained technological progress. However, the term investment in the context of these new models refers to a broader concept than the physical capital accumulation reported in the national accounts such as research and development expenditures and human capital formation. A further implication of Romer's research is that for a given country to maintain its leadership position, government policies must continue to support a high level of R&D activities in both private and public institutions. Given the well-documented large divergence between social and private rates of return from R&D expenditures, the government has a vital role to play in preventing underinvestment in this activity (Snowdon and Vane, 2005).

In addition, the R&D spillovers have particular importance for developing countries such as WBC which have experienced prolonged process of transition from centrally planned to market economy. Given that majority of R&D activities are carried out in the developed countries, there are clearly opportunities for developing countries to benefit from knowledge spillovers. In this context, the empirical evidence shows that the total factor productivity of developing countries is positively and significantly related to R&D in their industrial country trade partners and to their imports of machinery and equipment from the industrial countries.

However, the empirical evidence is not decisive whether there is a strong association between R&D efforts and the growth rate in a given economy. For instance Jones concludes that total factor productivity do not increase even with an increase of resources (both domestic and foreign) devoted to R&D activities (Jones, 1995). One possible explanation for this are diminishing returns to R&D and that total factor productivity growth would have even declined without large increase in the R&D workforce. Similarly, Sylwester (2001) has not found association between R&D and economic growth in 20 OECD countries. However, when considering G-7 countries, he reports a positive association between industry R&D expenditures and economic growth. Furthermore, Bilbao-Osorio and Rodríguez-Pose (2004) disaggregate the relationship between R&D and the economic growth by assuming that transmission mechanism occurs through innovation. They apply an empirical analysis for the EU countries and show that the link between innovation and economic growth is less forthcoming than that between R&D investment and innovation. On the other hand, taking into account that in OECD countries, the composition of R&D has shifted from low to high-tech areas, there is evidence that R&D investment in the high-tech sector have strong positive effects on GDP per capita in the long term (Falk, 2007).

One of the important issues related to R&D investment and the economic growth is the problem of simultaneity between these variables. As pointed out by Pessoa (2010), although there is a positive relationship between GDP per capita and R&D intensity there are many factors omitted in the typical regressions, which simultaneously affect total factor productivity growth and the incentives to invest in R&D. If such factors have a clear effect on total factor productivity and, at the same time, induce firms to invest in R&D, R&D intensity seems rather a proxy of the level of development than a cause of it. Because of this, when we search for the actual relationship between R&D intensity and GDP growth, the picture is not very confirmative of the positive effects of the former on the latter. Having in mind these arguments we further look more closely at the R&D data in WBC and make an attempt to assess the possible impact of R&D on the economic growth.

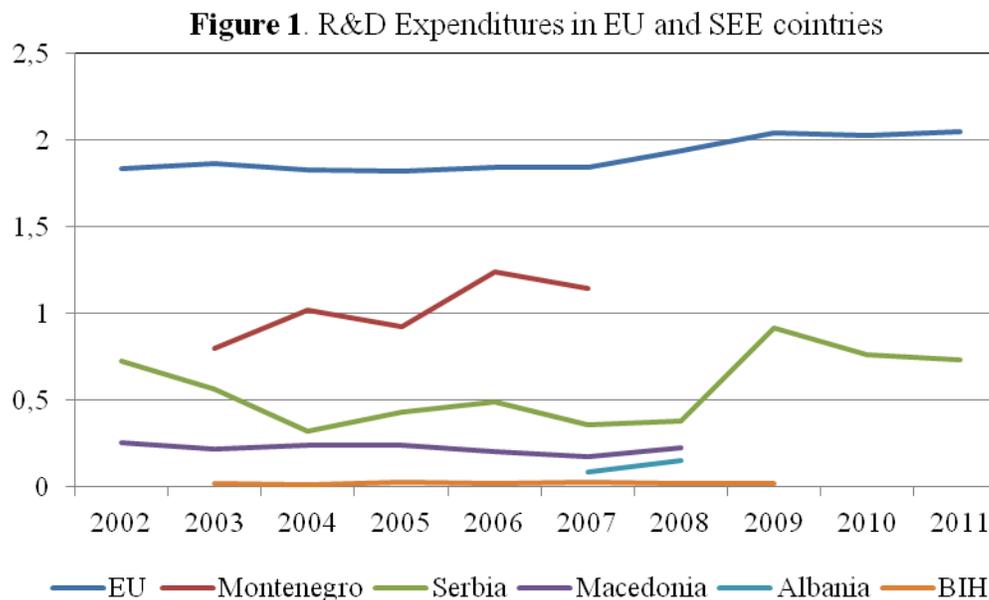
EMPIRICAL ANALYSIS

In this section we provide an empirical analysis aiming to examine the relationship between R&D and economic growth in WBC. For this purpose we use aggregate data on a national level for five WBC: Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia⁵. Although the research systems in WBC differ in research intensity, manpower, institutional complexity and performance abilities, their common feature is the low level of R&D investment compared to the EU average.

For the purpose of our analysis in this paper we use standard R&D indicators defined by OECD. According to OECD (2013), the standard expenditure measure of R&D is the Gross Domestic Expenditure on Research and Development (GERD) which covers all R&D carried out on national territory in a year concerned. Furthermore, GERD can be disaggregated by performance sectors: Business Enterprise sector (BERD); Higher Education sector (HERD); Government sector (GVRD); and, Private Non-Profit sector (PNPRD).

The dynamics of the Gross Domestic Expenditure on Research and Development in WBC during the period 2002-2012 is presented on Figure 1.

⁵Kosovo is not taken into consideration because the lack of data.



From Figure 1 it is obvious that GERD in Macedonia, Albania and Bosnia and Herzegovina are below 0.5% of GDP; the share of GERD in Serbia is about 0.75%, whereas in Montenegro is about 1%. In sum, these amounts of expenditures are much lower compared to the EU average which is above 2%. In addition, the Business enterprise sector in WBC Gross Domestic Expenditure on R&D represents only a modest share compared to the EU average. For instance, according to the Erawatch platform on research and innovation policies and systems, the private sector shares on R&D in WBC are on average between 15 and 20 percent which is much lower compared to the EU average of 63 percent in 2012. Other common problems that WBC share with respect to the research sector are the following: lack of manpower and brain-drain, low international and sectoral mobility of researchers, low participation in the Framework Programmes, obsolete scientific equipment, weak abilities for university-industry collaboration and commercialisation of research results (Švarc, 2014a).

In order to position the R&D capacities of WBC in the global context we examine the Global Innovation Index (GII) ranking. Namely, the last sub-pillar, on R&D, measures the level and quality of R&D activities, with indicators on researchers (headcounts), expenditure, and the quality of scientific and research institutions as measured by the average score of the top three universities in the QS World University Ranking. By design, this indicator aims at capturing the availability of at least three higher education institutions of quality within each economy (i.e., included in the global top 700), and is not aimed at assessing the average level of all institutions within a particular economy.⁶ The country percentage ranks in 2013 are presented in Table 1.

⁶This indicator replaces a survey question from the World Economic Forum's Executive Opinion Survey that was used in the last two editions of the GII on the quality of scientific and research institutions.

Table 1. WBC percentage ranks 2014 (Global Innovation Index)

Country	GII Ranks	R&D ranks	R&D components		
			Researchers	Gross expenditure on R&D	QS university ranking average score of top 3 universities
Albania	0.35	0.33	0.42	0.19	0.00
BiH	0.44	0.30	0.50	0.01	0.00
Macedonia	0.58	0.39	0.51	0.28	0.00
Montenegro	0.59	0.54	0.69	0.41	0.00
Serbia	0.54	0.56	0.59	0.65	0.52

Source: Global Innovation Index 2013, the Local Dynamics of Innovation

From Table 1 we can notice that among the R&D components, Western Balkan countries have the best scores on the number of researchers, followed by the Gross expenditures on R&D and finally the worst performance is marked with respect to the university ranking average score of top 3 universities. Compared to the general GII ranks it is obvious that generally WBC underperform regarding their R&D capacities.

Furthermore, we carry out an econometric analysis in order to determine the R&D impact on the economic growth. For this purpose we use the database of the World Development Indicators and SCImago Journal and Country Rank for five WBC: Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia during the period from 1996 to 2012. The World Development Indicators are primary World Bank collection of development indicators compiled from officially-recognized international sources. It presents the most current and accurate global development data available, and includes national, regional and global estimates. The SCImago Journal and Country Rank is a portal that includes the journals and country scientific indicators developed from the information contained in the Scopus database. These indicators can be used to assess and analyze scientific domains.

In order to assess the impact of R&D on the economic development we estimate two separate regression models based on panel data with random effects and one year lagged explanatory variables. The rationale for including lagged explanatory variables is because of the assumed time delay of the R&D effects upon the economic development and growth. In the first model the dependent variable is GDP growth, whereas in the second model we assess the R&D impact on the exports of goods and services as a percentage of GDP. Having in mind that the number of observations per time period varies for different WBC in our case the panel is unbalanced. As explanatory variables we take into consideration the following R&D indicators: Research and development expenditure (as percentage of GDP), Number of patent applications, Number of researchers in R&D (per million people), Number of citable documents, and International collaboration. The results from the estimation of the R&D impact on the GDP growth are presented in Table 2.

Table 2. Estimated regression model (the impact of R&D on GDP growth)

Explanatory variables	Coefficient	Standard error	p> z
Constant	-3.523451	6.22954	0.572
Research and development expenditures	1.846506	7.535802	0.806
Number of patent applications	0.0086327	0.0088102	0.327
Researchers in R&D (per million people)	-0.0049936	0.0053815	0.353
Number of citable documents	-0.0000346	0.0007546	0.963
International collaboration	0.1547074	0.0904411	0.087*

Note: *, ** and *** represent statistical significance at the 10%, 5% and 1% levels respectively;

From Table 2 we can notice that except international cooperation, none of the estimated coefficients are statistically significant. In this case, an increase of the international collaboration of 10 percent points would lead to increase of the GDP growth rate of 1.5 percent points. In addition, the overall R-squared is about 0.53 which means that about 53 percent of the variation in GDP growth is explained by R&D indicators. Hence, based on the panel data analysis we can conclude that generally there is no positive association between R&D and GDP growth in the WBC.

Next, we assess the impact of R&D on exports of goods and services as a percentage of GDP. The theoretical assumption for this model is that improved R&D capacities might increase exports through raised competitiveness of domestic firms on the global markets. The results from the estimated regression model are presented in Table 3.

Table 3. Estimated regression model (the impact of R&D on exports of goods and services)

Explanatory variables	Coefficient	Standard error	p> z
Constant	16.19472	10.83516	0.135
Research and development expenditures	4.394223	13.10717	0.737
Number of patent applications	-0.0343169	0.0153237	0.025***
Researchers in R&D (per million people)	0.0220368	0.0093602	0.019**
Number of citable documents	-0.0019122	0.0013126	0.145
International collaboration	0.3243065	0.157306	0.039**

Note: *, ** and *** represent statistical significance at the 10%, 5% and 1% levels respectively;

From Table 3 it is obvious that number of researchers and international collaboration have positive and statistically significant impact on the exports of goods and services in WBC. On the other hand, the impact of the number of patent applications on exports is negative and statistically significant, whereas the expenditures in R&D and the number of citable documents do not have significant impact. The overall R-squared in this case is 0.59, which means that 59 percents of the variation in exports is explained by R&D indicators.

CONCLUSION

In this paper we make an attempt to assess the R&D capacities of the WBC and their possible impact on the economic development and growth. Having in mid the WBC development

goals and their prospect toward EU accession, we assume that R&D represent a substantive element for accomplishment of the WBC development agenda. Moreover, the Balkan region lags behind the rest of the EU in technology accumulation and innovation capacities, which calls for application of new growth models which would appropriately emphasize the role of R&D in the region.

In this context, the theoretical models clearly suggest that R&D activities increase the productivity level of the companies which, in turns leads to higher levels of economic growth. One of the main issues related to R&D investment in a free market economy is a suboptimal allocation of resources due to the appropriability problem, high amount of fixed costs and related uncertainty. Hence, an appropriate design of policy measures including the National Innovation System is important for correcting market failure and solving the problem of R&D underprovision. In addition, the technology spillovers are crucial for increasing the R&D capacities of developing countries, since most of the R&D activities are carried out in the developed countries.

However, the most of the empirical work does not show clear cut evidence that R&D have significant impact on the economic development and growth. The problem of simultaneity in assessing the relationship between R&D indicators and those of the economic growth is an additional issue that hampers appropriate application of the econometric modelling. Taking into account the above considerations, our empirical analysis points out to the low level of R&D capacities in WBC, which holds for most of R&D indicators. In addition, the estimated econometric models indicate that only the international collaboration exerts positive and statistically significant impact on the GDP growth rate. On the other hand, international collaboration and the number of researchers have positive and statistically significant impact on the exports of goods and services in WBC. Having in mind these results, as well as the common strategic goals of WBC, we can differentiate several policy recommendations aiming to improve the R&D capacities in the Western Balkan region.

First, in order to improve the research base, WBC need to slow down the brain drain and support investment in human capital. In addition, improving access to modern research facilities and availability of research funding are of crucial significance. The region needs to invest in the qualifications of its researchers and expand participation in tertiary education. Reforms promoting the mobility of researchers, within the region and between the region and other countries, both in Europe and elsewhere such as adopting common PhD programs, diploma equivalence, and lower visa requirement for scientists should be advanced.

Second, WBC need to promote the research-industry collaboration and technology transfer. For this purpose they have to improve the incentive regime for collaboration between research institutes and the private sector. To leverage the economic impact of publicly funded research, the Western Balkans region needs to take steps to simplify the legal requirements governing the interaction between public research organizations and the enterprise sector. Legislation regulating the management of intellectual property generated from publicly funded research is crucial, since uncertainty about the ownership of research results can limit the incentives of public research organizations, individual researchers, and businesses to generate and use research for commercial purposes.

Finally, universities throughout the Western Balkans need to continue their process of integration into the European Higher Education Area. Broader reforms of the education sector would further strengthen the research and innovation system. For instance, the introduction of performance-based contracts and greater autonomy in managing resource allocation and research

results would enhance the quantity and quality of research outputs and their relevance to the economy. In addition, a good balance between basic and applied research would also increase the impact of research on the economy. On a related issue, the allocation of resources could be defined according to a “smart specialization strategy” which favors fields where scientific excellence meets the region’s economic potential.

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THE ROLE OF TECHNOLOGICAL INNOVATIONS IN THE REAL SECTOR OF SMEs IN BOSNIA AND HERZEGOVINA

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Abstract

Knowledge and technological developments are an important resource, which is based on the observed progress of society. Research and development, innovations, their commercialization are key lever to increase employment and contribution to new technological developments, but also are leading to environmental protection through the development of so-called „green“ technology. Bosnia and Herzegovina does not use all its resource to strengthen the technological capacity of the company and has no clear strategy to create competitive advantage and to go out on the global market. It is extremely poor cooperation between scientific researches and economic sector. The economic recovery of B&H is slow due to unfavorable economic and political conditions, unclear legal framework, problems caused by the global economic crisis, the decline in industrial production, etc. Accordingly, this professional work is based on technological innovation of utility company Progres ad Dobož (Bosnia and Herzegovina), which introduced an innovation in processes, and it is a Center for the waste separation capacity of 5 tons/h. This Center will maintain the health of the population of the city of Dobož, and all waste will be used in the new reproduction cycle instead to cover the local landfill. This method will provide the compliance with EU directives, leading to a restrictive policy on this issue, because utility company Progres has certificates for quality management (ISO 9001:2008) and for environmental protection (ISO 14001:2004).

Keywords: innovations of process, SMEs, technological innovation, the crisis of the real sector, transition.

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INTRODUCTION

In order to improve a currently bad trade and industry situation in Bosnia and Herzegovina, it is necessary to increase the level of technological changes. In other words, it is important to create new, personal technologies and commercialize innovations. The construction of national systems of support of innovative activities, exploiting and commercializing knowledge in cooperation with industry and high education institutions, empowers Bosnia and Herzegovina and opens a path toward the global market. Also, in that way the capacities of one of the entities of Bosnia and Herzegovina (Republic of Srpska) are becoming stronger, and further on-the city of Doboj, where this paper was projected in terms of technological innovative processes, is getting stronger, too.

In the first part of this paper by presenting the relevant researches directly related to the subject of this paper offer a better insight into the term, role and importance if innovations, with a special focus on technological innovation processes in small and medium-sized enterprise sector (In further text: SMEs)

The second part of the paper represents an introduction to the research part of the project, or more precisely-it describes the most important aspect and the business policies of a company where this paper is projected in. So, the company involved is a „Progres“ a.d., a company for waste disposal and its perspectives and chances for future, better business when it comes to controlling „good“ waste and protection off „green“ economy.

In the third part of this paper, there is a detailed representation of the work of the Center for separation of waste, which is one of the departments of „Progres“, and has all the potential chances to achieve its goals: to get out in to the global market by placing secondary materials and expanding the existing systems of selection and separation of waste.

The last part of this paper is related to the possibility of introducing the production of RDF fuel and compost. In such a way, the cycle of reproduction would be closed and the best practice of environment of protection would be introduced in accordance to the EU standards as well as internationally recognized practice of using contemporary technologies within the process of production.

INNOVATIONS AND TECHNOLOGICAL PROGRESS OF SMEs

According to Drucker (1994, p. 35), „innovation represents a specific tool of entrepreneurs, a mean they use as a change of possibility for conducting different production and service activities“. A research led by Vareska van de Vrande et al. (2008) shows that SMEs in developed countries use their inner resources and competent employees and combine them with outer experts and their interests within new technologies, and all that in order to speed up the process of commercializing innovations. Developed countries make additional efforts in constructing small and medium-sized enterprises whose final product is commercialized i.e. represents a new technologically created product (Đuran, 2011; Benneworth and Charles, 2005; Wright et al., 2004). The result of technological progress of SMEs in developed countries is especially related to the use of refundable sources of energy (the power of water and wind, solar panels and similar). So, Republic of Srpska (and the city of Doboj) also needs to focus their business plans onto the mentioned perspectives, since they have a corresponding environment for the area of „green“ economy. In other words, in order to become an established competent in foreign markets Republic of Srpska needs to use it potentials within its natural wealth by creating strategies for rational use of natural resources (such as waste used to extract goods in a new cycle

of production, water, the power of wind, solar energy, etc.), but also technical accomplishments of renown local experts.

According to Naciba et al. (2012) the greatest problem of countries in transition, in terms of scientific and technological research, lays in the fact that buying new equipment for research is made in disproportional relations to the market needs. The import of equipment is done by individuals or organizations, usually from their personal or credit financed funds, as well as from stated budget. Less developed countries are „forced“ to buy necessary equipment in accordance to their available budget which, in most cases, is not proportional to the needs of the research field. Outdated equipment, planning its import and price, are key factors which reduce the possibility of progress with in the field of scientific and technological creativity in Republic of Srpska (Ibid., 2012).

STRUCTURE OF TECHNOLOGICAL INNOVATIONS

Technological innovations can be characterized as innovations of a product and innovations of a process. *Innovations of a product* represent introducing new or significantly adjusted product with the final goal to ensure its use, or creating benefit for a potential buyer. It is important to add that innovations of a product, whether improved or new, should be new to the company, but also no to necessarily be new to the market. *Innovations of a process* are defined as a way of improved production or delivery, or a complete new way of production or delivery. So, it is not key who developed an innovation, but that the innovation is new to the company (Statistical yearbook of Republic of Srpska, 2011). In this paper the focus will be mostly on the innovations introduced into processes and within the „Progres“ a.d. company from city of Dobo.

The importance that SME sector has in RS as well as in the world is mostly seen in its capability to adapt quickly to the changes in the environment, which great business systems do not have. SMEs are able to adjust quickly to new conditions of business, whether it is related to using new technological options or activities that support great business systems by creating economy of greater area. Today, with the condition of global „chaos“, as far as employment and creating new working positions are concerned, small enterprises have a dominant role.

Creating new working positions in conditions of recession represents the wealth of one nation and it in most cases it is made by SMEs. The companies trying to please market requests approach the so called pre-orientation to the asked market conditions as far as the products, processes and services are concerned of. In the following example it is well represent the importance which small companies with a potential to respond to short-term deadlines of market requests have.

Example 1. A company „X“ is involved in waste disposal i.e. collecting and selecting non-dangerous waste. The number of workers in the company „X“ is between 48 and 120 and it depends on the amount of business, so if the business increases also new working positions are created. The director of this company after a long-term research of market demands for PET and MET, plastic, RDF fuel for cement producers and secondary products for further recycling comes to a conclusion that the innovations in technologies will bring the company more profit for a long period of time. Technological innovation he thinks of is actually a machine for waste selection with a capacity of 10 tons/ha bought out of personal funds of the company „X“, but also some credit funds from a renown foreign producer of waste selection machines.

By buying and releasing into work a waste selection machine with a capacity of 10 tons/ha, the company „X“ will be able to use following chances:

- Improved cleaning maintenance in the narrow and wider city area;
- Separating plastic, paper, metal and other materials which will be distributed in demanded amounts to buyers within the recycling waste industry;
- Achieving agreements with local and international corporations for distribution of waste separated materials;
- Gaining profit from selling waste separated materials;
- Accumulating new funds for paying res-certification (every three years a company has to extend its certificate for waste separation and selection, which costs 5.000,00 €);
- Creating conditions for a continuing cooperation with international partners within the domain of waste disposal, separation and selection and expanding the capacity of production;
- Pleasing Strategy demands „Europe 2020“ through environment protection, but also following trends European Union supports in the domain of „ecologization“.

The given example represents an excellent guideline to technologically oriented SMEs how to create a healthy chance for affirmation and business development and keep going in their intentions of growth and business philosophy in an unstable environment and insecure conditions, as well as low general standard of life and production. Taking risks today, in terms of greater impact of crisis, through introducing innovations and investing in research and development will result in positive business outcome in the long-term period.

According to the research the author of this paper conducted on the territory of RS in the end of 2013, at a sample of 118 small companies, the following has been concluded:

- Out of the total number of companies only 13,6% introduced new technologies based on their own research, while 15,2% adapted foreign technological solutions;
- Only 17,85% of companies possess some of standard qualities (ISO 9001, ISO 14001, CE and etc.) which is rated as extremely bad in the era of globalization and fast-growing changes in the means of business;
- Out of 118 companies from the sample only 18 of them (15,25%) has an intention in recent future to create a high-tech product for the market, i.e. to invest in new processes based on technological approach in terms dictated by EU and the global market (Novarić, 2013).

In that way, we can conclude that RS still has not created enough encouraging environment for attracting foreign investors, and also providing substantial funds in real or public sector to finance new innovative achievements in processing and production. Continuing, the reader can see a practical example of introducing innovation into processes in a waste disposal company in city of Doboj, which is a part of the real sector and should represent an example to other companies in the country to accomplish technological capacities and reputation on the global market.

EXISTING STATE OF SOCIETY AND WAYS OF PROGRESSIVE ACTION ORDER TO SECURE WASTE DISPOSAL

The waste disposal company „Progres“ a.d. Doboj is a company which adjusts its business vision to business policies and directives of the EU, and all that thanks to the competence of its employees, the company's management, but also mechanization and technologies it possesses. The mentioned company is classified as a medium company according to the number of the employees (between 50 and 249). A special guarantee for its waste disposal

services, the company owns two certificates for quality in accordance to the standards of certifications. The certificates involved are ISO9001:2008 and ISO14001:2004. Transparency of this company's business is visible through its emission of stock actions on the Banja Luka stock market for securities.

So, in this paper the author will try to present a projection of technological approach necessary to complete the work of a Centre for separation of waste. The centre in concern is a Center for separation of waste in the possession of „Progres“ a.d. Dobož which has machinery for separating mixed waste with a capacity of 5 tons/ha.

PERSPECTIVES AND CHANCE OF THE CENTER FOR SEPARATION OF WASTE

In conditions of unstable business, global changes and world economy crisis that is growing, there is a clear question: „*How to maintain natural resources of a country and adopt to the directives of the European Union which have a restrictive policy?*“ As potential possibilities of environment preservation we can see in separation of waste is useful new products which can be used in recycling centers in a completely new phase of production. To enable proper functioning of the Centre for separation of waste with a capacity of 5 tons/ha it is necessary to invest in the expanding of the business complex by introducing machines for compost and RDF fuel production. Guided by that claim, in this chapter the author will project a contemporary approach in treating waste according to the directives of EU by creating potential chances of accumulating external sources of financing, with a final goal to enable the city of Dobož to dispose waste in a more efficient way. The vision of this company is to create *a positive business surrounding for promotion of business in the waste disposal industry for a long period of time*. As a concrete example of this hypothesis is the technological innovation of process which represents the construction and releasing into work the Centre for separation of waste within „Progres“ company. The following illustration is a photo of the outside appearance of the Center.



Figure 1.Center for separation of waste (Source: author's documentation)

As it was previously mentioned the Center is located next to the local road Dobož-Tuzla, the exact address being: Poljice bb, Dobož. The surface covered by the center is 3201m, including the land where the Center building is located, and in which the machinery for the separation of waste is set. As far as all the other, technical elements are concerned they cover the following:

- *Boxes for separation* of paper and cardboard, plastic bags and quality transparent bags thicker than 50 microns, plastic bottles, tetra pack bottles etc;
- *A magnet* at the entrance of the machine which is supposed to separate metal objects from other materials that are to be used further and
- *Pressing machine* which is the final output of the gathered waste separated according to the wishes of the buyer.

The process of work is the following:

- *Step 1.* A waste truck, primarily in charge of picking up waste in the narrow and wider city area, unloads the waste onto a conveyor belt, so the waste is further transported to the sorting area;
- *Step 2.* In the sorting area phase two begins where the waste is separated by hand and through special holes thrown into the boxes provided for various types of materials. The boxes for materials are located under the sorting area. After a certain box is filled with the enough amount of material it is then transported to the pressing machine. Onto the pressing machine the waste is being compressed and downsized and then shaped into squares and firmly tied;
- *Step 3.* Waste that has been separated from useful materials and sorted, but can no longer be used is then pulled under a magnet to extract metal parts from it which can later be thrown into special metal boxes. The rest of the waste that cannot be used in the recycling process is taken to the local garbage point.



Figure 2. The process of waste separation from the point of unloading the waste to the separation belt and the hand separation (Source: author's documentation)



Figure 3. The process of hand separation of waste in the separation cabin (Source: author's documentation)

TECHICAL CHARACTERISTICS

Continuing, the elements of main equipment and additional equipment used for separating process and its distribution to the byer will be presented in detail. The main elements of equipment are the following:

- Waste separator (sieve, sifter);
- Bag opener;
- Cabins for taking waste which are approximately 20m³;
- Dosing conveyer transporter;
- Special filter station attached to the bag opener and separator;
- Waste water disposal channel;
- Separator of sediments, oils and fats and
- Control point for navigation and controlling the entire process.

Additional equipment necessary for proper Center functioning contains the following:

- Lifting conveyer transporter;
- Container sorting area;
- Steel boxes for sorted waste;
- Special transporter 1500x1200 for sorting prepared waste and
- Special sorting boxes with dissolved bottoms.

EXPANDING CAPASITIES BY SUPLYING EQUIPMENT FOR COMPOST AND RDF FUEL PRODUCTION

In order for the Center to work in full capacity it is necessary to expand the production by getting machines for compost and RDF fuel production. In that way the idea-concept for maintaining green economy in city of Dobož and RS, but also in wider areas, would be complete. Besides the mentioned ways, a technological innovation introduced by the „Progres“ company in order to expand and adjust to European and World future trends would also influence other cities in RS to implement the same concept if it was proved to be proper.

COMPOST

Waste from household after going through the separation area is filled with glass, plastic, metal and if mixed with garden material, wood and green waste can make polluted compost. Wood and green waste are usually clean and give high quality compost but if mixed with small materials from the sieve the quality of the compost would be lower. The compost from wood and green waste can be used everywhere (which is the main reason why „Progres“ is focused on the production of pure compost), but compost from households can just be used for covering old garbage points or construction sites (it is controlled and has no purpose in recycling).

If the cycle of new use of organic waste is accessed, the resources of the garbage point are preserved and the emission of gasses is largely reduced in comparison to garbage points and burning. The use of organic fertilizers produced in the process of production increases the hummus in the land and permanently improves the land.

The production of compost is based on the concept of choosing „mobile“ technologies of controlling machines for composting and according to the compost use in the furrow. The mentioned technology guaranties successful flexibility of the entire system compared to the trend of entering materials. The advantage of compost production machines is characterized by extremely low investing expenses.

THE PROCESS OF COMPOST PRODUCTIONT

For producing compost it is important to have an external source of financing, the support of the local community, the Ministry and the Government, of pre-approach fund of EU, i.e. all the stakeholders that can support supplying necessary equipment.

The process of producing compost is described in detail in the following steps. All the amounts of green waste that are unloaded in the Center are going to the so called cleaning control, which undertakes hand separation of plastic, glass or metal from wood and green matter. In the next step only pure amounts are temporarily stored to corresponding warehouse. Then, the large waste (branches, stems etc.) that is bigger than 300mm is transported with excavators into a smasher that reduces in size. The waste is automatically transported to the sieve. The matter made after the sieving is transported to the container. In the last step, the matter is transported to location predicted for its natural decomposing. It is very important for the matter to be divided into triangular surfaces that controlled daily in order to maintain the appropriate temperature and percentage of humidity. Everyday control of the matter determines the necessary time for producing the final compost. Surfaces of compost are turned over by an excavator at least three times a week, and if necessary water can be added to keep the humidity.



Figure 4. Process of pure compost production (Source: Editorial on arranging and shredding wood matter, Eco-composter „Tehnix“ a.d., Donji Kraljevec, Croatia, 2013)

A machine for turning over the compost takes care about the air flow in order to homogenize and free the organic matter and equally arranging the humidity in furrows. After only four weeks of rotting process the so called half-compost is produced. In the next period of time turning over the compost is shortened. It is necessary to do it only once a week.

After 10-12 weeks the compost is mature enough. What happens next is the process of sieving the compost matter with a mobile belt with a sieve (cc 15mm). Rough parts are shredded and returned into rotting process. Mature parts are stored in warehouses and then packed for distribution to the buyers.

RDF FUEL

Refuse derived fuel represents an important aspect for producing fuel which is mostly used in cement production and burning sites. The consciousness of using waste that protects the climate, and using refundable sources of energy is growing.



Figure 5. Energy produced from waste(Source: <http://www.komptech.com/usa/waste/refuse-derived-fuel.htm>, accessed 25.05.2014.)

Using selective processed of producing high calorie values after separating commercial and industrial waste is creating a final value-the so called RDF fuel.

The process of separating waste in phase two (representing a potential project in „Progres“ a.d. under the condition of support from the local community, Environment and Energetic Efficiency Fund of Republic of Srpska) will be directed to buying machines for beginning and final phases of RDF production under an expert supervision. In the following schematic illustration the author will try to simplify the importance of certain functions in separating waste and the entire RDF fuel production process.

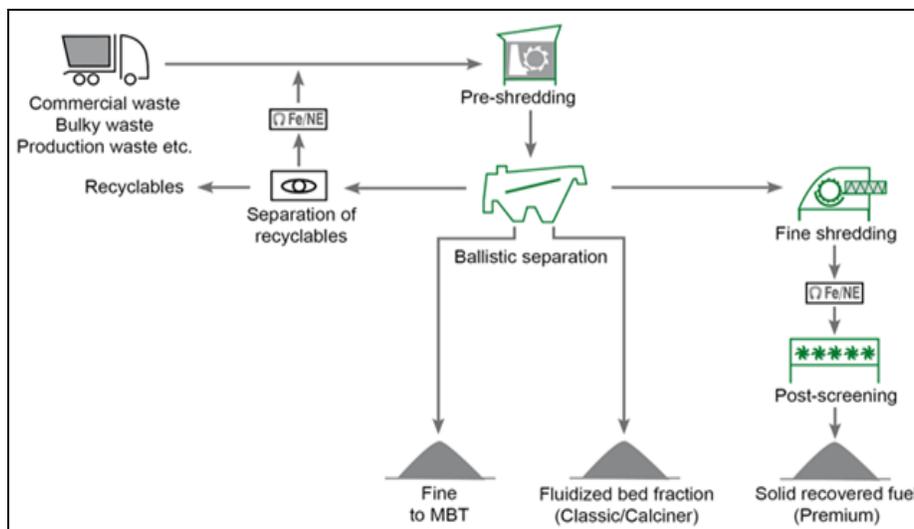


Figure 6. The cycle of RDF fuel production(Source: <http://www.komptech.com/usa/waste/refuse-derived-fuel.htm>, accessed 25.05.2014.)

In order to produce RDF fuel there are several phases:

- Pre-shredding the waste;
- Ballistic separation;
- Separation of recyclables;
- Fine shredding or post-shredding and

As the schematic illustration shows in Figure 6, before phase 1, in a commercialized way the waste is transported to the site where the machinery for RDF production is located, after which phase 1 takes place.

In order to produce RDF fuel whose commercial use is important for cement production and burning site there are four phases:

- Phase 1. This phase undertakes the unloading of the waste into the shredding machine. The machine consists of three output parts. One of them is for extracting waste unusable for production of RDF fuel (rubber, secondary plastic materials, etc.) The other two outputs are for fine shredding of the waste which is later used in second phase. It is important to mention that fraction of particles is adjusted to the phases and type of production of RDF fuel. Contemporary technological accomplishments and innovative technologies development favour the production of this fuel in accordance to the World standards;
- Phase 2. Ballistic separation is done into four fractions: flat, rotating and two fractions with built-in monitors. When, for example, the last fraction is happening a smaller monitor serves a part which is biologically stabilized, and the mechanical-biological cleaning of waste. While, on the other hand, the „rough“ monitor is used to save fossil remains of the fuel if they are herbal (in the so called fluid state).
- Phase 3. This phase represents potential recycling (fraction of high calorie value) because the rough parts of the rotating (entering) part return to the fine shredder and are processed again, while the inappropriate part are taken to the garbage points.
- Phase 4. High calorie fraction (18-25MJ/kg) consists of foliage and packaging fraction of entering materials for the final step of processing (fine shredding). After this phase RDF fuel is produced and further transported to the buyers. Potential production of RDF fuel would be unique in RS, which would encourage protection of environment, human health, creating new working positions but also lowering the pressure on the city garbage point in city of Dobož.

CONCLUSION

In conditions of globalization and fast changes, there is a growing interest in socially based knowledge and technological accomplishments. Development of information and communication technologies, preservation of green economy and constant innovating are basic elements of success in a society today, and in conditions of turbulent business.

Contemporary economy flow projects knowledge. As a main economic category which can be characterized as a generator of technological changes. So, it is all about innovative policies which should unite scientific research and technological policies, with the final goal of improving economic growth. According to the research part of this paper, it only followed the technological policies as a basis for encouraging commercialization through adaptation or undertaking new technologies.

The theme that this paper follows is quite up-to-date and her utility is multiple. Theoretical presentation (analyzing literature of renown, internationally recognized

authors) showed the importance of new technologies for small and medium-sized enterprise in the developed countries. Whether the companies create them on their own, or adapt them to their needs, these technologies enhance economy growth, influence the growth of BDP, as well as create favourable macroeconomic surrounding. On the other hand, the research in this paper showed that the current capacity of small and medium companies in RS, i.e. city of Doboj, according to the terms of technological capability is far less advanced in comparison to the developed countries.

The expert part of this paper is related to the technological progress in terms of selection and distribution of fine waste, and it showed there is still no full capacity to satisfy the market needs. So, not only that the machinery capacity is not used, but there is an evident lack of production of compost and RDF fuel to complete the cycle of reproduction.

According to that, it is necessary to expand structural changes in green economy, on the local community level, Republic institution, and especially Environment Protection and Energetic Efficiency Fund of RS. In this way, the population of city of Doboj would be educated to dispose the waste properly, and thus ease the local garbage point and come closer to the EU directives in terms of waste control and population health protection.

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**CONTRADICTION AND DISPARITY OF THE PROCESS OF GLOBALIZATION
IN THE WORLD ECONOMY**

Fotov Risto

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Abstract

Globalization is the process by which the world is interconnected through technology and powerful infrastructure for the purpose of communicating and managing resources. Globalization seems to talk about several vibrant phenomena which ensure two major components. Firstly, they function across national boundaries and secondly, they result in higher incorporation or interdependence of human societies. It is therefore one aspect of development that affects the world in general, from every point of human view.

From a historical perspective, financial globalization is not a new phenomenon, but the depth and breadth of globalization today are unprecedented. The recent wave of globalization has generated an intense debate among economists, attracting both strong supporters and opponents. This paper tries to present a balanced view of financial globalization, outlining the benefits and risks that globalization entails for developing countries and emerging markets. The paper revisits the arguments and evidence that can be used in favor of and against globalization.

Keywords: globalization, economic disparities, International trade theory, world economy, financial globalization

INTRODUCTION

Globalization according to (Alms Heshmati 2003, pg 2) is generally defined as the free transfer or movement of goods, services and capital across borders of different countries. He goes ahead to say that it is a continuous process by which the western market economies have effectively spread across the globe. In line with this definition, the whole process of integrating the economy of the world has reached unprecedented levels surpassing the pre-World War I peak. Consequently, this new change in the world economic environment has brought far reaching consequences in the economic well-being of individuals in all regions of the world and more importantly among all income groups.

Globalization according to some authors has been accompanied by an increasing rate in inequality in terms of income distribution, and this has happened both in the developed and the developing nations. The data on growth and income inequality seem to contradict the optimism of the proponents of globalization. The empirical evidence suggests in fact that, for most countries, the last two decades have brought about slow growth and rising inequality. Therefore, from Cornia's Perspective, globalization is responsible for the ever increasing disparity in income levels between individuals in various regions. In support of this, it has been found that globalization has a positive correlation between inequality in incomes and the production outsourcing processes (Cornia 1999, pp1). As a result of outsourcing of production being carried out by the multination corporations, it is therefore inevitable that it will lead to inequality between highly skilled workers and the least qualified as the former attracts huge wages compared to what the latter earns as salary (Fenstra and Hanson 1999 Pg 371-393).

INTERNATIONAL TRADE THEORY

In light of the international trade theory as postulated by the neo-classical (Heckscher-Ohlin model and one of its theorems, the Stolper-Samuelson theorem, 1941), being open in the process of doing business leads to an increase both in the real and nominal return on the abundant factor in a country and conversely to a scarce factor. Therefore for countries endowed with abundant supply of both physical and human capital, for instance the developed nations, trade openness or liberation has significantly improved the real and nominal income for the proprietors of the named two factors of production. In essence, what this economic relationship means is that this arrangement reduces inequality levels within the developing countries, and quite the opposite for developed countries of the world. In summary, globalization has eventually resulted to a reduction in inequality in less developed countries and an increase in inequality in the advanced developed countries. But most important is that, this conclusion contradicts the commonly-accepted "popular view" on globalization and its impacts, this contradiction is well captured by Barro (2000:p27) when he confirms that: "the standard theory seems to conflict with the concerns expressed in the ongoing popular debate about globalization. The general notion is that an expansion of international openness will benefit most the domestic residents who are already relatively well off". Bergh and Nilsson (2010) used the KOF index of globalization and the Fraser index of economic liberalization and in summary concluded that reforms in support of economic liberalization tend to increase inequality in developed nations, confirming the results of the Stolper-Samuelson theorem. As for middle- and low-income countries, the study found out that the major driver of the increase of income inequality is social globalization, one of the KOF index components including the number of telephone calls and the number of users of internet, among other indicators.

FOREIGN INVESTMENTS

Due to globalization there has been a significant correlation between foreign direct investments (FDI) and income inequality levels in the world. Globalization has resulted to increase in the flow of foreign direct investments between countries and this flow has brought a fundamental impact in the distributive consequences among various economies. Studies by economists such as Mundell 1957 (Pg 321-335) found out that foreign direct investments (FDI) into developing nations has had a remarkable effect of reducing inequality levels in terms of income distributions. His major reason being that, foreign direct investment flows mainly from the developed nations to developing world leading to a general rise in the capital quantity in the developing countries, which subsequently means that the marginal physical product of labour increases. As a result of this increase in the marginal physical product, real wages as well as nominal wages are bound to increase hence reducing inequality in the developing nations.

In contrast to the view envisaged by the neoclassical economic theory, is the dependency theory. This body argued that dependency by the developing nations on the advanced developing nations has brought negative economic and social implications for the former, and more so in the long term. According to this school of thought, this dependency is manufactured and maintained mainly by the existing trade dependency and dependency on foreign direct investment movements. Major proponents of this school of thought argue that the penetration of FDI in middle and low income countries hampers economic growth and increases income inequality by creating dualism and disparities in various economies and their productive structures. For instance, the multinational companies create a highly capital intensive export sector, are distant apart and function differently or uniquely from the rest of the economy, utilizing most of the resources present in an economy, and the existing capital and credit, and more so repatriating most of the profits and wealth earned in these economies. This same divisive effect is also found to exist up to the local level where through the penetration of foreign direct investments, multinationals have produced and maintained local elites whose function is majorly to ensure that the interests of multinational companies, which invariably are the perpetuation of cheap labour, ergo poor and marginalized workers (Firebaugh and Beck, 1994 Pg 631-653; Stringer, 2006). The pessimistic position in as far as the roles of multinational firms (MNF) and foreign direct investment is concerned is, contradicted by the report of the World Investment (WIR). World Investment Report of 2009 (WIR), states that the five most attractive countries for multinationals are the BRIC countries (Brazil, Russia, India and China) and the United States. Despite the fact that they are not being considered developed countries, the BRICs are unique because they are emerging, rapid-growth economies, that is, they are countries whose per-capita income or gross domestic product is higher than less developed nations and on the other side lower than those of advanced developed nations. In the first fifteen major FDI destinations, Vietnam currently lies in position six, followed closely by Germany and Indonesia. Other nations that lie within the fifteen group members are Poland, South Africa, Turkey, France, the United Kingdom and Canada. Regarding the factors that explain reasons for FDI attractiveness, the report did put a lot of emphasis on the growth and size of the international market, gaining of access to regional and international markets, availability of skilled labour, provision of quality infrastructure, the economic and business environment as well as legal environment. According to Feenstra and Hanson (1997, Pg 371-393), the flow of foreign direct investments into the developing countries has been found to create or widen inequality levels in those countries. The reason being that transfer of capital from the wealthy nations to the poor nations (developing), is equivalent to outsourcing of activities which according to the developed nations views, are low skilled labour intensive and vice versa for the developing

countries. This massive transfer of capital to the developing nations has created a huge demand for skilled labour which proportionately has pushed up the relative wages earned by this skilled workforce. But on the other hand, the relative wages earned by the unskilled workforce has deteriorated in the developing country which therefore means that inequality has increased. Important is that this fact was proved in the study carried out in Mexico over the period 1975-1988.

Another study also affirms that increased penetration of foreign direct investment which is a product of globalization has continued to widen the gap of inequality among the developing nations. The issue being that besides multinational companies outsourcing activities that rely heavily on low qualified cheap labour, they also introduce new technologies that previously never existed in the developing nations. Therefore, initially the introduction of these new technologies will create a demand for highly skilled workers to operate these machines leading an increase in their wage levels, and consequently this creates inequality as well as market segmentation. This study was finally proved in Ireland in the period 1979-1995 in which the evidence found supported the so called inverted-U shape relationship between wage inequality and inward flows of foreign direct investment. This fact is supported by studies from who found out that diffusion or transfer of technology from the developed nations to the less developing only continues to widen inequality levels in income distributions in the middle income developing countries, due to the fact that these countries are known for higher absorption capacity for new technologies compared to their low income developing counterparts (Firebaugh and Beck 1994:631-653, Stringer 2006, Windmeijer 2005:25-51, Mahler, Jesuit and Roscoe 1999: 363-395, Figini and Gorg (1999:135-145). Meschi and Vivarelli (2007:19) summarize that: “the multinational companies have the necessary capabilities in order to use the technologies produced in more advanced countries and to follow a catching-up pattern of development. While this process may have a positive impact on economic growth, it is very likely that it also implies an (at least temporary) increase in the demand and wages for skilled labour. In contrast, trade with LICs is often confined to the importation of older (or second-hand) capital equipment that requires fewer skills to operate than technologically updated equipment. Therefore – as far as LICs are concerned – trade with more advanced countries may not have the same adverse consequences in terms of income distribution.

TECHNOLOGICAL CHANGE AS THE SOURCE OF INCREASING INEQUALITY

Trade-based explanations for increasing inequality are generally set against the “technological change hypothesis,” which holds that it is automation and organizational change which shifts labor demand away from the less skilled and toward the more skilled, thereby widening the gap in their incomes. The idea here is that increasing inequality is the result of technological changes in certain parts of the economy, which favor demand for high-skilled workers and reduce demand for low-skilled workers. In the rising “intra-sectoral” skill-intensity argument (i.e. *factoral* or *occupational* rather than *sectoral* skill differences), the laws of supply and demand do the rest, so that low-skilled workers lose out even more in relative terms. To put it again in slightly more technical terms, instead of seeing relative income changes as the result of a globalization-induced shock to relative *sectoral* output prices (and hence wages), it is seen as the result of variable rates of technological change between sectors. There are two versions of this story. The “empirical” version simply traces elasticities of labor demand. This “commonsensical” reasoning is rejected by most economists as insufficiently theoretical, and they turn to more complex equilibrium-based models of inter-sectoral adjustments for their explanation. These models rephrase the technology effect as differential rates of total factor productivity (TFP) between sectors,

leading to durable differences in factor rewards (Richardson, 1995). Following this logic, in the *sectors* in which the advanced countries are coming to specialize (high technology manufacturing, capital goods, advanced services, high quality goods) skilled workers are experiencing increases in their factor rewards

relative to unskilled workers, and sectors with high proportions of skilled workers are experiencing increases relative to their sectors with a high proportion of unskilled.⁹ Most of the literature favors this general perspective, whether in its factoral or its sectoral version, over the trade-based (“globalization”) explanation of increasing inequality (as noted in the review by Freeman, 1995). But, as we saw above, certain observers such as Leamer (1994,95) and Wood (1994,95) see technological change and globalization as intimately related, a theme to which we shall return shortly.

TECHNOLOGICAL CHANGE AS A FORM OF GLOBALIZATION BY IDEAS

The technological change argument implies that declining relative wages in the second, third and fourth tiers of the economy, and especially the latter, are due to the technologies they now use, which are widely acknowledged to save on labor. This could bring about increasing inequality in a variety of ways. It could heighten the productivity differences between sectors, where those that shed labor pull away from other sectors, and the remaining workers have higher skills and wages (Berman, Bound and Machin, 1997). It could heighten the productivity differences, across sectors, between functions (occupations) in the economy, accentuating the “factoral” basis of labor market inequality (between skill categories).

Even if this is plausible, it still says little about the process by which such technological change might have come about. Most critically, why and how did such technological changes occur in so many different countries at roughly the same time (Berman, Bound and Machin, 1997)?¹⁶ There are three possible responses. One attributes it to pressures from global financial capital; but there are strong doubts about the veracity of such an explanation.¹⁷ A second would claim that countries with similar price levels should display similar production techniques. It is conceivable that all the developed economies, because they face similar developmental forces, have moved together from one envelope of feasible production possibilities (known as its PPF or “production possibility frontier”) to another. But in this case, there is no reason for relative factor rewards to change (Richardson, 1995, presents the formal model for this, widely accepted point). Moreover, virtually all of the detailed historical studies of industrial technology go against this “spontaneous” convergence of technologies, and show that convergence happens because of spatial and temporal diffusion of such technologies, which have local origins (e.g. Hounshell, 1974; Scranton, 1997). This leads to a third hypothesis, which will be ours. This hypothesis has several dimensions:

1. We are going through a global diffusion of certain labor-saving, capital-augmenting production techniques, in many sectors;

2. Technological change and globalization are two sides of a single process, not mutually exclusive, in the sense that producers implement new technologies *defensively*, because they fear or anticipate loss of markets to foreign competitors if they do not. In other words, we are suggesting that Wood’s argument about this form of technological change applies equally to *North-North global competition* (Western Europe, North America, Japan, and a few other places), and in different sectors or parts of sectors than for the low-wage import competition case. This technological change is probably neutral across sectors, but biased against unskilled workers in virtually every sector it affects.

3. Globalization – relocation and trade – makes such defensiveness rational. Even though these countries, prior to trade liberalization, may have had roughly similar factor costs and limited productivity differentials, there are still big differences in their products and the ways they organize their firms and production systems, which could pose mutual threats.¹⁹ But these differences are largely outside the purview of standard models.

4. It cannot be known whether all forms of defensive technological change among advanced economies augment total factor productivity and hence whether they fit with standard economic thinking. My guess is that they do not, but instead represent a process of international mutual imitation, of what I shall call “globalization by ideas.”

SUMMARY

In conclusion, globalization has continued to be a force in the current business environment, and as such continues to impact the lives of individuals in every nation of the world. This is due to the fact that multinational corporations continue to be the major avenues of doing business in the world, owing to their huge pull of capital, and in the process make globalization inevitable in the world to day. But most important is that, globalization has not solved the problem of income inequality entirely as it has instead increased income inequality in the developed nations while reducing the income gap with the developing countries.

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TECHNOLOGY FORECASTING IN SMALL AND MEDIUM-SIZED ENTERPRISES

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Abstract

In dynamic business conditions, managers must not only quickly adapt to changes, they must also anticipate the future events in the environment and within the company. Forecasting should be the first step in planning and decision-making. This paper will draw attention to application of technology forecasting model within a medium-sized enterprise in public sector. The suggested model could be used as a groundwork for identifying the phases of technology forecasting in concrete enterprise, and for suggesting necessary management actions with the goal of successful technology management. The research results and developed technology forecasting model provide a groundwork for better management, as well as for further research in this field.

Key words: forecasting, decision making, model, small and medium-sized enterprises.

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INTRODUCTION

The modern business environment is innovative, which implies the need for a large amount of information and constant investment in acquiring new ones. Innovative environment implies the need for a permanent foresight. The company should invest in information and should know to recognize and explain the signals that carry messages related to market, political and technological changes. Information is the only resource whose value increases through its use. In the world of information, scientific development, turbulent changes, forecasting is put into operation decision-making, helping to achieve the goals. It serves as a landmark for undertaken activities. Forecasting should be the first step in decision-making process and an integral part of every business decision.

Forecasting in small and medium-sized enterprises is very necessary for a better, easier and more precise definition of research and development activities, as well as for more efficient and more intense output from the company. (Martino, 1993) European average number of employees per company is seven, which tells us that the entire European economy, its employment, growth and stability depend on small companies. However, accepting and adapting to economic change is faster and less complicated than in large companies. Based on the disproportionately large number of closed small and medium-sized enterprises in relation to the number of closed large companies, it can be concluded that the existence of small and medium-sized businesses in today's economy is very uncertain, and that one false business step may lead to their disappearance. (Strelecky, 2009)

IMPORTANCE OF TECHNOLOGY FORECASTING IN SMALL AND MEDIUM-SIZED ENTERPRISES

Small and medium-sized enterprises, in terms of innovation, have unique advantages over large companies, such as lack of bureaucracy, flat management structure, most efficient and informal communication, flexibility and proximity to market. Thus, in contrast to the large, small companies can more quickly introduce innovation in their business.

Constraints of small firms with respect to innovation is reflected in the lack of technically skilled workers, poor use of external information and knowledge, the acquisition of money and lack of risk diversification, entrepreneur inability to manage growth and the high cost of compliance, as well as a disproportionately small resources for research and development in relation to in large companies. This leads to conclusion that small and medium-sized enterprises have less room for innovation, and less room for error and failed research endeavors, as well as for experiments with new technologies. In this sense, the technological forecasting, which should reduce the possibility of similar errors, and answer on future technologies and their possible application in the future, is even more important. (Servo, 2012) The rate of innovation in small and medium-sized enterprises is low and it is not corresponding to their needs for competence. The main reason is their orientation towards solving current problems, which causes a lack of orientation towards the future.

In today's highly dynamic and variable economy innovation is even more important. The competence of a company depends on many more factors than ever before, primarily on the ability of companies to adapt quickly to changing market demands with effective and rapid implementation of new technologies. The best way to achieve this is the use of technological forecasting.

Analysis of the literature leads to the conclusion that management of large companies is in a position to formulate the problem easier, having a large number of processed data and

forecasting results, which are made for the company in the past. Based on existing knowledge and experience in the field of forecasting, they will be able to decompose the problem and to better define the goals that they want to achieve. Also, having the funds allocated for this purpose, they can easily reach the forecasting results published by independent agencies, expert groups and other organizations. Large companies have the financial, IT and human potential, allowing them easier access to internal, external and alternative data sources. If there is the need, they can allocate funds for additional training of employees. They are able to combine and apply complex forecasting methods, which require a lot of time and a large variety of data. (Mishra et al., 2002; Servo, 2012)

For example⁴, experts in company Toyota in 2007 predicted that they should introduce new technology - new braking system in all of its vehicles by 2010, in order to improve quality of the vehicles, increase sales, and reduce production costs. It turned out that it was a big mistake, the production costs with new technologies were higher, while the new technology itself has experienced an unprecedented fiasco in the automotive industry. This resulted in the withdrawal of several million vehicles already sold. The company suffered a huge financial loss and reputation of the company, as a manufacturer of the most reliable vehicles in the world, was irrevocably disrupted. However, Toyota quickly recovered from this blow, continued to do business with profit and regained the level of sales in 2009. This example shows that big companies quite easily, without questioning their existence, can handle a large business failures.

For small and medium-sized enterprises this is not the case. For example, a small company "Korsan", which dealt with the production of agricultural materials, in 2010. implemented new production technology, which included the production of new products with lower costs. Sales were lower than expected, although higher than with the old technology. The enterprise could not carry the burden of introducing new technology, which further emphasizes the importance of high-quality application of technology forecasting.⁵ The small enterprise badly predicted the market and misjudged the new technology, and the time when it should be introduced. This has led to the closure of the company. Micro, small and medium-sized companies are more sensitive to errors in predicting the future. It can be concluded that quality in implementation of technological forecasting is essential both for survival and for promotion, growth and development of small and medium-sized enterprises. (Strelecky, 2009; Petković, 2014)

Hereafter, it will be explained on the example of a medium enterprise, where the technological forecasting played a key role in the survival and development. As a result of the precise technological forecasting, the enterprise "Infostan" provided not only the survival, but also the rapid growth and development, with real possibility for positioning itself as a regional leader in service provision.

There are many reasons why SMEs should apply technological forecasting, and some of the most important are: (Strelecky, 2009)

- The ability to predict trends and developments in the industry and sector in which the company is located, as well as the proper focus of innovation, in line with market trends;
- Ability to analyze key technologies in the enterprise, in terms of their condition and prospects, possible replacement, improvement or reorganization of production processes,

⁴ *The TechCast Technology Forecasting Research Method, TechCast.org*, <http://techcast.org/methodology.aspx> (accessed 12. 12. 2012.)

⁵ Ibid.

supporting processes and structure of the company that support the manufacturing process;

- Facilitate readiness for market change, and quality forecasting of future developments and market demands, which enables the company to timely adjust its offer;
- Ability to identify the future needs of the company for new technologies, processes and products, which is achieved through good analysis of market and technology;
- Possibility to avoid or minimize business risk in the future. The more accurate the predictions, the business risk is lower;
- The ability to overcome the excessive inflow of different information about future business operations, through selection and identification more accurate and more precise information;
- Ability to create better conditions for the determination and selection of priorities, objectives, strategies and investments.

TECHNOLOGY FORECASTING MODEL - CASE OF NEW TECHNOLOGY INTRODUCTION IN INFOSTAN ENTERPRISE

Based on literature analysis (Armstrong, 2001; Coates et al., 2001; Levi-Jakšić, 2004; Martin, 1995; Mishra et al., 2002; Mishra et al., 2003; Prakash, 2010; Servo, 2012; Kucharavy and De Guio, 2008 and others) and interviews with managers of public enterprise PTT Serbia, a technology forecasting model was developed. The questionnaire (Marinković, 2010) was the base for the following interviews. In few months period, detail structured interviews of managers were conducted. The questions were related to the phases and activities of a forecasting model: (Petković, 2014)

1. Formulating technology forecasting (TF) problem
2. Defining parameters
3. Data collection
4. Selection and application of TF method
5. Evaluation of TF method
6. Presentation of TF results

The model was tested in practice to research its sustainability in real business conditions. Technology forecasting model was based on quantitative methods and expert knowledge used in systematic and rational way.

BASIC INFORMATION ABOUT ENTERPRISE INFOSTAN

Enterprise Infostan⁶ was established by Belgrade City Assembly on 1 February 1977. Infostan was the first urban utility which had the ISO 9001:2000 standard. Clients could check their accounts via Internet since 1998 and massive laser printing of the accounts started in 2000. Packing accounts in envelopes in accordance with the privacy began in 2002. Infostan was among the first enterprises in Serbia to introduce bills with barcode and optical character recognition (OCR) storage, postal address code, SMS account checking and payment on slots of Post of Serbia.

⁶ www.infostan.co.rs (accessed 20. 04. 2014.)

SWOT analysis

- Strengths - Stable and safe market and a lack of competition in Belgrade
- Opportunities - Infostan became extremely competitive by introducing new technology and it would be able to easily expand and conquer new markets.
- Weaknesses - Lack of quality and trained staff to manage new technology.
- Threats - Constant political instability where there is always the possibility that Infostan will be abolished and replaced by a private company.

RESEARCH RESULTS IN INFOSTAN ENTERPRISE

The highest specificity in Infostan enterprise is that information technology and information systems are also the production technology. The reason for this is that the only product of this company is a bill that is sent to consumers of utility services. The services are provided by other companies while Infostan provides calculating consumption per user, which multiplies the importance of information systems in the enterprise. During 2009, the management structure of the company has been changed, which entail certain changes in the business. Analysis of the current situation, as well as technological forecasting, resulted in conclusion that the existing information system would be obsolete by 2012 and that it would threaten the survival of the enterprise. The enterprise experts started with technology forecasting and made a plan to introduce a new information system by February 2012. In December 2011, new information system has started, and in November of the same year the company received a notice from the supplier of the old information system will be stopped in 29 March 2012. This meant that without a new information system, the company would not be able to conduct its business, therefore, it would be shut down. After the introduction of a new information system, thanks to the excellent forecasting five years ago, Infostan is today able to operate more efficiently, more profitably, with lower costs and to provide better customer service. It has over one million customers, and the system is highly scalable, so that it can accept another ten million users without problems. The new cities to accept this system are expected in the future. Thanks to precise technological forecasting, enterprise Infostan provided not only the survival, but also the rapid growth and development, with the real chance to position itself as a regional leader in few years.

FORMULATING TECHNOLOGY FORECASTING (TF) PROBLEM IN ENTERPRISE INFOSTAN

The problem was identified by the beginning of 2009. It was noted that the existing technology for billing did not bring desired results in terms of speed of issuing bills, cost effectiveness, reliability. Also, the system was dependent on a single person as brought immeasurable risk to entire enterprise. Therefore the decision was taken to introduce a new system. Management has concluded that the only way to save the company. The problem identification phase took place from 1.1.2009. to 1.05.2009.

Positioning in the market at the time was such that the existence of the company was endangered. There were quite a number of companies that were willing to easily assume the business and perform it efficiently. Infostan has survived only thanks to the protection of the City government. New system brought radical changes. Outdated technology was replaced by the most advanced and highly scalable technology. Position in Belgrade was secured. The work is now expanding to other cities in Serbia, Macedonia, and Bosnia and Herzegovina.

DEFINING PARAMETERS

The main parameters when selecting software were: the range of functionality, integration capabilities with other systems of Telecom IS, reliability, scalability, speed of deployment and easy transfer of knowledge in the area of system administration. Main dilemma in deciding how and in what way to introduce new technology was whether to conduct the procurement of completed software solution, or to use in-house development. It was concluded that in-house development would take too long with many risks, so the company decided to outsource solution - to purchase the software.

DATA COLLECTION

In order to collect data properly, the tasks were pre-defined and assigned, so that each employee was aware which data in given period of time was required to collect. They implemented Brainstorming, Brainwriting, and Analogy method to gather data from internal sources: technical documentation internal documentation of existing equipment, calculations, organizational charts, financial statements. External sources were: web sites of competing foreign companies, Internet, official publications, reports, studies already completed and others.

DATA PREPARATION

The collected data had to be prepared for forecasting in order to reduce data errors to a minimum. This preparation was done by the project manager and key users, and complexity of the activities has been assessed at the highest level. Based on years of experience they could easily recognize the inconsistencies that have occurred.

SELECTION AND APPLICATION OF TF METHOD

Because of the perceived problems, it was decided to conduct Brainstorming and Brainwriting method to come up with a solution that would save the enterprise from the new situation. They supported the proposal to introduce a new system, and concluded that it was the only way to save the enterprise. Simultaneously the company implemented method of analogy because the basic model for technological forecasting was a communal system of Manchester's. The method of analogy is a very popular method in the short, medium and especially long-term forecasts for products and technologies with similar characteristics. Analogy, according to Makridakis (1998), is used in the short term to predict the impact of typical events or competitive activities based on past examples. It should be noted that there has been some resistance to new methods, techniques and procedures. On the other hand, there was the understanding that modern theory of management could bring far more than old-fashioned techniques. The conditions and environment changed sufficiently and it was the time for new ideas and concepts.

EVALUATION OF TF METHOD

Small and medium enterprises can deploy published forecasts of experts from official institutions, governments, branch associations and civic organizations. These predictions are available free of charge. The problem is that they are general and do not refer to specific company. They can be a source of information rather than technology forecasting method. Thus,

the method of analogy that was used in the enterprise, required the knowledge related to the specific problem and subject of analogies. It was concluded that the applied methods proven effective taking into account the size of the business, number of employees and business functions overlap, lack of education of employees in the field of technological forecasting, and limited forecasting budget, scarcity and inaccessibility of information and so on. They agreed that there is a need for ongoing training of employees on the importance of technological forecasting as well as the constant search for new, more effective methods and techniques, and their combinations.

PRESENTATION OF TF RESULTS

The company presented the results in an easy and understandable way. The future was not idealized and results were not trimmed. It was explained which conditions are required in the external and internal environment, in order to achieve results. The project manager presented the estimated performance speed of the new technology in the future. When presenting the results to employees the possible obstacles were pointed, too. On the basis of adequate presentation of the results, employees have gained insight into how they will step by step reach the desired goal.

New technology affects business decisions and objectives of the enterprise. As a result enterprise is much more oriented to expand than to retain an existing market, because there is no longer fear of losing markets. The first action planned in Infostan is introduction of call centre, which will rely on data from a new billing system. The main goal is to introduce the Belgrade city cards. Introduction of the new system, will form the basis for these cards that will enable citizens to make any payment in Belgrade, like utilities and other bills, to be identified in public transport, and so on. This kind of card is found only in Manchester, and city of Belgrade would be the second city in the world that has introduced such a system.

CONCLUSION

Small and medium enterprises, because of their size, are not able to significantly influence the market trends and pricing. They have a weak bargaining power in procurement of raw materials. However, practice shows that, because of their size, these enterprises are very flexible and much faster to adapt to change, as opposed to large systems. Through forecasting, small and medium enterprises will not only identify future changes and thus increase the ability to adapt to new situation, but will be in a position to identify market niches that are not of interest to large companies and that can be successfully used for business development.

Only 5% of micro enterprises have a business plan. Less than 20% of companies with fewer than 50 employees use business plan in their business. Business plan of the vast majority of these companies is short-term (with a view to the future less than a year). It follows that small businesses focus their management efforts to operational problems, while predicting the future needs remains neglected. This can cause serious and grave consequences for the survival of the enterprise, because of the possibility that the core business could be influenced by changes in business environment. For successful implementation of forecasting in small and medium-sized enterprises the forecasting process is simplified but mode of administration should be very clear and precise.

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THE IMPORTANCE OF SMALL AND MEDIUM- SIZED ENTERPRISES FOR ECONOMIC GROWTH IN WESTERN BALKAN COUNTRIES

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Abstract

Small and medium- sized enterprises (SMEs) have central role in the global economy as a result of their key features – SMEs are dynamic, easily adaptable and flexible. In the 21st century SMEs are one of the most important determinants of economic growth and a leading source of job creation. Around 90% of all businesses in the global economy are SMEs; their share in total private sector employment is between 61% - 81%. SMEs are center of initiatives where innovation can be initiated. They support regional development and social cohesion. Government support, support services for SMEs and start-ups, access to finance for SMEs and a good business environment are all important preconditions to enhance the growth of the SMEs in each country.

This paper attempts to shed some light on the importance of SMEs for economic growth in the Western Balkan countries by exploring the concept of SMEs, entrepreneurship and innovation in SMEs as their key features, the importance of SMEs for economic growth and the conditions for development of SMEs in Western Balkan countries.

Keywords: small and medium enterprises, economic growth, innovation.

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INTRODUCTION

The experiences of countries with developed market economy have shown that SMEs have a very important role in the development from several aspects. Namely, SMEs often can successfully perform some diffusion of the latest technologies (e.g. biotechnology), and also, they can more effectively meet the needs of a relatively small but specialized markets. The basic characteristics of these enterprises, as well as their advantages (flexibility to adapt to changes in the market, contributing to the process of increasing employment, narrow specialization, simple organizational structure, etc.), greatly contribute to increasing the competitiveness of the economy of a country. Hence is the justification of capital invested in SMEs, given the high ratio of its rotation, low production costs, high labor productivity, low transportation costs, and more efficient management. SMEs can relatively quickly and without shocks change their productions programs and conquer the production of highly profitable products, as well as give up the production of unprofitable products or products for which there is no demand on the market.

SMEs are the basis of all developed economies. They occur as a result of individual business initiative which often results in innovation in modern economies that are the basis for economic growth and prosperity. Due to that in those economies the business environment evolves according to the needs of small and medium entrepreneurship and when adopting economic policy measures, attention is particularly being placed how those measures will affect small and medium entrepreneurs, given the fact that they are very sensitive to changes in the environment of large enterprises.

The European Union has set as a priority in the Lisbon declaration, 2000, regarding entrepreneurship and innovation. Out of these aims policies that encourage the creation and maintenance of small and medium entrepreneurs have resulted, among which is the European Charter for SMEs, signed among the others by the Western Balkan countries which have realized that SMEs can play a key role in the transition process.

Having this in mind, the main objective of this paper is to point out the importance of the development of SMEs sector in the Western Balkan countries. The emphasis is being placed on the concept of SMEs, entrepreneurship and innovation, SMEs and economic growth and necessary conditions for SMEs development in the Western Balkan countries.

CONCEPT OF SMALL AND MEDIUM ENTERPRISE (SMEs CONCEPT)

Numerous definitions for enterprise division can be found in the literature. But companies are usually being divided according to their size of micro, small, medium-sized and large enterprises. The definition of the size of enterprises is usually determined on the basis of several criteria: legislation of each country, number of employees, annual turnover, value of assets and net profit.

For example, in the United States as small businesses are being classified those with less than 100 employees, in the member states of the European Union, business with up to 50 employees, and the Australian small businesses have less than 15 employees.

Table 1 shows the criteria by which companies are divided into micro, small and medium-sized enterprises under the new definition of the European Union, the World Bank definition and in compliance with regulations applied in Republic of Macedonia.

Table: 1 Criteria for definition of micro, small and medium-sized enterprises

<i>EU Definition</i>	<i>Micro</i>	<i>Small</i>	<i>Medium-sized</i>
Staff Headcount (Number of employees)	< 10	< 50	< 250
Annual turnover (in EUR)	≤ 2 million	≤ 10 million	≤ 50 million
Balance Sheet Total (in EUR)	≤ 2 million	≤ 10 million	≤ 43 million
<i>World Bank Definition</i>	<i>Micro</i>	<i>Small</i>	<i>Medium-sized</i>
Staff Headcount (Number of employees)	< 10	< 50	< 300
Annual turnover (in EUR)	< 0.1 million	< 3 million	< 15 million
Balance Sheet Total (in EUR)	< 0.1 million	< 3 million	< 15 million
<i>In compliance with the regulation in RM</i>	<i>Micro</i>	<i>Small</i>	<i>Medium-sized</i>
Staff Headcount (Number of employees)	< 10	< 50	< 250
Annual turnover (in EUR)	< 50 thousands	< 2 million	< 2 million
Balance Sheet Total (in EUR)	Not more than 80% of gross income shall arise from one client	< 2 million	< 11 million

Source: www.ec.europa.eu (accessed 20.07.2010), <http://indmanger.edu.rs/site/pdf/b-2> (accessed 21.07.2014) and SMEs Observatory on SMEs Report 2007 www.apprm.gov.mk (accessed 15.07.2010).

Micro, small and medium-sized enterprises are the engine of the European economy. They are a key source of employment, creation of an entrepreneurial spirit and innovation in the European Union and therefore they are necessary for strengthening of the competitiveness and maintaining of the employment. The new definition of SMEs, which entered into force on January 1, 2005, represents an important step for improvement of the business environment for SMEs and is aimed towards fostering entrepreneurship, investment and growth. (Nova definicija MSP-a, 2005, pp. 6)

The common definition of SMEs at EU level is of critical importance because it is used as a basis for decision-making in the EU legislation concerning state aid and structural funds. This means that different categories of SMEs (micro, small and medium-sized enterprises) must be defined in a way that ensures economic fairness, i.e. that provides legal safety to companies, while allowing easy application to the administrative systems of the Member States. (Ogawa, E., 2001, pp. 111-113)

The classification of enterprises in the Republic of Macedonia in the Company Law has been prepared in compliance with the definition of the European Union. As can be seen from Table 1, in terms of the number of employees same values have been used, i.e. special adaptations have not been made. However, regarding the total annual turnover and revenue realized by enterprises, these values are reduced compared to the performance of enterprises in the EU and adapted to the Macedonian economy.

Micro, small and medium-sized enterprises are socially and economically important because they represent 99% of the total number of enterprises in the European Union,

providing around 90 million jobs and have a great contribution to the development of entrepreneurship and innovation. (Fact and figures about the EU's Small and Medium Enterprise)

SMEs have few innate features resulting from the size and under which they vary from large enterprises, including: fewer employees, less work, fewer customers and mostly operate on local market. Almost all SMEs face the same problems in terms of organization, management, financing, competition, efficiency, growth and development by which they differ from large enterprises. Namely, in large companies with many employees organization and division of labor is being easily organized, which is not the case with small companies where an employee must perform several tasks. Small companies may have a significant role in the foreign trade of a country as subcontractors to large multinational enterprises and companies. Their comparative advantage is that they are flexible, can quickly adapt to changes and meet market demands. (Dostic, M., 2003, str. 23-34)

Small businesses, as a rule, are being established by individual entrepreneur, who is also the owner and manager of the company. He/she solely decides upon decisions related to operations and assumes full risk. The large degree of flexibility to market changes and low fixed costs are one of the most important comparative advantages of small enterprises. They are often source of innovation, which contribute to the acceleration of economic growth. In small companies the entrepreneurial spirit, initiative, innovation and creativity can be easily reached.

Medium-sized enterprises are between small and large companies, because they have certain similarities with both. The advantages of medium-sized enterprises compared to large enterprises are their greater flexibility to market changes. Unlike the small businesses they are characterized by a relatively high degree of specialization of functions, leading to increased flexibility of the enterprise. The application of science and technology in these companies is greater than the small enterprises, but smaller than large enterprises.

Since SMEs employ relatively few people (European Union average is 19), SMEs can not cause major social disruptions in case of bankruptcy, and that often is the case with family companies that are the most secure part of every economy. In contrast, the collapse of large industrial systems, which is particularly evident in the post-socialist countries, has resulted in dismissal of workers, followed by major social, political and social disorders.

SMEs, as well as the large enterprises have their own advantages and disadvantages. The way in which SMEs outweigh their disadvantages and use their advantages depends on the environment that surrounds them. As the most important advantages by which SMEs are easily differentiated from the large enterprises are the following:

- Flexibility - Due to its size, SMEs are more flexible, allowing fast adaptation to market and market trends. Flexibility is one of their most important advantages compared to large enterprises.
- Source of Innovation - SMEs are forced to be innovative in order to ensure market competitiveness. They are center of initiatives where innovation can be initiated and new ventures begin. SMEs represent the major source of innovation and enable application of new knowledge and business models. Many of today's new products and services arise from SMEs. SMEs provide wider scope of opportunities for innovation, introducing new technological solutions and faster application of new knowledge and business models in daily operations.
- Source for new employments - recent studies in the U.S., Canada and Europe have revealed that most of the new employment opportunities have been created by small businesses. (Шуклев, Б., 2006, стр. 60) They offer the opportunity for self-employment and achievement of greater mobility of labor on a local level.

- Independence in operation - the importance of SMEs to the economy is reflected in their independence and support of competitiveness. SMEs are characterized by independence that allows their owners to enjoy autonomy and thus their initiative, inventiveness and ambition to be highly expressed. The establishment of SMEs allows free entry to the market, a way of expressing possibilities and expressing personal initiative.

- Entrepreneurial spirit - the very nature of SMEs implies the need for a more intensive entrepreneurship. The SMEs must be led by a manager who has a vision, enthusiasm, who knows different ways to use available information, who knows how to combine economic factors thus implementing them in a practical and efficient manner on the market and who tends towards prestige and profit creation.

- Limited working capital - SMEs, especially in the initial phase of development are being characterized by limited funds. It is a limited working capital dedicated for maintaining of equipment, purchasing of raw materials, inventory financing etc.

- Immediacy in business relationships - the owner - manager has close relationships with internal staff and external direct relationships with customers, suppliers and banks.

Besides the aforementioned advantages of SMEs the following are worth to be mentioned: (Шуклев, Б., 2006, стр. 67) a personal commitment to consumer, short communication channels, immediacy in the relationship with employees, flexibility in changing direction, specialization of products and services, personal market knowledge, low total cost, simple initiation and ceasing of business, profit initiative and achievement of community interest.

Besides the undeniable mentioned advantages, SMEs have certain disadvantages as a result of the limitations and characteristics, arising from the actual size of enterprises. As main disadvantages of SMEs the following can be listed: (Шуклев, Б., 2006, стр. 35-38)

- Ability for a rapid bankruptcy in respect to large enterprises. It is being statistically proven that 30-40% of small companies cease operations within three years after establishment, and even 60% in a period of eight to ten years. Due to the low degree of division of labor, productivity in small company is relatively low, since one employee can perform various operations and activities, thus reducing the possibility of improvement and narrow specialization.

- The insufficient information is distinctly marked weakness of SMEs.

- Wages in SMEs are generally smaller especially if you take into account all contributions that workers receive in the large systems, where rights are being protected by collective agreements and trade unions. To avoid tax obligations to the state, often one part of the salary is being paid directly "on hand", which is harmful for the country as well as for the employees themselves.

- The risk of bankruptcy of enterprises and job loss is significantly greater in SMEs, compared to large enterprises.

- SMEs are not competitive on the international market, unless they have joint ventures or act as subcontractors to large enterprises (the so-called economy of scale).

SMEs differ among themselves in the organization of work, organizational structure and manner of management. While for small enterprises informal organization and simple organizational structure is characteristic, the structure in medium-sized enterprises is more formalized with several hierarchical levels, defined job positions, clearly established rules and procedures, formalized system of control etc.

The development of the private sector and SMEs in economies in transition is being followed by numerous characteristics. Below several of them have been listed: (Okolic, M., 2007, str. 42-43)

- In case of a large number of public and state- owned SMEs, the bankruptcy procedure was mandatory phase which preceded their privatization.
- Owners of SMEs have the capital, but often do not have competent knowledge and skills for managing the company.
- A number of newly established enterprises have resulted from very little entrepreneurial sophistication of their founders, and more by the need to solve the basic existential problems.
- The largest number of newly established enterprises can be found in the sector of trade and services, and that is primarily of a local importance. An extremely small number of newly established enterprises are found in manufacture and export oriented production.
- One of the features of the development of SMEs in the transition process is the development of family businesses. In fact, one family member focuses on the private business while others operate in that business as additional occupation.
- The most developed local private enterprises have only one owner. It shows that the owners still do not have trust in co-owners and partners.
- Newly established enterprises and the largest number of micro enterprises are being characterized by retention of an employee.
- One of the features of transitional changes is that many of the activities remain in the gray and black economy and do not cross into the flow of legal commerce.
- Data that is little known in the economies in transition and in the developed part of the world shows that the percentage of SMEs bankruptcy is far greater than the percentage of bankruptcy of large enterprises and that the from 50% to 60% of newly established enterprises collapse in the first five years.

Most countries that are facing the period of transition have accepted SMEs as an essential part of the economic reforms. In these countries, among which are the Western Balkan countries, a wider discussion on the European Charter for SMEs has been developed, but still operationalization and results of activities for support of SMEs development differ from one country to another.

ENTREPRENEURSHIP AND INNOVATION IN SMEs

Joseph A. Schumpeter was among the first authors who has connected the term entrepreneur with innovation, emphasizing the innovation as a significant feature. According to him an entrepreneur is a person who initiates change through innovation and discovery of new opportunities, while entrepreneurship is a process of "creative destruction" through which permanent products or methods of production are destroyed and replaced with new ones. Hence, innovation as a characteristic of the entrepreneurial work may relate to the discovery of new markets, introducing new organizational structure, permanent modification technology, introducing new technologies, discovering new sources of energy, introduction of new products and services, modifying current products, discovery of new resources and introducing new working methods.

The sources for emergence of innovations can be classified into seven groups, including: (Drucker, P.F., 1991, pp. 62) unexpected: success, failure and external events; misalignment between current and normative reality; need caused by certain event; changes:

in the structure of the economy or market; demographic trends; changes: in perception, mood and meaning; new: scientific and non-scientific knowledge. The first four sources can be found in the enterprise itself, while the other three outside the enterprise. Not always is possible to make a precise distinction, i.e. to identify clear boundaries between these sources, but it should be noted that each of these sources require special analysis since each has its own special features.

Entrepreneurship and innovation are recognized characteristics of SMEs. Namely, to ensure growth, development and competitive market advantage, SMEs must be innovative and creative. SMEs are the center of initiatives where innovation can be initiated and where new ventures begin. In theory and practice many of today's new products have been proven that arise from the small enterprises. Especially if one takes into account that in SMEs, from innovation to commercialization a shorter period of time is required, since in most cases they are aimed toward one market segment. (Петковска, Т., 2008, стр. 30)

Data collected from a survey conducted in the framework of OECD has shown that 30% to 60% of SMEs are being characterized by innovations. Moreover, among them is less likely that R & D for development of innovation shall be conducted compared to large enterprises. However, it is more likely that SMEs will innovate in other ways: by creating or modifying products or services to meet the needs of a new market segment, introduction of new organizational approaches to increase the overall productivity of the enterprise or development of new techniques in order to increase sales. (Small and medium sized enterprise: Local Strenght, 2000, p. 3)

According to another research on innovation and SMEs innovation the following conclusions can be noted: (Okolic, M., 2007, str. 59-60)

- Small Business Department provides a significant contribution to the technological and economic development.
- Growth and strengthening of large companies' brands is the result of innovations implemented in the phase when these companies have been small companies.
- Today each large company has once been a small company and due to that reason it is quite interesting to study its historical development.
- Small companies lack the capacity to implement basic researches, but are very suitable for applied researches.
- Small companies do not have their own research and development units, laboratories and pilot units, and do not possess a lab test of the quality of materials and products.
- In small companies there is high motivation of employees through innovation to solve numerous problems in current operations and to ensure market success.

Due to shorter channels of communication, informal decision-making and greater flexibility, SMEs have greater opportunity for innovation than the large enterprises. Given that innovation is a prerequisite for ensuring competitiveness, SMEs in order to be innovative they shall:

- Constantly review their operation and introducing innovations through creation and offer of new products and services.
- Undertake operations on a global and local level by establishing a direct relationship with the final beneficiaries of their products and services.
- Have a good knowledge on their market as well as of the consequences that may arise from the undertaken actions.

- Review its capacity for inventiveness and ability to engage partners for research and development activities, as most SMEs do not have a research and development department within the company.

Experiences in strengthening of SMEs competitiveness in the developed world have shown that despite the numerous changes and innovations occurring in companies, an important factor for strengthening of competitiveness are the various strategic partnerships in these enterprises and their performance in foreign markets.

It should be noted that public policies and standpoints that limit creativity, competition, risk taking and adequate return on investments have a detrimental effect on SMEs innovation.

SMEs AND ECONOMIC GROWTH

In the economic literature frequently used terms as synonyms are economic growth and economic development, although they quite differ. Economic growth means an increase in the volume of production and services during a specified period (usually one year) as a result of investments in new production capacities and their efficient use, as well as new employments and increased labor productivity, while economic development represents a set of socio-economic changes caused by the economic and non-economic factors, which themselves contain the growth of gross domestic product (GDP). Basic factors of economic growth are: (Todaro, M., 1997, p.p. 172) a) accumulation (of capital) that comprise all investments in land, equipment and human factors; b) population growth and, in this connection, increase of available workforce; c) technical progress ("knowledge" and ability for its implementation). Economic growth actually represents an expansion of gross domestic product (GDP) of an economy. In other words, the economic growth is the expansion of the frontiers of the nation's production possibilities (PPF - production possibility frontier). (Samuelson, P., Nordhaus, W., 1995, pp. 546-550)

The issue regarding the relationship between SMEs and the economic growth is of a concern to a number of empirical studies. SMEs are a source of innovative activity, a source of new jobs, a cradle for development of entrepreneurship and one of the main factors stimulating economic growth. Rotterdam University Professor, Roy Thurik, (1996) in one of his works emphasizes the results from a survey conducted in twelve Member States of the European Union in which it is being examined whether the development of small enterprises has a significantly higher impact on the growth of the gross domestic product than those of the large enterprises. He concludes that SMEs are flexible and that truly give an answer to the unemployment in Europe. (Стојановска, Е., 2013, стр. 28) Furthermore, in the paper "Small enterprises and economic growth in Europe", R.Thurik and M. A. Carree, through their research determine that in average the employment share of large companies in 1990 had a negative effect on the production growth in the subsequent four-year period being analyzed, which provides support to the specific policies introduced during the 80s of the 20th century in the European countries regarding stimulation of small enterprises. (Thurik, A. R., Carree M. A., 1998, pp. 137-146)

As previously stated SMEs create jobs, bring new and improved products, are flexible and can better adapt to the changing market conditions. Due to this it is necessary to create an environment where SMEs can successfully operate, innovate and create jobs as part of a strategy for faster economic growth. Besides this, it is necessary to remove barriers and restrictions on capital transfers, to introduce tax exemption for investors and to improve the international exchange access, in order to create an environment where SMEs shall be promoted.

In this regard in order to create a favorable environment for growth and development of SMEs the role of state authorities is very significant. Namely, following the example of the developed countries, governments of the countries in transition must support innovation and enable transfer of knowledge as a basis for economic and social development. Their constant task should be promoting innovation and providing education and training of relevant personnel. Stimulation of entrepreneurship as the most important area for creation and implementation of innovations and their legal protection should be permanent obligation and responsibility of every government that seeks to increase the gross domestic product.

CONDITIONS FOR DEVELOPMENT OF SMEs SECTOR IN SEE COUNTRIES

Considering the importance and role of SMEs for the economic growth of each country, it is important to identify the conditions for SMEs development. For this purpose the used data have been taken from the publication: SME Policy Index: Western Balkans and Turkey in 2012: Progress in the implementation of small business act for Europe which is result of the collaboration between the OECD, the European Commission, the European Training Foundation and the European Bank for Reconstruction and Development. The six economies of the Western Balkan countries: Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia significantly differ in terms of size, income level and economic performance. But what is common is that all are facing recession accompanied by high unemployment rate which in three of them is reaching over 25%. Namely, in 2013, in Bosnia, Kosovo and Macedonia, the unemployment was 44.6%, 30% and 28.6%, respectively, while in Albania, Montenegro and Serbia: 13.2%, 15% and 22.4%, respectively. Given the high unemployment as a way to overcome the recession, the Western Balkan countries must stimulate the development of SMEs since they are the source of new employments. Also the global economic crisis shall be taken into account that has badly damaged SMEs in this region, restrictions on approval of bank loans, foreign direct investment, remittances and international capital flows. In order to support the development of SMEs and to stimulate growth governments of the Western Balkan countries shall undertake reforms to improve productivity, human capital and performance of companies.

As conditions for the development of SMEs in the above mentioned publication the following indicators have been used: entrepreneurial learning and women's entrepreneurship, bankruptcy and second chance, regulatory framework for SME policy making, operational environment for SMEs, SME support services and public procurement, public procurement, access to finance for SMEs, standards and technical regulations, enterprise skills, innovation policy for SMEs, SMEs in a green economy and internationalization of SMEs. The assessment of the indicators is being structured on a scale from 1 to 5, where 1 is the lowest grade level and 5 the highest grade level.

Table: 2 Indicators for SMEs development in the Western Balkan countries for 2012

	Albania	Bosnia and Hercegovina	Kosovo	Macedonia	Montenegro	Serbia
<i>Entrepreneurial learning and women's entrepreneurship</i>	2.50	1.75	1.75	2.50	2.50	2.25
<i>Bankruptcy and second chance</i>	3.25	3.00	3.00	3.40	3.75	2.75
<i>Regulatory framework for SME policy making</i>	3.50	2.25	2.50	3.75	3.75	4.00
<i>Operational environment for SMEs</i>	4.25	2.00	3.00	4.00	3.50	3.50
<i>Support services for SMEs and start-ups</i>	2.50	2.50	2.00	2.50	3.00	3.50
<i>Public procurement</i>	3.25	2.75	2.75	3.50	3.25	3.00
<i>Access to finance for SMEs</i>	3.00	3.00	2.25	3.00	3.00	3.75
<i>Standards and technical regulations</i>	3.00	2.75	2.50	4.00	2.75	4.00
<i>Enterprise skills</i>	3.25	2.50	3.00	3.50	2.75	3.00
<i>Innovation policy for SMEs</i>	2.50	2.00	1.25	2.50	2.00	3.25
<i>SMEs in a green economy</i>	1.75	1.25	1.50	2.50	2.25	2.75
<i>Internationalisation of SMEs</i>	3.25	2.25	2.25	3.75	3.25	4.25

Source: Adapted from SME Policy Index: Western Balkans and Turkey in 2012: Progress in the implementation of small business act for Europe, <http://dx.doi.org/10.1787/9789264178861-en> (accessed 25.07.2014)

The first indicator, entrepreneurial learning and women's entrepreneurship, refers to creation of an environment in which entrepreneurs and family businesses can achieve progress, as well as create policies in direction of female entrepreneurship support. For this indicator the highest level of assessment can be seen in Albania, Macedonia and Montenegro - 2:50, while the lowest level of assessment in Kosovo and Bosnia and Herzegovina - 1.75. In Serbia, this indicator is rated - 2.25.

Bankruptcy and second chance is the second indicator which comprises bankruptcy procedures and laws, time of bankruptcy costs, rate of recovery, promoting a second chance, access to credit and discharge from bankruptcy. This indicator in all countries of the Western Balkan has a relatively high level of assessment (over 3:00), Serbia - 2.75, and the highest level of assessment, Montenegro - 3.75.

The third indicator, regulatory framework for SME policy making comprises three parts, first referring to the institutional framework for SMEs and comprises laws which define SMEs, development strategies of SMEs and institutions responsible for SMEs policy and program creation and their implementation, the second part comprises measures for simplification of SMEs legislation that need to be implemented by the countries and use of the regulation impact analysis and the third part refers to the regularity and representativeness

of any public-private counseling. This indicator has the highest assessment in Serbia- 4.00, and lowest in Bosnia and Herzegovina - 2.25.

The fourth indicator, the operational environment for SMEs is composed of two parts. The first part refers to the process of registration of companies (number of days for registration, administrative procedures and costs). The second part focuses on online interaction with government institutions (e-government) and covers issues such as whether taxes and social insurance shall be returned online, whether statistics of an enterprise can be presented online and whether database of various public bodies is interrelated. Highest assessment for this indicator was found in Albania - 4.25, while the lowest in Bosnia and Herzegovina - 2.00.

Support services for SMEs and start-ups is the fifth indicator comprised of three parts: support services for SMEs, business information for SMEs and support services for start-ups. This indicator has the highest assessment in Serbia - 3.50, and lowest in Kosovo - 2.00.

The indicator public procurement which focuses on providing SMEs with equal rights to participate in public procurement has the highest assessment in Macedonia - 3.50 while the lowest in Bosnia and Herzegovina and Kosovo - 2.75.

The seventh indicator, access to finance for SMEs is focusing on facilitating access to external sources of SME financing and legal and regulatory framework. The best approach to finances has companies from Serbia - 3.75, while in Kosovo this indicator has the lowest assessment of 2.25.

Standards and technical regulations is the eighth indicator that focuses on technical regulations, standardization, accreditation, methodology, market supervision, administrative and regulatory information and other sanitary standards. This indicator has the highest assessment in Macedonia and Serbia - 4.00, and the lowest in Kosovo - 2:50.

Entrepreneurial skills is the ninth indicator that evaluates policies and procedures in relation to the development of human capital and their impact on SMEs sector. This indicator is highest in Macedonia - 3.50, and lowest in Bosnia and Herzegovina - 2.50.

The next indicator, innovation policies of SMEs assess policies that support innovation and technology transfer, such as developing a strategic approach to innovation policy, introducing innovation and establishment of technology centers and development of a wide range of technical and financial support services. Highest assessment for this indicator has Serbia - 3.25 while lowest Kosovo - 1.25.

SMEs in the green economy is the eleventh indicator concerning the greening of current strategies in the area of SMEs, industry and innovation, availability of expertise to SMEs for Environment and promotion of the use of environmental systems and standards. This indicator has the best assessment in Serbia - 2.75, and lowest in Bosnia and Herzegovina - 1.25.

Internationalization of SMEs is the latest indicator that focuses on government action in promoting and supporting export-oriented SMEs through specific programs for export promotion or participation on international fairs and events for national promotion of SMEs. It has the highest assessment in Serbia - 4.25, and the lowest in Bosnia and Herzegovina and Kosovo - 2.25.

What can be concluded from the presented data is that the best conditions for SMEs development has Serbia taking into consideration the fact that this country has seven indicators with the highest assessment. Those are the following: a regulatory framework for SMEs policy making, support services to SMEs and start-ups, access to finances for SMEs, standards and technical regulations, policy innovation of SMEs, SMEs in the green economy and the internationalization of SMEs. Serbia has shown a good progress which has been

achieved through significant pre-construction policies for SMEs and implementation of innovation support measures.

Albania, Macedonia and Montenegro have shown certain progress, but still in these economies the measures to support SMEs are still in their initial phase. In fact, all countries have shown high assessments in the indicator entrepreneurial learning and women's entrepreneurship. In addition, Albania has an advanced system for registration of an enterprise, Macedonia has high assessment regarding the involvement of SMEs in public procurement, standards and technical regulations and entrepreneurial skills, while Montenegro has the best laws and procedures with regard to bankruptcy and second chance for SMEs. What can be concluded for these three economies is that despite they have shown progress in the registration of companies, access to finance and regulatory reform, gaps are still present in the major policies and measures to support SMEs and innovation which are at early stage of development.

Kosovo and Bosnia and Herzegovina are far beyond other countries in providing conditions for the development of SMEs. Namely, in these two economies most of the indicators are below average which indicates underdeveloped policies to support SMEs and existence of gaps in the implementation of such policies.

CONCLUSION

SMEs are the main drivers of economic development. They increase the rate and extent of usage of resources of a new economy, with a high degree of flexibility and adaptability to new markets and other conditions. They promote private ownership and entrepreneurial skills. SMEs are engines of growth in countries with market economies and countries in transition. The development of SMEs enables: increase of GDP, increase of economic entities, creation of new jobs, improvement (raise) of the standard of living, substitution of imports and greater export competitiveness of the national economy.

Main advantages of SMEs are the following: flexibility to market changes, they represent an important source of innovation, easy human resources managing due to the small number of employees and direct relationship between the owner and employees, greater motivation and a high level of control. On the other hand, the disadvantages of small enterprises may be: inefficiency, resulting from high production costs per product and unit, due to lower sales volume, lack of specialization, greater market risk since the work is based on one or a few products and difficulties in terms of providing funding.

Entrepreneurship and innovation are recognizable features of SMEs. Namely, to ensure growth, development and competitiveness market advantage, SMEs must be innovative and creative. SMEs are the center of initiatives where innovation can be initiated and where new ventures begin. Innovations represent an instrument by which the entrepreneur creates new resources, enriches the current resource with a higher potential for creating wealth. Given that fact, some authors have a complete right when noting that innovation is a specific tool of entrepreneurs, i.e. a tool with which entrepreneurs realize their desired changes. In other words it means that entrepreneurship is the engine of a development and basic generator of innovative operations.

Most countries in transition have accepted SMEs as an essential part of the economic reforms. These countries include the Western Balkan countries as well. In the analysis on the conditions for SMEs development the following indicators have been used: entrepreneurial learning and women's entrepreneurship, bankruptcy and second chance, regulatory framework for SME policy making, operational environment for SMEs, SME support services and public procurement, public procurement, access to finance for SMEs, standards

and technical regulations, enterprise skills, innovation policy for SMEs, SMEs in a green economy and internationalization of SMEs.

From the data presented it can be concluded that the best conditions for SMEs development has Serbia taking into consideration the fact that this country has seven indicators with the highest assessment. Serbia has shown a good progress which has been achieved through significant pre-construction policies for SMEs and implementation of innovation support measures. Albania, Macedonia and Montenegro have shown certain progress, but still in these economies the measures to support SMEs are still in their initial phase. What can be concluded for these three economies is that despite they have shown progress in the registration of companies, access to finance and regulatory reform, gaps are still present in the major policies and measures to support SMEs and innovation which are at early stage of development. Kosovo and Bosnia and Herzegovina are far beyond other countries in providing conditions for the development of SMEs. Namely, in these two economies most of the indicators are below average which indicates underdeveloped policies to support SMEs and existence of gaps in the implementation of such policies.

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**PSYCHOGRAPHICS AS AN INNOVATIVE METHOD IN MARKET
RESEARCH OF SMEs CUSTOMERS**

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Abstract

Psychographics has emerged as an important method of market and marketing research, especially as a method of consumer behaviour. Understanding the problems of the consumer behaviour is essential for the process of decision making and the market positioning of the companies.

The first psychographics research were realised and used by some large companies. Lately, such researches were used by the SMEs as the innovative method of the market and marketing research. The purpose of this paper is to analyse the possibilities for using this method by the Macedonian SMEs in the marketing research process.

This paper explores the relationship between consumers' lifestyle and values, and SMEs products. A survey technique is used on the sample of 136 customers. The survey used 55 AIO and VALS statements divided into 16 factors. By using the empirical research method, this paper demonstrates the way how consumer psychographics characteristics and their life styles influence the process of the decision making process of the SMEs customers.

Key words: psychographics, market research, marketing research, innovative method, SMEs, customers

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INTRODUCTION

Today is noticeable that the markets are going towards the Global Market, with new services and goods for their customers. Therefore, companies have to better understand customers and their needs. There are many different types of people. They love different things, buy different products, have different interests, opinions, activities, respect different values. To reach them, companies need to segment market and make product for every customer. Yankelovich since 1964, (Yankelovich, 2006) said that traditional demographics traits such as age, sex, income, education levels are no longer enough to serve the basis of marketing strategy and no demographic traits such as values, tastes and preferences were more likely to influence consumers' purchases than their demographic traits were.

Understanding the needs of customers is crucial in generating a specific product and advertises that product by SMEs, which will meet consumer's demands. That's the reason why small, medium and large companies use market segmentation. Psychographic is one of the several generic methods to segment market and customers into groups based on lifestyle and personality characteristics. It is a market segmentation approach in which people are grouped into their lifestyle, values, beliefs, attitudes. Psychographic segmentation can portion customers to different social classes and predict future needs and wants of people as marketing strategy (Sarli, Tat, 2011, p.6).

More studies in marketing in the past were focused on the issues of large companies. They don't have interest in understanding of the problems in small and medium sized enterprises. There are not many researches for the use of segmentation and research methods by SMEs. In one study in US, was found that SMEs tend to use demographic and geographic customer variables to segment the market, rather than lifestyle variables (Hine, Carson, 2007, p.208). It's a fact that these data have a limit in helping enterprises generate insights of the customers and SMEs need more customers' information, how people spend their money and time. It is believed among researchers as well as practitioners that there is a link between lifestyle of the customers and the way they make decision in the process of buying products on the market (Baharun, 2011, pp. 5040-5047). Understanding the consumer behaviour is essential for companies which want to target their products to right customers. That advantage was realized a long time ago by large companies as Nike, Adidas, Mazda, Coca Cola, Starbucks, Apple, McDonalds, Pepsi, Ikea. They used psychographics research to find out which customers should be targeted. As per Surdu (Surdu, 2012), Nike and Adidas focus on demographic, psychographic and behavioural segmentation, dividing markets by sex and age as demographics and interests and activities as psychographics variables.

Psychographics has emerged as an important method of market and marketing research. This method is used to understand consumers' behaviour, their values and lifestyle and the way they make decision in buying process.

Lately, such researches were used by the SMEs as the innovative method of the market and marketing research. The purpose of this paper is to analyse the possibilities for using psychographic method by the Macedonian SMEs in the marketing research process.

PSYCHOGRAPHIC APPROACH TO MARKET RESEARCH

Since 1975, it has been concluded (Wells, 1975), that psychographic methods have offered a way of describing consumers that has many advantages over alternative methods, even though much work on reliability and validity remains to be done. Psychographics methods have offered new ways, new dimensions and new vocabulary of customer's profile name.

The term psychographics was attributed to Emanuel Demby in 1974 (Demby, 1989, p.21). Beatty, Homer and Kahle (1988, pp.375-380) made segmentation by using VALS and LOV

methods and showed that by measuring psychographics variables, most important values and their ranking can be identified. Tam and Tai (1998, p. 61-77) applied psychographic segmentation at Chinese Female Markets. They were psychographic statements and they stated that psychographic variables depend on time and circumstances of socio-economic situation and are changeable. Also, a researcher should be applying rigorously existing similarities and differences among consumers. Lin (2002, p. 249-268) confirmed that combining segmentation variables like demographics and psychographics simultaneously can create precise information of sub-markets. Group of researches (Ahmad, Azizas, Ramayah, 2010, pp. 227-243), presented that one of the best approaches for the better understanding customers is psychographic segmentation. In their research in 2014 they obtained result consistent with previous studies in the marketing literature that lifestyle is an important potential factor influencing the future consumers behaviour (Ahmad and oth., 2014, pp. 124-145). Sarli and Tat (2011, p. 6) concluded that psychographic segmentation is a precise technique in order to adopt products towards consumers' needs and wants. Suragh and others (2013, p. 172-187), used this approach to define segments of female and male college students and examine substance (cigarettes, other tobacco products, alcohol, and marijuana) use differences in US and concluded that psychographic segmentation can identify young adult subgroups with differing psychographic and substance use profiles and inform health campaigns and messaging targeting youth. According Mullen (2013, p. 110), psychographics is defined as quantitative research intended to differentiate and aggregate consumers in terms of psychological dimensions.

The most popular application of psychographic research by marketing managers is SRI Consulting Business Intelligence's VALS program (Hawkins, 2010, p. 495). Hawkins argued that the original psychographics focuses on measuring Activities, Interest and Opinions contained in inventory AIO (Dj and oth. 2014, p. 154-163). In fact, with psychographics research we are receiving different types of customers' profiles, which are useful pictures of the overall psychological motivations of consumers. These profiles produce much richer descriptions of potential target markets, rather than other techniques can achieve (Boone, 2014, p.292).

VALS AS PSYCHOGRAPHICS METHOD FOR MARKET RESEARCH

The VALS technique is very useful and popular as a psychographic method for market research. It's developed at Stanford Research Center in the USA, by Arnold Mitchell. The VALS technique makes systematic classification of nine groups of adults under nine different values that show through lifestyle. Thus, for some of them it's important to ensure only safe life, others are prone to risk, thirds are directed towards society, fourth towards higher goals in life. These types of celebrities behave differently in purchase and consumption of products and services. As the years have passed and various demographic and economic changes have taken place, this technique was revised in 1988 and VALS 2 typology was introduced which is a variant of the original technique for measuring the values and lifestyles of people as consumers. VALS 2 classifies people into eight groups, based on psychological factors and available resources as income, education, willingness to buy and the like and offers eight clusters that differ in behaviour and represent a different market segment (Michman, Mazze, Greco, 2003, p.18).

VALS system is constantly upgraded with new data from more than 80,000 surveys that are conducted each year. Main dimensions of the frame segmentation VALS are: motivation of consumers (horizontal dimension) and resources of consumers (vertical dimension). Consumers are inspired by one or three motivations: ideals, achievement and self-expression (Kotler, Keler, Lejn, 2009).

VALS 2 eight groups are: a) Actualizers are those with the most wealth and power, successful, sophisticated, active, high self-esteem, abundant resources. Image is important for them, not as a status symbol, but as an expression of their independence and character. They are leaders in business and government; b) Fulfilleds have high resources and are principle-oriented

professionals or retirees, mature, satisfied, comfortable people. Most are well educated and in or recently retired from professional jobs. Leisure activities center around the home and family; c) Believers are Fulfilled without the resources. They are conservative, conventional with concrete beliefs based on traditional established codes: family, church, community and the nation; d) Achievers have high resources and are status oriented, seek recognition and self-definition through achievements at work and school. Social lives are centered around family church and career; e) Strivers lack the resources of Achievers but are equally status oriented, seek approval from the world around them. They are easily bored and impulsive; f) Experiencers have high resources, are action oriented, and are disposed toward taking risks. They are young, vital, impulsive and rebellious; g) Makers also are action oriented but have low resources, practical with constructive skills. Experience the world by working in it, building a house, raising children, fixing cars, canning vegetables; h) Strugglers have the lowest resources. They have constricted lives, they are chronically poor, uneducated and limited skills (Friesner, 2014).

This technique is most popular when it comes to psychographics analysis. It serves to develop more effective strategy of businesses worldwide. It is used in all stages of marketing. VALS is used by companies as the technique to obtain information that will help them develop more effective strategy.

PSYCHOGRAPHICS METHOD AIO

Psychographics segmentation divides the market based on the lifestyle of the consumer or personal criteria. The way of life, however, can be measured by asking consumers questions about their attitudes, as activities, interests, and opinions (AIO method) (Konu, 2007, 303-314). Psychographics by Zografos and Alcroft measures the beliefs, opinions and interests of consumers by measuring psychological characteristics (religious beliefs, thought crime, personality characteristics, leisure activities) rather than demographic characteristics of consumers (Zografos, Alcroft, 2007).

AIO (activities-activities, interests-interests, opinions-opinions) concept is a technique used in psychographics analysis for measuring consumers' lifestyle. For many researchers, author of this technique is William Wells, but according to a study published in 1979, authors of this technique are Leo Burnett and William Wells, which developed it at the late sixties of the XX century (Madden, 1979). Through this technique, analyses are made for the activities, interests and opinions of consumers. The customers usually are asked questions in the form of conclusions and they are required to respond depending on the degree of agreement and disagreement.

In general, AIO psychographics studies are using a series of reports (list of psychographics statements) that are designed to keep in mind the various relevant aspects of consumer personality, buying motives, interests, attitudes, beliefs and values (Dj, Bambang, Fuad, Sumarna, 2014, p. 154-163).

Activities are related to the fact that consumers work, shop and spend their leisure time. Interests relate to the priorities expressed in consumer spending, opinions and respond to the views of consumers towards world events, economic situation, politics, culture, morality. For example, there are three typical statements from AIO survey: I often watch TV (activity); I am very interested in the latest fashion trends (interest); Woman's place is in the home (opinion).

This technique has been implemented on a large sample using a standard questionnaire containing many questions that require an answer based on how much they agree or disagree with the given conclusion. The questions are clear, unambiguous and precise. There are general and specific questions to assist the marketers' detection of pros and cons of a brand. Thus, some authors in 1971 made 300 AIO items (views) and Cosmas in 1982 used a questionnaire with 250 views (Vyncke, 2002, p. 448). Questionnaire can be sent by mail, or marketers can use telephone

and internet. This Psychographics or lifestyle research usually takes the starting point of the AIO extensive research that will lead to diverse lifestyle typologies using cluster analysis techniques (Vyncke, 2002, p. 448). Responses of consumers ranging from "completely disagree" to "completely agree" are measured with Likert's scale. Based on the AIO technique it is possible that consumers with similar responses can be grouped into market segments. These statements or responses are called inventory.

VALS AND AIO METHODS OF PSYCHOGRAPHIC RESEARCH OF FURNITURE MARKET IN THE REPUBLIC OF MACEDONIA

The data of the study of lifestyle of the furniture consumer in the Republic of Macedonia were collected using a self-structured questionnaire consisting of three parts. The first part of a structured questionnaire contains questions about getting the consumer demographics, such as sex, age, education and income. The second part has 55 views, AIO - (Activities, Interests and Opinions) and VALS (Values and Life-Styles). The views are formulated views of the Wells and Tigert activities, interests and opinions of people on certain things. Several of them are those of the SRI questionnaire (SRI Consulting Business Intelligence Research Programs). The views set respondents could respond by Likert's five point scale from "completely disagree" to "completely agree". The third part consists of the questions that consumers responded based on choices and affect their choice when buying furniture. The questionnaire was prepared and placed from google.docs on Facebook, and then forwarded by friends from March to September, 2013. Collected were 136 valid questionnaires. Respondents were divided on the basis of factor and cluster analysis with SPSS - Statistical Package for Social Sciences, 20.0 software. The factor and cluster analysis techniques are used to: (1) Combine the issues of changing to create new factors; (2) Combine items to create new groups. Often they are called analysis techniques interdependence issues, or changing objects. By reducing the number of variables, factor analysis procedures tend to retain as much as possible of the information and make other significant variables and easy to work. Using Principal Component Analysis (PCA) as a method of extraction was reduced number of variables from 55 to 16 factors that served to divide consumers with k-means clustering on the special features and the way of life. This method is very suitable to form segments of consumers, because usually there are no prior information on the number of segments and variables associated with the groups. PCA was designed to better explain dimensions between different variables, and then clustering was made. The factor and cluster analysis were made on the basis of a questionnaire that included variables closely related to lifestyles and values of consumers. Prior to the PCA and cluster analysis was investigated and the suitability of the Correlation matrix of the test. Adequacy was assessed using the Bartlet test and test KMO (Kaiser-Meyer-Olkin). Bartlet test of sphericity examines if the correlation value is zero. The KMO test is considered the relationship between correlation and partial correlation. Relative value is closer to 1 if the partial correlation is small. The basic rule is if the value of KMO is 0.6 or more, the correlation matrix (Correlation Matrix) is suitable for PCA. In this research KMO value showed 0.664, Bartlet test was Sig. .000, indicating that the questionnaire variables of the lifestyle are suitable for the Principal Component Analysis (PCA). As a method of rotation was used Oblimin with Kaiser Normalization. After that was done Hierarchical cluster analysis which resulted with two clusters. Because it was a large sample, and according to the research of many experts in this area, the most appropriate use of k-means (k-environments, where k is the number of environments) cluster analysis was to define the cluster centers. Any survey respondents were connected to the nearest center. As best solution were designated 4 groups - clusters of consumers, why k-means cluster analysis allows to choose the number of clusters and to use a large database.

RESULTS AND ANALYSIS

The descriptive statistics of the 136 respondents is shown in Table 1. The respondents are Macedonian nationwide, which consists of female (n=92, 67.6 %) and male (n=44, 43.5%). Majority are with high education (n=75, 55.1 %). Most are with salary between 20 000 and 50 000 Macedonian denars (see Table 1).

	Frequency	Percent	Valid Percent	Cumulative Percent
1 Male	44	32.4	32.4	32.4
2 Female	92	67.6	67.6	100.0
Total	136	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent
1 <10 000	2	1.5	1.5	1.5
2 10 000-20 000	21	15.4	15.4	16.9
3 20 000-30 000	50	36.8	36.8	53.7
4 30 000-50 000	49	36.0	36.0	89.7
5 >50 000	14	10.3	10.3	100.0
Total	136	100.0	100.0	

	Frequency	Percent	Valid Percent	Cumulative Percent
1 Elementary	2	1.5	1.5	1.5
2 High	45	33.1	33.1	34.6
3 Faculty	75	55.1	55.1	89.7
4 MSc or PhD	14	10.3	10.3	100.0
Total	136	100.0	100.0	

Source: Calculations based on own survey data

The data in the following table shows the division of consumers according to their values and AIO's. This table allow us to characterize the clusters by variables and by median factors. Thus, the consumers in cluster 1 wants to buy branded goods as such the third and fourth cluster. This is evident from the values of the final cluster centers. When interpreting the data as the lowest value was taken from the value 6.00. Thus, any value greater than this was considered a valid interpretation and explanation of each cluster. The highest values in each cluster separately for each factor that participated in clustering, shows the most relevant features of this cluster or group. In the interpretation of each value for each factor were taken into account all the variables that contain the factor with a value greater than 6.00. Based on the characteristics were determined for each group separately (see Table 2).

Table 2: Final Cluster Centers

	Clusters			
	Accomplishers	Traditionalists	Economists	Practitioners
Traveling	2.13	1.68	1.66	2.46
Price	6.08	7.51	12.75	11.30
Brand	10.27	8.95	10.38	10.08
Decision	6.87	6.22	6.84	6.65
Angry	.09	.09	.10	.09
Family	7.87	7.93	9.38	11.98
Community	8.33	4.90	6.19	7.29
Tradition	2.21	3.10	3.41	3.18
Payment	2.67	2.25	2.41	2.86
Uncertainty	.12	.14	.16	.15
Diversity	2.67	2.17	2.75	2.67
Panache	6.27	4.54	5.41	5.88
Life	.04	.03	.03	.03
Education	10.33	6.22	7.50	9.17
Clothing	1.43	1.62	2.08	2.74
Activity	13.80	8.68	12.25	6.83

Source: Calculations based on own survey data

The research profile of consumers conducted in Macedonia in this paper shows that the Macedonian consumers in the decision making process are more focused on price, quality and family life. The educational level of the respondents is high, which means that promotional activities of SMEs especially for furniture can specialize in particular media and they can use this method to segment market and target right customer (see Table 3).

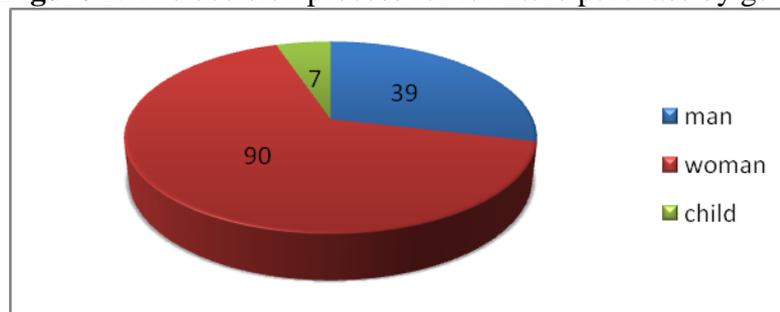
Table 3: Macedonian clusters and their characteristics

Clusters	Characteristics
Accomplishers	Like sports activities more than dancing, can influence on their friends' choice when buying products on the market, believe in education but they think that should be paid by Government, like brands, they are interested in politics, are confident, dress modern, like movies and good product packing. (15 respondents)
Traditionalists	Like brands but price is more important for them, like to talk with friends about brands and sport, most important for this cluster are order and discipline in the home, love children, but not dirty home. This cluster prefers watching movies that other people talk about. (41 respondents)
Economists	Most important for this cluster is a product price. They are checking price for particular product in more stores. They like family, proven products and social events. (32 respondents)
Practitioners	They like family, brands with low price, education and computers. They are helping their friends about internet and computers questions. This is the largest cluster with 48 respondents.

Source: Calculations based on own survey data

On Table 3 are showed characteristics of Macedonian customers which were included in the survey. Most of the respondents in Macedonia, as per Cluster analysis made with SPSS, were with the profile named Practitioners. Characteristics of this and other consumers' profiles, their activities, interests, opinions and values give enough information to entrepreneurs and marketers when they are creating ads for some type of customers. In the case with Practitioners profile they should address to the price, family and education in their ads. Also, one of the very important data is about the gender characteristics in the decision buying process of furniture in Republic Macedonia.

Figure 1: The decision process for furniture purchase by gender



Source: Calculations based on own survey data

The data given in Figure 1 shows that the women in the families are mostly involved and charged in the decision making process of furniture, which means that they have the key role in this process.

This brief analyse shows the importance of using the psychographics method in market research for the SME's in general, and the importance for determining the psychographic consumers profile for the positioning the offerings in using the appropriate marketing and promotional tools, based on the lifestyle and values of the target segments.

CONCLUSION

In the mainstream of the market and marketing research, psychographics methods are still not familiar for much researchers and companies. Even more they are controversial. But the speed with which psychographics entered in the marketing community, gives hope that researchers, companies and marketers will reflect the importance of the use of this method in researches.

Many existing studies were investigating about psychographics methods, namely VALS and AIO, to obtain customer's lifestyle and values. Many companies in the world used those results. New measurements of SME's customers are creating new abilities which can create new techniques. Psychographics is a new technique, not yet professionally used on the Macedonian market. It is a precise technique in order to adopt products towards consumers' activities, interest, opinions, needs and values. The received data from the questionnaire showed in this paper tells us that psychographics will give SMEs valuable information from lifestyle of Macedonian customers and the way how to communicate with them. Moreover, this segmentation will save time and money and will not let them wonder.

In other words, psychographics as a method for market research of SMEs customers will reduce cost of ads, increases the profits, as enterprises will know what are consumer's needs and wants and serve them, or will target only one group of customers which require their products.

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FINANCING SMEs IN MACEDONIA

Petrevska Biljana¹

Abstract

Entrepreneurship is closely related to the small and medium sized enterprises (SMEs). Regardless the country's level of economic development, the SMEs encompass over 98% of business entities in the contemporary economy. They are particularly important for the job creation, GDP, value added, as well as innovation, local and regional development and so forth. The objective of this research is two-folded: firstly, to describe the sources of financial support to the SMEs, and secondly, to identify and address the most applied sources of financing. For the purpose of that, the research is elaborating the case of Macedonia. It poses comparative analyses based on stylized facts obtained from desk-research and available sources of secondary data. In this line, the paper elaborates the significance of the Macedonian Bank for Development Promotion (MBDP) in providing financial support to the SMEs in Macedonia. The data set covers the period 1999-2011. Since the quantitative analyses do not always disentangle key facts necessary for pointing out concluding remarks regarding particular issues, analyses based on qualitative approach are additionally introduced. This empirical investigation underlined that the role of the MBDP is additionally important since it gave support in the period when the interest rates (nominal and real) of the commercial banks were extremely high and when the SMEs were practically excluded from the financing of the banking sector. Finally, the research findings point to fact that the MBDP has substantial role in terms of financing and development of the SMEs, as well as the entrepreneurship in Macedonia.

Keywords: Financing, SMEs, Macedonian Bank for Development Promotion, Macedonia.

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INTRODUCTION

In the contemporary society, the economics defines the entrepreneurship as one of the most profound factor for growth and development. Generally, the entrepreneurship is defined as usage of new possibilities, which results due to introduction of innovation in the economic activity – in the production, exchange and consumption of goods and services. In this line, an entrepreneur is a person who innovates and introduces innovations in the economic activity.

There is an inevitable relationship between the entrepreneurship and small and medium-sized enterprises (SMEs). They have dominancy of approximately 98% of the total number of enterprises in a country, regardless the level of its economic development. Among the SMEs, it is noticeable the share of the micro-firms (up to 10 employees), as well as the share of the small firms (between 10-50 employees). On the other hand, the share of the medium-sized enterprises (between 50-150 employees) and the big companies (over 250 employees) is by far lower. In this line, the SMEs participate even by 99.8% of total number of enterprises active in the nonfinancial sector in the EU-27 countries, while the micro-firms participate with 91.8% (Eurostat, 2008). Moreover, the SMEs contribute to the job-creation within the business, particularly in the nonfinancial sector by creating 67% of total employment in the EU-27 countries and by 58% in the creation of the value added.

In Macedonia, the SMEs, as well as the entrepreneurship started to develop significantly after the country's independency. Out of 75,497 active business entities in Macedonia, 75,294 or 99.7% are SMEs (State Statistical Office, 2010). Consequently, the SMEs have predominant role in employment and value-added, as well as in the creation of the GDP in Macedonia.

Concerning the other aspects of SMEs development, one may note their importance in supporting and introducing innovation, using entrepreneurial skills of employees, support to local and regional development etc. Consequently, one may conclude that the SMEs and the entrepreneurship are factor that enhances stable and sustainable development of modern economies. Therefore, it is not surprising the fact why the governments pay much attention to the policy of supporting SMEs. In this line are the institutional, educational as well as the consultancy measures for the SMEs support. Furthermore, there are established national agencies for SMEs, regional centers, business-incubators, technological parks, clusters, local economic development offices, and so forth. Yet, the financial support to the SMEs is still important measure particularly in the case of establishment and development due to numerous limitations and risks, mainly from financial aspect. The variety of risks derive from the fact that the SMEs have lack of: economies of scale, diversified assortment, skilled and educated management, limited options for bank loans etc. resulting with limited access to finance. Accordingly, the governments assess the possibilities to establish mechanisms at central and local level in the line of providing financial support to the SMEs. In many countries worldwide there are governmental specialized financial institutions, like state development banks, guarantee funds etc.

In the early phase of the transition, the SMEs in Macedonia developed rapidly and evoked the issue for ensuring financial support under favorable conditions. Namely, the financial problems at the time being were namely present due to two reasons: (i) the nominal interest rates were extremely high; and (ii) there were no alternative approaches and sources for SMEs financing. Therefore, the Government of Macedonia decided to establish the Macedonian Bank for Development Promotion (MBDP) with two sectors: (a) sector for SMEs support; and (b) sector for export support. Up-to-day, the MBDP succeeded to ensure important credit lines from

international and domestic sources for SMEs development, and to launch them in accordance with bank's mission and strategic priorities.

The objective of this research is two-folded: firstly, to describe the sources of financial support to the SMEs, and secondly, to identify and address the most applied sources of financing in Macedonia. In this line, the paper is structured in several sections. After the introductory part, Section one provides a snapshot on some background materials presenting stylized facts regarding sources of financing for SMEs. Section two poses the applied methodology and research frame. Section three presents the main sources of financing SMEs in terms of formal and informal sources, as well as the sources of equity and debt capital. At the same time, this section briefly explains the role of commercial banks for SMEs development. The evolution and development of the SMEs in Macedonia is elaborated in section four, while section five puts an accent on the main aim of the Macedonian Bank for Development Promotion. The final part of the paper includes main conclusions and recommendations.

LITERATURE REVIEW

There is a large body of literature referring the financing sources of SMEs. Some authors pay attention to the importance of the informal financing sources, particularly in the early phases of their business development. According to Birch (1987), there were approximately 800,000 small businesses in the USA in the middle of the 80s, seeking for 25,000 US\$ for an individual start-up, or approximately 20 billion US\$ in total. In case that out of those 800,000 newly established enterprises, 300,000 continues rapidly to develop, it provokes a need for 25,000 US\$ each, so the total amount for financing the SMEs is estimated around 27-28 billion US\$ per year. 80% of the total amount (around 22 billion US\$) derives from the informal sources of financing (Birch, 1987, p. 79). In this line, one may note the findings from another interesting research in which on the sample of 500 the fastest growing businesses in the USA, almost 70% refer that the start-up financing come from the founders' savings, 20% is from relatives and friends, while only 8% are bank loans (Filipovski, 2007, p. 205).

The role of the informal sources of financing of the SMEs in the developing countries, whereas the financial markets are still undeveloped, is substantial. That addresses the transition countries as Macedonia is as well. Moreover, in the early stage of the transition period in Macedonia, the informal sources of financing of the SMEs (3F money) were dominant over the formal sources i.e. bank loans. That was a time when due to high interest rates, the SMEs actually did not have an access to finance (Fiti et al, 2007, p. 247-248). Furthermore, one may note the importance of sources of equity and debt capital for SMEs. Baron and Shane (2007) as well as Filipovski (2007) point out the following sources of equity financing: Personal savings by the entrepreneur; Sources from family and friends; Sources from the business partners; and Risk capital.

In this line, the banks are the main source of debt capital, supplemented by the leasing and factoring. The leasing of the SMEs brings two very important advantages: (i) by hiring an equipment from a leasing-firm, they are protected from the out-of-date; and (ii) it enables the costs to be spread over longer period (Filipovski, 2007, 209; Ros et al, 2010, p. 620). Furthermore, one may note that the banks contribute even up to 70% in the financing of the SMEs, the second-ranked is the leasing with 24%, the public financial institutions with 11%, business-angels with 4%, official venture funds with 2% etc. (Jekkel, 2006, p. 5).

METHODOLOGY AND RESEARCH FRAME

The research encompasses the usual methods applied by the economics in the first line the methods of induction and deduction, which are particularly used to investigate the size of loans granted by the MBDP. Furthermore, the paper poses comparative analyses based on stylized facts obtained from desk-research and available sources of secondary data (Yearly Reports and Financial Reports of the MBDP). The data set covers the period 1999-2011. Since the quantitative analyses do not always disentangle key facts necessary for pointing out concluding remarks regarding particular issues, analyses based on qualitative approach are additionally introduced. The idea is to evaluate the effects of the MBDP's work in terms of financial support to the SMEs in Macedonia.

SOURCES OF FINANCING

This section gives a snapshot on the most significant sources of financing of the SMEs, in terms of formal and informal sources, as well as sources of equity and debt capital. The role of commercial banks for SMEs development is additionally addressed.

Formal and Informal Sources of Financing of SMEs. The formal sources of financing refer to the official financial institutions relevant for the financial systems in different countries – commercial banks, public banks, international banks (like the International Bank for Reconstruction and Development i.e. the World Bank and its agencies the European Bank for Reconstruction and Development, the European Investment Bank etc.), stock exchanges and venture funds. The informal sources of financing the SMEs refer generally to the 3F money (founders, family and friends). Furthermore, the business-angels are within this group, which belong to the risk capital family.

Sources of Equity and Debt Capital for SMEs. Concerning the financing of the SMEs, one must note the sources of equity and debt capital. The equity capital is extremely important source of business financing since it is a capital that is permanently invested in the firm without an obligation to be returned to the investor. In this line, the following sources of equity capital may be noted:

- Personal savings by the entrepreneur (founder) – it incorporates relatively small amounts in terms of bank deposits, demand deposits, credit cards etc. Furthermore, this category of sources encompasses the property in securities (shares, state or business bonds etc.) and real estate (land, house, buildings etc.);
- Sources of relatives and friends – this potential source of financing the SMEs has a form of equity capital only if it includes invested money in exchange of shares. In case when relatives and friends give a loan, it is a matter of debt capital;
- Sources of business partners – an individual firm may be transformed in a partnership in a case when a business partner invests money in the firm instead of shares. Yet, the partnership is a type of rigid business form since the partners undertake full (unlimited) responsibility for the firm, regardless the size of individual participation in the firm's capital (Samuelson & Nordhaus, 2005, p. 105);
- Risk capital – this incorporates sources from the informal risk capital (business-angels) and from formal risk capital (venture funds). In both cases, it is a matter of

investing money in exchange of shares, but in time and expertise as well (Mason, 2005, p. 4).

Concerning the sources of debt capital, it is known that the banks are the main source. They lend financial funds to the SMEs and get interest in return. Besides them, the leasing and factoring are other important sources of debt capital. In the case of leasing, the SMEs lend an equipment and pay to the leasing-firm for the time of usage of the equipment in terms of rent and interest. After the leasing period, the firm returns the equipment or buys it. In the case of factoring, the SMEs actually sell its demand to the factoring-firm, usually for lower prices than the nominal amount of the demand, while the factoring-firm attempts to charge it.

The Role of Commercial Banks for SMEs Development. The commercial banks play the most important role in the financing of the SMEs. Even in the countries with developed financial market with variety of financial sources, the banks have the profound part enabling external financing to the SMEs. In Macedonia, the banks are highly interested for SMEs financing, particularly if they are characterized with dynamic growth and flexibility. The major part of the credit lines for the SMEs comes from foreign governments and public agencies, or by the international banks and agencies (Petrevski, 2005, p. 16).

The banks may endorse different types of loans, starting with overdrafts, revolving, long-term loans, mortgage etc. Before the banks reach final decision for providing a loan, they undertake a detailed credit analysis of the client. In this line, one of the most applied methods for evaluation of the credit capability of the SMEs is the 5C-method (Character, Capacity, Capital, Collateral and Conditions) (Hisrich and Peters, 1998, p. 367-368; Kolari and Gup, 2004, p. 263-264). Recently the commercial banks put an accent to the advisory and consultancy role through its experts, which is extremely useful for the SMEs particularly in their starting years of business and limited experience. Even more, the banks may give crucial recommendations during the entire lifecycle of the SMEs, particularly important during their expansion and internationalization (Fiti et al, 2007, p. 143).

DEVELOPMENT OF SMEs IN MACEDONIA

Macedonia, as many other former socialist countries, started with the development of SMEs in the transition process. Based on various changes in the economic and political system of the country, the process of spontaneous entrepreneurship was initiated. On the other hand, the establishment of large number of new SMEs was expected reaction of the citizens due interrupted social and economic security caused by transition, privatization and growing unemployment (Fiti et al, 2007, p. 224). The dynamic of registering new SMEs was particularly intensive in the period from 1990 until the end of 1993, followed latter on by smaller intensity (due to embargo) and gaining in force once again in 1996. The Kosovo crisis in 1999 did not have any meaningful influence on the establishment of new SMEs. The registration almost stopped in 2001 when the war conflict in Macedonia started, but continued in 2002 again. At the end of 2004, there were more than 172,000 SMEs in Macedonia (APPRM, 2005). However, soon after, it was detected that large portion of the newly created SMEs are inactive entities, so only 49,123 (29%) were active. According to the sector structure, in the early transition period, the largest number of SMEs belonged to the trade sector (even 67% of the SMEs in 1993). Later on, the firms gradually shifted from trade to manufacturing, construction and other services out of trade. Until 2004, the share of SMEs in the trade sector was substantially reduced compared to 1993, getting to 54% (APPRM, 2005). Concerning the regional aspect, the largest part of the SMEs is concentrated in Skopje, Bitola, Kumanovo, Prilep, Ohrid, Strumica and Tetovo.

In 2004, based on the changes within the Company Law, Macedonia adopted the methodology for classification of the enterprises based on the size, proposed by the EU Commission. According to this methodology, the enterprises are classified upon three criteria. The first criteria (number of employees) is accepted in Macedonia and consequently there are micro, small, medium and big enterprises. The other two criteria (size of the turnover and total amount of the assets) are adjusted to fit Macedonia's conditions. Hence, small enterprise in EU is an entity with yearly turnover of 10 million EUR, while in Macedonia it should have only 2 million EUR.

The State Statistical Office of the Republic of Macedonia is entitled to follow the development of the SMEs in terms of growth, sector and regional structure, demography etc.

Table 1. Number of active business entities in Macedonia in 2012

Sectors of activity	Total	Number of active business entities by number of persons employed					
		0*	1-9	10-19	20-49	50-249	250+
Total	74,424	7,158	61,053	2,937	1,795	1,280	201
Agriculture, forestry and fishing	3,072	290	2,678	38	31	33	2
Mining and quarrying	184	24	103	27	15	9	4
Manufacturing	8,251	607	6,059	658	518	352	57
Electricity, gas, steam and air conditioning supply	134	58	61	3	4	5	3
Water supply, sewerage, waste management and recommendation activities	321	39	200	25	23	27	7
Construction	4,541	465	3,564	277	161	67	7
Wholesale and retail trade; repair of motor vehicles and motorcycles	27,307	1,879	24,140	826	342	107	13
Transport and storage	6,445	299	5,795	208	99	37	7
Accommodation and food service activities	4,611	278	3,922	311	78	20	2
Information and communication	1,515	338	1,037	73	35	25	7
Financial and insurance activities	413	69	287	13	15	18	11
Real estate activities	493	119	331	21	16	5	1
Professional, scientific and technical activities	5,707	531	4,956	152	48	18	2
Administrative and support service activities	1,438	428	872	55	47	22	14
Public administration and defence; compulsory social security	268	10	31	41	74	80	32
Education	1,020	67	453	41	158	296	5
Human health and social work activities	3,298	49	2,965	70	73	120	21
Arts, entertainment and recreation	1,176	416	629	47	45	33	6
Other service activities	4,232	1,192	2,970	51	13	6	0

Note: *Including enterprises with unascertained number of employees

Source: State Statistical Office of the Republic of Macedonia (2014)

Table 1 presents data on active business entities in Macedonia in 2012. It is noticeable that out of 74,424 enterprises, 99.7% or 74,223 are SMEs. In this line it should be noted that the SMEs are significant not only for having the dominant share of total entities in Macedonia, but for their contribution to the GDP (over 55%) and to employment in the business sector (over 75%). Additional conclusion arises in the line of sectorial changes in the SMEs in Macedonia. Namely, based on Table 1, one may find that the trade has decreased its share for additional 17% compared to 2004. Moreover, the manufacturing, construction and transport have a common

share of 26%, while the Information and communication, Financial and insurance activities, as well as Professional, scientific and technical activities contribute with 10%.

In the first years of the transition period, the SMEs sector was developing spontaneous, without any substantial governmental support or planned policy measures. Yet, as the number of the SMEs grew and their contribution to the country's development became more meaningful, special institutions for support to the SMEs and the entrepreneurial process were established. The following institutions are among the most important:

- National Enterprise Promotion Agency (NEPA) – it is established by the Government in 1997, with the support of the PHARE Program and the EU Commission. The main aim of NEPA was to support the development of SMEs, particularly those active in the field of production, innovation and export; to train the current and potential entrepreneurs; to establish a system of consultancy; to coordinate entrepreneurial ideas at national level and to contribute in the creation of policy for support of the SMEs and the entrepreneurship. At the beginning, NEPA was active within the frames of the Agency for privatization, and in 1998 was independent legal entity. The financial support of its activities was mainly from the PHARE Program, while the funds of the state budget were very modest. NEPA was active until 2002 when it was transformed into the Agency for promotion of entrepreneurship of the Republic of Macedonia. Yet, one may conclude that NEPA had profound role in the institutional support of the SMEs in Macedonia (NEPA, 1998);

- Regional Centers for SMEs and entrepreneurship. These centers were established with PHARE Program support, and later on, part of them were self-sustainable. At the early stage of their creation, they were established in Skopje, Veles, Bitola, Kumanovo and Strumica, and later on in other cities in Macedonia (Ohrid, Tetovo, Gostivar etc.). Their main aim was very similar to NEPA's but limited at local and regional level;

- Business-incubators. The idea of their establishment started in 1993-94 within the Project for social reforms and technical assistance, undertaken by the Government with financial support of the World Bank (IDA loan) (Fiti et al, 2007, p. 235-243). The first business-incubators were established in 1997 in Prilep, Krusevo, Stip, Makedonska Kamenica and Delcevo. Later on, based on the initial experiences, the Government developed a Manuscript for establishing incubators in Macedonia (APPRM, 2005). In the meantime, newly established business-incubators were active, like "Yes" incubator in Skopje, The Center for development of new businesses in the frames of "St. Cyril and Methodius" University - Skopje etc.

- Macedonian Bank for Development Promotion

- Other institutions. In this line, in 2002 the Government adopted new Program for measures and activities for support of the entrepreneurship and creation of competitiveness of the SMEs. The PHARE Program cut the funding to NEPA and in 2002, it was transformed into the Agency for promotion of entrepreneurship of the Republic of Macedonia. In the following years, several other institutions were developed generally with a bilateral agreement, like: the Agency for support of the entrepreneurship in the Pelagonia Region (PREDA-Prilep) (financial support of the Swiss Development Agency); many municipalities developed offices for local economic development; Macedonian Business Center (financial support of the north Rayna Westphalia); the saving bank "Moznosti" (financial support of the USAID) etc.

Despite the fact that Macedonia during the transition has increased number of SMEs and meaningful institutional support, yet the conclusion is that there is a lack of SMEs. Namely, today there are approximately 35 active SMEs on 1,000 inhabitants, while the critical point is 50-60. In this line, large number of current SMEs in Macedonia have weak innovative approaches and have modest export results. Additionally, the institutions which general aim is support to the SMEs and the entrepreneurship in Macedonia are with limited capacity (UNDP, 2006).

Limitations of sources for financing SMEs. In the early phase of the transition process, despite the rapid development of newly established SMEs, the sources for financing were very limited. Actually, up to 1996, only two sources for financing SMEs in Macedonia were present: (i) 3F money; and (ii) Bank loans. After 1996, the Government mobilized the foreign credit lines, while the debt capital was not present.

Concerning the Macedonian banking, it should be noted that during the transition it was in a process of rehabilitation and consolidation. After the independence, the banks were faced with huge problems particularly in servicing foreign exchange-denominated deposits and substantial share of bad loans in the banks' portfolio. Consequently, the banks lost their credibility among the citizens and business entities.

Table 2 presents the key findings from perception of the surveyed enterprises towards their general financial limitations (Bartlett and Bukvic, 2002, p. 25). It is noticeable that the financial obstacles for the Macedonian SMEs are by far larger compared to other two investigated countries. In the same line is the conclusion that the financial limits for the growth of the SMEs have the highest rank compared to other potential obstacles (taxation, administrative regulations, legal aspects, lack of institutional support etc.) (Bartlett and Bukvic, 2002, p. 34).

Table 2. Financial limitations for the SMEs in Macedonia, Slovenia and Bosnia and Herzegovina(%)

Types of financial limitations	Macedonia	Slovenia	Bosnia and Herzegovina
<i>High credit costs</i>	63	44	62
High value of mortgages	54	41	54
Indifference of banks for SMEs	55	24	46
Long time to obtain a credit	55	22	45
Very high bank expenses for processing the credit requests	51	29	45
Bank administrative procedures	50	25	44
Reject of financial request	57	13	41
<i>Average</i>	55	28	48

Source: Bartlett and Bukvic. (2002), p. 25.

In the line of overcoming the detected limitations for further development of the SMEs and the entrepreneurship in Macedonia, the Macedonian Bank for Development Promotion is established in 1998.

MACEDONIAN BANK FOR DEVELOPMENT PROMOTION (MBDP)

The MBDP is the only state developmental bank in Macedonia, established in 1998, with a constitutional capital of 15 million EUR and structure upon the concept of the German Development Bank KfW. It is interesting to note that the first idea when establishing the MBDP was to support the export of the Macedonian firms, which was not supported by the International

Monetary Fund (Trpeski, 2009, p. 473-477). In general, MBDP supports SMEs since in the frames of enterprises, which produce for export, substantial part belongs to SMEs. Table 3 presents the credit lines of the MBDP from own resources. Namely, starting from 1999 until up-to-date, there are four active credit lines for SMEs financing originating from own resources.

Table 3. Credit lines of MBDP from own resources for financing SMEs, 2011

Type of credit line	Amount in EUR	Term of repayment	Interest rate*
Financing small and medium trade enterprises	15,000-500,000	Up to 8 years with 1 year grays period	8%
Financing of production for export	15,000-2,000,000	Up to 2 years	6%
Financing of working capital	30,000-300,000	Up to 3 years	8%
Direct support to the export firms	15,000-1,000,000	Up to 2 years	6%

Source: Various publication of the MBDP (www.mbdp.com.mk)

Furthermore, Table 4 presents the credit lines of MBDP from foreign resources for financing SMEs. It is noticeable that as of 1999, Italy and Germany started to allocate resources for supporting SMEs development.

Table 4. Credit lines of MBDP from foreign resources

Type of credit line	Amount in EUR	Term of repayment	Interest rate*
German credit line KfW	50,000-40,000	Up to 5 years with 1 year grays period	App. 11%
German credit line KfW – Revolving Fund	50,000-400,000	Up to 4 years with 6 months grays period	App. 10%
Credit line from Italy	50,000-2,000,000	Up to 7 years with 1.5 years grays period	7%
Credit line from Italy – Revolving Fund	50,000-500,000	Up to 3 years with 6 months grays period	7 and 8%
German-Macedonian Fund DEG	10,000-150,000	Up to 10 years with 2 years grays period	8%
Credit line for developing small and medium trade enterprises from EAR	100,000	Up to 5 years with 1 year grays period	9%
Credit line for financing micro, small and medium trade enterprises from KfW	50,000	Up to 4 years	10-14%
Credit line from the Development Bank of the Council of Europe - CEB	400,000	Up to 7 years with 2 years grays period	App. 9%
Project for sustainable energy	20,000-500,000 US\$	Up to 6 years	variable
Project for sustainable energy (renewable sources)	50,000-4,000,000 US\$	Up to 10 years with 3 years grays period	variable
Project “Self-employment”	variable	Up to 4 years with 1 year grays period	1%
EIB credit line for investment loans	10,000-3,500,000	Up to 5 years with 1 year grays period	5.5%
EIB credit line for TOS	5,000-667,700	Up to 3 years with 6 months grays period	5.5%

EIB credit line for priority projects	12,500,000	Up to 15 years with 3 years grays period	5.5%
EIB II credit line for investment loans	10,000-3,500,000	Up to 8 years with 1 year grays period	5.5%
EIB II credit line for TOS	5,000-667,700	Up to 3 years with 6 months grays period	5.5%
EIB II credit line for priority loans	6,000,000	Up to 8 years with 2 years grays period	5.5%
OKF (ZKDF)	100,000 for primary agricultural production 300,000 for agricultural products 3,000,000 for export of primary agricultural products	Upon agreement with the financial institution	4-6.5%

Source: Based upon various publications of the MBDP (www.mbdp.com.mk)

During the first starting years from the establishment of the MBDP, only two programs were active: the Investment Lending Program and the Export Production Lending Program for SMEs. Both programs have identified the financing priorities according to the priorities of the macroeconomic policy of Macedonia (MBDP, 2001, p. 12). The brief overview of the main terms of loans from the above noted programs are presented in Table 5.

Table 5. Terms of loans from the Investment Lending Program and the Export Production Lending Program for SMEs

<i>Investment Lending Program</i>	
Purpose	min. 70% equipmentmax. 30% working capital
Ammount	50,000-400,000 EUR
Terms of repayment	Up to 5 years with 1 year grays period
Interest rate	11%
<i>Export Production Lending Program</i>	
Purpose	Financing the export production
Ammount	50,000-400,000 EUR
Terms of repayment	Up to 15 months
Interest rate	11%

Source: MBDP (2001, p. 12)

Based on facts posed in Table 6 and 7, it can be concluded that MBDP enlarged its lending activity during 1999-2001.

Table 6. Program for support of investments in SMEs, 1999-2001

Period	1999	2000	2001	Total
Number of loans	11	1	35	47
Amount in million EUR	3.2	0.4	9.3	12.9

Source: MBDP (2002, p. 30)

Table 7. Program for support of export production, 1999-2001

Period	1999	2000	2001	Total
Number of loans	18	24	35	77
Amount in million EUR	6.1	6.6	10.7	23.4
Supported export in million EUR	21.0	52.0	39.0	112.0

Source: MBDP (2002, p. 36)

After 2006, no substantial change is noted in the sectorial distribution of lending, which can be observed from Table 8.

Table 8. Loans by sectors from own resources within the Investment Lending Program, 2006

Nr.	Sector	EUR	Number of loans
1	Production of food products, drinks and tobacco	1,484,428	11
2	Production of cellulose, paper, paper products, publishing and printing	180,000	2
3	Production of electrical and optic devices	140,000	2
3	Production of textile	211,500	4
4	Manufacturing of wood	123,000	2
5	Production of machines and devices	385,000	3
6	Hotels and restaurants	417,700	2
7	Construction	200,000	2
8	Health and social care	228,100	2
9	Other communal, cultural, general or personal services	1,050,000	6
10	Traffic and communication	269,839	3
11	Production of chemicals and artificial products	500,000	1
12	Production of basic metals and standard metal products	1,433,560	5
13	Production of leather	500,000	1
14	Agriculture, hunting and forestry	200,000	2
15	Production of other non-metal minerals	720,000	2
	<i>Total</i>	<i>8,043,127</i>	<i>50</i>

Source: MBDP.2011, p. 11-12.

Table 9 presents significant increase in the loan portfolio of the MBDP, which was initiated after 2008.

Table 9. Dynamics of loan portfolio of MBDP (in mil EUR)

Year	2006	2007	2008	2009	2010	2011
Loan portfolio	37	40	41	64	95.6	145.5

Source:Based upon various Yearly Reports of the MBDP.

In the frames of foreign resources, in 2009 the credit line of the European Investment Bank (EIB) is activated for micro, small and medium enterprises with a total amount of 100 million EUR. Table 10 presents the priority investment loans from the EIB in terms of credit programs.

Table 10. Credit line from EIB

Amount	26,700 EUR for micro enterprises 266,700 EUR for small enetrprises 2,666,700 EUR for medium enterprises
Terms of repayment	Up to 5 years
Payment	Quarterly
Grays period	Up to 12 months
Participation of Bank-participant in the lending support	Minimum 25% from the amount of credit support and 50% from priority projects

Source: MBDP. 2010, p. 20

During 2010, from the own resources of the credit line for financing SMEs, 14 loans were launched with total amount of 2,337,000 EUR, out of which 44% were for manufacturing, 21%

for services, 15% for furniture production, 9% for food production, 6% for construction and 5% for transport. Furthermore, two loans with a total amount of 60,000 EUR were launched for working capital. It is interesting to note that in 2010, in the frames of the Program for support of export production the interest rates were decreased from 8% to 7% (MBDP, 2010, p. 20). In 2011, from this program four loans were approved with total amount of 1,606,950 EUR, while from the program for working capital only two loans were approved with total amount of 60,000 EUR.

Consequently, concerning the role of the MBDP in the financing SMEs as well as the entrepreneurship, one may conclude that it was important and progressive. This is based on the facts that this institution was active in the period when the interest rates were extremely high (nominal and real) and when the SMEs sector had limited access to finance from the commercial banks. The MBDP enabled the increase in the bank loan supply in the Macedonian economy and decrease of the interest rates.

CONCLUSIONS AND RECOMMENDATIONS

Financing SMEs is among the most important issues and problems with which they are faced during different phases of its life cycle. In this line, the commercial banks are by far the dominant source of financing, by participating even with 70% in the EU countries. On the other hand, the countries with developed financial system have much more diversified resource structure, opposite to the transition countries and countries in development. Namely, the developed countries have large portion of financing by the risk capital (business-angels and official venture funds), while within the debt capital the leasing and factoring have increasing importance. Completely opposite is the situation within transition countries and countries in development whereas the noted financing sources have modest participation.

Due to specifics, the SMEs bear bigger risk for financing which leads to limited access to finance. On the other hand, the governments are fully aware that the SMEs are significant business segment with substantial contribution to sustainable economic development. Therefore, they identify measures and activities for supporting the SMEs development and entrepreneurship in terms of institutions and instruments. Hence, there are many public institutions (developmental banks, funds, etc.) which generally present public financial funds for SMEs financing, special programs for subsidizing interest rates of loans for small businesses, various guarantee schemes etc.

Furthermore, one may conclude that the public financial institutions support the SMEs, which have innovative approaches in their businesses, have high development potential, implement projects for environmental protection, application of renewable sources of energy and improving energy efficiency.

Besides the noted conclusions, the research poses some interesting recommendations in the line of enhancing the SMEs financing, like:

- To increase the lending potential of the MBDP;
- To strengthen capacity of the MBDP, particularly in terms of experts for loan analyses since as of 2011, it started with direct investments in the export oriented businesses;
- To develop furthermore the advisory and consultancy role of the MBDP; and
- There is a lack of risk capital (formal and informal) in Macedonia, as substantial form of support to the SMEs and entrepreneurship. Consequently, attention should be

paid to the idea of establishing a Fund for risk capital that will enable financing of innovative projects with good entrepreneurial ideas.

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**CO-EVOLVING WITH THE DEVELOPED WORLD:
SHAPING TACTICAL MANAGEMENT FROM EXPERIENCES AND CONTEXT IN
BELGIUM AND MACEDONIA**

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Abstract

The focus on Tactical Management as the dynamic and adaptive component in the company organism is yet to receive attention. In this direction is the accelerating realization that the competitive advantage nowadays should be searched for in the way companies use the resources and in the intangible assets such as information quest, knowledge and management. With this motivation, and with first-hand experience and belief that the tactical managers are making a difference in the companies, with the way they are performing their everyday work, but also with the way they are thinking, this research aims to shape Tactical Management as proper as possible, in order to point out that aside from the mutual characteristics as management, with strategic and operational one, it has quite distinctive characteristics and should be addressed appropriately from Information Systems, Management concepts, frameworks, tools and methods. This means not just with standard reports and event-driven big data, but with flexible information systems that can answer in right-time after properly positioned information sensors with wide and diverse scope of entities, frequency, details, reasoning, ...; that can assist the handling of the mismatch a tactical manager needs to handle reasoning inputs form operations and outputs of KPIs, targets and strategic guidelines. This also means managerial approaches that are also flexible, or to say more appropriate for uncertain and constantly changing environment, and provide adaptability to the person and to the organization. An interesting conclusion can be drawn from the comparison of the approaches used in Belgium and in Macedonia, showing that the developed country managers are functioning in technically more advanced environment, but still struggling to adapt information flows, organizational structure, ... to the specificity of the tactical management, becoming proficient in shaping the heaviness of the existing systems and processes, or to say the organizational design paradox; while in a developing country, the technical support is quite on a lower level, but to this account, their flexibility and ability to swim in uncertain environment is on a high level, and gives a lot of substance to learn from.

Keywords: tactical management, information systems, Belgium, Macedonia, middle management, co-evolution

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THEORETICAL CONCEPTS

This research is multidisciplinary, interweaving management, information systems, knowledge management, behavioral science, ... due to the problem in focus – the person, the tactical manager and due to the approach in finding a solution how to assist the person influencing other persons in a socio-technical system – with information systems and the Sense-and-Respond managerial concept. Hence, the basic concepts to be used in the research are:

- Tactical Management
- Sense-and-Respond Framework and Sense-Interpret-Decide-Act Loop
- Strive for Low (but not Zero) Latency in the information flow
- Right (not Real) Time information
- Proper Positioning of Information Sensors and Emitters

The tactical management concept is being focused in order to address relatively neglected area of management, next to existence of Performance Measurement Frameworks for strategic and numerous zero-latency and real-time information systems receiving great support nowadays. The specificity of the tactical management, and its diversity and complexity, may be one of the reasons for such re-focusing of efforts both in theory and in practice. The preliminary usage of Sense-and-Respond framework is decided upon because of its baseline of adaptability towards uncertainty and exhibited functionality to be implemented in any level of the organization. Additionally, this framework offers constant motivation line with endings – insisting on Purpose, or Reason for Being, and Governing Principles as a skeleton that provides the stability in the behavior, while offering unambiguous system design by reasoning Roles and Accountabilities with the perpetual Who owes What to Whom and Why question in deciding the design of the system. The incorporation of Negotiations, as clarification element in both directions, and the revolving of the Sense-Interpret-Decide-Act loop provide the adaptability component. This framework's interest with effectiveness, leaves efficiency for more certain and predictable environment, and provides agile steering through the uncertain conditions making positive that an ending is reached according constantly re-negotiated conditions in as many as needed iterations. The main force that drives the behavior of every involved party in any designed system according the Sense-and-Respond framework is the client driven motivation what the outcome (not the output) of any activity should be – which sets aside what has been achieved from what has been done, providing place for diverse efforts towards achievement of the expected outcome, for which the client is to appraise. The distinction from zero-latency and real-time towards low-latency and right-time information is to be made with the intention that on tactical management level the focus should be on proper positioning of information sensors and deciding the frequency and manner of obtaining that information (event-driven or on-demand), which in return will give proper and usable structure of information, avoiding the flooding with big data, and sometimes unsustainable investments in hardware and software. Upon tactical manager estimation, of course that the interval of the latency for certain information can vary from zero to a month, or more, but anyhow, the stress is to be placed on self-design of the information system outlook.

Our instinct that nowadays, tactical management is under-addressed, is discussed in the theoretical research (Petrevska Nechkoska et al., 2014) where the finding is that “there is

significantly less coverage of tactical management in general, present in only 50% of the papers, while Operational is in a hive of solutions with 90% followed by Strategic with 85% (Figure 1).

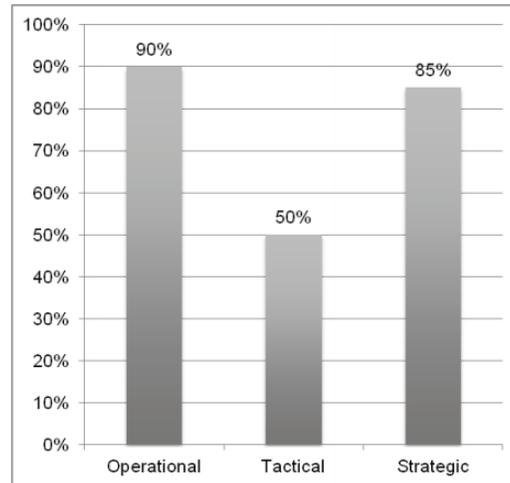


Figure 1 – Coverage of the managerial functions (Operational, Tactical, Strategic) by the investigated works (Petrevska Nechkoska et al. 2014)

THE RESEARCH MODEL

The conceptual proposition of the research is presented on Figure 2. There are several components to discuss in order to explain it. We are pointing out that for tactical management, there are inputs from two constituencies:

- one is **Personal**, from the individual performing that role, somewhat expressing the Cognitive Complexity, especially with the:
 - o *Overviewing Ability of the person* in terms of Scope, Time, Structure, Depth, Manner, ... and the
 - o *Personal Qualifications* in terms of Education, Experience (tenure and area) and Trainings
- And the other is from the side of the **Company**, that needs to provide proper:
 - o *Authority* for the Role of tactical manager and
 - o *Cognitive Artifacts in Information Systems*, where we can place all Platforms, Tools, Methods designed and implemented for the purpose of information management in the company

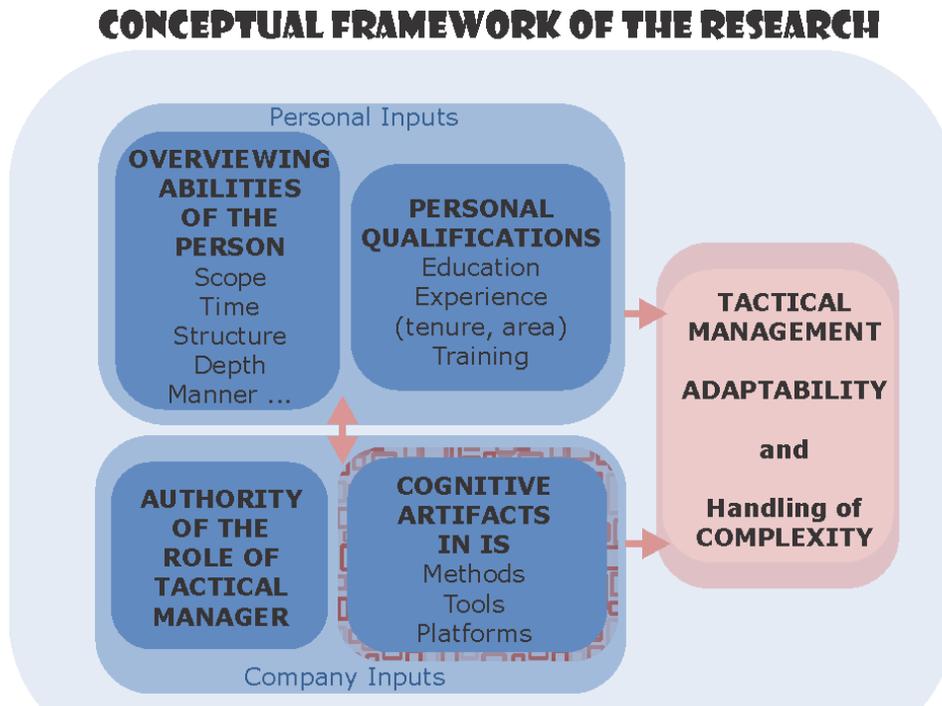


Figure 2 – Conceptual framework of the research

Both of these constituencies define the Managerial Sense-and-Respond capability in terms of Scope, Time, Structure, Depth, Manner, ... which influences and improves the Tactical Management Performance and further on, the Knowledge Management in the company and wider, and consecutively, this improvement enhances the existing Cognitive Artifacts in Information Systems, which denotes continuous learning and improvement loop.

The aim of this research is to contribute to the element of Cognitive Artifacts in Information Systems, by providing a Method as a way of thinking and acting, from the side of the person in the role of a tactical manager, in order to successfully handle the complexity of the work, and to provide high degree of adaptability. Hence, as a consequential effect of the Method, there should be an improvement noted in the Managerial Sense-and-Respond Capability, which provides the baseline for the adaptability of this managerial function. To wrap up the propositional part of the elaboration, in this way, tactical management can be shaped and recognized as distinctive contributor in achieving the competitive advantage prescribed in the Strategy or the Purpose, the Reason for being of a company or a project.

Ultimately, we believe that if we, for the purpose of observing tactical management, assume that the bottom – the operations and the top – the endings, are a ‘given’ the tactical management is the ‘variable’, one appropriate way to provide alternatives and most adjusted pathway for sustainable accomplishment of the competitive advantage of the company.

Coming from the point of view of comparison between a developed country, such as Belgium, and country in development, such as Macedonia, one would say that there might be crucial distinctions that characterize the tactical management adaptability and handling of complexity. If perceived with the variables used in the conceptual framework presented on Figure 2, we would build our standpoint that the person contributes to the tactical management

individually (which depends on the profile of employees performing such a function), and the company contributes by giving the proper authority level to the person performing the tactical management function, and providing Information Systems, Platforms, Architecture, Methods, Tools for proper performance of this activity. Hence, there is no visible distinction whether the country context plays significant role in this framework, on the contrary, our standpoint is that the companies in developed countries may offer less encompassing information systems, platforms and tools, compared to the developing ones, but the latter, facing constant uncertainty and radically changing environment, train the people doing tactical management to high degree of adaptability and handling complexity in an intuitive manner. Through the course of the research, we will be communicating and working with professionals from both worlds, in order to prove this standpoint.

RESEARCH METHODOLOGY AND DESIGN

This research is following Design Science Methodology (Hevner et al. 2004) which prescribes a path to address relevant problems, identify theory gap and exploit applicable knowledge in existing theory and follow iterative process of rigor and relevance cycles, in order to develop, build, justify and evaluate an artifact that contributes both to theory and practice. The Interviews, Surveys, Social Network Analysis and other tools and techniques will be used in the research in the different stages. The Action Design Research Method (Hevner 2004) will be used as baseline that integrates the Problem Formulation (of the Practice-Inspired Research and the Theory-Ingained Artifact) with Building, Intervention and Evaluation; while constantly Learning and Reflecting throughout all the stages of the process which finalizes with Formalization of learning and Generalization of the Outcomes. With regards to the Generalization (Sein et al. 2011) in Design Science Methodology, we are striving to achieve generalization of the problem instance, solution instance and the design process. The research risk assessment and mitigation is to be performed according (Baskerville et al. 2008). In order to explore the domain of tactical management in the real business environment, we identified several profiles of positions that are experiencing tactical management and/or are relying on the performance of the tactical managers in order to steer the company business towards agreed “North”. Such company profiles, collaborating with interviews, surveys, and other techniques depending on the stage of involvement in the research, are:

- Senior Managers
- Middle Managers (Heads of Departments, Units, Branches, ...)
- Project Managers
- SME Owners

The inclusion of senior management in the research is from the aspect that they are to a certain extent practicing tactical management, but are also coordinating and guiding middle managers and also depending on their input towards strategy and goals, as well as on their utilization of resources. Middle managers are representative exhibitor of tactical management, as we perceive it in the research, with regards to acting with given resources, need to accomplish goals, and the way how to do it is dependent to a great extent on their tactical management performance. The Project Managers are even greater representative of tactical management because “Project managers cut across silos, PM know the crucial imperative of articulating

project objectives in unambiguous terms and of getting everyone on the same page, PM focus on outcomes and are better tolerant of people doing things in a different manner.” (Haeckel 1999). Their adaptability and “big picture” overview is essential input for the goals of this research. SME Owners are included in the target subjects because of their specific to be the Strategist and the Tactician at the same time (along with sometimes being the line manager, assistant, ...). They show a characteristic of frequent change of goals (and strategy), as recognized in the early stage interviews of the research, and immediately adapt to the new pathways. Hence, their adaptability and managing in uncertain environment, is very important to be incorporated in any recommendation for tactical management, as discussed in this research. The decision for companies to participate in Action Design Research is for the purpose of building, evaluating and further on clarifying the artifact, the problem and the benefits of its implementation. The setting of these processes in a developed country (Belgium) company and in a developing country (Macedonia) company is perceived to be core contributor to substantial shaping of the tactical management as a function, mapping the distinctive needs for information systems, and in the given circumstances, the cross-country differences of the research problem and approach. The phases of the research design are as follows:

- Research on Literature through the lens of support for Tactical Management, in terms of concepts, methods, tools for Information Systems
- Problem relevance detection with Interviews in number of the most developed companies in Belgium and in Macedonia
- Expert advice for tactical management practices in companies, with Executive Managers, Heads of Divisions, Branch/Unit Managers, Project Managers and SME Owners in Belgium and in Macedonia
- Action Design Research with Project Managers and Senior Management in two companies in Belgium and in Macedonia
- Creation of a generic method for tactical management through generalization of the class of problems, design principles and the class of solutions
- Conclusions and recommendations for the country-specific issues observed in the research, with regards to the two countries
- Communication of the research results and the contribution to theory and practice

With this setup, we are aiming to describe and shape the tactical management as an everyday activity on any level of management, with its appropriate needs but also distinctions from the strategic and operational one, and to perform a requirements engineering for tactical management information systems, that will assist information system approaches in covering the companies’ needs. “Briefly, we believe that tactical management performance is complex, diverse and needs to be adaptive. Its specifics need non-universal addressing with information systems and its acting needs special framework aside from the command-and-control one towards manager as facilitator of the context, not the people. Because of its vast miscellany, domain-specific prescriptions have been given, but the personal approach is still diverse and uncounseled, especially with regards to IS and Knowledge Management.” (Petrevska Nechkoska et al. 2014) Ultimately, we will provide a method, a way of thinking for the person performing this function, how to be adaptable and handle the complexity striving consistently towards the ‘True North’ by utilizing the ‘givens’ in the specific context.

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**THE INFLUENCE OF DIFFERENT NORMATIVE REPORTING BASICS ON THE
QUALITY OF THE FINANCIAL STATEMENTS OF MICRO, SMALL AND
MEDIUM ENTITIES**

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Abstract

International Accounting Standards, issued by the IASB, in countries that have accepted them as the basis for financial reporting, were applied in most cases only for listed companies. Advantages of standardization of reporting in addition to listed companies, sought to be achieved in small and medium-sized entities adopting the International Financial Reporting Standard for Small and Medium Entities. Ease of application through simpler valuation options, reduced disclosure, less cost of preparation, and continuity of standards, are just some of the benefits of IFRS for SME.

At the same time, in 2013. European Union adopted a new accounting directive whose solutions are in accordance with the adopted EU strategy was “to think first on small businesses.” In order to reduce the costs of preparing complex financial reports for SMEs, certain simplification in reporting are offered. Micro and small enterprises are allowed to present simple balance sheet with very brief notes, with the possibility that the company does not publish its profit and loss account, but only to submit the balance sheet in the registry under the laws of each member state. Since the requirements of the Directive should be incorporated into the law of each Member State, in some countries with less developed economy 98% of companies will be classified as micro and small.

Reduction and lower reliability of information have a number of negative implications: reduction of transparency, reduction of information based on investors make decisions, negative impact on the efforts of the fight against gray economy, and etc. Furthermore, if you want to carry out some studies in economics based on the financial statements, it will be disabled or will depend on the willingness of companies to give some data. All this leads to the question whether the financial statements of micro and small companies, prepared in accordance with the Directive can be fair and truthful.

Key words: European Directive, IFRS for SMEs, financial reporting, micro and small enterprises, the fair presentation.

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INTRODUCTION

Financial statements are an important basis for decision-making because they include information on the financial position and financial performance of the company. Users of financial statements are numerous, and to bring a quality business decisions regarding a particular company, it is necessary to be familiar with its operations. Instrument that provides this information are financial statements, so it is important that the financial statements fairly present the company's operations.

Generally accepted framework at the international level which the application provides comparable financial statements are IFRS and IFRS for SMEs. On the other hand, in the territory of the European Union, more than three decades financial reporting was regulated by the Fourth Directive, which was adopted in 1978 and applies to individual financial statements and the seventh Directive, which was adopted in 1978 and refers to the consolidated financial statements. These two directives during the period of application was repeatedly modified, and the number of amendments made them difficult to understand and financial statements in different countries sometimes incomparable.

Council of the European Union in June 2013 adopted a new accounting directive which has replaced the previous two. The new directive combines and improves the fourth and seventh directives in the sense that they primarily think about small businesses in order to help both preparers and users of financial statements. Focusing on small and medium enterprises arises from the fact that in this group of companies classified about 99% of companies in the European Union.³

Due to the fact that in countries with a less developed economy, most companies will be categorized as micro and small enterprises, it is important to point out the manner of reporting, which provides new accounting directives, and whose requests Member States have to incorporate into their laws.

This paper will discuss the IFRS for MSE, the requirements in terms of financial reporting in new accounting regulations in the EU, the content and layout of financial statements in accordance with this Directive and the implications of this kind of financial reporting.

NORMATIVE BASIS OF FINANCIAL REPORTING

Generally accepted financial reporting framework at the international level are the IFRS / IAS. Adoption of IFRS / IAS should provide a unified way of financial reporting on position and success of the business enterprise, and true and fair financial statements. However, it should be borne in mind that IFRS / IAS containing 2,330 paragraphs plus interpretation and guidance, and that in the world there are millions of accountants and it is not realistic to expect everyone to know to apply the above-mentioned provisions which are sometimes unclear or made inapplicable to one another.⁴ Existing IFRS / IAS were not applicable to small and medium-sized entities of different users, difference in the way of use of the financial statements, the width and depth of the necessary accounting expertise, ability to withstand the costs of the application of IFRS / IAS⁵. Users of financial statements of small and medium-sized entities usually have an interest in information, such as short-term cash flows, liquidity, financial strength, historical data on the achieved financial results and coverage of interest, rather than information that will enable the prediction financial results or

³ Poljašević Jelena. (2014). New accounting EU directive 2013/34 / EU to strengthen ways of financial reporting, *Finrar 2 XV d.o.o.* p.p.4. // *Finrar Žarovà, Marcela.* Could new accounting directive improve European financial reporting?, *European financial and accountin journal*, University of economics, Prague, 2013. p.1.à

⁴ Rodic, J. (2011). Difficulties of implementation of International Accounting Standards and International Financial Reporting Standards. // *Financing.* 1, II, p.9.

⁵ International Financial Reporting Standards / International Financial Reporting Standards

cash flows. Also, these users may be interested in the information that is usually not shown in the financial statements of listed entities.⁶

On the other hand, these standards are applied only by big companies, and it was noted that the benefits of globalisation should be extended to all other companies regardless of their size.⁷ The International Accounting Standards Board in 2000 identified the need for a special version of the international accounting standards for small and medium-sized enterprises, and they were published 09.06.2009. year.

Developing standards for small and medium-sized entities was in line with the main objective of the Board "to develop in the public interest a single set of high quality, understandable, global accounting standards that require high quality, transparent and comparable information in financial statements to participants in various capital markets able to make good decisions."⁸

In the opinion of the Board, IFRS for MSE⁹ should apply the entities that do not have public accountability. The entities have public accountability if:

- their debt and equity instruments are traded on a stock exchange or are in the process of issuing such instruments in a public market (a domestic or foreign stock exchange or OTC market, including local and regional markets); or
- hold property in fiduciary base by broad groups of external users as their primary activity. This is typical for banks, credit unions, insurance companies, investment banks, broker and dealer houses and mutual funds.

However, since Macedonia is on its way to the European Union it is necessary to analyze the normative basis of financial reporting in the EU and its compliance with IFRS. Last thirty years financial reporting framework in the European Union represent the Fourth and Seventh Directives (Directive for the individual financial statements of 1978, 78/660 / EEC and the Directive on the consolidated financial statements since 1983 83/349 / EEC). During this period, the business environment, accounting practices and user needs have changed significantly. Accepting IFRS by many countries there has been additional pressure on the EU to do the same. In order to harmonize financial reporting since 2005 from a company whose equity and debt securities traded on Stock Exchange require the presentation of two sets of financial statements, one in accordance with national legislation harmonized with EU directives and the other in accordance with IFRS. Remaining companies prepare their financial statements in accordance with national accounting regulations harmonized with the relevant Directives. However, that over 90 % of enterprises in the EU is represented by micro, small and medium, the European Parliament proposed activities in order to simplify the company law, accounting and auditing for the MSE in order to ensure the efficiency and effectiveness of their reporting. In order to reduce the requirements for disclosure in small and medium-sized enterprises Directive 2006/46 adopted amendments to Article 11 and 27 of the Fourth Directive relating to the increase in total assets and the net operating income of companies that can use the abbreviated balance schemes. Abbreviated balance sheet can present companies with a balance sheet of 4.4 million and a net operating income of 8.8 million euros, while abbreviated income statement can be presented by company whose balance is the sum of 17.5 million and a net operating income of 35 million euros. With the adoption of these amendments million number of companies that can take advantage of the

⁶ Poljašević Jelena. Accepting new normative basis of financial reporting for small and medium-sized entities, financial reporting functional improvement of the business environment in Montenegro, VI Congress of Accountants and Auditors of Montenegro, the Institute of Certified Accountants of Montenegro, Bečić, October, 2011, pp 301.

⁷ Ibidem, p.p. 301.

⁸ IFRS for SMEs basic for conclusions; IASC Foundation Publications Department, London 2009.

⁹ International Financial Reporting Standards for Small and Medium Entities.

presentation of abbreviated balance schemes. These companies have also released a number of disclosures required by large companies and the majority of them do not require that financial statements be audited.¹⁰

In July 2013 the European Union adopted a new accounting directive whose solutions are in accordance with the adopted EU strategy is to "think first on small businesses." The aim of the introduction of the directive is to reduce the administrative burden for small businesses. It is believed that the new Directive has advantages over the previous one, because the current way of financial reporting small businesses were exposed to unnecessary and disproportionate costs. The reason why they are now introducing this directive is that the past 30 years, numerous amendments (the new disclosures are made, estimates and fair value) of the existing regulatory framework directives made complex. In terms of the relationship of the new Directive Directive 2012/6 / EC, which refers to the micro-entity, it is truly incorporated the new directive.

Member State in which the effects will be the most significant include: Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Finland, France, Greece, Hungary, Ireland, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Spain, Sweden and Slovakia.¹¹ Micro and small enterprises can present a simple balance sheet with very short notes, with the possibility that the company does not publish its balance sheet, but only to submit the balance sheet in the appropriate register in accordance with the laws of each Member State. In terms of application and relations IFRS for small and medium-sized entities, the Commission examined and rejected the possibility that they adopt for SMEs at EU level, as it believes that this standard would not have provided the main aim of the directive (simplification and reduction of administrative burdens on example Directive does not require the preparation of the cash flow statement, which is mandatory financial statements under IFRS for SMEs).

NEW ACCOUNTING REGULATION

The European Parliament and the Council of the European Union in July 2013, in line with the Europe 2020 strategy for smart, sustainable and inclusive growth, which aims to reduce the administrative burden especially for small and medium businesses, bring new accounting regulations, which replaced the former fourth and seventh directive. This directive is based on the principle "think small first". In order to avoid the administrative burden for small companies whose financial reporting should be harmonized across the EU, Member States should require publication through just a few disclosure in notes. The main financial statements: balance sheet, income statement and notes to the financial statements. Also members have the opportunity to medium and large companies impose requirements that go beyond the minimum requirements laid down in this Directive.¹² In terms of financial reporting when there are no special rules for micro enterprises, follows for small subject businesses applied to them. Directive consists of 11 chapters that relate to:

- scope of application, definitions, classification of companies and groups,
- general provisions and principles
- Balance Sheet, Income Statement,
- notes to the financial statements,

¹⁰ Poljašević Jelena. Accepting new normative basis of financial reporting for small and medium-sized entities, financial reporting functional improvement of the business environment in Montenegro, VI Congress of Accountants and Auditors of Montenegro, the Institute of Certified Accountants of Montenegro, Bečići, October, 2011, p.p. 312.

¹¹ http://europa.eu/rapid/press-release_MEMO-13-540_en.htm , (accessed 01.08.2014.)

¹² http://europa.eu/rapid/press-release_MEMO-13-540_en.htm , (accessed 01.08.2014.)

- Report Administration
- consolidated financial statements
- presentation
- Audit
- exclusions and limitations of the exemption,
- Report on payments to state and
- final regulations.

Regarding the method of financial reporting classification of companies is an important. By new Accounting Directive, companies are categorized into four groups: micro, small, medium and large enterprises. The criteria for this classification are the value of assets, the value of net income on the balance sheet date and the average number of employees during the financial year. The following table shows the classification of companies and classification criteria:

Table 1: The criteria for the classification of companies

Criteria	Type Enterprise			
	Micro	Small	Medium	Large
The total assets	≤ 350.000 €	≤ 4.000.000 €	≤ 20.000.000 €	>20.000.000 €
Net income of	≤ 700.000 €	≤ 8.000.000 €	≤ 40.000.000 €	>40.000.000 €
The average number of employees	≤10	≤50	≤250	> 250

Source: Directive 2013/34/EU, article 3.

Micro, small and medium enterprises are enterprises which at the date of the financial statements do not exceed the values shown two of the three criteria. Large companies are companies that the balance sheet date exceed the limit values at least two of the three criteria. Total assets consists of subscribed capital unpaid, establishment costs, fixed assets, current assets, advances and calculated revenue.

Net income includes the value of goods sold and services provided net of sales rebates, value added tax and other taxes directly associated with income.¹³

Member States which have not adopted the euro, amounts in the national currency calculated at the date of entry into force of the directive, which determines the amount, and this is when you can increase or decrease by more than 5% in order to get the rounded amounts in the national currencies.

Annual financial statements for all companies have at least a balance sheet, income statement and notes to the financial statements.¹⁴ However, Member States may require that companies other than small businesses, in addition to these reports, the annual financial statements to include other record of reporting as well as in annual financial statements published additional information beyond those that are required to publish in accordance with this Directive.¹⁵

Directive prescribes the structure of the financial statements. When it comes to financial reporting of small businesses, there is the possibility for Member States to require small sized enterprises to prepare and publish information in addition to those required by the Directive, provided that the information collected within a single storage system, in accordance with national tax legislation, and that this information is used solely by the needs of the collection. Introduction of requirements related to financial reporting for tax purposes, it is necessary for Member States to notify the Commission. Those states that use an

¹³ Direktive 2013/34/EU, article 2, paragraph 5.

¹⁴ Direktive 2013/34/EU, article 4, paragraph 1.

¹⁵ Direktive 2013/34/EU, article, 4, paragraph 1 and paragraph 5.

electronic system to store and publish financial statements are not required to provide the Commission published additional disclosures required under national tax legislation.¹⁶

Directive prescribe rules for the recognition and measurement of items in the annual and consolidated financial statements, and these rules mean that companies adhere to the following:¹⁷

- going concern principles
- consistent application of accounting policies,
- principles of prudence,
- principles of disposal,
- principles of balance identity,
- separate recognition of the value of the items in assets and liabilities,
- prohibiting settlement of assets and liabilities and revenues and expenses,
- recognition of business events in accordance with the substance of the transaction and
- principles of the acquisition cost or cost.

Some deviations are allowed from general principles such as¹⁸:

- possibility of settlement of certain items provided that their disclosure in the notes to the gross amount,
- possibility of using fair values between the bases of evaluation for non-current assets, financial instrument, as well as other assets if a Member State allow that,
- deviation from the requirements of the Directive if the deviation is not significant, while the management of a company is determined by the level of materiality.

In terms of filing balance sheet member states provide one or both forms of the form (Horizontal or vertical display items), with the provision that if either prescribe the form, it allows companies to choose which of the forms to adopt.¹⁹ When it comes to filing balance sheet for small businesses, Member States may allow the company making the abridged balance schemes (part of Appendix III and IV preceded by letters and roman numerals).²⁰ The remainder of this paper presents the scheme of the balance sheet, which is usually prescribed by the Directive, and is an integral part of Annex III. Appendix No. IV represents the vertical scheme of balance.

Table 2: The Balance Sheet

A)	Subscribed capital unpaid	A)	Capital, reserves and liabilities
B)	Formation expenses	I	Subscribed capital
C)	Fixed assets	II	Share premium account
I	Intangible assets	III	Revaluation reserves
II	Tangible Assets	IV	Reserves
III	Financial Assets	V	Profit or loss brought forward
D)	Current assets	VI	Profit or loss for the financial year
I	Stocks	B)	Provisions
II	Debtors	C)	Creditors
III	Investments		
IV	Cash at bank and in hand		
E)	Prepayments and accrued income ²²	D)	Accruals and deferred income ²¹

¹⁶ Direktive 2013/34/EU, article 4, paragraphs 6, 7, 8.

¹⁷ Poljašević Jelena. (2014). New accounting EU directive 2013/34 / EU to strengthen ways of financial reporting, Finrar 2 XV d.o.o. p.p. 5.

¹⁸ Ibidem, p.p.5.

¹⁹ Directive 2013/34/EU, article 10, paragraph 1.

²⁰ Directive 2013/34/EU, article 14, paragraph 1.

²¹ (Unless national law provides that such items are to be shown under C (9) under Creditors.

Source: Directive 2013/34 / EC, Annex III.

In terms of filing the income statement, member states provide one or both forms of the form, with the provision that if prescribed both then it allows the firm to choose which of the prescribed forms to adopt.²³ However, Member States may allow SMEs to prepare abbreviated income statement with the restriction that items 1 through 5 are combined as one called "gross gain or loss." The remainder of this paper presents schemes and the income statement, which is usually prescribed by the Directive, and is an integral part of Annex V.

Table 3: Income Statement by nature of expenditure

1.	Net turnover.
2.	Variation in stocks of finished goods and in work in progress.
3.	Work performed by the undertaking for its own purposes and capitalised.
4.	Other operating income.
5. (a)	Raw materials and consumables.
(b)	Other external expenses.
6.	Staff costs
(a)	wages and salaries;
(b)	social security costs, with a separate indication of those relating to pensions
7. (a)	Value adjustments in respect of formation expenses and of tangible and intangible fixed assets.
(b)	Value adjustments in respect of current assets, to the extent that they exceed the amount of value adjustments which are normal in the undertaking concerned.
8.	Other operating expenses
9.	Income from participating interests, with a separate indication of that derived from affiliated undertakings.
10.	Income from other investments and loans forming part of the fixed assets, with a separate indication of that derived from affiliated undertakings.
11.	Other interest receivable and similar income, with a separate indication of that derived from affiliated undertakings.
12.	Value adjustments in respect of financial assets and of investments held as current assets.
13.	Interest payable and similar expenses, with a separate indication of amounts payable to affiliated undertakings.
14.	Tax on profit or loss
15.	Profit or loss after taxation.
16.	Other taxes not shown under items 1 to 15.
17.	Profit or loss for the financial year.

Source: Directive 2013/34 / EC, Annex V.

With respect to the notes of small businesses may be required to disclose:²⁴
a) for various asset specific value (purchase price, the cost, revalued, fair value and certain harmonization based on valuation),

²² Unless national law provides that such items are to be shown as assets under D (II) (6).

²³ Directive 2013/34/EU, article 13, paragraph 1.

²⁴ Directive 2013/34/EU, article 16. paragraph 2.

b) the name and registered office of the company that prepares consolidated financial statements for at least the group of companies in which the Company participates as a daughter company in which is also included in the group - the largest group,
c) the nature of the business arrangement by companies that are not included in the balance sheet and the financial impact of these arrangements on the company,
d) the nature and financial impact of significant events that occurred after the balance sheet date and are not shown in the balance sheet and income statement,
e) transactions in which the company entered into with related parties and information related to the transaction.

The Directive stipulates that the administration prepare a report. It's a fair review of the development and performance of the company and its position, together with a description of the main risks and uncertainties to which it is exposed. Small businesses can also be exempted from this obligation provided that require that information relating to the acquisition of own shares by the company stated in the notes to the financial statements. Report on corporate governance an integral part of the management report.²⁵ When it comes to the consolidated financial statements of small and medium-sized group of companies are exempted from the obligation of making as well as the consolidated management report, unless any of the companies associated subject of public interest.²⁶

Member States may exempt small businesses from the requirement to draw up the balance sheet and statements of management.²⁷ This means that micro and small enterprises can compose a balance sheet. As previously noted medium can not draw up abridged balance sheet that contains only position preceded by the letters and Roman numerals.

An audit of financial statements according to directive is not mandatory for micro-enterprises.²⁸

The ninth chapter of the directive refers to the provisions of the exclusions and limitations of exceptions, where one part of the chapter applies only to micro-enterprises. Within these exemptions directive allowed Member States may micro companies to be exempt from the obligation to record prepayments, making the notes to the financial statements provided that the items you are requiring published at the bottom of the balance, the obligations of the statement of management, provided that the information the required in Article 24 paragraph 2 of Directive 2013/30 / EC published in the notes or on the bottom of the balance sheet, and the obligation to publish financial statements, provided that they are available for at least one competent authority designated by the member State concerned.²⁹

Article 36, paragraph 2, line a. the Directive prescribe to micro companies can prepare abbreviated balance sheet, which at least shows items preceded by letters and roman numbers provided that within assets exempt position E (prepayments and accrued income), and within liabilities position C (commitments to borrowers) so the balance sheet micro companies seemed to next table:

²⁵ Directive 2013/34/EU, article 19. paragraph 1. i 3.

²⁶ Under the new accounting directive public companies include companies whose shares are traded on the stock exchange, credit agencies to insurance companies and companies that are designated by the state as public due to its nature of business, size or number of employees.

²⁷ Directive 2013/34/EU, article 31, paragraph 1.

²⁸ Directive 2013/34/EU, article 34, paragraph 1.

²⁹ Directive 2013/34/EU, article 36, paragraph 1.

Table 4: The Balance Sheet mikro companies

A)	Subscribed capital unpaid	A)	Capital, reserves and liabilities
B)	Formation expenses	I	Subscribed capital
C)	Fixed assets	II	Share premium account
I	Intangible assets	III	Revaluation reserves
II	Tangible Assets	IV	Reserves
III	Financial Assets	V	Profit or loss brought forward
D)	Current assets	VI	Profit or loss for the financial year
I	Stocks	B)	Provisions
II	Debtors		Accruals and deferred income ³⁰
III	Investments		
IV	Cash at bank and in hand	D)	

Source: Directive 2013/34 / EU member. 36, paragraph 2, sub-paragraph a.

Article 36, paragraph 2, item b. the Directive propiano to mirko companies can prepare abbreviated income statement that odovjeno showing at least the following items as appropriate:

Table 5: Income Statement micro enterprises

I	Net turnover
II	Other income
III	Cost of raw materials and consumables
IV	staff costs,
V	value adjustments,
VI	other charges,
VII	tax
VIII	profit or loss.

Source: Directive 2013/34 / EU member. 36, paragraph 2, sub-paragraph b.

By 20 July 2018, the Commission will the European Parliament, the Council and the European Economic and Social Committee a report on the state of micro-enterprises, taking into account the particular situation at the national level in terms of:³¹

- the number of companies included in the criterion of size and
- reduction administrativnih opterećenaja that proizilaiza the exception of the required disclosure.

IMPLICATIONS OF FINANCIAL REPORTING

The main reason for the introduction of this directive is to reduce the cost of preparation of the financial statements. However, respect requirement under the directive, financial reporting is significantly simplified and reduced the number of financial information that is presented. Such financial statements are less reliable, and the presented information basis for making business and investment decisions, or different statistical surveys. Reduced costs related to the presentation of the less reliable and less meaningful reports also will lead to reduced of usefulness these reports, which can be measured by the height of costs incurred by the decisions made on the basis of incomplete information.

³⁰ (Unless national law provides that such items are to be shown under C (9) under Creditors.

³¹ Directive 2013/34/EU, article 36, paragraph 9.

CONCLUSION

Financial reports are an important information base for making business and investment decisions, or various economic studies. In order to analyze the company's operations, investment opportunities or specific economic analysis, it is necessary that the financial statements contain all relevant information, and that the financial statements are fair and fairly present the condition of the company. Generally accepted financial reporting framework on international level (IFRS / IAS) is quite demanding, but its use provides the preparation of financial statements that are very meaningful information. When it comes to financial reporting of small and medium-sized enterprises, the introduction of IFRS for the MSE achieved the number of simplifications with respect to financial reporting. However, in the territory of the European Union's adoption of new accounting regulations, which have replaced the former fourth and seventh directives, requirements with respect to financial reporting for micro, small and out of high companies are even more constricted. This means that the financial statements fairly simplified, and their informational power is significantly lower compared to the financial statements, which have been drawn up according to IFRS for the MSE. The aim of the introduction of the new directive is to reduce the costs of financial reporting of micro, small and medium enterprises. However, these companies are dominant in the EU economy, and this type financial reporting for a major part of the economy is really poor. This type of reporting makes sense if the information is not presented are useful to users of financial statements. It may be asked whether the manner of reporting to the accounting requirements provide sufficient information for decision making and research in the field of economics.

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FROM SMALL BUSINESSES TO COMPETITIVE AND INNOVATIVE BUSINESSES

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Abstract

Supporting the Small and medium-sized enterprises – SMEs – sector is an important component of the economic policies, but the road from small business to competitive and innovative businesses is unsatisfactory in most European countries. Specifically, there are two contradictory evolutions, namely: on one hand, the EU launched very ambitious financial programs to support the SME sector in order to be competitive and innovative, but on the other hand, statistical data on small businesses indicate a low involvement of population, especially of the young people, in the creation of small businesses, and even fewer of them become competitive and innovative companies on the national and international market. As main explanation, the small businesses need the existence of powerful economic partners, so the SME sector only states in stable social, economic environment. Or Romania and other countries were affected both by the transition from centralized economy, and by the phenomenon of crisis. Therefore in this article is underlined the fact that the small businesses should be reconsidered through the relations between entrepreneurship and investments and personal finance. The individuals or families (households) in all EU countries should become economic actor and should use their wealth that increased permanently, as well as the skills obtained through education in order to start small businesses of which to be selected the competitive ones. The unsatisfactory trends regarding births and deaths in the SME sector from EU and Romania require the elimination of administrative and fiscal barriers for private business, but it requires also major changes in the economic behavior at individual level in order to recognize and promote competence and innovation. Less developed countries, as Romania link their future to the over whelming influence of developments in the integrated space of EU but need also the political will from each state.

Keywords: Small businesses, private initiative, innovation, economic environment.

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INTRODUCTION

Supporting the Small and medium-sized enterprises -SME – sector is an important component of the economic policies, but the road from small business to competitive and innovative businesses is unsatisfactory in most European countries.

Specifically, there are two contradictory evolutions, namely:

- on one hand, the European Union - EU launched very ambitious financial programs to support the SME sector in order to be competitive and innovative;
- on the other hand, statistical data on small businesses indicate a low involvement of population, especially of the young people, in the creation of small businesses, and even fewer of them become competitive and innovative companies on the national and international market.

The “Small Business Act” for Europe (SBA) promotes entrepreneurship and anchors the “Think Small First” principle in law and policy making to strengthen the SMEs’ competitiveness.

It should be noted that in the period 2007-2013, especially by 2020, the EU is considering how to implement the 10 principles of the SBA, namely: Principle 1-Promoting entrepreneurship. Principle 2 - Second chance. Principle 3 - Think Small First. Principle 4 - Responsive administrations. Principle 5 - Access to public procurement. Principle 6 - Access to Finance. Principle 7 - Single Market. Principle 8 - Skills and Innovation. Principle 9 - Turning environmental challenges into opportunities. Principle 10 - Support to internationalization.

SMEs are also impacted by the global economic context and many of them compete on a global scale, and against this challenge, the innovation is essential to their survival. Through innovation, SMEs can serve as a lever for environmental protection and creation of social value.

Our research examines the evolution in the Romanian SME sector, with an attempt to clarify the causes and solutions to increase innovation and competitiveness, and to align the progress made in EU.

EU OPPORTUNITIES TO SUPPORT RESEARCH AND INNOVATION IN SMS SECTOR

In EU area there are many obstacles generated by the integration of the various countries to which was added the financial crisis in 2008, but it can be highlighted progress made in four fields:

- Progress in improving the business environment;
- EU’s role in access to finance has grown;
- Access to markets, in particular for public procurement;
- Entrepreneurship takes its place in the new innovation policy.

In the new policy to support SME sector, the European Union has put entrepreneurs and SMEs at the heart of its innovation and research policy (EC, 2011a).

The European Union possesses five key funding opportunities to support research and innovation: the Research Framework Programme, the Competitiveness and Innovation Framework Programme, the Structural Funds and the Cohesion Fund within the Cohesion policy; the European Agricultural Fund for Rural Development and the European Fisheries Fund within the Rural development policy and the Common Fisheries Policy.

The Seventh Framework Programme (FP7) was designed to support a wide range of participants and interested parties:

- Private companies– small and medium sized enterprises (SMEs), private research institutes or other industrial participants;

- Public organizations– public universities, regional authorities, public research organizations (PROs);

- Individual researchers– from both the public and private sectors;

- Researchers and organizations outside the European Union– whether from Candidate Countries, Associated States, developing countries, emerging economies or industrial nations.

The broad objectives of FP7 have been grouped into four categories: Cooperation, Ideas, People and Capacities. It is also a key pillar for the European Research Area (ERA) and for the non-nuclear research activities of the Joint Research Centre (JRC) .

Budget FP 7 2007-2013 by categories is presented in Figure1.

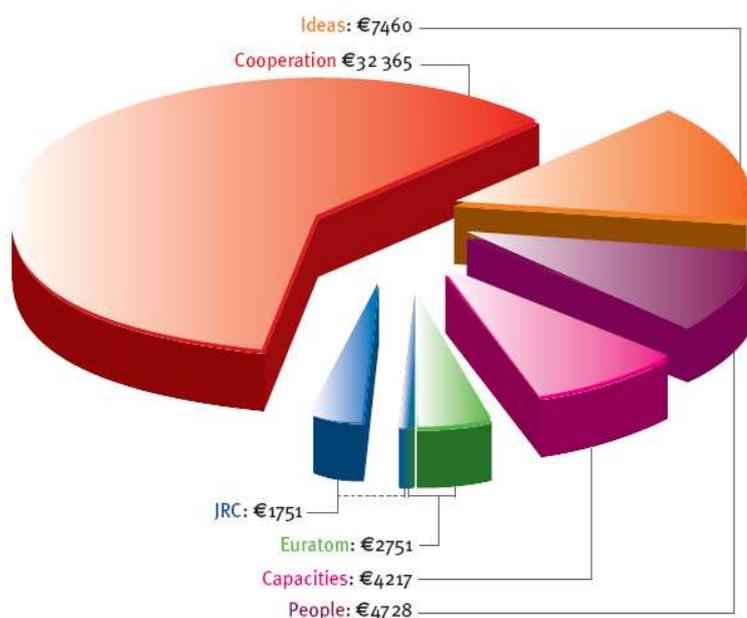


Figure 1. Budget FP 7 2007-2013 in EU by categories

Source: European Commission, Research & Innovation, FP7,

http://ec.europa.eu/research/fp7/pdf/fp7-factsheets_en.pdf

Cooperation has the largest share-about 60% and refers to the ten priority themes for the purpose of FP7. These themes are as follows:

- HEALTH - Health research;
- ENV - Environment research (including climate change);
- KBBE - Food, agriculture, fisheries and biotechnology (bioeconomy);
- TPT - Transport research (including aeronautics);
- ICT - Information and communication technologies;
- SSH - Socio-economic sciences and humanities research;
- NMP- Nanosciences, nanotechnologies, materials and production technologies;
- SPA - Space research;
- ENERGY - Energy research;
- SEC- Security research.

The value for each theme is presented in Table 1.

Table 1. Budget FP 7 execution by theme 2007-2013 and for SMSs in EU

EUR million

Theme	HEALTH	ENV	KBBE	TPT	ICT	SSH	NMP	SPA	ENERGY	SEC
Value total FP7*	6050	1800	1935	4180	9110	610	3500	1430	2300	1350
Value for SMSs**	1450	922	1248	1522	3220	128	2327	372	656	560
% SMSs in total	24,0	51,2	64,5	36,4	35,3	21,0	66,5	26,0	28,5	41,5

Source: * European Commission, Research & Innovation, FP7,

http://ec.europa.eu/research/fp7/pdf/fp7-factsheets_en.pdf

** EC, Tenth Progress Report on SMEs participation in the 7th R&D Framework Programme June 2013, Statistical analysis of data on Grant Agreements in FP7 signed up to June 20th 2013, <http://ec.europa.eu/research/sme-techweb>

So, ICT, HEALTH, TPT, NMP and ENERGY have the mainly budget and we can notice that share value for SMEs is important for NMP, KBBE, ENV and SEC.

SME support under the EU's 7th Framework Programme for Research and Technological Development (FP7) 2007-2013 was significant.

Statistical analysis of data on Grant Agreements in FP7 in June 2013 shows involvement of SMS in innovative research projects.

Table 2. FP7-Cooperation Signed Grant Agreements -GAs- by theme, 2007-2013

Percentage of Grant Agreements with at least one SME in EU

Theme	HEALTH	ENV	KBBE	TPT	ICT	SSH	NMP	SPA	ENERGY	SEC
Total GAs	100	100	100	100	100	100	100	100	100	100
% SMSs in total GAs	70,3	72,7	74,1	87,1	72,2	35,4	84,9	67,6	83,9	83,9

Source: EC, Tenth Progress Report on SMEs participation in the 7th R&D Framework Programme June 2013, Statistical analysis of data on Grant Agreements in FP7 signed up to June 20th 2013, <http://ec.europa.eu/research/sme-techweb>

In this table, we can notice that SMSs have an important participation on the themes TPT, NMP, ENERGY and SEC.

The result by mid-2013 was that SMEs were represented in 74.6% of project consortia and had received 16.9% of the FP7 Cooperation Programme budget, 1.9% beyond the 15% target set at the start of FP7 by Council and Parliament.

By the end of 2013, the Competitiveness and Innovation Programme (CIP) had assisted financial institutions in providing about EUR 30 billion of new finance for more than 315,000 SMEs and have created or maintained directly about 380,000 jobs. In addition, in the same period, Structural Funds provided some EUR 70 billion in support of enterprises, predominantly SMEs. Nearly 200,000 projects have been funded supporting several SMEs each, including 78,000 start-ups and the creation of at least 268,000 permanent jobs (and safeguarding many more).

In conclusion, the support of the EU by end of 2013 includes:

- new financial instruments for start-ups and fast growing firms expanding in EU and global markets (e.g. loans, venture capital and risk-sharing finance);
- further simplification of EU research and innovation programmes;
- Affordable intellectual property rights (IPR) and strategic use of procurement budgets.

The Commission also intends to support internationally competitive clusters, bringing together large companies and SMEs, universities, research centers and communities of scientists and practitioners to exchange knowledge and ideas.

Cohesion Policy programmes and the European Agricultural Fund for Rural Development (EAFRD) are both key means of turning the priorities of the SBA into practical action on the ground while ensuring complementarities between EU, national and regional support. Further investment should encourage regions, to find specific niches in the innovation landscape, based on “smart specialization strategies” (EC, 2014c).

From 2014 to 2020, a new programme – COSME- will support the SMEs. COSME is the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs) with a planned budget of €2.3bn. This programme will aim at (EC, 2014a):

- Facilitating access to finance for SMEs;
- Creating an environment favorable to SME creation and growth;
- Encouraging an entrepreneurial culture in Europe;
- Strengthening the sustainable competitiveness of EU enterprises;
- Supporting the internationalization of SMEs and improving their access to markets.

In addition, the new cohesion policy pays particular attention to SMEs’ competitiveness. A dedicated instrument in Horizon 2020 provides funding for early-stage, high-risk research and innovation by SMEs. Also, the new rural development policy further boosts start-ups and the competitiveness of SMEs in rural areas.

FROM A ROMANIAN SMS SECTOR RENAISSANCE IN 1990 TO A COMPETITIVE AND INNOVATIVE BUSINESSES AFTER EU INTEGRATION IN 2007 AND HORIZON 2020

After 1990, Romania has passed from a centralized socialist system to a liberalized market economy, entering into a long transition period with some unsatisfactory evolutions, which include the process of creating and strengthening the SME sector but especially the rhythm of transition from small businesses to competitive and innovative businesses.

The statistics highlight even the decrease of all business categories by reducing the total number of transactions recorded at the National Office of Trade Register

Table 3. Operations performed by categories in Romania, in the period December 1990-June 2014

Period	Total operations performed		Registrations		Mentions		Removals/ Cancellations	
	No.	%	No.	%	No.	%	No.	%
Dec.1990-Jun.2014	17,091,604	100	2,524,810	14,8	13,429,081	78.9	1,074,713	6,3
Dec.1990-Dec.2006	7,677,450	100	1,553,572	20,2	5,664,803	73.8	459,075	6,0
Dec.2007-Dec.2013	9,072,717	100	916,333	10,1	7,581,988	83.6	574,396	6,3
Jan.2014-Jun.2014	341,437	100	54,905	16,1	245,290	71.8	41,242	12,1

Source: National Office of Trade Register, www.onrc.ro

The weight of the two operations (registrations and cancellations) indicates that initially, after 1990, many new companies have been created, with few cancellations. Then can be noticed as low down of registration safter 2007 when Romania joined the EU, explained both by the crisis in 2008, but also by the introduction of European legislation aimed to discipline situation especially in the SME sector in order to establish clear and transparent rules for obtaining EU funds.

Unfortunately, the legislative discipline was perceived and was accompanied by an excessive bureaucracy, which discouraged the entrepreneurial initiative.

Of course, the birth and death of small business can be an economic test for selecting the viable business, but the number of SMEsis still very low, if we consider the active population in Romania (9.7 million people).

Romania ranks 26 in the EU by number of SMEs per 1,000 inhabitants, with 24 SMEs per 1,000 inhabitants in 2014, which is half of the EU average. In addition, there is a wide disparity in the various regions of the country, so if in Bucharest area there are 50 SMEs per 1,000 inhabitants, in three important areas (Southern, North, Eastern Romania, that have together 42% of the population) there are only 16 SMEs per 1,000 inhabitants.

Romania has as strategic target for 2020 the functioning of about 36 enterprises per 1,000 inhabitants, but this number is difficult to be achieved with the current ratio between registrations and cancellations. Specifically, if in the period 2007-2013 was main tainted with difficulty in economy a total of 500,000 units in the SME sector, there will have to reach 670,000 by 2020. The large number of canceled companies indicates the fact that in Romania there was not the applied the Principle 2 of SBA: “Second chance, with the legal procedures to wind up a business in the case of non-fraudulent bankruptcy within a year”.

In early 2014, there is an increase of registrations, mainly under the influence of EU financial support, but on the other hand, there is seen a loan increase in the disappear ance of other companies, noting a doubling of the percentage of cancellations. Basically, a new company appears, but another old disappears.

Statistical data on small businesses indicate a low involvement of population, especially of the young people, in the creation of small businesses. Thus, although there was adopted a law that established facilities for students who set up small business, the number of enterprises increased by only 400 companies in the period August 2013-June 2014 (reaching 19,104 companies by students, but with the observation that each year there have been removed about

30% of the old ones). In fact, this aspect determined the Romanian government to modify the law in 2014 meaning that there are offered facilities regardless of age of the Business “juniors” (SRL-D programs/junior). SRL-D Program will apply until 2020, and every year there will be at least 550 beneficiaries.

Romania joined EU in 2007, but Romania’s economy competitiveness was still much lower than the EU-28 average. Therefore, Romania has to recover the significant disparities with regard to the knowledge-based society.

In Romania, the Sectorial Operational Programme “Increase of Economic Competitiveness” - SOP IEC 2007-2013 is one of the seven instruments (OPs) under the Convergence objective, for achieving the priorities of the National Strategic Reference Framework (NSRF) derived from the National Development Plan 2007 – 2013 (NDP). The main aim is to strengthen the strategic focus of the Economic and Social Cohesion policies across Romania, and to make the correct and appropriate linkages to the European policies and the Lisbon Strategy for growth and job creation (MEF, 2007).

The general objective of SOP is the increase of Romanian companies’ productivity, in compliance with the principle of sustainable development, and reducing the disparities compared to the average productivity of EU. The target is an average annual growth of GDP per employed person by about 5.5%. This will allow Romania to reach approx. 55% of the EU average productivity by 2015.

The specific objectives are the following:

- Consolidation and environment-friendly development of the Romanian productive sector;
- Establishment of a favorable environment for sustainable enterprises’ development;
- Increase of the R&D capacity, stimulation of the cooperation between RDI institutions and enterprises, increase of enterprises’ access to RDI;
- Valorization of the ICT potential and its application in the public (administration) and private sector (enterprises, citizens);
- Increased energy efficiency and sustainable development of the energy sector.

The latter is a strategic project proposed by the Ministry of Economy, Department for SMEs, Business Environment and Tourism to be implemented and financed from Structural Funds for the years 2014-2020.

European Commission criticized Romania for absence of a coherent development strategy of SMEs and for SBA implementation. As result, by the end of 2013, Romania’s statistics for SMEs are below average and its SBA profile has changed little. Romania’s performance is below average for seven out of nine SBA principles and is above average only for ‘Entrepreneurship’.

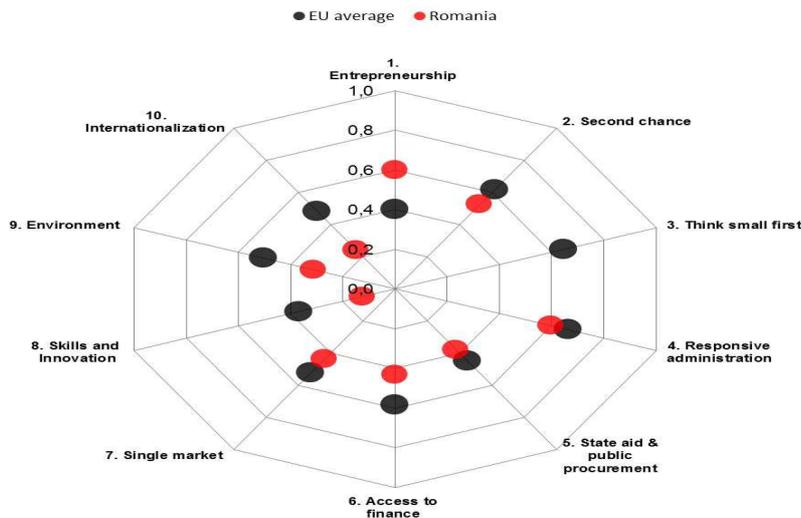


Figure 2. Romania's SBA performance by the end of 2013

Source: European Commission, Enterprise and Industry, 2013 SBA Fact Sheet, Romania

Others considerations at the EU and international level indicate that Romania has registered poor performance in innovation and competitiveness.

First of all, Romania falls into the modest innovators (figure 3), in accordance with Innovation Union Scoreboard 2014.

At the same time, the Global Competitiveness Report 2013–2014 is based on 10 pillars, namely: Pillar 1. Institutions; Pillar 2. Infrastructure; Pillar 3. Macroeconomic environment; Pillar 4. Health and primary Education; Pillar 5. Higher education and training; Pillar 6. Goods market efficiency; Pillar 7. Labor market efficiency; Pillar 8. Financial market Development; Pillar 9. Technological readiness; Pillar 10. Market size.

Taking into account these pillars, there are set five stages of development, namely:

- Stage 1: Factor-driven (38 economies);
- Transition from stage 1 to stage 2 (20 economies);
- Stage 2: Efficiency-driven (31 economies);
- Transition from stage 2 to stage 3 (22 economies);
- Stage 3: Innovation-driven (37 economies).

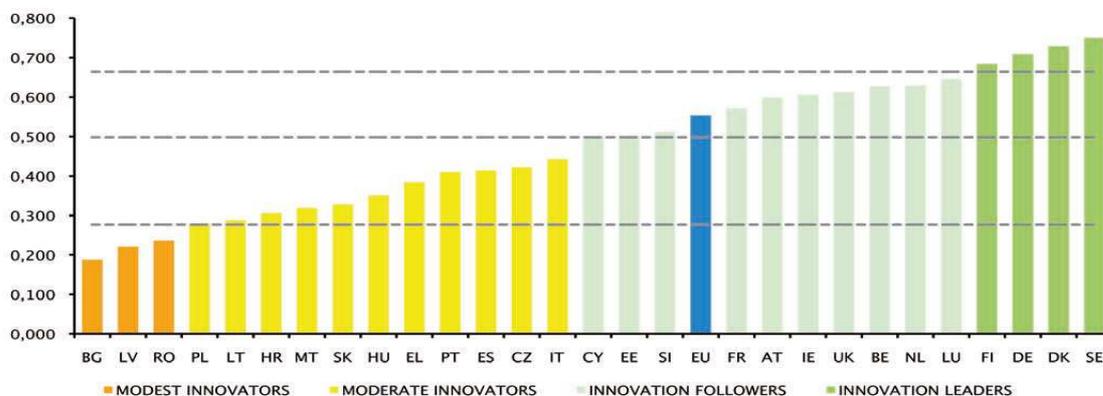


Figure 3. EU performance groups based on the average innovation performance

Source: European Commission, 2014, Innovation Union Scoreboard 2014

Romania is into stage 2 - the efficiency-driven stage. Countries will then move into the efficiency-driven stage of development, when they must begin to develop more efficient production processes and increase the product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), well-functioning labor markets (pillar 7), developed financial markets (pillar 8), the ability to harness the benefits of existing technologies (pillar 9), and a large domestic or foreign market (pillar 10).

It should be noted that to be into the innovation-driven stage, companies must compete by producing new and different goods using the most sophisticated production processes (pillar 11) and by innovating new ones (pillar 12).

As main explanation, the small businesses need the existence of powerful economic partners, so the SME sector only states in stable social, economic environment. Or, Romania and other countries were affected both by the transition from centralized economy, and by the phenomenon of crisis.

PROMOTING THE ENTREPRENEURSHIP AND THE FAMILY BUSINESS

The small businesses should be reconsidered through the relations between entrepreneurship and investments and personal finance.

In our time, the term entrepreneurship has been extended to include a specific mindset resulting in entrepreneurial initiatives, e.g. in the form of social entrepreneurship, political entrepreneurship, or knowledge entrepreneurship.

Many Member States have introduced entrepreneurship programmes to foster the entrepreneurial attitudes and skills of young people and to make them aware of the possibility of starting a business, either by integrating entrepreneurship into school and university curricula or by setting up extra projects.

European Commission has elaborated the Entrepreneurship 2020 Action Plan and its key actions will be followed up by the Commission through the competitiveness and industrial policy and the Small Business Act governance mechanisms. The Entrepreneurship 2020 Action Plan has set up a working group to assess the specific needs of liberal profession entrepreneurs in relation to issues such as entrepreneurship education, access to markets, internationalization or access to finance.

In Romania, the Sectorial Operational Programme Human Resources Development (SOP HRD 2007-2013) sets the priority axes and the major intervention areas, one important referring to Promoting entrepreneurial culture and improving quality and productivity at work. This programme will continue until 2020.

The Entrepreneurship should become a part of life of the individuals or families (households) in all EU countries, because these should become economic actors and should use their wealth that increased permanently, as well as the skills obtained through education in order to start small businesses, of which to be selected the competitive ones.

The following key characteristics afford the family firms some competitive advantage (Credit Suisse, 2012):

- A streamlined management structure between owner and manager allows an agile and swift decision-making process to confront shocks and challenges to the business.
- The long-term perspective and investment time horizon of family owner-managers (compared to non-family executives and shareholders) is the key to success.

- The choice to invest in a geographical market or product that might not be profitable in the short to medium term, but immensely beneficial to the firm in the long run can be out of reach for businesses with alternative ownership patterns.

- A family firm may not have shareholders to whom senior executives must continually justify near-term earnings, capital expenditure and investment. As a result, the business can see through the volatility and normalize decisions over a longer period of time.

- The leverage and fiscal characteristics of family and non-family-owned businesses typically differ.

It should be underlined that it is vital the investing for long-term returns and a longer-term perspective should clearly influence the investment decision-making process. Family Businesses with longevity appear comfortable with longer payback periods, whereby a significant proportion are willing to accept a payback period that is longer than ten years.

Carrefour, Volkswagen, BMW, Ford Motor, Fiat, Porsche, L'Oreal, Arcelor Mittal, Samsung Electronics, Auchan, Cargill are some of the most known companies in the world that are family businesses.

Family Business Network (FBN) the network comprising the largest business owning families in the world was created in 2012 by families who own and administrate business in Romania and intend to keep them in family.

Romanian FBN members activate in IT, technology, construction, services, tourism, courier, cosmetics, and association being part of an international structure for over 5,000 families in 60 countries.

Most of the businesses in Romania are still in the hands of the first generation. The first generation of entrepreneurs started in the 90s, and there is still experience regarding succession.

Most family businesses in Romania are small-scale, but there are family businesses that are recognized nationally and internationally (Omnilogic, MBTelecom, Ivatherm, FanCourier, Eximturand others).

CONCLUSIONS

The unsatisfactory trends regarding births and deaths in the SME sector from EU and Romania and the road to competitive and innovative businesses require the elimination of administrative and fiscal barriers for private business initiatives, but it requires also major changes in the economic behavior at individual level in order to recognize and promote competence and innovation.

There is a progress, but there are still many weaknesses and recommendations to support R&D and innovation activities (EC, 2011b).

The progress made by the Romanian SME sector regarding research and innovation refer to:

- Starting a business is a relatively fast and uncomplicated process;
- The national authorities have implemented a series of actions to improve access to finance to SMEs:

- state aid scheme to support the development of SMEs under Government Decision;
- multiannual programme to support the development of retailing structures owned by SMEs by the Agency for Projects, and Programmes for SMEs;
- Operational Programme to increase Economic Competitiveness;
- Regional Development Structural Fund;
- National Rural Development Programme;

- establishment of Romanian Counter Guarantee Fund;
- Enhancement of National Credit Guarantee Fund for SMEs etc.

But, there are the many key weaknesses of Romanian SMEs regarding research and innovation, the most important being:

- As a result of the current financial and economic crisis, profitability has declined and the death rate of SMEs increased. Low profits constitute a serious problem for future growth.

- Since 2009, the financial crisis has negatively affected lending in Romania, as the magnitude of the deterioration of access to credit (bank loans, public guarantee schemes) is however considerably higher in Romania than in the EU on average. Own sources are very limited and the net financial asset position of the population is very weak. The relatively limited availability of risk capital also further restricts the chances for growth of highly innovative companies in the early stages of development.

- Most Romanian SMEs depend solely on domestic market and have no experience with selling abroad.

- The country appears more bureaucratic than the other EU states in the general conditions for trading, cost, time and number of documents required to export.

- The ratio of innovative firms in Romania is very low compared to the European ratio.

- Absence of a coherent development strategy of SMEs.

- Very low demand (comparing to EU standards) for highly skilled human resources.

- Variability in innovation performance and intensity across the Romanian regions.

Recommendations on R&D/innovation support activities and programmes/key drivers and recommendations for the development of SME are:

- Simplification of participation procedures both for national/regional and international R&D programmes.

- Transparent procedures of evaluation as well as simplification of project management, reporting requirements and faster reimbursement of costs.

- Creation of economic benefits/incentives for SMEs that develop R&D activities such as tax incentives.

- Develop measures to support access to market and faster commercialization of R&D results. Overall, better linking of R&D and innovation support activities with market.

- Integrate SMEs views in relevant national/regional policy making process.

Less developed countries, as Romania, link their future to the over whelming influence of developments in the integrated space of EU but need also the political will from each state.

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IMPACT OF MERGERS AND ACQUISITIONS ON INNOVATION

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Abstract

Internationalisation has become increasingly important to the competitiveness of small and medium-sized enterprises (SMEs). The process of internationalisation provide opportunities not only for revenue growth, but also the exchange of knowledge and the enhancement of capabilities, which strengthen the long-term competitiveness of the firm.

Globalisation, technological advances, improved information flows and changes in organisational structures have facilitated SMEs internationalisation, whereas one of the most important methods of internationalisation is the process of merger and acquisition. Both mergers and acquisitions and innovation are fundamental to each firm's competitive strategy.

Despite the large number of publications concerning mergers and acquisitions, few researchers have consistently compared the effects of these processes on innovation, instead, both instruments have been studied separately. Therefore the main objective of the working paper is to analyze the effects of the processes of mergers and acquisitions on innovation processes in small and medium-sized enterprises.

Analyzing the theoretical and empirical studies that perceived the impact of the processes of mergers and acquisitions on innovation, we have founded that the impact of mergers and acquisitions on innovation depends on the technological similarities that exist between the companies involved in a particular merger or acquisition and on the similarities between the markets they are active in.

From the analysis of the empirical study about the impact of technological and non-technological processes of mergers and acquisitions on R&D activities we concluded that acquirers in technological M&A invest significantly more in technology development after the deal than acquirers in non-technological M&A.

Key words: mergers and acquisitions, innovation, competition, internationalization.

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INTRODUCTION

Over the past decade, we have witnessed of turbulent changes of world market. Driving forces of these changes are globalization and growing competition. In order to survive in the emerging market conditions, companies were forced to perform a complete reorganization of their operations, structures and strategies. One of the most powerful and popular tool for strategic reorganization of the companies is the process of merger and acquisition. This process is instrument for growth and competitive advantage of the companies. Furthermore, the fundamental element to each firm's competitive strategy is the process of innovation.

It should be emphasized that both instruments usually have been studied separately. But, it is considered that the process of mergers and acquisitions and innovation - are intimately connected. Therefore the main objective of this paper is to consider the relationship between the process of mergers and acquisitions and innovation and to assess the effect of these processes on innovation and research development.

The paper proceeds as follows: At the beginning, we presented a short analysis of the term - internationalization, the methods of internalization and the main motives and incentives of this process. In the third section, is defined the processes of technological and non-technological mergers and acquisitions, and through the empirical analysis, we presented the effects of these processes on research and development activities in integrated companies.

In the fourth section, we reviewed the theoretical studies about the effects of processes of mergers and acquisitions on innovation. In the fifth section we considered the empirical contributions. The paper ends with summarizing remarks in section sixth.

MOTIVATIONS AND DRIVERS OF SMEs INTERNATIONALIZATION

In terms of globalization and strong competition in world market, the rapid development of information technology and communications, as well as, the continuous growth of knowledge and innovation, the process of small and medium enterprises internationalization, becomes essential need and priority. Internationalization is a process which erases a national boundaries of operating of a companies and they become global players in world market. This process is one of the main tools through which firms' growth materializes.

Numerous economic studies of the processes of SMEs internationalization have shown that there are two main motives to internationalization. First, the firm growth is the main goal or motivation of international expansion. Secondary motivations included strategic development of the company by gaining access to international competencies, technology and labour, as well as, capital. But, in the recent years, with the development of knowledge-intensive industries, the focus shifted towards the technological aspects and motives of the process of internationalization. This means that the processes of innovation and research are becoming the leading motives of internationalization.

Due to the technological development and globalization, mergers and acquisitions have long been a popular strategy for companies internationalization. Cross-border mergers and acquisitions is defined as those involving an acquirer firm and a target firm whose headquarters are located in different home countries (Child et al., 2001, pp. 7-8).

In a turbulent and uncertain environment, mergers and acquisitions are continuously gaining in importance as a means to access external knowledge (Hennart

und Reddy (1997); Vanhaverbeke et al. (2002); De Man und Duysters (2005)). Technological motives play an increasingly important role in M&A decisions and even constitute a central explanation factor for the latest merger waves (Chakrabarti et al. (1994); Gerpott (1995)).

In continuation, we will perform the analysis of processes of technological mergers and acquisitions.

TECHNOLOGICAL AND NON-TECHNOLOGICAL PROCESSES OF MERGERS AND ACQUISITIONS AND THEIR IMPACT ON RESEARCH AND DEVELOPMENT ACTIVITIES

In this section we divided the processes of mergers and acquisitions on technological and non-technological. From the analysis of the numerous definitions of technological processes of mergers and acquisitions in the economic literature, we have chosen a definition which clearly expresses the essence of these processes. We define technological M&A as acquisitions of the controlling interest in high-technology firms with technology being a part of the acquired assets (Yuriy Zhovtobryukh, 2013).

In the context of non-technological processes of mergers and acquisitions, it is important to emphasize that the major distinction between technological and non-technological M&A is that technological deals provide technology inputs for the acquiring firm while non-technological M&A do not (Ahuja & Katila, 2001). In the technological processes of mergers and acquisitions, the technological inputs allow the acquiring firm to benefit from two types of synergies unavailable in non-technological deals:

1. leveraging the acquirer's ability to innovate continuously by combining the technology assets of the two firms (Ahuja & Katila, 2001; Graebner, 2004) and;
2. profiting from commercializing technology developed by the target firm (Chaudhuri & Tabrizi, 1999).

From the brief analysis of the processes of mergers and acquisitions can be concluded that non-technological mergers and acquisitions do not provide technology inputs for the acquiring firm, and latter cannot benefit from the economies of scope and scale in technology development and commercialization. Vice versa, the acquiring firms in technological processes of mergers and acquisitions will benefit on average from the productive efficiency gains, increased market power and financial synergies.

Finally, we have concluded that only the technological processes of mergers and acquisitions have significant influence on the innovation policy and R&D activities of integrated companies.

In the context of this conclusion, we presented the hypothesis and the method to confirm or deny the accuracy of the hypothesis. Yuriy Zhovtobryukh (2012), in his empirical study, performed an analysis about the effects of technological processes of mergers and acquisitions on the research and development activities of integrated company.

Table 1, contains the time-series distribution of a sample of M&A conducted by US publicly traded companies in 2002-2011 from Zephyr.

Table 1. Sample Distribution by Year and Type of M&A

Year	All deals	Technological M&A	Non-technological M&A
2002	1	1	0
2003	22	5	17
2004	161	28	133
2005	162	33	129
2006	143	36	107
2007	140	38	102
2008	92	27	65
2009	71	20	51
2010	115	32	83
2011	97	29	68
Total	1004	249	755

Source: Yuriy Zhovtobryukh, The role of technology, ownership and origin in M&A performance, 2013, pp. 18.

In Table 1, the column labeled “All deals” lists the number of M&A in a given year that are included into the sample. The column labeled “Technological” lists the number of deals from the sample where the target operated in a high-tech industry, as and either the target had at least one patent in the fiscal year preceding the acquisition or “technology”, “R&D”, and “innovation” were reported as part of the deal motivation. The column labeled “Non-technological” indicates the number of M&A that do not satisfy the above mentioned classification criteria.

The hypothesis predicts that acquirers in technological M&A will have higher post-merger R&D-intensity relative to the pre-merger levels and industry peers than acquirers in non-technological M&A as they will focus on extracting the maximum value from the target’s technology assets through innovation (Yuriy Zhovtobryukh, 2012). Author, in the empirical study, found the strong evidence to support the hypothesis. The results of analysis are presented in Table 2.

Table 2. Industry and Pre-merger Adjusted R&D to Sales Ratios by Deal Type

Variable	Technological M&A	Non-technological M&A	Difference
R&D to SALES(1)	0.411 (-0.003)	-0.317 (-0.003)	0.728 (-0.000)
R&D to SALES(2)	0.743 (0.004)	-0.899 (-0.001)	1.642** (0.005)
R&D to SALES(3)	2.050*** (0.008***)	0.721** (-0.000)	1.329** (0.008)
Number of observation	203	374	

Source: Yuriy Zhovtobryukh, The role of technology, ownership and origin in M&A performance, 2013, pp. 33.

The data in Table 2, present the industry-adjusted means and medians (reported in brackets) of changes in R&D to Sales in fiscal years +1, +2, and +3 relative to their

pre-merger values. (1), (2) and (3) stand for fiscal year +1, +2 and +3 correspondently relative to the merger completion year 0. Transactions of mergers and acquisitions are separated in two groups: technological and non-technological M&A. There is also a column in the Table about differences between the two groups.

From the analysis of the results presented in the table, we can see that for technological M&A the means and medians of industry and pre-merger adjusted R&D expenses to Sales ratios are generally positive and significant for year +3. This means that acquirers in technological M&A are focus to invest more in R&D than other companies in the same industry. For non-technological M&A all the medians are negative but not significant. The means are negative and non-significant for years +1, +2 and significantly positive for year +3.

Data in the column- differences shown that the differences in means are positive and significant for years +2 and +3 and positive but not significant for year +1. This shows that acquirers in technological M&A invest significantly more in technology development after the deal than acquirers in non-technological M&A and supports the argument that leveraging innovation capabilities is a major driver for value creation in technological M&A.

In continuation, we will present the theoretical and empirical studies which analyzes the impact of the mergers and acquisitions on innovation.

THEORIES ABOUT THE IMPACT OF THE PROCESSES OF MERGERS AND ACQUISITIONS ON INNOVATION

The processes of technological mergers and acquisitions may stimulate innovation for a number of reasons. Technological know how is often tacit and can therefore not be easily transmitted from one firm to another (Larsson et al., 1998). In order to avoid high transaction costs, firms may be inclined to engage in an acquisition in order to solve problems related to the transmission of tacit knowledge (Bresman et al., 1999).

Furthermore, according to numerous theoretical analysis, mergers and acquisitions, could raise the overall R&D budgets of the companies which participate in these processes. In this way, companies will manage to realize more and larger R&D projects than each individual firm could have done and would spread the risk of innovation. In the case of technological processes of mergers and acquisitions, companies are likely to use different innovation management techniques. If the companies would apply an exchange of best practices within the merged entity then R&D productivity will raise. It means, with the same budget more new technologies can be developed.

Also, it is argued that mergers and acquisitions can enable scale and scope economies in R&D (Cassiman et al., 2005); they can help firms to enter new technology and markets complementing internal R&D resources (Vermeulen and Barkema, 2001); they can facilitate reorganization of their R&D efforts among different research centers; they can facilitate greater internal finance for R&D projects (Hall, 2002); and they can increase the buyer and target firms' absorptive capacity resulting in greater innovation output (Ahuja and Katila, 2001; Desyllas and Hughes, 2010). In the case when the target and acquiring company are active in the same technological field, R&D input might be reduced as wasteful and duplicated R&D are removed (Cassiman *et.al*, 2005).

On the other hand, the processes of mergers and acquisitions, face some grave barriers to innovation as well. Due to reduced competition, it is also argued that

processes of mergers and acquisitions can lead to reduction in research. This situation can lead to the re-organization of business units, disrupting R&D departments or forcing the exit of scientists. And finally, mergers and acquisitions can cause managers to postpone decisions regarding long-term investment such as R&D, and a change in emphasis from strategic to financial controls, hindering investments in R&D (Hitt et al., 1991, 1996).

Furthermore, a disadvantage of mergers and acquisitions is that it involves entire companies whereas the advantages for knowledge exchange may be limited to only a small part of the companies involved. In mergers and acquisitions, knowledge that is not required at all is acquired as well. In this situation, a company may acquire more knowledge than it can use in a meaningful way (Hennart and Reddy, 1997).

Finally, after numerous analysis of the theories about the impact of the processes of mergers and acquisitions on innovation, the conclusion is that mergers and acquisitions improve innovation performance when the technological knowledge of the involved companies is similar enough to facilitate learning but different enough to provide opportunities to enrich the acquiring firm's knowledge base.

EMPIRICAL STUDIES ABOUT THE EFFECTS OF THE PROCESSES OF MERGERS AND ACQUISITIONS ON INNOVATION

Over the past decades, the processes of mergers and acquisitions have occupied the attention of the economic literature. Especially, there are numerous empirical studies of the impact of the processes of mergers and acquisitions on innovation and research activities of integrated companies. In spite of the vast and rapidly growing body of literature on the relationship between mergers and acquisitions, and innovation, there is no general consensus on the effect of mergers and acquisitions on research and innovation. In continuation, we will perform a presentation and analysis of several empirical studies and we will try to bring a basic conclusions about the impact of mergers and acquisitions on innovation.

Hitt et al. (1991) use a sample of 191 US M&A for the period 1970-1986 and analyze R&D intensity and innovation output as measured by the number of patents divided by sales. Compared to the industry average, firms show lower innovation activity on both counts after going through a M&A process. Hitt et al. (1996) use another sample of 250 US firms for the period 1985-1991 to study among other influences the impact of M&A on innovation. The innovation measure is R&D intensity and the intensity of new products introduced (number of product introductions divided by sales). Both measures are combined via a factor analysis. One of the hypothesis they suggest holds that acquisition intensity (number of acquisitions) reduces internal innovation. A second holds that acquisitions lead to a shift from strategic controls to financial controls. This shift has an indirect negative impact on internal innovation. The hypotheses are supported by the econometric results.

Chakrabarti et al. (1994) found that large acquiring firms that take over small acquired firms reduce the innovation performance of the former. Moreover, acquisitions between firms of equal size perform better than those between firms of unequal size.

Blonigen and Taylor (2000), investigate the impact of a firm's R&D-intensity on the number of acquisitions it performed in the electronics and electrical equipment sector. The authors found a robust negative relationship between R&D-intensity and the number of acquisitions performed. In other words, firms with relatively low R&D-intensity are more likely to acquire.

Van Beers and Sadowski (2003) and Prabhu *et.al* (2005) used sales with technologically new products as the innovation performance indicator and they found positive effects of acquisitions on the probability to innovate respectively innovation performance.

Danzon et al. (2004) analyzed the post-merger performance of the pharmaceutical industry on the firm level for the period 1988-2000. They are not explicit about the international composition of their sample (383 firms) but claim that it is US biased. They split the sample into large and small firms. They first estimate propensity scores for being involved in a merger. They find that large firm mergers are connected to expiring drug patents, while small firms propensity to be involved in a merger (target) is connected to financial distress. The impact of mergers on R&D is only one of their performance indicators. R&D is measured as R&D investments. Controlling for the propensity score large firms that merged did not show significantly different R&D activities up to 3 years after the merger compared to firms that did not merge. In general, small firms exhibited lower R&D investment growth if they merged. Only small firms with a very high propensity score witnessed an higher R&D activity.

Cassiman et al. (2005) analyzed the effect of M&A on the R&D process concentrating on the role of technological- and market-relatedness. Their study is based on 31 in-depth cases of individual merger deals. R&D measures include change of inputs (personnel, laboratories, etc.), outputs (greater speed of developing technological knowledge, more patents, etc.), and performance (more productive R&D personnel, increase of returns on R&D, etc.) due to the merger. They concluded that M&A partners with complementary technologies result in more R&D activities, while for partners with substitutive technologies the reverse is true. The efficiency of R&D is also increased with complementary technologies. When partners were active in the same technological field the reduction of R&D is more prominent. Finally the gain in efficiency of R&D is smaller if the partners were rivals in the product market than if they were not.

Bertrand and Zuniga (2006) analyzed the impact of mergers on innovation in OECD countries for the period 1990-1999. They used data on the industry level. They look at the R&D intensity (spending divided by production level) of an industry. One explanatory variable is the number of M&A in a given industry. On the aggregated level they find no significant impact of mergers on innovation. They distinguish low, medium, and high-technology industries. They, also, distinguish between domestic and cross-border M&A and analyze the impact on R&D for inward and outward mergers. They found that M&A had a positive impact in low technology intensive industries and that this is concentrated on domestic mergers. In medium and high-technology industries domestic mergers reduced R&D investments, while crossborder mergers have the opposite effect. Finally it is the target firms which profit from crossborder mergers and not the acquiring firms in terms of R&D investments.

Gordon M. Phillips and Alexei Zhdanov (2012), presented a illustrative model that allows them to draw empirical predictions about the relation between R&D, acquisitions and firm size. Their illustrative model and empirical tests show that the acquisition market impacts the decision to conduct R&D. The model suggests that large firms optimally may decide to let small firms conduct R&D and then subsequently acquire the companies that have successful innovated. The authors show that firms' incentives to conduct R&D increase with the probability that they are taken over and how this effect decreases with size. From the analysis of the results of their empirical model they conclude that merger and acquisition activity strongly increases firms' incentives to conduct R&D, but less so for large firms as they may buy smaller firms

for their technology and use it in their existing business (Gordon M. Phillips, Alexei Zhdanov, 2012).

From the analysis of the empirical studies, we can conclude that most of the studies generally report negative relationships between acquisitions and post-acquisitions R&D input and output of acquiring firms. But, there is no general conclusion about the effects of mergers and acquisitions on innovation. The reason for that is the complex and time-consuming process of post-merger/acquisition integration. The integration process is the most important element of the transaction of mergers and acquisitions. In order to achieve the objectives of the acquiring and target company, for example to induce the innovation and research activities in the integration company, it is necessary to perform the adequate design and evaluation of the processes of mergers and acquisitions, and application of appropriate strategy of post-merger/acquisition integration. A well-developed post-merger/acquisition integration process therefore enhances innovation.

Another very important element for a positive effect of the processes of mergers and acquisitions on innovation is the ability to successfully engage in an innovation project. The implementation of the innovation project depends on several aspects: the ability to finance the innovation project, the access to the use of intellectual property rights necessary for implementing the innovation, the absorptive capacity necessary to enter the innovation project successfully, which may be dependent on the distance to the current technological frontier, the availability of relevant human capital either internally or on the job market, the relationship to public research facilities etc (Norbert Schulz, 2007).

Because every transaction of merger and acquisition is unique and has its own post-merger/integration strategy, there is no general conclusion about the effects (positive or negative) of mergers and acquisitions on innovation and other performances of the integrated company. But, finally we can conclude that large company should focus their M&A activity on small targets if they would like to increase their innovative performance. Also, innovative performance diminishes when a large company takes over a small one and M&As between companies of equal size perform better. In the processes of mergers and acquisitions, when the target and acquiring companies have complementary technologies the innovation and research activities are increased.

CONCLUSION

The globalization of markets, economic recessions, customer demand for quality products and services, and the rapid development of information technologies, require new strategies for successful entrepreneurship, and new methodologies and tools for system design and analysis in the dynamic environment. The processes of mergers and acquisitions and innovation, are fundamental instruments for radical redesign of structure of the companies in order to increase their growth and competitive advantage.

From the analysis of the numerous theoretical and empirical studies about the impact of the processes of mergers and acquisitions on innovation and R&D activities, we brought several conclusions.

First, there is no general conclusion about the effects of mergers and acquisitions on innovation. The reason for this situation is the complex and time-consuming process of post-merger/acquisition integration. In order to induce the innovation and research activities in the integration company it is necessary to perform

the adequate design and evaluation of the processes of mergers and acquisitions, and application of appropriate strategy of post-merger/acquisition integration. The creation of a combined company that managed the new entity, along with a careful reorganization of its R&D department, will led to a significant improvement in technological performance.

However, we made a few general conclusions about the relationship between the processes of mergers and acquisitions and innovation. The impact of mergers and acquisitions on research and development plus innovation depends on the technological similarities that exist between the companies involved in a particular merger or acquisition, and on the similarities between the markets they are active in.

When companies operate in the same technological areas, it should lead to a rationalization of the R&D process in post- merger/acquisition integration. Those companies that operate in complementary areas of technology have a opportunity of achieving long-range synergies and economies in their R&D as a direct result of their merger or acquisition.

In the case when companies are active in similar markets, they can use processes of mergers and acquisitions to create economies of scale in production and/or distribution and to win market share. This situation creates greater efficiencies in the R&D process, and indirectly stimulating R&D activities.

Furthermore, large company should focus their M&A activity on small targets if they would like to increase their innovative performance. And innovative performance diminishes when a large company takes over a small one and that M&As between companies of equal size perform better.

Finally, through the analysis of empirical study, we can conclude that acquirers in technological M&A invest significantly more in technology development after the deal than acquirers in non-technological processes of mergers and acquisitions.

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**THE ABSORPTION APPROACH TO INNOVATION
THE CASE STUDY OF GPG ALBANIA**

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Abstract

The purpose of this paper is to argue that countries like Albania are better suited to absorb innovation through international channels and open innovation solutions. The context is built up on the MIT (Fitzgerald, Wankerl, & Schramm, 2011) model of innovation. The idea is to demystify innovation and make it a human process.

The model recognizes three fundamentals of the innovation process such as: market, technology, and implementation. The paper argues open innovation helped also by ideas diffusion can help SME to thrive in the market even with the financial issues that they usually have in South Eastern European countries.

The methodology used to contextualize the idea is a case study, GPG Albania – a dynamic innovative business in cost competition, which best illustrates the literature model (Prasnikar, Redek, Memaj, 2012). The case will show that this generic model is a great tool for entrepreneurs that will help spur innovation and change the way they think about it. The work also lays background for further practical studies of great significance.

Keywords: Innovation New paradigm, Absorption, Market, Albanian Context

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LITERATURE REVIEW

Over the course of human history innovation has been a key force behind the development and changes of cultures, behaviors, and systems. In the past, but with more focus today innovation is seen as the center of evolution and the source of those called “modern practices” (Godin, 2008). From the creation of the well-spoken languages, to the printing press, cars creation or World Wide Web we have seen changing not only the world around us, but also the concept of innovation and the terms in which it was studied. And different experiences bring to us different cases, such as the ones mentioned by Godin (2008) in his working paper on the history of innovation, where he focuses on technological innovation as the one studied from economic and social disciplines. And that is why we see innovation as a social process from sociology theorists, while economists never separate market value from innovation. Nevertheless in time the concept of innovation has changed also due to the fact that researcher have worked on finding a main way, process, model, or system of how to maximize development and research. What follows is a concise layout of various models and theories of the innovative process seen also from an historical point of view.

THE LINEAR MODEL OF INNOVATION

One of the first theoretical frameworks developed for historically understanding science and technology and its relation to the economy has been the linear model of innovation. It consists in these steps: Basic research → Applied research → Development → Production and Diffusion. Several authors who have used, improved, or criticized the model in the last fifty years have rarely cited any original source. The linear story of an innovation represents its historical recording, rather than how it was actually generated (Fitzgerald, Wanklerl, & Schramm, 2011). The model has been very influential. Science policies and academics carried a linear conception of innovation for many decades. Despite its widespread use, the model was not without its opponents. Among other debates, in the 1960s, academics levelled criticisms concerning the linearity of the model (Price & Bass, 1969). The model continued to feed public discourses and academic analyses – despite the widespread mention, in the same documents that used the model, that linearity was a fiction. (Godin, 2005). Godin states that the success of the linear model suggests how the absence of statistics is a limitation in changing analytical models and frameworks.

THE NATIONAL SYSTEM OF INNOVATION

Whilst external international connections are certainly of growing importance, the influence of the national education system, industrial relations, technical and scientific institutions, government policies, cultural traditions and many other national institutions is fundamental (Freeman, 1995). The relevance of national systems of innovation is seen from the XIX century, but it was for sure pointed out in comparisons of countries such as Japan and USSR in the XX century, especially during and after II World War, when the concept of national differences in innovative capabilities was thought determinant in national performance. As Freeman shows in the same working paper, differences were also due to varying types of institutional and technical change which may be the subject of qualitative description. Globalization is a concept that the world is facing now more than before and moreover in development. Should we ask ourselves if this demand for adaptability is helping

innovation or is working in the opposite by lowering its development even in those countries where factors for development are not missing?

Freeman in his work concludes that nation states, national economies and national systems of innovation are still essential domains of economic and political analysis, although the interaction of national systems both with 'nether-region systems of innovation'⁴ and with transnational corporations will be increasingly important, as will be the role of international cooperation in sustaining a global regime favorable to catching up and development.

DIFFUSION OF INNOVATION

As human behavior is concerned, has mattered little until now, whether or not an idea is "objectively" new as measured by the lapse of time since its first use or discovery (Rogers, 1983). The perceived newness of the idea and the way it was served determine the reaction to the so called innovation. The way of offering innovation is what is named as diffusion.

Rogers in his book "Diffusion of Innovation" define it as the process by which an innovation is communicated through certain channels over time among the members of a social system. For sure the characteristics of the specific innovation are the ones that also define system and human reaction to it and its diffusion. And to the end of the process we see the way society is adapting and using an innovation, which might be the one expected or not.

THE MENAGMENT OF INNOVATION THROUGHT MIT MODEL

Managing innovation properly is one of the most important challenges faced by developed economies. It primarily consists on the organizational aspects of R&D activities. The process of real and good innovation is highly and continuously iterative. It requires repeated iteration among three key elements: technology, market, implementation (Fitzgerald, Wankerl, & Schramm, 2011).Technology includes those aspects of innovation that will eventually make it possible to have an "idea embodied in the marketplace". Market means the people who will use and benefit from innovation, and the profit they are willing to render to the businesses selling the innovation.

Implementation means moving the technology of the innovative idea into the human realm of the market.Researches can be conducted in an integrated or non-integrated structure (Jean Tirole, 1994). According to Tirole research will more likely be conducted in an integrated structure if: capital inputs are substantial relative to intellectual inputs; the customer has more bargaining power ex ante and the customer has a deep pocket. Otherwise, research activities are more likely to be performed by non-integrated research units. In that case, co-financing by an outside investor (venture capitalist or bank) may benefit the customer of the innovation.

OPEN INNOVATION

Open innovation consists in bridging internal and external resources and acting on the opportunities thus created to make innovation happen. Lindegaard (2011) states that when companies adopt an open innovation strategy it "should show an understanding of how open innovation can be an important part of the innovation strategy, which in turn needs to be strongly aligned with the overall corporate strategy."Lindegaard (2011) says that there are significant

⁴For more read Freeman Ch., The national system of innovation , pages 14-18

differences between small and large organizations regarding how open innovation works, because smaller organizations have different resources and needs, and contribute in different ways to an open innovation relation.

Drawing upon reports on innovation in small businesses, he lays forth three main drivers of innovation in small companies: necessity-shifting and changing marketplaces compel(s) firms to improve their products; opportunity-faster decision-making and seizing opportunities more quickly; ingenuity-small businesses are started mostly by innovative persons seeking to apply their ideas, which makes them more likely to produce further innovations. An important aspect to a good implementation of an open innovation strategy is the relation between the partners involved; making sure the goals are aligned with each partner's strategy, and a clear establishment of boundaries (Lindgaard, 2011). Social media tools also carry potential for open innovation, as they offer two key aspects that support it: the communication of relevant messages and collaboration, including the sharing of ideas and solutions.

ABSORPTIVE CAPACITY

According to (March, 1958), most innovations result from borrowing rather than invention, an observation which is supported by research on the sources of innovation. (Mueller, 1962); (Hamberg, 1963); (Von Hippel, 1988). Cohen & Levinthal (1990) defined absorptive capacity as the ability to recognize the value of new information, assimilate it and apply it to commercial ends. An organization's absorptive capacity, they argue, is largely dependent on the levels of previous knowledge regarding a given field and the diversity of knowledge across fields. A key point in their argument is the notion that the innovative process is path-dependent, or in other words incremental in nature, and therefore companies which do not invest early on in a given technology will not be able to adopt it in a later stage.

The ease of further accumulation and the possibility of creating expectations on the value of intermediate improvements are the two chief ways in which absorptive capacity (existence of previous knowledge) affects innovative performance (Cohen & Levinthal, 1990). Having acquired some level of knowledge in a particular field or technology, the firm is more capable of accepting and subsequently adopting improvements or novelties, which in turn further increases the knowledge set of the firm, making for a cumulative process. Expectation formation, on the other hand, is important for evaluating changes in a dynamic environment. Previously accumulated knowledge may serve as an evaluation framework, which the organization can further use to decide on which improvements to invest more substantially, resulting in changes in absorptive capacity as it specifies the organization's knowledge set.

THE CASE OF GPG ALBANIA

It was 2007, when an Albanian entrepreneur took over the knowledge and technology for producing plastic pens of a formerly bankrupt foreign company and founded Golden Pen Generation (GPG) Albania. Today, GPG is a entirely production-oriented company that exports more than 90% of its production to Western Balkans and EU countries. GPG Albania is part of a larger group, named Nuova Plastica, which started as a business extension of producing antitheft security plastic products, for clothes and plastic elements for the car industry (ie. Iveco).

GPG is a dynamic exporting company, with an annual average sales growth around 20%, generating actually revenues of more than 1 mil Eur. GPG buys all of its major plastic supplies (granulate - PCPMAA) from Germany (BASF). The main competitive advantage of the company

is low price, due to low labor costs in Albania and huge flexibility in production, provided by advanced technology.

Effective use of the workforce consists in hiring almost of 90% of employees as so-called “rented employees,” which means that they join production process only when an order is placed. Most of them conduct manually operations, related to the assembly and packing of pens, which is the final part of not automated production. The company has regularly invested in training of its engineering staff abroad (Italy, Slovenia).

Examining the expenditure side, it could be noticed that the biggest share in production cost of GPG counts for the plastic granule, used for molding the plastic parts. It represents almost 30 % of the GPG wholesale price. Other important cost share, 25-30% of the price, responds to other production costs, including labor. Labor costs are effectively managed close to their minimum, so the main focus of GPG is to reduce the cost of the granule (main material input) and to further optimize the production process, in order to maintain the high level quality of its products (less than 0.003 % of faulty products).

Therefore GPG has established an R&D department, which consists of two of its 8 engineers employed. Their R&D department is cooperating with Italian academic experts on plastic. GPG’s main methods are trial and error and learning by doing. In this way they have been able to gradually increase the quality of their pens and introduce new input materials. With successful research they have found out that recycled car headlights are equal substitutes to plastic granule. GPG is thus able to reduce the cost of the main input material and at the same time include an environmentally friendly component into their production by using recycled materials. This will result in lower dependence on their main supplier and lower dependence on input cost fluctuations as plastic granule is a direct derivative from oil. Although the use of recycled materials has big potential, there are bureaucratic limitations due to regulation – mainly ban on “garbage” imports in Albania, and at the same time Albania does not collect enough waste materials separately so it could be efficiently used by GPG. However, they are discussing options on importing recycled headlights from EU suppliers. Although GPG is a small company, it is export oriented, focused on technology improvements, and aware of changing business models concerning the environment by using recycled materials (Prasnikar, Redek, Memaj, 2012).

CONCLUSION

Innovation today is in a middle of heavy discussion. Mainly because of some thinking that the era of great innovations has ended and during the last two decades has been a fertile period regarding innovation, or at least radical innovation. However, this debate is not the scope of this paper and goes beyond our objective here.

In countries such as Albania incremental innovation is not difficult to achieve, but the approach toward it is not appropriate. On the other hand, prospects of radical innovation are deeply vague. The MIT model represented earlier here is a descriptive trinomial among Market, Technology and Implementation. The model describes innovation as an iterative process, which starts with many uncertainties and ends with a few ones achieving innovation. Also, the model is generic which means that one can innovate starting from each of the elements mentioned, and using the model one can explain every kind of innovation.

This feature helps in the context of Albanian like countries. The relevance of this model helps in three different aspects. First, entrepreneurs can draw upon and try to commercialize their incremental innovative approach. By using the model they will have a better understanding of

the system and a more practical approach from technology to implementation and then the market place.

Second, from the policy makers perspective the generic feature of the model can help better design policies. National systems of innovation in developed countries are of great relevance in tackling problems in this globalized market place and knowledge economy. In less developed countries government can design national systems of innovation keeping in mind the generic feature of the model and using it as a tool to come closer to businesses regarding their needs.

Third, the model becomes more important to entrepreneurs and policy makers if we consider diffusing open innovation sources that prevail today. The latest example, in the developed world is Tesla Motors, which made all its patents public to help develop new technologies in the field.

In addition, Albanian like countries do not have absorptive capacities for radical innovation adaption, therefore absorbing through open innovation and other sources existing technologies and implementing them in a different or the same way in new markets is not only the right approach but also maximizes the utility of all resources and processes.

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ESTIMATING THE EFFECTS OF INVESTMENT IN EDUCATION

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Abstract

Education is widely accepted as one of the most significant variable in determining the wealth of individuals and population as a whole. The basic education model stands on the assumption that earnings almost immediately adjust to increase the degree of education and human capital productivity. This paper uses an approach to explain how earnings are distributed across the population. With application of the quadratic Mincer earnings model, the main goals are to understand the reasons why additional education enhances earnings and why potential correlation between working experience and earnings appears. In order to do such analysis, this paper starts with the sample of 300 respondents residing in the province of Vojvodina with a difference in education, working experience, social status etc. Furthermore, we critically look back at some parts of mentioned model (log earnings, linear education and quadratic experience) and conclude its empirical position in the light of current and future changes in Serbian labor market. Hence, this paper provides a theoretical interpretation of these empirical results.

Keywords: Mincer model, Education, Earnings, Working Experience

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INTRODUCTION

Individuals accumulate human capital through investments in schooling and training. Individuals, firms and governments make decisions about investing in human capital by focusing on the costs and benefits of marginal units of investment. These costs differ from case to case since they depend on individual capability, preferences and financial situations. Goldberg and Smith (2007) claim that individuals balance their private costs against possible benefits, which include not only higher wages, but also the intangible aspects on a job, such as opportunities to help others, social opportunities, or effects on health. On the other side, firms provide trainings and weigh between the costs of training and the benefits of increasing worker productivity. In the same chain of reactions, governments thinking about the private benefits of citizens and public benefits from higher tax revenue, lower crime etc.

Over the last couple of decades labor economics suffered a major transformation. According to Polachek (2008), modern economics considers labor as a conglomeration of heterogeneous work forces each differing in the job productivity. At this moment, labor economists emphasize how economies enhance worker productivity through motivation to put out effort and to invest in human capital.

Understanding earnings gets at the very basis of social sciences. Indeed comprehending the determinants of earnings advices policy makers to develop strategic and tactical approaches in wealth promotion and eventually to put countries on the right path to increase growth and prosperity.

MINCER MODEL

Earnings functions are the most widely used empirical equation in labor economics and economics of education (Heckman et al. 2006). The popularity of earnings functions brings the wide range of new estimates of rate of return to schooling based on numerous instrumental variables and ordinary least square estimates. The most popular and most criticized one is certainly the Mincer equation named by the author. Mincer (1974) realized that a choice of individuals produced income streams can be easily evaluated. Treating schooling and profession as investment opportunities, the model can be derived with a goal of estimating the outcome of a person's investment choices. Hence, he was the first to derive an empirical formulation of earnings over the lifecycle. This, so called traditional, equation formulation depicts, at any point of individual's lifetime, observed earnings as a concave function of the individual's labor market experience. Assuming that the schooling phase of investment lasts s years and that on-the-job training declines linearly over the working lifecycle, the traditional Mincer equation models the relationship between the log of wage in period t , $\ln(w_{it})$, the years of formal schooling s_i , the years of experience e_i , and the years of experience squared e_i^2 . The equation can be present as follows:

$$\ln(w_{it}) = a_0 + a_1 \cdot s_i + a_2 \cdot e_i + a_3 \cdot e_i^2 + \varepsilon_i \quad (1)$$

Where $a_0, a_1, a_2 > 0, a_3 < 0$, a_1 is the rate of return to schooling assumed to be the same for all schooling levels and ε_i is a mean zero residual where $E(\varepsilon_i | s, e) = 0$. The coefficient a_1 is the coefficient of interest in Mincer equation since it indicates the percentage effect of an additional year of education.

Derivation of the Mincer equation has been made several times, but Heckman et al. (2006) offered the most convenient version. The initial equation for deriving standard Mincer equation is:

$$w_{it} = w_{it-1} + r \cdot I_{t-1} \quad (2)$$

Equation (2) implies that the wage in period t equals the wage in the previous period plus some return, r , on the investment in continuing education in the previous period, I_{t-1} . It is significant to know that the investment in continuing education is not just the explicit costs of taking additional courses in formal education, but it is the opportunity costs of time whenever one chooses to give up immediate earning activity in order to make future efforts more productive. Some types of investment in the future are not easily measured, at least directly. However, the opportunity costs of time are proportional to the current wage and for that reason it is an important part of the Mincer equation (Hamlem and Hamlem 2012).

The level of investment in continuing education in the previous period is presupposed to be dependent on where the individual is located within his/her working lifecycle, $t < T$, where T is retirement period and t is current period and also the current years of experience. The level of investment at any time t is defined as a portion of the share of the current wage, f , devoted to continuing education. This share changes systematically along with working lifecycle and hence is a function of quantity of working experience, $f_t = f(t)$. Therefore, it is appropriate to refer to $f(t)$ as the continuing education function. Nevertheless, the fraction of wage in the previous period determines the level of investment in the same period. This is written as follows:

$$r \cdot I_{t-1} = r \cdot f(t-1) \cdot w_{it-1} \quad (3)$$

Substituting equation (3) into equation (2) gives us the following formulation:

$$w_{it} = w_{it-1} + r \cdot f(t-1) \cdot w_{it-1} \quad (4)$$

As the intervals in time become short relative to the complete working period T , equation (4) can be written as a continuous time equation:

$$dw_{it} / dt = r \cdot f(t) \cdot w_{it} \quad (5)$$

Consequently, in this model, presented by equation (5), the change in wages is totally dependent on investment on education. In other words, the growth rate in wages depends only on the fraction of the current wages invested in education and the return on this investment.

Presented Mincer equation imposes a functional form on $f(t)$ as it alters with experience during the working lifecycle. The assumption is that $f(t)$ is a negatively sloped linear function of time. $f(t)$ is a large fraction of a current wage at the beginning of the career, when t is low. This implies that the wage is lower in the early years and the fixed cost of continuing education might be a large piece of the current wage. As time t increases, individuals reasonably decide to permit the fraction $f(t)$ to decrease since there is less time to obtain repayment of the investment.

Overall, in many studies, researchers have also used this equation as the baseline when they have examined other earnings determinants, for instance working conditions, union membership and sector of employment. Björklund and Kjellström (2002) emphasize several reasons for the popularity of this equation. The most significant one is probably the pragmatic application of results from human resource theory to generate an estimating earnings equation. Another important fact is translation of the causal wage effects of schooling into a measure of return on investment in schooling in order to compare it with similar measures of returns on other investments in physical capital. Finally, another reason the popularity is that the schooling coefficient is closely related to the marginal internal rate of return to education.

CRITICAL REVALUATION OF THE MINCER EQUATION

Since the appearance of the Mincer equation there has been a substantial expansion in the computer power and in the number of data available for empirical labor studies. Also, sophisticated parametric and nonparametric procedures are now offered to perform careful specification analysis. However, after all, the Mincer equation stands despite of all these advances in labor economics. In this section, we critically reappraise every segment of the Mincer equation in order to avoid some misspecifications in equation form. Besides, this paper uses only the second degree polynomial function as an approximation function to avert econometric problems, for example multicollinearity, as well as to turn the relationship into an econometric “fishing net”.

Logs are usually applied in econometric models for reasons of convenience or fit. According to Lemieux (2006), there is a significant theoretical justification for using log earnings in a human capital earnings regression. Hence, log-linearity of earnings as a function of years of schooling is a key practical implication of the human capital model.

Furthermore, there are few reasons why a simple linear specification for years of education might be inaccurate. For instance, log earnings will be a concave function of years of education in a human investment capital model in which individuals have different preferences. Moreover, in addition to years of schooling, educational diploma has a direct influence on earnings. In the presence of that fact, the return of investment in education should be significantly higher between elementary and high school or between high school and college. However, Card and Krueger (1992) conclude that log earnings appear to be a linear function of years of education for most education levels.

Lemieux (2006) conclude that a quadratic function of potential experience is not flexible enough to capture the main characteristics of relationship between earnings and experience. The problem could be solved by fine tuning of the standard equation adding higher order polynomials in potential experience.

EMPIRICAL EVIDENCE

This paper starts with the sample of 300 respondents residing in the province of Vojvodina with a difference in education, working experience, social status etc. Also, the data set uses 18-65 age interval and observations on employed persons, because of the fact that we do not dispose precise measures of the earnings for self-employed persons. Despite the many justifiable concerns about applying the traditional Mincer model, it still maintains its position as a starting point for the most of the present literature. Therefore, this paper offers an estimation of the Mincer model, presented in Table 1, using the previously mentioned data.²

Table 1. The estimated Mincer model – case of the province of Vojvodina

Dependent Variable: ln(wage)				
Method: Least Squares				
Sample: 1 300				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	8.228572	0.26164	31.4499	0.0000
Years of schooling	0.138525	0.01461	9.48171	0.0000
Experience	0.063502	0.01728	3.67316	0.0005

Experience ²	-0.001387	0.00047	-2.91218	0.0051
R-squared	0.619161	Mean dependent var		10.67425
Adjusted R-squared	0.599116	S.D. dependent var		0.530873
S.E. of regression	0.336124	Akaike info criterion		0.720653
Sum squared resid	6.439828	Schwarz criterion		0.859071
Log likelihood	-17.9799	F-statistic		30.88979
Durbin-Watson stat	1.634235	Prob(F-statistic)		0

Source: author's research

Table 1 presents estimated statistics of the Mincer model. The results indicate that an additional year of education will increase individual's income by 13.85% in average, while an additional year of working experience yields 6.35% of person's income growth in average. Obviously, because of concave shape of the function, income growth depends on position in professional career, where less experienced workers have more chance for earning growth than more experienced workers. Also, the estimated standard errors of parameters are relatively low comparing to the level of estimated parameters. Consequently, the t – statistics are very high and indicate that all four estimated parameters are statistically significantly different to zero, with confidence level higher than 99%. Additionally, according to the coefficient of determination, this earning function explains about 61.9% of all log earnings variations, while the rest of explaining percentage is a result of factors not included in present equation. Therefore, it leaves enough space to explore various solutions by adding more explaining variables and how those solutions change the results.

By adding in adequate control variable it is probable to improve the basic Mincer model. So, in the Mincer equation (1), we insert three control variables for ability (possibility of additional schooling), gender and urbanity. The results are presented in Table 2.

Table 2. The alternative earnings function based on standard Mincer model

Dependent Variable: W				
Method: Least Squares				
Sample: 1 300				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	7.89838	0.355851	22.1958	0
Years of schooling	0.13195	0.014986	8.804882	0
Experience	0.05248	0.017525	2.994777	0.0041
Experience ²	-0.00109	0.00048	-2.281999	0.0265
Ability	-0.05878	0.095312	-0.616379	0.5402
Gender	0.25174	0.098751	2.549244	0.0137
Urbanity	0.08344	0.198928	0.419454	0.6765
R-squared	0.660488	Mean dependent var		10.67425
Adjusted R-squared	0.622765	S.D. dependent var		0.530873
S.E. of regression	0.326059	Akaike info criterion		0.704144
Sum squared resid	5.740996	Schwarz criterion		0.946375
Log likelihood	-14.47639	F-statistic		17.50865
Durbin-Watson stat	1.544305	Prob(F-statistic)		0

Source: author's research

Added variables in Table 2 are achieving the increase in explanation of log wages, although the ability and urbanity coefficients are not significantly different to zero. Otherwise, the gender coefficient plays an important role in the explanation of earnings. These results only partly confirm the doubt that the Mincer model overestimates education premiums due to omitted variable bias.

CONCLUSION

The estimated earnings function yields at least three important practical implications. First, as we mentioned before, earnings levels are related to human capital investment. Thus, the more human capital investment means the higher earnings. Also, the coefficient on the schooling variable reflects the rate of return to schooling. Therefore, at the relatively competitive market, an empirical analysis should calculate schooling coefficient in the range of common interest rates. With no exception, earnings should be related to the quality of schooling. Second, the Mincer equation is concave and than earnings rise more rapidly for persons with less working experience, while earning growth declines in the middle of working career. And third, the model has implications concerning the distribution of earnings.

At the end, the overall conclusion is that doing some research in this area of economics has the potential to essentially alter the way of thinking about education economics. It is no longer reasonable to disregard the relationship among earnings, education and experience, and the above methodology provides a potential model to examine those links, even in developing countries, like Serbia.

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MARKETING OPPORTUNITIES AND THREATS FOR MNCs IN CENTRAL & EASTERN EUROPE

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Abstract

The purpose of this paper is to point out marketing opportunities and threats which multinational corporations (MNCs) face on the market of Central & Eastern Europe (CEE). MNCs strive to identify and create similar patterns of consumers' behavior in different countries. Key opportunities for MNCs in CEE are: huge market potential, market globalization, standardized global marketing strategy of MNCs, good image of MNCs brands and cost advantages. Key threats are: different and small countries - markets, "rooted" patterns of consumers' behavior, ethnocentrism of the consumers, customization of products/services, good image of local brands and economic crisis.

Keywords: Multinational corporations (MNCs), marketing opportunities, marketing threats, Central & Eastern Europe (CEE).

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INTRODUCTION

Individuals, companies and countries, regardless of whether they are targeted at international markets, are facing MNCs. Further integration between people, countries, governments, cultures and organizations is expected, so all industries will be influenced by MNCs.

Levitt (1983) points out that there are significant differences between MNCs and global corporations. "The multinational corporation operates in a number of countries, and adjusts its products and practices in each – at high relative costs. The global corporation operates with resolute constancy – at low relative cost – as if the entire world (or major regions of it) were a single entity, it sells the same things in the same way everywhere" (Levitt, 1983, p. 92-93).

CEE is an important market for MNCs. In this paper, CEE stands for Poland, Romania, Czech Republic, Hungary, Bulgaria, Serbia, Slovak Republic, Croatia, Bosnia and Herzegovina, Lithuania, Albania, Latvia, Slovenia, Macedonia - FYR, Estonia and Montenegro. Since the fall of the Iron Curtain in 1989, the liberalization of the political and economic systems in CEE has opened a huge new market for foreign firms (Schuh, 2007). According to Ernst & Young's 2011 European attractiveness survey (2011, p. 5), five key points are: (1) Europe attracted 3,757 investment projects, a 14% increase from 2009; (2) FDI created 137,337 jobs in Europe, a 10% increase from 2009; (3) 26% of world FDI goes to the EU, matching its share of world GDP; (4) Investors perceive Europe (35% of votes) as the second most attractive investment destination after China; (5) According to 82% of investors, talent is Europe's world class feature. "When asked to identify the world's most attractive investment regions, investors ranked Central and Eastern Europe in third place, behind China and Western Europe. Companies that are investing in Europe are looking beyond Western Europe and increasingly see Central and Eastern Europe as offering dynamic, stable and skilled location alternatives at a lower cost" (Ernst & Young's 2011 European attractiveness survey 2011, p. 4).

Schuh (2011) researched effects of the recent economic crisis on foreign MNCs operating in CEE. CEE was the world's hardest hit region by the global economic crisis 2008-09. Crisis in CEE resulted from a collapse of export markets, drop in capital inflows, credit squeeze, depreciation of local currencies & "homemade" problems. Schuh (2011) points out that CEE has lost its lustre but it remains attractive. CEE lost its former status as growth region (cp. to BRIC and Turkey). However, CEE remains attractive for Western MNCs due to higher growth rates and market potential. Subsidiaries in CEE expand their production capacity at the expense of their West European sister companies. "Re-industrialization" of CEE is best reflected in automotive sector: +27,000 new jobs in 2009 compared to +6,000 in Western Europe. CE & SEE countries also improved their position as service providers (IT, business processes). "Anyway, regardless the risk assumed by the Western investors, Central and Eastern Europe was and still is a large area of business opportunities" (Catana and Catana 2004, p.331).

Some analyst called Serbia "The Balkan Tiger" (SIEPA, 2011a). Serbia offers duty-free access to a market of 1 billion consumers in the European Union, EFTA, Russia, Kazakhstan, CEFTA, Turkey, Belarus, USA (or customs free access to the 15% of the world market). Starting a business in Serbia means the opportunity of exporting to a 1 billion people market without paying any customs duties (Table 1). Serbia is a member of the Central European Free Trade Agreement (CEFTA) comprising a free trade area with 29 million people. This region is also the one with the highest growth rate in Europe. Serbia is the only

country outside of the Commonwealth of Independent States that enjoys a Free Trade Agreement with Russia. The Free Trade Agreements with Turkey, EFTA members (Norway, Switzerland, Iceland, and Liechtenstein), Belarus, and Kazakhstan envisage mutual abolishment of customs and non-customs duties in trade between the countries. Added to this are duty-free exports to the European Union and the United States for most products and services (SIEPA, 2011a).

Table 1. Total Size of the Market with Customs-Free Access

Market	Trade Regime	Number of Inhabitants
European Union	Interim Trade Agreement	494,070,000
USA	Generalized System of Preferences	302,558,000
Russia, Belorussia & Kazahstan	Free Trade Agreement	168,640,600
CEFTA	Free Trade Agreement	29,990,542
EFTA	Free Trade Agreement	13,000,000
Turkey	Free Trade Agreement	75,000,000
Total		1,083,259,142

Source: SIEPA, 2011b.

Serbia has skilled and competitive workers; Serbia's labor force combines exceptional working efficiency with sizable labor supply. With a unique combination of high-quality and low costs, it is one of the key factors in reaching a strong business performance. The level of English speaking proficiency is very high in Eastern Europe as well. Management education has also been accelerated by the introduction of joint graduate and post-graduate courses organized by local universities and renowned Western business schools (SIEPA, 2011a). “In the last decade, a number of empirical studies tried to highlight a strong correlation among foreign trade, foreign direct investment and economic growth” (Albu, 2013. p. 7). Table 2 presents examples of the largest foreign investors in Serbia.

Table 2. Examples of Largest Foreign Investors in Serbia

Ranking	Largest Foreign Investors	Investments (in million €)
1	Telenor	1,602
2	Gazprom	947
3	FIAT	944
4	Delhaize	932
5	Stada	650
6	Mobilkom Austria	570
7	ABInBev	530
8	Intesa Sanpaolo	508
9	Eurobank EFG	500
10	US Steel	280
11	Carlsberg	160
12	Michelin	150
13	Heineken	67

Source: SIEPA, 2011b.

Starting from the above mentioned importance of the CEE region, the aim of this paper is to answer the following main survey question (RQ):

- RQ1: What are the key marketing opportunities and threats for MNCs in CEE?

Other RQ are stated at theoretical foundations.

The starting point of this survey is the framework for determining marketing opportunities and threats for MNCs in CEE, shown in Figure 1.



Figure 1. Framework for determining marketing opportunities and threats of MNCs in CEE

THEORETICAL FOUNDATIONS AND DEVELOPMENT HYPOTHESES

Great number of papers is dedicated to the marketing issue and to the specificities of the CEE region such as emerging markets, CEE, transitional economies and individual countries. However, a small number of papers are focused on marketing issues of MNCs in CEE (Schuh, 2007, 2009, 2011). Schuh (2007) pointed out that brand strategies of Western MNCs were the drivers of globalization in CEE; furthermore, in his paper (Schuh, 2009) he researched the impact of the current economic crisis on strategies of MNCs in CEE; in the following paper, (Schuh, 2011) starting from the Western MNC perspective, he offered strategic responses to the global financial and economic crisis in CEE.

Marketing opportunities and threats can also be defined on the basis of strengths and weaknesses of countries CEE. “Some of the strengths are large population, low wages,

geographic proximity to Western Europe, privatization opportunities, low market entry cost, and long-term growth potential. On the other hand, low per capita income, limited management skills, low productivity, overdrawn expectations, poor infrastructure, an unstable business environment, large bureaucracies, short-term decline, and crises represent some of the weaknesses” (Kostecki, 1993, p.77).

Schuh (2011) researched how foreign MNCs as major investors and drivers of the economic development in CEE have responded to the global financial and economic crisis. According to the business model for CEE before 2008 the key factors which affected the above average returns are: huge market potential & growth, skilled labor at lower costs, favorable resource situation, high business risk but “EU umbrella”, fast entry & quick expansion (Figure 2). Schuh (2011) asks: Is the business model for CEE still valid after the crisis? And, he gives the answer - The business model for CEE is still valid. Still reasonable returns are the results of: still huge market potential but slower growth, lower input costs, resource situation remains favorable, higher risk premia & more caution in new investments, selective approach & optimization of operations (Figure 3).

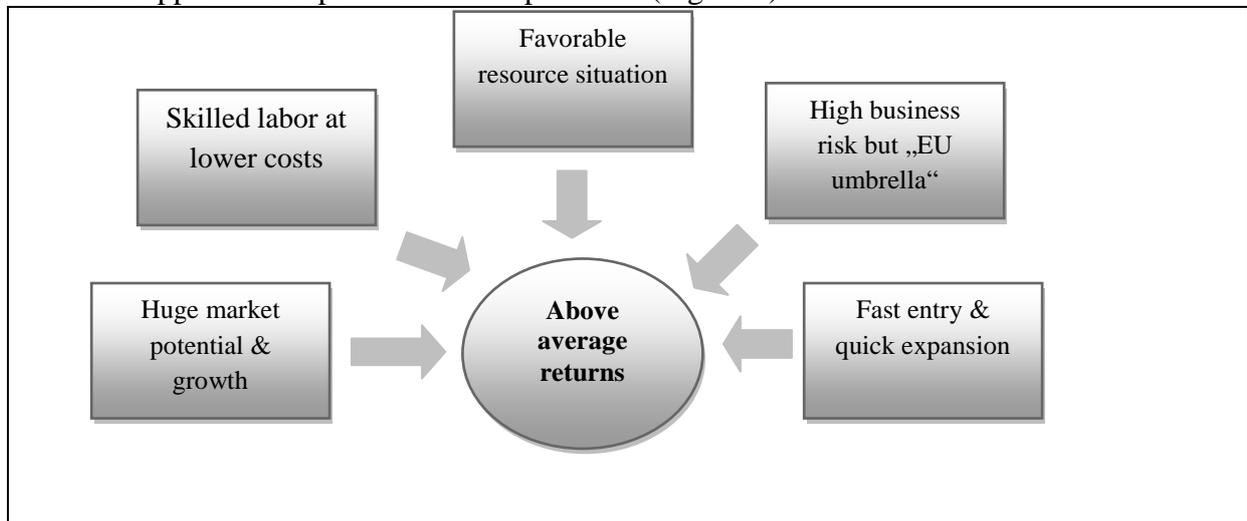


Figure 2. The business model for CEE before 2008

Source: Schuh, 2011, p. 4.

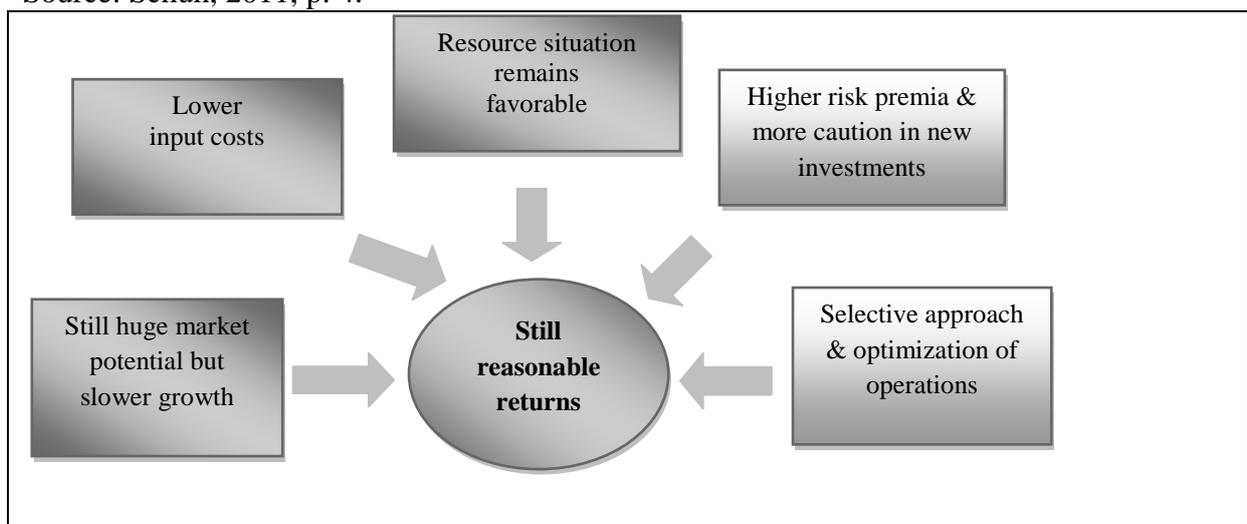


Figure 3. Is the business model for CEE still valid after the crisis?

Source: Schuh, 2011, p. 5.

OPPORTUNITIES

The key opportunities for MNCs in CEE are:

- market potential of CEE,
- market globalization,
- similar consumer behavior in the West and CEE market,
- the creation of “Western life-style” in CEE,
- converging CEE to west European market structures and rules,
- standardized marketing strategy of MNCs,
- good image of brands and MNCs,
- cost advantages (see Figure 1).

Market potential of CEE region is an important marketing opportunity for MNCs. For a comparative analysis of power of the countries and CEE region in the world, the data for the leading countries in the world and CEE are presented. Population – demographic potential on a particular market is one of the main indicators of the size and potential of the market. The ranking of the top twelve countries in the world by population in 2013 is presented in table 3. As we can see, 61.47% of the total population in world lives in only 12 countries in the world. On the other side, Table 4 presents the ranking of 16 CEE countries in terms of population in 2013. CEE covers 1.69% of total population in the world. With more than 120 million inhabitants, CEE region represents a significant market. The biggest market in CEE, in terms of its demographic potential, is Poland with more than 38 million inhabitants, followed by Romania with more than 19 and Czech Republic with more than 10 million inhabitants.

Table 3. The ranking of (first twelve) countries in terms of population, 2013

Ranking	Economy	Population	
		Total	% of total population in the world
1	China	1,357,380,000	19.05
2	India	1,252,139,596	17.57
3	United States	316,128,839	4.44
4	Indonesia	249,865,631	3.51
5	Brazil	200,361,925	2.81
6	Pakistan	182,142,594	2.56
7	Bangladesh	156,594,962	2.19
8	Nigeria	173,615,345	2.44
9	Russian Federation	143,499,861	2.01
10	Japan	127,338,621	1.79
11	Mexico	122,332,399	1.72
12	Philippines	98,393,574	1.38
	12 countries	4,379,793,347	61.47
	World	7,124,544,000	100

Source: World Bank, 2014a

Table 4. Ranking of 16 CEE countries in terms of population, in 2013

Ranking	Economy	Population	
		Total	% of total population in the world
1	Poland	38,530,725	0.541
2	Romania	19,963,581	0.280
3	Czech Republic	10,521,000	0.148
4	Hungary	9,897,247	0.139
5	Bulgaria	7,265,115	0.102
6	Serbia	7,163,976	0.101
7	Slovak Republic	5,414,095	0.076
8	Croatia	4,252,700	0.059
9	Bosnia and Herzegovina	3,829,307	0.054
10	Albania	2,773,620	0.039
11	Lithuania	2,956,121	0.041
12	Latvia	2,013,385	0.028
13	Macedonia, FYR	2,107,158	0.029
14	Slovenia	2,060,484	0.029
15	Estonia	1,324,612	0.019
16	Montenegro	621,383	0.009
	CEE	120,694,509	1.694
	World	7,124,544,000	100

Source: World Bank, 2014a

Population - as a number of potential final users of the country, is definitely data needed in the analysis of market potential. But it is not sufficient. Consideration of the purchasing power of inhabitants and consumers` behavior is of particular importance. The most commonly used criterion for evaluating the level of economic development of countries is the gross domestic product (GDP). For the purpose of a comparative analysis and the understanding of CEE region`s power, as in the previous presentation of the demographic potential, here are presented the data about economic power both of the 12 world`s leading countries (Table 5) and of CEE countries (Table 6). The data show a large share of individual countries in the creation of GDP in the world. According to the total GDP, the leading economy is the U.S. economy with over 16 trillion dollars and a 22.43% share in gross domestic product globally. The Tables show big differences in the level of economic development among CEE countries, as well as among CEE countries and the world`s most developed countries. Participation of 16 CEE countries in total (global) GDP was 1.95%. Based on the GDP, as for the demographic potential, the largest market in the group of 16 CEE countries is Poland.

Table 5. Ranking of (the first twelve) countries according to GDP, in 2013

Gross domestic product			
Ranking	Economy	(millions of US dollars)	% of total GDP in the world
1	United States	16,800,000	22.43
2	China	9,240,270	12.34
3	Japan	4,901,530	6.54
4	Germany	3,634,823	4.85
5	France	2,734,949	3.65
6	United Kingdom	2,522,261	3.37
7	Brazil	2,245,673	2.99
8	Russian Federation	2,096,777	2.80
9	Italy	2,071,307	2.76
10	India	1,876,797	2.51
11	Canada	1,825,096	2.44
12	Australia	1,560,597	2.08
	12 countries	51,510,080	68.76
	World	74,899,882	100

Source: World Bank, 2014b

Table 6. Gross domestic product in 16 CEE, 2013

Gross domestic product			
Ranking	Economy	(millions of US dollars)	% of total GDP in the world
1	Poland	517,543	0.691
2	Czech Republic	198,450	0.265
3	Romania	189,638	0.253
4	Hungary	124,600	0.166
5	Slovak Republic	91,348	0.122
6	Croatia	57,539	0.077
7	Bulgaria	53,010	0.071
8	Slovenia	45,378	0.061
9	Serbia	42,521	0.057
10	Lithuania	42,344	0.056
11	Latvia	28,373	0.038
12	Estonia	24,477	0.033
13	Bosnia and Herzegovina	17,828	0.024
14	Albania	12,904	0.017
15	Macedonia, FYR	10,221	0.014
16	Montenegro	4,428	0.006
	CEE	1,460,602	1.951
	World	74,899,882	100

Source: World Bank, 2014b

“Economic, political and social developments in East-Central Europe are still conceived in terms of proximity to, or distance from, an idealized Europe or Europeanness” (Kuus 2007, p. 150).

MNCs strive for market globalisation, which is achieved by similar consumer behaviour in West and CEE market, the creation of a “Western life-style” in CEE, converging CEE to west European market structures and rules.

Back in 1983, Levitt pointed out the globalization of markets. From the marketing point of view, the process of globalization strives for convergence and the equalization of consumers' behaviour in the decision-making process on purchase and consumption of products/use of services.

Friedman (2000, p. 9) describes this process as follows: "Globalization is the inexorable integration of markets, nation-states and technologies to a degree never witnessed before – in a way that is enabling individuals, corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before."

The main participants are transnational corporations that identify and use opportunities on the global market. In an increasingly interconnected world capitalist system, companies from rich countries (especially from Europe, America and Japan) have the greatest impact in determining what will be produced and consumed. With the globalization of markets, many less developed countries and countries in transition are considered as emerging markets for transnational corporations (Guliz, 1999).

The word "creation" is crucial (Keegan and Green, 2000). A number of global markets by their nature do not exist - they must be created by marketing activities. For example, no one has the need for soft drinks, but today, in some countries, the consumption of soft drinks exceeds water consumption per capita. Marketing led to this change in behaviour, so the soft drinks industry is global. The needs and desires of consumers worldwide are increasingly equated.

Companies are increasingly focusing on global brands. The reasons are: 1. telecommunications and 2. younger residents (Quelch, 1999). Consumers' tastes and values in the world are increasingly equated in the last two to three decades. This was achieved by the increased mobility of people outside their country (whether as tourists or for business) and electronic mobility (based on television and the Internet). These trends have contributed to the rapid transfer of ideas, so the consumers more readily and quickly learn about other cultures. These forces have influenced the creation and identification of similar segments of consumers in different countries (markets). Consumers with similar behaviour in different countries are younger, wealthier and more urban than other residents. Older consumers are more traditional and less willing to respond to the telecommunications revolution. Younger consumers buy and use global brands more often. There are more global brands' consumers in urban than in rural environments. With higher income and education, the consumers are directed toward global brands. The readiness to accept global brands depends on product categories, too. Perceptions and preferences of consumers from different countries are quite different when we talk about food prepared at home. However, consumers around the world are buying computers following the same criteria, so that we can identify global segments (Quelch, 1999).

To maximize success on the basis of multicultural activities, managers should identify consumers in different countries with similar views. This applies to people who are internationally and cosmopolitan minded. There are two segments of global consumers: 1 wealthier people, who are "global citizens", are exposed to ideas from around the world based on travelling, business contacts and the influence of media, and as a result have common tastes; 2 young people, whose preferences of music and fashion are influenced by international pop culture (Solomon et al., 2002).

Standardized global marketing strategy of MNCs is certainly the most profitable. But is it possible? Schuh (2000) investigated whether global standardization is a success formula for marketing in CEE. Important conclusions are that: "most CEE countries are small markets (except for Poland) where customization does not pay off" (Schuh, 2000, p. 145) and "a

differentiated marketing strategy is inefficient because it does not utilize synergies and cost saving potentials and would involve a lot of risks (e.g., parallel imports, brand image dilution)” (Schuh, 2000, p. 146). In theory, for different countries and markets, we should adapt different marketing strategies and programs. However, in practice, the question is - is it profitable? As a consequence, companies are trying to create a global market - consumers with similar behaviour, and then for the global consumer desires created in this way - a global products/services.

MNCs create the desires for their brands in the world. Coca-Cola, McDonald's, Nike, Benetton, Nestle and many other brands are present everywhere in the world, including CEE. Tourists requiring authentic Moscow have complained that the main street Arbat is no longer recognizable with the new architecture that was influenced by Pizza Hut, McDonald's, Benetton and the others. Capitalism, global transportation, communications, advertising, marketing and transnational cosmopolitanism, break down the barriers between cultures and economies of countries (Guliz, 1999). One of the changes in the marketing environment CEE is that “the brand plays a more and more important role in the companies’ marketing strategies, under the circumstance of market flooded with unknown products” (Catana and Catana, 2004, p. 330). In Poland it has been found that 18 years old teenagers are already a consumer generation. They prefer well-known brands and are very interested in clothes and electronics” (Catana and Catana 2004, p. 332).

Eastern Europe represents both marketing and a low-cost manufacturing opportunity (Quelch et al 1991, p. 82). Cost advantages and better growth prospects will make CEE countries a primary destination for new investments (Schuh, 2011).

Based on these findings and the theoretical frameworks of marketing opportunities for MNCs in CEE, we propose the following hypothesis and sub-hypothesis:

H1: The more consumers buy international products and brands, the greater the possibilities for MNCs in CEE are.

H1.1: The younger the consumers, the greater the possibilities for MNCs in CEE .

H1.2: The higher the consumers’ incomes, the greater the possibilities for MNCs in CEE.

H1.3: The more educated the consumers are, the greater the possibilities for MNCs in CEE.

H1.4: The more the consumers use Internet in the purchase decision-making process and the purchase itself, the greater the possibilities for MNCs in CEE.

THREATS

The key threats for MNCs in CEE are:

- most CEE countries are small markets;
- diversified markets and environments;
- differences in local environments of CEE – different economics (e.g. different influence of economic crises, purchasing power), political (e.g. risk), legal, social, cultural, technological environments;
- differences in “quality” of target market (size, potential, competitive situation, consumption patterns) and state of marketing infrastructure;
- “rooted” patterns of consumer behaviour (especially in buying and consuming local products);

- ethnocentrism of consumers;
- customization of marketing strategy;
- good image of local brands;
- economic crisis;
- political instability.

Most CEE countries are small markets, which is shown in the Tables 5 and 6. Individually looked, the countries have small number of inhabitants – demographic potential, and economic power – GDP both total and per capita.

CEE countries have different market opportunities, social, cultural, economic, political environments (Hegerty 2010; Meler 1997; Radlo and Sass, 2012; Staehr, 2010; Večerník, 2012). Consumers' behaviour is different. Consumers have different purchasing power, habits in the process of buying and using products, cultural patterns of behaviour. The political risk in these countries is different. "For example, while some CEE countries have adopted advanced market institutions, others have preserved their old centralized systems. Still others have experienced civil war, due in part, to the difficult changeover to market systems. The differences in the nature and maturity of socioeconomic development have become significant to multinational corporations (MNCs) entering and operating in the region" (Tihanyi and Roath, 2002, p. 188). "The grouping together of more than a dozen nations under the label of 'Central & Eastern Europe' ignores the fundamental diversity in the region. Economic development varies widely from around the European Union average in Slovenia to less than a quarter of the EU average in Albania and Bosnia & Herzegovina. Moreover, the distribution landscape is often radically different in each country" (KPMG, 2011, p. 4).

Special risk is the transformation process. When asked: Has the transformation process in CEE come to an end? Steger (2007, p. 178) replies: No, it has not!

An important threat for MNCs is "rooted" patterns of consumers' behaviour (especially in buying and consuming local products). Certain categories of *local brands* have better image comparing to MNCs brands, so, it is another marketing threat. When it comes to consumers, it is typical for the consumers with the traditional life style, concerning the product categories, it is characteristic – for food.

Specified differences in environment, market and consumer behaviour in the individual CEE countries, request local adaptation of marketing strategies - customization of marketing mix of MNCs. Schuh (2009, 2011) points out that crisis means the end of CEE as a homogeneous region. CEE countries are different i.e. they do not represent "an economically homogeneous block", so that marketing strategies must be differentiated toward the heterogeneous market requirements and customers in these countries (specific requirements of each country market) rather than standardized (Czinkota et al 1997, p. 833, 845). Customization generates additional costs so, it is another marketing threat.

The economic crisis is reducing purchasing power of the population and it represents another marketing threat for MNCs. Price is becoming an important factor in the process of consumers' decision-making when it comes to buying. MNCs face the challenge of reducing the prices and their determination according to "value-for-money" model. Schuh (2009, p. 53) says that the downward pressure on prices favours companies with "value-for-many" business models as well as strong local producers, private labels, discounters and "money-saving" formats such as "do-it-yourself-stores". Positioning and differentiation of product/service based on clear core benefit (Schuh, 2009) and cost leadership strategy (Czinkota et al., 1997), is very important.

“In the case of Balkan countries, conflict and instability reduced FDI inflows below what one would expect for comparable Western European countries, and reform and stabilization failures further reduced FDI to region, Thus, we find that the economic costs of instability in the Balkans in terms of foregone FDI have been quite high” (Brada, Kutan and Yigit 2006, p. 649).

Based on the previous theoretical frameworks, the hypothesis and sub-hypothesis are proposed:

H2: The more the consumers buy local products and brands, the greater the threats for MNCs in CEE.

H2.1: The older the consumers, the greater the threats for MNCs in CEE.

H2.2: The lower the consumers' incomes, the greater the threats for MNCs in CEE.

H2.3: The lower the consumers' educational level, the greater the threats for MNCs in CEE.

H2.4: The less the consumers use Internet in the purchase decision-making process and the purchase itself, the greater the threats for MNCs in CEE.

In order to test these hypotheses, the following RQs were formulated:

- RQ2: What products are more frequently bought, of local or international companies?
- RQ3: Who buys international companies' products more?
- RQ4: Who buys local companies' products more?
- RQ5: In which categories, of local or international companies, products are of better quality?
- RQ6: What are the leading brands in certain products categories?

In order to realize the influence of digital media on consumers' behaviour and their attitude towards local and international products and brands, the following RQs were formulated:

- RQ7: Do you have Internet access?
- RQ8: Do you use Internet in the purchase decision-making process and the purchase itself?

For RQ5 the following answers for the categories of products were offered: food, beverages, clothing and footwear products, health & health care, personal care & beauty, children's products, household products, cleaning products, electronic products, automobiles, financial services.

For RQ6 it was not emphasized whether it was about local or international brands in order not to affect the respondents' answers and also to realize the ranking of local and international brands.

METHOD

Beside secondary data, the gathering of primary data through survey was also carried out. Given that consumers buy products/services and thus ensure the survival and profit of MNCs, in the focus field of the research there were the attitudes of the final consumers towards local and international products, brands and companies which can affect marketing opportunities and threats for MNCs. The survey was conducted on the territory of the Republic of Serbia. Convenience sample included 400 individuals between 16 and 74 years. Respondents, according to their age, were divided into the following groups: 16-34 (20%), 35-54 (32%), 55-74 (48%). According to sex, the sample consisted of 51% of women and

49% of men. According to educational level, the respondents were grouped using EUROSTAT classification: 0-2 basic, lower secondary education (preschool education; primary education or first phase of the primary education – first to fifth grade; lower high education – 6th to 9th grade); 3-4 higher secondary education (high school; - 1st to 4th grade; post secondary but not tertiary education – first degree studies); 5-6 tertiary education (higher education, Master studies and PhD studies). In the sample, 25% of respondents had lower than secondary education, 50% had secondary education and 25% had tertiary education. According to employment status, the respondents were divided into following groups: employed (30%), unemployed (25%), students (5%), other but unemployed (40%). According to income of the households where they live, the respondents were divided into following groups: up to 300 euro (65%), 300-600 euro (20%), over 600 euro (15%).

Questionnaire consisted of a set of questions, in order to explore the respondents' attitudes towards local and international products, brands and companies as a basis for the identification of opportunities and threats for MNCs. In the survey, we used personal interviewing.

RESULTS

RQ2-RQ4: The respondents' answers to the question: Do you buy more local or international companies' products? Looking at the age of respondents, the products of international companies are more bought by younger consumers, i.e. 76% (in the age group 16-34), 55% (35-54) and 35% (55-74). According to income of the households where they live, the respondents with higher income answered that they buy more products of the international companies: up to 300 euro (15%), 300-600 euro (39%), over 600 euro (85%). According to educational level the products of the international companies are bought more by the more educated consumers, i.e. 12% (in the group of respondents with lower than secondary education), 50% (in the group with secondary education) and 85% (in the group with tertiary education).

RQ5: Answering the question: in which categories the products of international companies are better comparing to those of local, great number of respondents thinks that these categories are: electronic products (63%), automobiles (58%), household products (43%), personal care & beauty (31%), cleaning products (22%), clothing and footwear products (21%). On the other hand, answering the question: in which categories the products of local companies are better, the majority of respondents (89%) think it is food. Other categories of products where local products are better than international according to the respondents are: beverages (43% of respondents), health & health care (23%).

RQ6: It is interesting that answering the question: what are the leading brands for certain categories of products, for almost all categories of products the respondents in the first place stated international brands and that international brands dominated over local. The only exception is food. For beverages, 91% of respondents named Coca-Cola brand.

RQ7-RQ8: Internet access has 47% of respondents and, as expected, the most of them are in the group of students (99.8%), then the respondents with tertiary education (84%) and secondary education (58%). The majority of respondents use Internet in the process of collecting information about products and companies and comparing products (84%). The respondents use Internet when buying household products (27%), electronic products (21%), clothing and footwear products (18%) etc.

H1: The results show that the younger the consumers are, the higher income they have, the more educated they are and their use of Internet in the purchase decision-making

process and the purchase itself is on a higher level, the more they buy international products. In accordance with H1, the more consumers buy international products, the greater opportunities for MNCs in CEE are. Based on the above, a conclusion about the key consumer groups for the acceptance of MNCs products can be drawn.

H2: On the contrary, the older the consumers are, the lower income they have, the less educated they are and their use of Internet in the purchase decision-making process and the purchase itself is on a lower level, the more they buy local products, i.e. they less buy international products. In accordance with H2, the more consumers buy local products and brands, the greater threats for MNCs in CEE are. Based on the above, a conclusion about the groups of consumers which accept MNCs products more slowly can be drawn.

DISCUSSION AND CONCLUSIONS

Based on the survey of marketing opportunities and threats for MNCs in CEE, two main conclusions can be drawn.

Firstly, CEE represents a significant market for MNCs.

“CEE will continue to outperform Western Europe in economic growth in the future. The region is such a huge and important market and the convergence process is such a strong driver of demand that foreign MNCs cannot turn away” (Schuh 2009, p. 59).

RQ1: Secondly, MNCs face numerous marketing challenges in CEE. The challenges are different in different countries – markets. Marketing opportunities are in the field of creation of similar patterns of consumers’ behaviour which enable standardized marketing strategy, which later leads to cost advantages, lower price and competitive advantage. The causes of marketing threats are, in the first place, the differences in consumer behaviour, markets and environments in individual countries and all that requests the use of marketing strategy local adaptation, which results in the increase of costs and uncompetitiveness comparing to local brands with good image. Additional threats are ethnocentrism of consumers and good image of local brands. Economic crisis affects all the regions including CEE.

LIMITATIONS AND FUTURE RESEARCH

Although the results of survey show marketing opportunities and threats for MNCs in CEE, there are several limitations, which could be eliminated in future researches. Firstly, the paper begins with customer orientation, according to which the consumers are the most important for marketing strategy. Consumer behaviour towards products/services of MNCs and/or local companies affects the survival and profit of MNCs and local companies. Accordingly, the end consumers’ attitudes towards MNCs were being researched. Customers are the most important, but future researches could include MNCs representatives and environments in individual countries. Secondly, it would be of great significance to research opportunities and threats in individual countries, to perceive similarities and differences in consumers’ behaviour, markets and the environments of countries. Thirdly, future researches could be directed to the perception of differences in consumers’ behaviour, markets and environments between CEE and West; and marketing strategy of MNCs towards CEE and West. In the fourth place, the results of these potential researches could give answers to the questions – whether, in accordance with Levitt’s paper on market globalisation (1983, p. 92) MNCs near their end, whether it is possible “to operate as if the world were one large market – ignoring superficial regional and national differences” (Levitt 1983, p. 92) and whether the

existence of a real global corporation is possible. In the fifth place, whether the process of transforming MNCs into global corporations is taking place now. The interest of corporations is clear, but is there a possibility for totally global corporations? In the sixth place, not all products categories offer the same opportunities and threats for MNCs, so, it could also be one of the issues u future researches. Finally, in the seventh place, future researches could be directed to ranking of the marketing opportunities and threats for MNCs in CEE – according to countries – markets and categories of products.

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INTEGRATED MARKETING (R) EVOLUTION IN SERBIA

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Abstract

Gross Domestic Product (total and per capita), positioning of the country and the organization depends on the integrated action of all stakeholders, acceptance and implementation of marketing at all levels. Who should participate in the marketing evolution of a country? The answer is: government ministries, teachers in schools and faculties; practitioners - leaders, managers and skilled employees in the organizations and citizens of the Republic of Serbia. How? Government ministries - with definition and implementation of positioning strategy; teachers in schools and faculties – with theoretical and practical contribution to the development of marketing; practitioners - leaders, managers and skilled employees in the organization – with implementation of marketing in everyday business; and residents of the Republic of Serbia.

Keywords: integrated marketing; positioning; SWOT analysis; Serbia

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INTRODUCTION

This paper provides answers to questions such as strengths, weaknesses, opportunities and threats of marketing in Serbia; is marketing (r)evolution possible in Serbia; who should participate in the marketing (r)evolution, and what are the key roles of stakeholders.

The starting point is the SWOT analysis and then, by considering the current situation, this paper highlights the necessity and importance of marketing orientation at the level of government, all organizations, as well as the role of schools and faculties in the marketing (r)evolution of Serbia.

SWOT ANALYSIS OF MARKETING IN SERBIA

Survey of strengths, weaknesses, opportunities and threats of marketing in Serbia. The sample included 20 marketing managers of companies and 20 professors. Figure 1 presents key results of SWOT analysis.

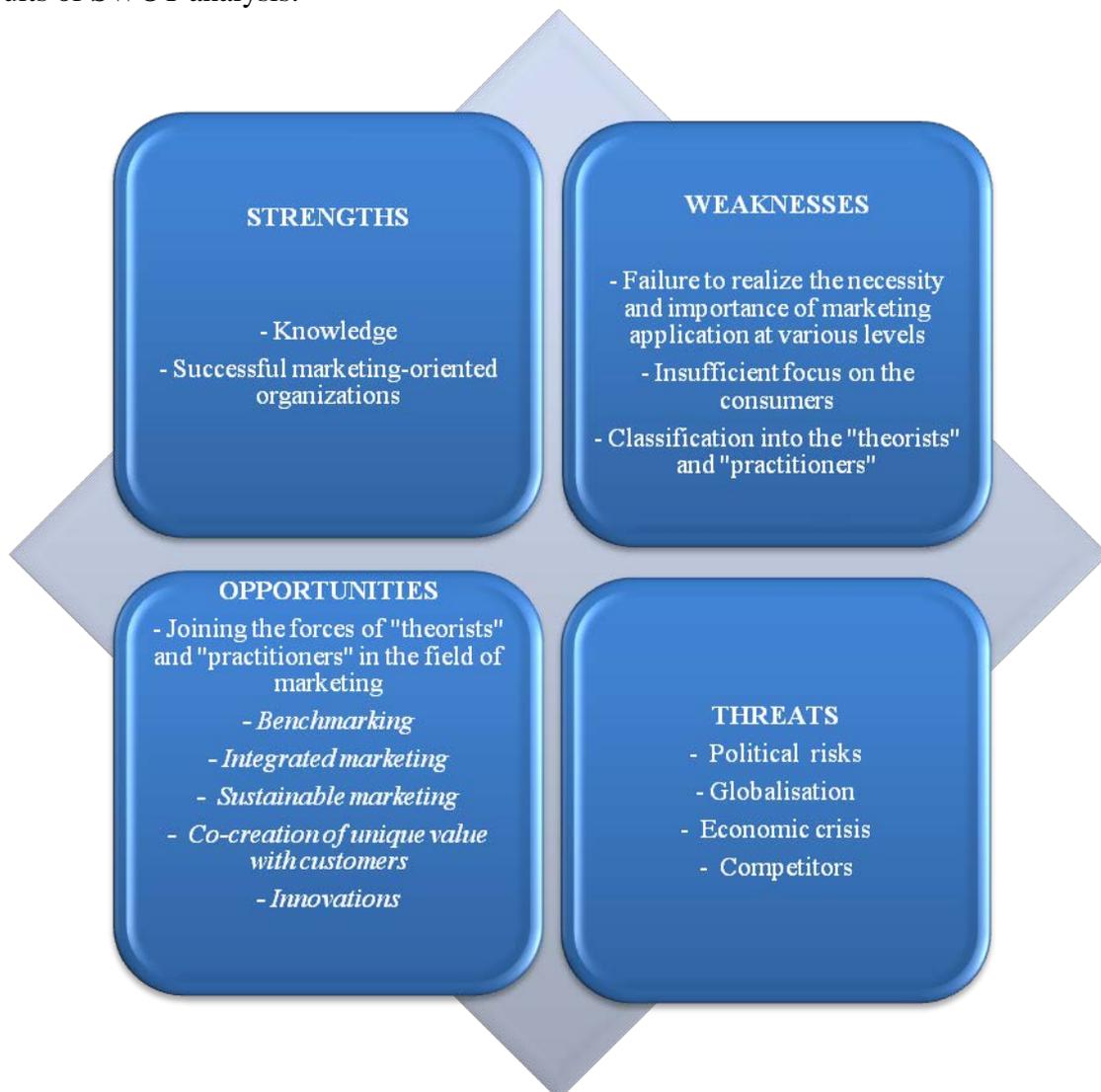


Figure 1. SWOT analysis of marketing in Serbia - key strengths, weaknesses, opportunities and threats of marketing

Strengths of marketing in Serbia are:

- knowledge (of skilled teachers and employees in the field of marketing); skilled, creative and innovative employees in the field of marketing;
- successful marketing-oriented organizations; research, advertising agencies and other organizations in the field of marketing;
- commitment to marketing of "enthusiasts" in marketing and constant improvement.

Key weaknesses of marketing (unmarketing and insufficient marketing-oriented organizations) in Serbia are:

- failure to realize the necessity and importance of marketing application at various levels;
- insufficient focus on the consumers.

Except for the given, the general weaknesses of marketing in Serbia are:

- insufficient knowledge (of the unskilled, yet employed in marketing) and/or the inability to apply knowledge of marketing;
- mismatch and/or slow adapting of marketing tactics to changes in consumers' behavior (particularly online consumers);
- failure to realize the importance and strength of online social communities;
- insufficient coordination of marketing activities of various agencies (advertising, research) that engage the organizations, which prevents integrated marketing of organizations;
- overload of the employees with: current work, the realization of planned activities and profits (survival); insufficient motivation and/or time and/or financial resources for training and additional activities that would be directed towards the development of marketing in Serbia (as if there is an attitude, "it does not matter");
- classification into the "theorists" and "practitioners" ("bad image of the theorists in the eyes of practitioners" and vice versa);
- insufficient mutual understanding and recognition of teachers, "theorists" and "practitioners"; clients, media and marketing agencies (research, advertising, consulting) etc.

Opportunities are:

- joining the forces of "theorists" and "practitioners" in the field of marketing and in keeping with that:
 - forming an agency or organization (at the level of the Government of the Republic of Serbia) which would deal with the positioning of Serbia,
 - forming of the institute of marketing (or some other organization) that would join together interested teachers and practitioners and contribute to the development of marketing theory and practice in Serbia,
 - campaign that would encourage pooling of forces of "theorists" and "practitioners" in marketing;
 - benchmarking, constant learning and improvement;
 - holistic marketing;
 - sustainable marketing;
 - personalization - individualization of marketing activities, i.e. adaptation of marketing activities to consumers as individuals (which requires, but also allows, to a great extent, the Internet);
 - co-creation of unique value with consumers;
 - innovations of business processes, products/services and communication;

- rapid acceptance and implementation of new concepts, methods, and technologies in the field of marketing;

- marketing agencies that provide holistic marketing services to their clients.

The threats are:

- influences of the political environment;
- globalization - the imposition of global business models;
- economic crisis;
- competitors (for existing marketing stakeholders in Serbia) - foreign, Internet, etc.

Based on the SWOT analysis, next parts of paper will primarily focus on the necessary marketing activities at the level of government, organizations, schools and faculties.

MARKETING ACTIVITIES AT THE LEVEL OF GOVERNMENT

The key tasks of the government in marketing (r) evolution of Serbia are:

- defining and implementing a strategy of development of diversified economy - identifying sources of competitive advantage and priority activities of the Republic of Serbia;
- encouraging of faster development of priority activities;
- research of image of the Republic of Serbia – in Serbia and in the world;
- based on the research of image - the definition and implementation of a holistic strategy of (re)positioning of Serbia; creation, maintaining and improvement of the image;
- creating conditions to increase exports and direct foreign investment;
- encouraging the implementation of marketing in organizations.

Prior to positioning of the country and building the desired image, first of all, it is necessary to identify and solve basic economic, political and other problems. Successful economic development of Serbia requires reforms, at the same time, in many areas. The whole basis of competitiveness of Serbian economy must be transformed. This requires changing both organizations' marketing strategies and business environment in Serbia. At the level of the economy, it requires a strategy of diversified economy - identification and encouragement of the faster development of priority activities which are the sources of competitive advantages of Serbia. Reinert (2006) points out that the wealth of the country depends on what it produces. A country with no industry is doomed to poverty. An essential element in developing of a country is production strategy, industrialization and diversified economy which is being consciously directed away from agriculture and the production of raw materials. Of course, agriculture is necessary, but not sufficient for the development of diversified economy.

Countries face the challenge of improving the position in the global market. As a result of globalization, all countries compete with each other in the market for customers, tourists, foreign investments and image. The need to increase exports, attract tourists and companies and improve the image requires the definition and implementation of an integrated strategy of Serbia's positioning for different target groups (consumers, tourists, investors, other governments, international organizations and institutions, media, etc.).

The basics of positioning and the factors that influence the image of a country are: exports, government, culture and heritage, people, tourism and investments and immigration (Anholt, 2007). In keeping with this basis, the key recommendations on the basis of positioning and the factors affecting the image of a country are:

- Exports - based on specific priorities - the selection of key sectors of development of diversified economy; the government could assist the organizations in creating a well-known

and recognized brands outside of Serbia, which would allow increased exports and improve the image of a country;

- The government - it is necessary to build the image of professional and accountable government; establishing and maintaining relationships with key stakeholders in the international economic and political environment;

- Culture and heritage, tourism - by good promotion of culture and heritage, it is possible to attract tourists. However, prior to promotion, investments in infrastructure, defining and implementation of a strategy for development of tourism are necessary. Events such as Exit, Gucha etc, contribute to a favorable image, but can not be the key basis of positioning.

- People - the government and educational organizations should enable the improvement of the skills of the population, and organizations can contribute to staff motivation. The government should explain the necessity and importance of the implementation of the strategy of positioning the Republic of Serbia and impact on all stakeholders to contribute to positioning. The measures stated above would further influence the staff expertise and kindness of the population.

- Investment and immigration - with the stated above and other measures and actions, the Government could encourage direct foreign investments and the arrival of students and business people to Serbia (Anholt, 2007). The bases stated above have complementary effects to the integrated positioning of the country.

Consumers have certain notions and perceptions of countries that affect their buying decisions, regardless to whether a country has and implements a strategy of positioning. Examination of the current image of the Republic of Serbia in the domestic and global markets is necessary. The research results of the current image of Serbia should be the basis for defining the strategy of (re)positioning of Serbia, creation, maintaining and improvement of the image.

The measures stated above should lead to improvement of the country's image as a whole, which will result in a positive image of Serbian brands. Of course, it is previously required to invest large funds in the creation of brands of Serbian origin. It is necessary to join forces to create a global brand (or brands), with the aim of conquering the global market, which originates from Serbia (Made in Serbia will be written on it). To create a globally competitive brand of Serbian origin, knowledge and money are necessary. Money could be acquired by joint investments of domestic companies or domestic and foreign companies, by motivating the emigrants (with various stimuli) to invest money in Serbia, or by the direct investments of the foreign companies, etc.

Promotion of Serbia is necessary, but not sufficient. Before the promotion, it is necessary to determine the basis of positioning, invest in the selected, key industries, create infrastructure, etc. That is, **before the promotion, it is necessary to improve the basis of positioning of the country.** Partial promotional activities (such as TV commercials on CNN, etc.) are not enough. Instead of the Promotion Agency of Serbia, the Agency or other organization responsible and accountable for the holistic position of Serbia is necessary. That agency should join together teachers, practitioners and employees of the ministries.

MARKETING ORIENTATION OF ORGANIZATIONS

On business and marketing activities of organizations influence: redirection of power from the organizations to consumers, largely thanks to the Internet and social networks; global competition, particularly competition of cheap products from China and other

countries; rapid technical and technological development; the growing importance of the Internet and online operations, changes and imitation products that lead to shorter product life cycles. To respond to changes and/or to participate in their creation, marketing managers (directors, leaders) in our organizations should define and implement profitable marketing strategies.

Marketing is seen mainly as a promotion, for which the marketing department is responsible, if there is any in the organization. An important reason for this misconception of marketing is that CEOs (and/or owners) of organizations, mostly have in mind marketing budget, from which most of the funds are allocated for promotion.

Profitable marketing is defined as profitable satisfaction of customers' needs, i.e. creation and maintaining consumers and profit. Of course, the question is how to create and maintain consumers and profits. The simple answer would be: "all" we need is a marketing-orientated business. The basis is a marketing-oriented organization in which all employees are characterized by "marketing thinking" (they understand the necessity and importance of research and profitable meeting of consumers' needs and continuous integrated communications with them).

Marketing has to be holistic, rather than concentrated only to the marketing department. All employees and all departments in organizations should be market-oriented. This means that all the employees understand that the basic, common, not only the task of marketing departments, is to create and maintain consumers and profit, i.e. to profitably meet the needs of target consumers in a particular environment. The task of marketing experts and those employed in the marketing department is not only the adoption and implementation of profitable strategies, but also creation of a market-oriented organization, i.e. the impact on all employees to "think marketing" (exercise tasks that enable profitable consumers' satisfaction).

The implementation of marketing on the organization level means faster and more profitable production of products/services in relation to domestic and/or foreign competitors. Market-oriented organizations produce competitive products (lower price and/or differentiated products) in accordance with the requirements of consumers.

Given the growing global competition in which large companies do not conquer small, but fast companies conquer slow, we could say that, for the competitive advantage, it is not enough to offer products with the lowest price, but it is required to offer products of lower prices, faster than the domestic and/or global competitors. In other words, the main source of competitive advantage of organizations and economies are speed, low cost (of product/service) and innovation.

The main task of the marketing at the organization level is the creation of a market or consumer oriented organization. For the improvement of marketing activities of organizations, these are required:

- acceptance and implementation of marketing, instead of relying on an intuition in decision making;
- the development of holistic internal marketing – the creation of a market-oriented organization and a larger (critical) impact of marketing experts on (re)defining the strategy of the organizations;
- development of external marketing - establishment, maintaining and development of long term relationships with partners, and especially managing relationships with consumers;

- consumer-oriented business - communications with individual consumers (dialogue of an organization with consumers, and not just a monologue of an organization by mass media), customization to requirements of individual consumers;
- research of the changes in marketing, such as: from transactional to relational marketing, from the traditional system of value creation to the co-creation of unique value with consumers, from profit-oriented to sustainable marketing, and if necessary the change of strategies;
- implementation of program changes in order to create and maintain market-oriented organization.

Levitt (2004) in his paper on marketing myopia concludes that an organization must realize that it is not engaged in producing products but "buying consumers" (and we could add relationships with other key business partners) and activities that make people want to do business with the organization. In other words, Levitt stressed the importance of effectiveness in regard to efficiency, and the necessity and importance of managing relationships with consumers and business partners. The Chief Executive is responsible for creating the environment, the views, attitudes and goals of an organization (Levitt, 2004).

THE ROLE OF SCHOOLS AND FACULTIES IN THE MARKETING (R) EVOLUTION

Poverty is the result of educational, economic, structural, social and cultural conditions. Poverty in knowledge affects the economic poverty. The economic poverty of countries is shown in gross domestic product, and the poverty of individuals is shown in their income. Insufficient theoretical and practical knowledge and/or inadequate application of knowledge wrongly direct the states, economies, organizations and individuals. Knowledge of individuals and organizations enable the definition and implementation of country's development strategy; a strategy in individual activities; investments of money, time, and engaging people in activities in which the country has a competitive advantage. This further affects the income of individuals and the country's gross domestic product.

The reduction of poverty requires reforms of educational, economic, structural, social and cultural conditions at macro and micro levels. It requires reforms in education, economy and organizations. To determine the necessary changes and their application, integrated knowledge, money and time are needed. Investment in education and knowledge, in keeping with the country's needs and environmental changes, affects the reduction of poverty in knowledge and economic poverty of countries.

Integrated - theoretical and practical knowledge is the result of the complementary effects of multiple disciplines, subjects and methods; knowledge and interactions between teachers/researchers, practitioners and students. A method of teaching is required, effective for learning theoretical concepts and principles, but it is not enough. In order for students to apply the acquired theoretical concepts, case studies should be used in teaching. The involvement of students in organizations ("practice") during their studies is of particular importance.

Schools and faculties are able to:

- prepare and implement modern programs and methods, which enable the acquisition of theoretical and practical knowledge necessary for the development of individuals, organizations and Serbia;
- have their own business, institute, or to conduct researches for other organizations (profit, nonprofit, government, etc.), be engaged in consulting and etc.;

- engage students (in the implementation of additional activities);
- and/or establish and maintain contact with other organizations in which students acquire additional - practical knowledge;
- educate employees in organizations (e.g. through seminars, creative workshops, etc).
- and in the previously mentioned ways, provide their students with the acquisition of integrated knowledge;
- establish and maintain contact between teachers, students and practitioners - schools, faculties and organizations – in order to develop individuals, organizations and economy of the Republic of Serbia.

With acquisition of theoretical and practical knowledge, graduate students are prepared to solve multidisciplinary issues of organization and/or economy. The above mentioned contributes to the positioning and differentiation of schools, faculties, organizations, economy and Serbia. To define and implement innovative curricula and methods, it is necessary to have: leaders (rectors, vice rectors, deans, teachers, etc..) with a vision, who have the knowledge, power and desire to direct teachers and students, professional and motivated teachers, money and time.

EVOLUTION OR REVOLUTION IN MARKETING

The answer to the question: evolution or revolution is evolution. Given that "the future is embedded in the present" (Nesbit, 2009), i.e. starting with the existing situation, "immediate and prompt" marketing revolution is not possible. The understanding of the necessity, the determination and implementation of changes takes a long time. The changes need:

- human resources - multidisciplinary knowledge - skilled and motivated people - leaders with a vision, who have the knowledge, power and desire to direct government ministries, organizations, institutions and residents towards the implementation of defined strategies and development programs; managers, employees and residents;
- leaders at all levels, who understand the necessity and significance of the changes, have the knowledge, power and motivation to join together skilled people and create multidisciplinary teams;
- definition and implementation of strategies for positioning and differentiation at all levels; implementation of marketing, both in organizations and at the country level and, on the basis of that, definition and implementation of the strategy of positioning of the organizations and Serbia (emphasis on the development strategy of diversified economy);
- money - to invest in the development of diversified economy, development projects and programs, development of brands of goods/services/organizations and creation and maintaining a good image of Serbia, and
- time (for initiating and implementing the changes).

Why most managers do not manage change effectively? Often because they forget that the organization does not change, but the (behavior of) people who are in the organization. In order to achieve the changes, it is necessary for people in the organization to understand the necessity and significance of the changes (Gray, 2004).

INSTEAD OF A CONCLUSION-ANSWER TO KEY QUESTIONS REGARDING THE EVOLUTION OF MARKETNG IN SERBIA

A well-defined problem means half the solution. It is similar regarding the questions and answers. Answers to key questions posed in this paper follow, such as:

- who should participate in the evolution of marketing and
- which are the key roles of marketing evolution stakeholders.

Key stakeholders in the process of marketing evolution are:

- government ministries,
- teachers in schools and faculties,
- practitioners - leaders, managers and skilled employees of the organizations and
- residents of the Republic of Serbia.

Particular importance would be given to the creation of:

- agency or organization that would deal with the positioning of Serbia and
- institute of marketing, which would join together leading teachers and practitioners and contribute to the development of marketing theory and practice in Serbia.

The key roles of stakeholders in the process of marketing evolution are:

- government ministries have a role - to create conditions for the development of diversified economy and the positioning of the Republic of Serbia;
- teachers in schools and faculties have a role to create skilled graduate students who can, with the acquired theoretical and practical knowledge, contribute to the development of Serbia;
- practitioners - leaders, managers and skilled employees in organizations have a role to create customers' satisfaction; targeted sales, market share, profit of organizations; sustainable development of local community and Serbia;
- residents of Serbia with its development and behavior - the maintenance of health, education, work and behavior in the organization and the local community can contribute to development of local community and Serbia.

The success of the marketing evolution depends on integrated action of all stakeholders. These necessary changes and current situational factors clearly indicate that a long period of time is needed for the successful positioning of Serbia. Successful positioning strategy of Serbia can not be carried out at only one level and can not be quickly implemented. Once defined positioning strategy must be integrated and continuously carried out and changed in accordance to changes in the environment and the results.

So, the conclusion is in the title of the paper itself, and includes teachers and practitioners dealing with the challenges of marketing and integration of:

- theoretical and practical knowledge of persons engaged in marketing,
- stakeholders involved in marketing activities at different levels with aim of positioning of Serbia.

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**INTERNET MARKETING CHALLENGING THE TRADITIONAL PROMOTION IN
BANKING INDUSTRY - A CASE STUDY OF MACEDONIA**

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Madzova Violeta²

Abstract

With the new era of technology, the traditional marketing is challenged from the new promotional instruments emphasizing the social dimension. This study elaborates the theoretical views of promotional tools, including the social media communication. A qualitative research is applied over commercial banks in Macedonia, aiming a better and a deep understanding on the phenomenon of promotion through first-hand experience. It researches the major banks in Macedonia, and brings its promotional efforts in communication with current and potential customers. The study mainly compares the social and traditional promotional approach used in banking in Macedonia. It reveals that social media is progressing enormously, which is linked also to the internet usage of the banking customers. The paper calls for integrated promotional efforts from the banks, hereby not escaping totally from the traditional marketing and promotional practices.

Keywords: social media, promotion, communication, banks

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INTRODUCTION

Many banks have started using social websites or internet marketing to help them with everything from healing the financial industry to promoting their latest credit cards. By embracing the most popular tools available, the industry has also been embracing the best of what social media culture has to offer, and smaller, community banks seem to be leading the charge when it comes to social media innovation.

Banks are not usually known for building warm and fuzzy communities around their products and services. When we think of banks, we often think of impersonal bankers in pinstriped suits denying customers their request for a car loan or a mortgage. The world is changing, though, and even banks are trying to foster community rather than appear monolithic and imposing.

Banks that are using internet marketing to brand them or to market a specific product or service have found success by integrating social tools into their existing campaigns or creating new ones that capitalize on the spirit of the community. Whether it's by making the bank synonymous with solid financial advice or giving people the power to do some good in the world, banks have been finding that immersive marketing techniques using social media tools have brought solid results.

The social media revolution has already happened, transforming not only your customers' daily behaviour but their expectations of you as their financial partner. In today's social world, customers demand to be heard, understood and valued. If your bank wants to drive stronger, sustainable, profitable and mutually beneficial relationships in this new social reality, you must learn more about your customers – and listen when they speak.

Leading banks around the world are already responding to this trend by evolving into social banks, ones that embrace transparency and two-way interaction through social media to meet and exceed customer expectations. A social bank pursues mission-appropriate engagement with its customers, aligning its social efforts with its core business strategy and brand image. It builds the organizational capabilities needed to process customer insights and adopts change management strategies that let it react to this input in meaningful ways.

Canada is considered one of the world's most socially connected countries, with over 50% of the population using social media as internet marketing tools. This presents a tremendous opportunity for Canadian banks to learn from leading organizations and industries as they push the envelope by transforming into social banks.

THEORY

INTERNET MARKETING – THE SOCIAL MEDIA

Social media is the engine that has transformed the web from being a one-way, information tool to a two-way collaboration mechanism. In the world of social media, customer preferences for products or services are influenced by ideas, perspectives, insights and experiences provided by other users. This is achieved through peer reviews, referrals, blogs, tagging, social networks, online forums and other forms of *user-generated content*³.

³ Oracle Financial Services, 2009; Building a bank's brand equity through Social media; An Oracle White Paper September 2009

The brand image, which a bank might have spent millions of dollars creating, is no longer defined by the bank itself but is instead created by what its customers are saying to each other. Such customers are seen to place more value on the knowledge and experience of other customers in these networks (wisdom of the crowds), rather than the one-way marketing messages and controlled brand statements and advertising sent out by firms. Hence the brand custodians have little control over the brand - a source of worry for most of them. Also due to the rise of the social media, it is seen that the traditional role of the banks is slowly changing.

To begin to capture and unlock more customer value, banks must explore how they identify, create, deliver and communicate customer value more effectively. Since increasingly customers turn to others to help in their own decision making, banks must find new ways to support word-of-mouth and other customer-carried forms of promotion. Communication with the customer should take on a service-oriented (experience creating) rather than a persuasive role.

Social media marketing can not only increase the *reach* of a bank but can have a positive influence on how customers perceive the bank's brand value. The right social media strategy can drive customer acquisition and retention, which has a direct impact on the bottom-line. However, banks could shoot themselves in the foot if try to *sell* something to its customers. Customers don't go to social media to buy products or services; instead they go there to look for building relationships.

Hence banks should focus on building trust-based relationships through transparent and genuine participation by trying to be a committed and valuable resource for providing information. This would help enhance the brand perception which in turn would engage customer advocacy through positive word-of-mouth promotion. And the beauty behind this is that social media marketing results in little money being paid out of the pocket. However, many banks are yet to fully utilize this inexpensive (and in many cases free) method of marketing.

Since the launch of Face book in 2004, worldwide banks have increasingly adopted social media technologies. In addition to launching Face book profiles, most major banks have also adopted Twitter as a new marketing and customer service avenue. While these steps are necessary, banks are beginning to understand that those services are simply the tip of the iceberg. "Social" in fact, has a lot more to offer⁴.

DILEMMAS OF INTERNET MARKETING

While internet marketing holds immense opportunities to positively influence a bank's brand perception, there are some risks that they should be aware of. The most potent risk that many banks have with respect to the social media is that the brand image and promise they worked hard to create and spent millions on, is no longer just under their control and can be destroyed at a rate faster than even before the business can react. This not only would impact new customer relationships but could potentially harm the relationships with loyal customers that a bank might have painfully built over the years⁵.

However, the above risk is even higher if the banks decide not to participate in the conversations that are about them. People on the social web are people who are engaging with

⁴Lon S. Cohen, 2009, 5 Ways Banks are using Social Media

⁵AbhiJadhav 2014, The small business owner's Internet marketing dilemma

brands with or without the company's involvement. Brands which have worked hard on listening to what its customers are saying and working on improving their brand experience are more likely to continue to get customers to support their brand.

As opposed to consumer retail businesses, banks are traditionally perceived to be non-social. And for good reason – in today's heavily-regulated environment, banks are understandably sensitive to the reputational risk inherent in social media. This makes it difficult to think of engaging in two-way dialogues with customers or expanding the scope of customer service through social channels. Often, banks recognize the benefits of enhancing their social capabilities, but are unsure where to start.

THE INTERNET MARKETING BUSINESS MODEL

The advent of social media has altered the traditional relationship between business and customer, much as it has changed how individuals interact with one another. With social media, customers have acquired a public voice that can influence friends, family, co-workers and distant connections – almost anywhere in the world, and all with a single message. Banks that embrace this new dynamic – that internalize and change in response to direct customer engagement and shift away from thinking in terms of customer transactions to thinking in terms of customer relationships – become social banks.

The social businesses embrace the voice of the customer: A social business understands that customer word-of-mouth is worth more than paid ads and marketing collateral. While any bank can set ambitious strategic goals, a social bank will follow through and drive required change across the organization. In contrast to traditional, in social approaches, a social bank recognizes that achieving social goals may require broad adjustments to how business is done.

Transitioning to a social business model means building the cross-functional capabilities needed to process insights from social channels, engage with customers, respond to their requests, and recognize and act on social opportunities. It's no exaggeration that embracing social can potentially affect an entire banking organization. The following examples illustrate how different areas within a bank can be affected by the transition to social bank⁶:

a) Sales & Marketing

Social channels provide new opportunities and ways to engage customers:

- Social promotions leverage customer networks
- Customer comments reveal need for banking products
- Outreach on forums raises awareness of products

b) Customer Service

Social channels represent a new line of communication that must be used and monitored:

- Engage customers across multiple channels
- Active listening for customer issues/complaints to pre-empt backlash

c) Product

Social channels provide a new source of insights on customers and their needs:

- Online "beta tests" provide feedback on new products
- Ratings and reviews reveal customer perspectives
- Customer comments reveal needs unmet by products

⁶Lawrence Lee; Justin Mathena; Steve Goodall; 2014; Who says banks can't be social? Become a social bank, inside and out; p.9, Deloitte;

d)Front Line/Branch

A social presence means that employees have an ever greater impact on the bank's image:

- Branch-level reviews provide feedback on service
- Training prepares employees to provide consistent service and resolve conflicts

e)Legal/Risk/Compliance

Social participation requires careful consideration and planning for banks:

- Policies and procedures aligned with bank strategic goals and risk guidelines
- Privacy, data retention and regulatory issues are well understood and driven throughout the organization

f)Technology

Using social channels requires supporting infrastructure, but presents an opportunity to improve existing infrastructure:

- Develop integration between social channels and internal systems (e.g.,CRM)
- Leverage open-source approach to strengthen internal tools

g)Human Resources

Social channels require new skill sets and must meet the expectations of young talent:

- Training prepares employees for broad social communication
- Engagement and retention of younger talent is improved through integration of social with responsibilities

h)Communications

Social channels change the nature of communications with customers:

- Training emphasizes importance of transparent communication to employees
- Social channels are used to broadcast messages and start conversations

METHODOLOGY

In order to investigate the interested field of research, the descriptive method was employed. In total 14 banks were identified as target for this research. In order to have the highest coverage of the banking industry, the targeted banks were selected based on few criteria such as representing big, medium and/or small bank, being national and/or regional, years in the market etc.

This research took in considerations only banks that are operating in Macedonian market and not others. Before sending the questions, focal points were detected to the targeted banks, and they were introduced to the research objective of this paper. It was aimed that focal points are senior marketing managers in order they are deeply involved in their banking marketing activities. The questionnaire survey technique was used to collect data and the questions were self constructed. A questionnaire with 8 questions was developed and delivered to 14 targeted banks in Macedonia asking for their answers. 10 out of 14 banks responded to the questionnaire while 4 of them did not. The field research took place during summer period of 2014.

RESULTS

As mentioned in the methodology, eight commercial banks from Macedonia answered the questions of research topic. Diverse questions around the topic of internet marketing,

aimed to discover the use of the social media by the banking industry in Macedonia. Following are the questions and respective answers.

1. Which is approximately the percentage of your prospects and customers that follow you on internet communication?

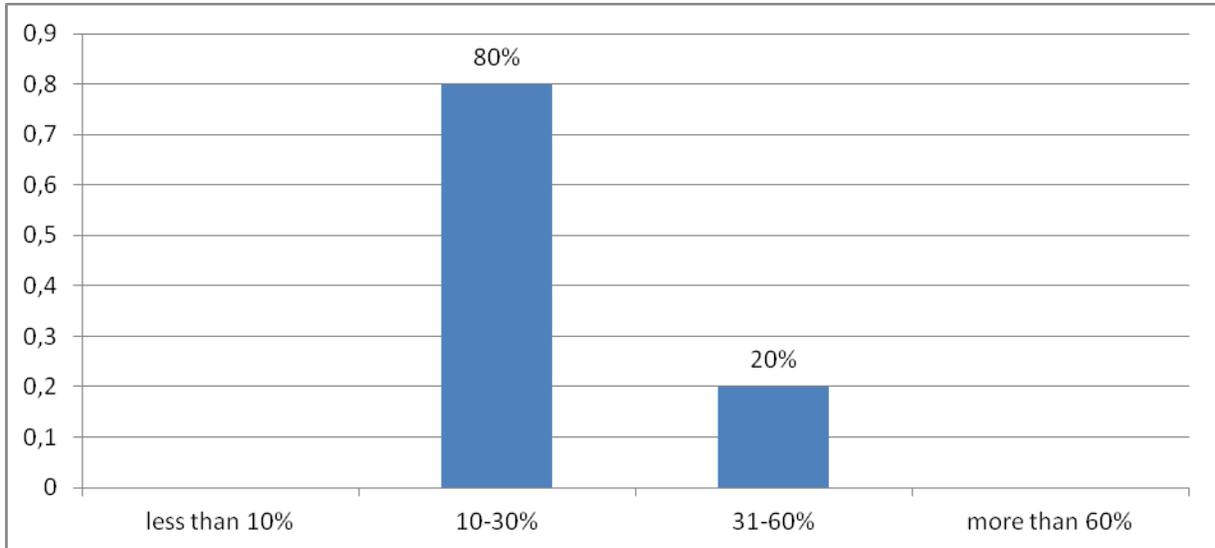


Fig.1. Percentage of customers following the internet communication of banks

The research discovers that majority of respondents representing their banks; show less than 30 % of customers are following the internet communication as targeted banks are arguing. Only a small percentage of banks (20%), believe that up to 60 % of customers are following their activities online. The low level of internet/online followers of the banks in Macedonia, is linked also to the profile of the customers. Most of the matured customers in Macedonia are used to practice the traditional methods when communicating with their banks and their perception is that the communication with a bank should be formal in order to be ‘trustful’ and remains as such. The exception is here with the younger generation, who are eager to use internet and get linked with their banks online. The enormous penetration of the new technology especially with the young people, expects to change the current ratio in the coming years.

2. What social media is using your bank to communicate with your prospects and clients?

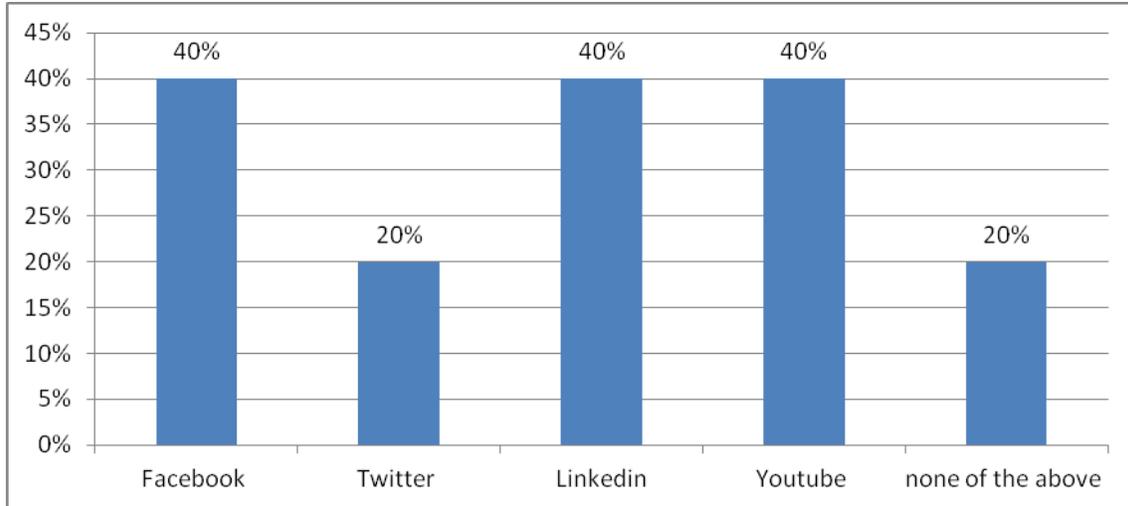


Fig.2. Social media instruments used by banks

The next question dealt with the social media instruments used by targeted banks when communicating with its own customers and/or prospects. Currently the Face book, LinkedIn and YouTube are dominating over Twitter, which is twice less used. What was unexpected is that 20% of the respondents showed lack in using above social instruments. Those banks that are not using the social media mentioned here, seems to be rigid in changing their organizational culture when it comes to the communication patterns.

3. Which of traditional promotional instruments still do you think are critical for success of your bank?

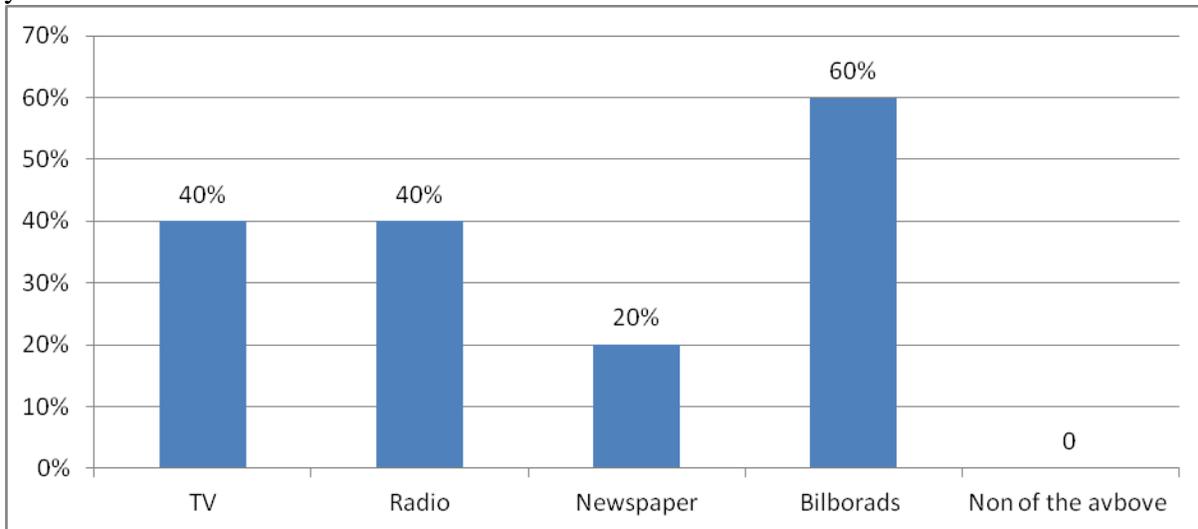


Fig.3. Current traditional promotion instruments used by banks

Among traditional instruments used by banks for communication and promotional activities, billboards are well above. 60 % of respondents think that billboards are a critical channel to be used in promotional activities. Respondents have ranked the newspaper in the lowest position being an instrument for promotion with customers. Newspaper is losing its position, due to emerging the online media who are well accepted by population. Anyhow,

what is interesting is the same level that respondents gave to TV and radio for promotional purposes.

4. Is the social media dominating over the traditional promotion in your bank?

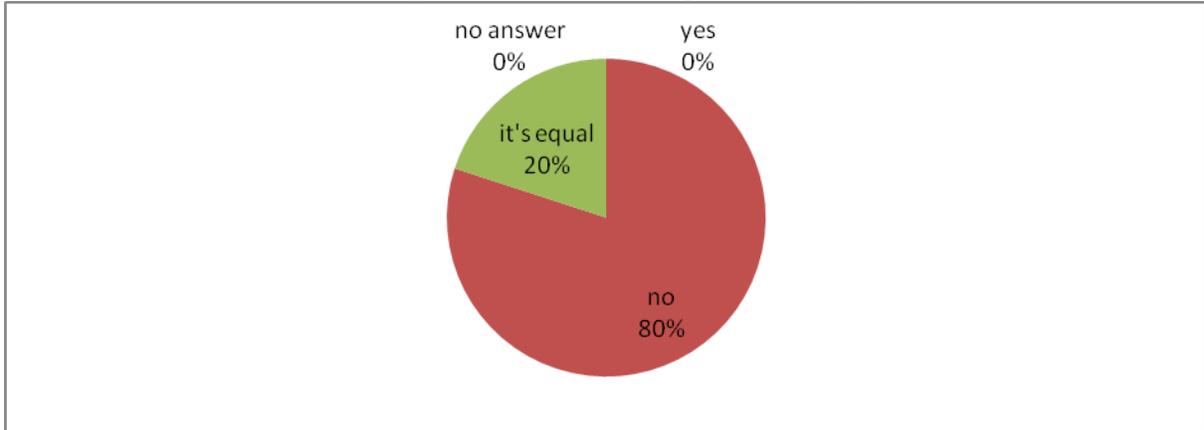


Fig.4. Social media vs traditional media

The next question aimed to compare the social media with the traditional ones. Majority of the respondents, 80 % think that still the traditional promotion is heavier used by banking industry compared with the internet social media. This is due to many factors and circumstances, but it shows that social media might be used parallel to the traditional instruments, and less. Hereby, respondents argued that the banking sector is more relying on billboards, TV, radio and other traditional tools and less on internet promotion.

5. Which is the ratio of promotional expenses that your bank spends in social media compared to traditional media?

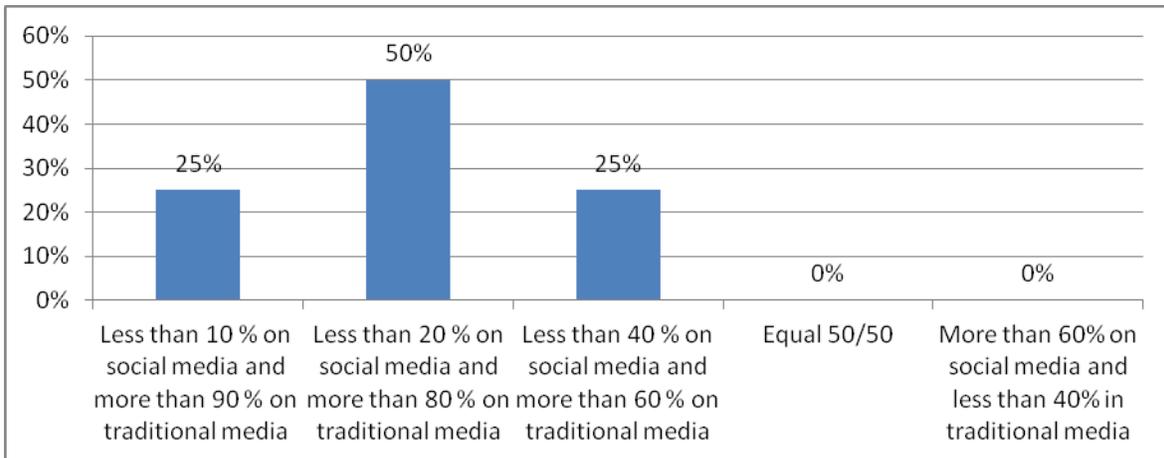


Fig.5. Expenses on social and traditional media

The theory above explained that the expenditures of the social media aiming internet marketing are low by nature. This statement is also confirmed in this research paper, where majority of the respondents (75%), showed that expenses on social media are less than 20% compared to traditional ones. None of the respondents argued an equal representation of

social media in total expenditures, as well as none of them declared expenditures above compared to traditional media.

6) What are the main challenges facing the banking industry when using the social media in Macedonia?

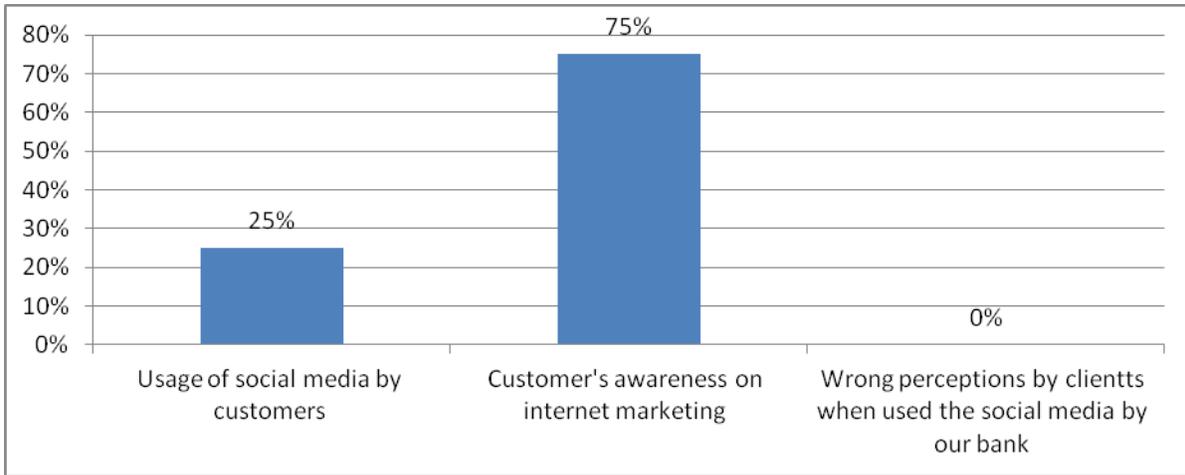


Fig.6. Challenges of banking industry to use social media

Majority of respondents (75%) believe that the main challenge is the customer’s awareness on internet marketing. This percentage is quite discouraging and calls for immediate activities to increase awareness of customers. This statement is also strengthened from the perspective of respondents that a very small percentage of customers, that’s only 25% of customers are regularly using social media through internet. This situation is a major external barrier for the banking sector to swiftly jump into internet marketing, and it requires extensive preconditioned efforts.

7) How does your bank measure the impact of social media?

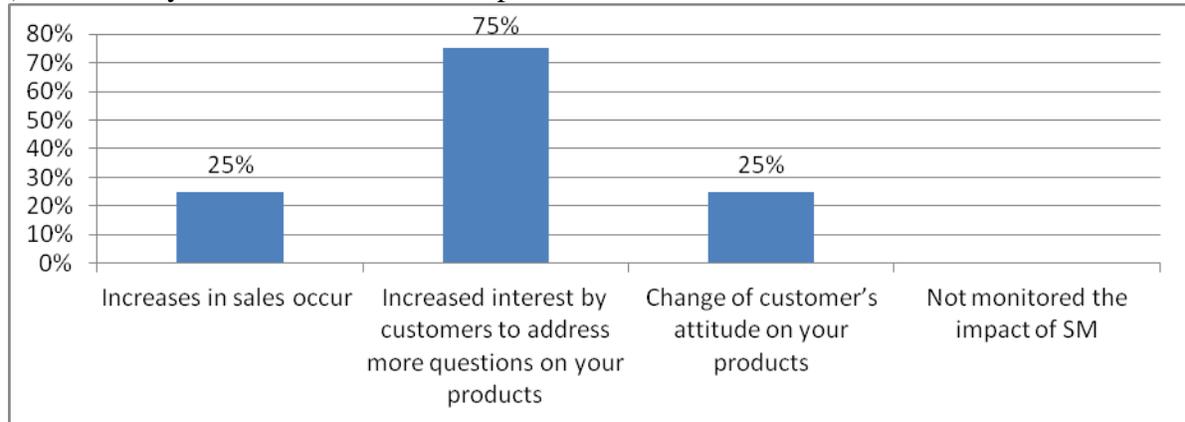


Fig.7. the impact of social media over bank’s performance

The research, farther aimed to understand if the banks in Macedonia are measuring the impact (whether positive or negative) caused by social media and in which manner. None of the respondents answered for not monitoring the impact of the social media, while majority (75%), argued that measure it through increased interest by customers in addressing more questions. Moreover, 25% responded that increases in sales occur and/or customer’s attitude is changed over the product.

8) Do you think that the trend of banking industry in Macedonia, using the social media as a communication/promotional tool, is following the world's trend?

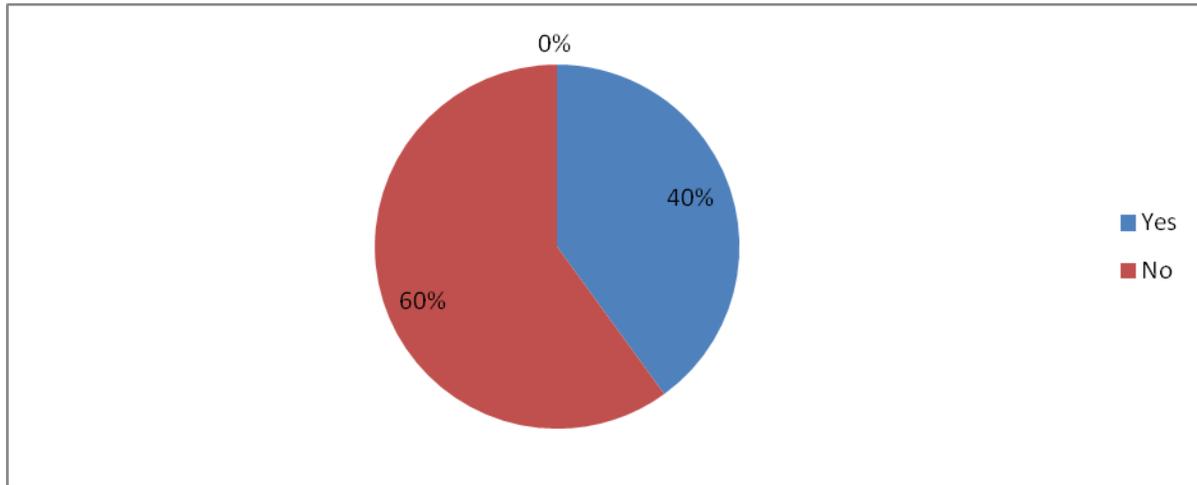


Fig.8. Social media in banking industry following the world's trend

The last question dealt if the banking sector in Macedonia is following the world's trend regarding internet marketing. The received answers are divided where majority or 60% of the respondents thinking that our banking industry is behind the world in this matter, while another 40% of respondents believe that their banks are using the social media in a same level as the world does. This question is a bit complex, having in mind those respondents should possess a huge knowledge of world's trend regarding internet marketing, in order they properly compare the stand of their banking sector.

CONCLUSIONS

It is a small percentage of customers and prospects that are following the banks in Macedonia online. Customer's awareness on internet marketing is still very low and this is the main barrier that banks are facing to progress further in the field of internet marketing.

Traditional media is still dominating over the non-conventional media (social media), while billboard is seen still the most crucial channel of the banks intended for promotional activities with their customers and prospects. When it comes to usage of social media, Facebook, LinkedIn and YouTube are dominating the other social media channels.

Anyhow, through this research, it is concluded that the internet marketing and specifically the social media, are a very beneficial instrument, which is not so expensive to use by banking industry in Macedonia, and it assures a targeted communication with an immediate feedback by customers.

The paper also concludes that banks in Macedonia are following the world's trend regarding usage of social media. Anyhow, citizens in general and customers in particular of the banking sector in Macedonia, are not aware of the internet marketing benefits, and as such are not satisfactorily practicing the social media.

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**PUBLIC GOODS AND THE SOCIALIZATION OF OWNERSHIP IN THE
TRANSFORM ECONOMY**

Dr. Rinkova Stanka¹

Abstract

The main characteristics of public goods are non-exclusion and non-competition. They influence on the mechanisms of organization of the production, the financing and their consumption. The economic activities related to the reproduction of public goods suggest the emergence and implementation of economic relations of ownership on the resources and the final results of the use of public goods. These features require alternative mechanisms for regulating the development of the public sector including social entrepreneurship.

Keywords: public goods, efficiency -economic and social , property rights , competition, social entrepreneurship

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RELEVANCE OF THE ISSUE

Socio-economic development and welfare of the citizens in the age of the knowledge economy is crucial for achieving the Europe 2020 Strategy - intelligent, sustainable and inclusive growth. In the public sector are established and supplied societal and consumer public goods - state administration, defence, social and legal system, education, health, welfare and other essentials for the reproduction of human capital. Socialisation of the economic fundamentals of this sector namely ownership is a natural and objective process to be studied.

THEORETICAL AND METHODOLOGICAL FOUNDATION OF THE STUDY

This paper is based on the application of neoclassical institutionalism theory of property rights and the theory of welfare. Public goods are multifaceted category representing relations regarding economic activities of multiple engaged subjects – the state, private counterparts and private and public institutions. These goods have two main characteristics – they are uncompetitive and non-excludible. Under the public sector market signals do not work full and are been modified. For example, an education fee in a state university cannot be considered as an adequate education service market price. This position transforms the character and nature of decisions made by economic subjects in the sector. The state is an institutional entity that establishes and guarantees through their bodies “the rules of the game”, including those of institutional and economic change. One of the main institution of the transition to a market economy is private ownership wright. "Institutions are a set of rules, formal and informal, that are actually constraints on economic agents but also mechanisms of compliance and protection," writes D.Nort. Ownership relations are social relations in whom individuals and groups of people mutually recognise each other's wrights of owning objects- tangible and intangible. In the theory of ownership rights developed by R.Kouoz, A.Alchian, H.Demzets, a basic elements of the ownership as a complex social relation are "bundle of rights". According to this theory in order to increase efficiency in properties use and effective economic decision making, production and supply of public goods should reduce transaction costs. Such as operating costs which are related to the exchange and transfer of ownership, information gathering, quality measurement, transact specification and negotiation costs, opportunistic behaviour. According to institutional theory the basic elements (“bundle of rights“) ownership rights are: the right to possess, the right to use, the right of control, the right of an income, the right of alienation, safety right, the right of an inheritance, the right to perpetuity of goods use, right of responsibility in the form of an action right, the right of a residual. Specification of the ownership rights is essential for efficient market mechanism operation and implies conclusion that when more precisely those rights are defined the link between the actions of the participants in the economic activity and welfare are more obvious. Furthermore, our thesis is based on effective institutional provision of state property and socialization processes of the same in the public sector is a prerequisite for potential realisation and achievement of the Europe 2020 strategy objectives. Following a detailed statement of ownership rights we have actually established that so called "Distributed property" have been observed. This concepts based on the notion that none of the subjects of ownership isn't entitled to exclusive ownership right and access to resources. Individual owners have prerogatives defined by law or contracts between entities. The previous stated doesn't contradicts to the interests of other entities that have different powers in respect of the resource. Precisely the term "distributed property" reflects processes of ownership socialisation included in the public sector. Ownership socialisation is an objective process of relations transformation in free market conditions. Such process creates conditions

for formation of social, adaptive and innovative economy, of free market relations intrusion in the social sphere of competition.

Socialization is tantamount to an environment collective society; conversion of private property to public; increase inclusion and state property significance for social welfare. Socialization of ownership should include all forms of ownership - public, private and combined. In a narrow sense, increasing the state's role for production and delivery of public goods. By itself the increasing state ownership is not evidence of ownership socialization itself. State properties have to be socialised and controlled by civil society.

Socialisation is the process of individual's inclusion in society not only as a consumer or civil society actor in public relations. The socialization of the ownership in the public sector can be analysed in four aspects: as a process, a condition, a manifestations and an outcome. It is a process of enhancing public control in ownerships allocation and use which can be further implemented by government bodies instate's functions institutional and economic change in two phases: first, vast expansion and organisational systematisation of state's technical functions ensuring socio-economic system functioning in social relations regulation on economic levers of social security and public goods welfare; and second, promoting the role of individual, civic associations and NGOs through their active participation in consumer and public choices. The last, need to "encourage" the government to adjust its own failures. It has been observed, how NGOs role in production and supply of public goods significantly in increases.

PRACTICAL PART OF THE STUDY

We will point out specific forms of and mechanisms of ownership socialization in the public sector, applied here. So far the situation is as follows: a significant share of state ownership is preserved in the public sector containing 100% goods; increasing community organizations involvement in production and supply of public goods, the same has been observed in the private sector as well. The public-private partnerships have been developed as well as NGOs with foreign participation.

The socialisation of requires for socio-economic ownership assessment and development besides economic performance indicators to be used those of social justice and inequality, for the sustainable development. Accumulation of human and social capital results in socialization of ownership. Social and legal state, corporate social responsibility and civil society form the basis of subjective social-oriented country and economic system. It has been observed an increasing number inter weaving mechanisms state regulation of the market and the civil society in the process of socio-oriented development targeting of free personal development and wealth accumulating.

General guidelines of ownership socialisation in the public sector are - competitiveness growth of economic actors in these fields by applying "quasi mechanisms" public-private partnership in order to increase social capital in society, corporate social responsibility, social entrepreneurship, implementation of effective social investment projects cooperation with foreign partners and EU funds.

Reforming the public sector in theoretical and practical terms is based on the concept of the "new management". It is a quasi approach to management and involves the transfer of corporate techniques and approaches in the management to the public affairs, adapted to their specific situation. The aim is to create conditions for competition and market discipline in the operation of public structures and bodies. The quasi-public goods production is made by public institutions; alternatively it can be performed by private ones whom offer public goods. They are measured by the quality system (for example: accreditation of universities).

An alternative structure in the production and supply of public goods stimulates competition and increases the efficiency of management and public ownership. Here are some of them:

- Introduction of the program funding i.e. the funding according to the result. Thereby overcoming the financing institutions for their own sake, and the money is used for specified purposes and implementation of projects.
- Deregulation of the natural monopoly, removes barriers to entry of private companies in activities that were a state monopoly. Funding is private, but with regulated volumes, price (electricity, water).
- Through concession was privatised not only the management, but also the economic use of public ownership resources. This increases the supply of public goods.
- Enforcement of franchising is a tool for supplying public goods by private entities funded by public resources. Contracting meets the standards of quality, cost and duration of supply. Possible application is for other quasi approaches. They are also forms of socialization of public ownership as sectorial agreement for outsourcing, benchmarking.

CONCLUSIONS

The socialization of ownership in the public sector is an objective process. Further studies are necessary, development of criteria and metrics for the content limits and results for society and the individual. People increasingly become "economic" in "social in a creative individual."

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CREATING BUSINESS ENVIRONMENT FOR SUPPORT OF SMEs INNOVATION IN MACEDONIA

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Sotiroski Kosta PhD.²

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Risteska Fanka PhD.⁴

Abstract

Nowadays, the contemporary conditions, economic transition, liberalization and privatization have forced the need for development of private enterprise and the promotion of entrepreneurial culture and consciousness. Considering the dynamic environment, competitiveness of small and medium enterprises depends on the speed with which new products can be presented in the market. SMEs are more innovative than larger firms, due to their flexibility and their ability to quickly and efficiently integrate inventions created by the firms' development activities. Hence, in this paper we will focus on SMEs in Macedonia and the need for creating environment for their innovation support. With the aim to gain conclusions about the influence of business environment for SMEs innovation will be tested more hypotheses using statistical tools. In the end of the paper based on the obtained results will be purpose a number of measures for improving the business environment in Macedonia in order to stimulate SMEs innovation.

Key words: SMEs, innovation, business environment

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INTRODUCTION

International economic movements, continuous move of the globalization process, fast technical-technological development and international integration of the capital market, require higher flexibility and adaptability of business entities to the changes brought by globalization processes. Globalized world market enables activity of SMEs, which are becoming driving force of the economic development. Such movements led to changes in production philosophy in the most developed countries in the world during the last decades of 20th century, when the era of giant corporations was changed by an era of small enterprises, which promote spirit of creativity and individualism, opposite to standardization and globalization promoted by the big and multinational corporations. In every dynamic economy, having in mind the changes in business conditions and ruling of market laws, the basic precondition for success is functioning of the SMEs, which are becoming dominant sector, but in no case we should neglect the role of the big companies for the economic development, because they still have high efficiency and productivity and a big offer for conquering the world markets. Newly-created conditions impose serious problems on big companies' functioning, which if want to survive further, they have to apply advanced methods of business working that are significant mark of the small enterprises. In dynamic surrounding the competitiveness of small SMEs depends by the speed by which new products are introduced on the market and the costs for savings and improvements for them to be made. The innovations significantly contribute to increasing the productivity and quality of products and services, making companies more competitive. Really, they imply major changes in the company but if the subject does not change the products or services it offers, as well as the way they are created and delivered, then there is a risk other company to do that. Today, exist only the businesses that are capable of accurately targeted and constant change.

LITERATURE REVIEW

The processes of economies development based on technological development, knowledge and information wouldn't be possible without SMEs. SMEs generate technical innovation applicable in the economy. According to Paul Almeida professor at Georgetown University "SMEs play a unique, active and crucial role in the innovation process, technological advances and improving the high-tech information networks. (Almeida, 2004). SMEs are more innovative than larger firms, due to their flexibility and their ability to quickly and efficiently integrate inventions created by the firms' development activities (Acs and Yeung 1999, Qian and Li 2003, Verhees and Meulenbergh 2004, Timmons 1998). Several studies have shown that there is a clear connection between innovation and the creation of an entrepreneurial economy (Schumpeter 1934). There are different types of innovation (Trott 2008). In their study, Mazzarol and Reboud (2008) considered innovation to be related to new products or services, new production processes, new marketing techniques, and new organizational or managerial structures. Innovation may also involve technology, intellectual property, business, or physical activity (Sundbo 1998). It is seldom that an organization engages in one type of innovation without affecting other innovation areas (Damanpour et al. 1989).

DETERMINATION OF SMEs, INNOVATION AND ENTEPRENEUERSHIP

Up to the eighties of the last century, the consideration that big enterprises had tendency to become big systems which would follow technological development, which had high efficiency and productivity and big offer for conquering the world markets, prevailed. The big and multinational companies were challenge for the globalized economies, and at the same time, they were a possibility for economic development and prosperity. However, as the crisis of the big enterprises worldwide was deeper and deeper, economic policies of the developed countries began seriously to consider the issue of small business development, industrial competitiveness, restructuring and privatization.

That period will be remembered for the big wave of entrepreneurial reconstruction, while the economic science increasingly points out on the importance of the small and medium enterprises as carriers of economic system restructuring, which with their toughness, vitality and inventively, are generators of new employments and mobilizes of all production factors.

In fact, there are many pragmatic reasons for determining of the size of the enterprises, such as the need for statistical monitoring, accounting procedures, tax regulations and other needs. Considering the fact that small and medium enterprises are a heterogeneous group, it is hard to determine a single criteria or a unique combination of criteria, which will give a definite and unique response. There is no single, uniformly accepted definition of a small firm (Storey, 1994).

In that way, European Commission has given the definition for SME, and according to the last modification (in 2003), these are the quantitative criteria: number of employees, annual turnover and annual turnover and annual current assets.

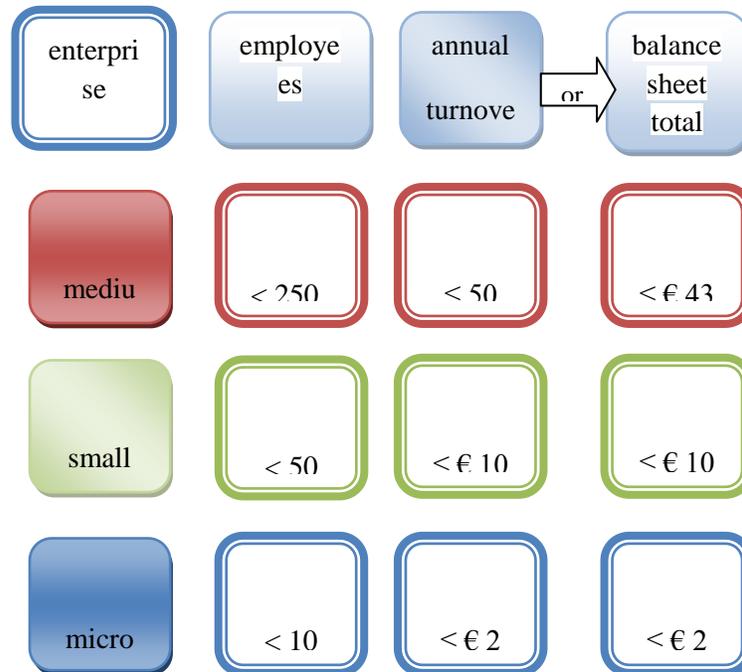


Figure 1: Quantitative criteria for businesses categorization

Source: <http://ec.europa.eu/> The definition of SMEs according to the European Commission recommendation 2003/361/EC

The emergence and development of SMEs is closely associated with the emergence of entrepreneurship and private initiative.

A. Smith, in his book "The Wealth of Nations", has talked about the entrepreneurial activity that is accomplished through: thrift and diligence; speculation business and business innovation.

In fact, entrepreneurship is an instrument for transforming the personal and organizational visions into plans, and plans into reality. It has always been associated with innovation and involves the allocation of resources in the points where they give greater effects.

The entrepreneurship is a risky activity. Entrepreneurial activities may result in high gains or losses. Hence, Drucker points out that "entrepreneurship is risky because only a few of the so called entrepreneurs know what they are doing".

In dynamic surrounding the competitiveness of small and medium sized enterprises depends by the speed by which new products are introduced on the market and the costs for savings and improvements for them to be made. As written by Ducker "entrepreneurs in general bring innovations. They represent specific instrument of entrepreneurship. Innovation represents activity that impregnates the existing resources with new capacities for creation of resources". Innovation sometimes may result in brand new, unknown product or replacement of some existing function for it's more efficient and successful performance.

Innovations sometimes may result in brand new, unknown product or replacement of some existing function for it's more efficient and successful performance.

Although the innovation commonly implies on technical innovation, it doesn't have to be only technical or to be "something", as there a numerous, for an example, social innovation such as the insurance and similar. Actually, the innovation then is an economic or social rather than a technical term.

Also Drucker said that successful entrepreneurs should always practice systematic innovation. Systemic innovation is organized research directed towards changes and systematic analysis of the opportunities such changes can offer and to lead to economic and social innovation. Specifically, systematic innovation means monitoring seven sources for innovative opportunity: the unexpected; the incongruity; innovation based on process need; changes in industry structure or market structure that catch everyone unawares; demographics (population changes); changes in perception, mood, and meaning; new knowledge, both scientific and non-scientific. (Drucker, 2007)

The other definition for innovation has given by Pol Trot, professor of management at the University of Portsmouth, so the innovation are divided as: innovation of product; innovation of process; innovation of organization; management innovation, innovation of production; marketing innovation and service innovation. (Trott, 2008)

Taking into consideration the significance of innovation in the development of SMEs it is necessary to explain the innovative matrix where we can found the basic classification of innovations in correlation with whether the innovation results with new product or replacement of some existing function concerning its more efficient and more successful enforcement.



Figure 2: Classification of innovations

Source: Fiti T. Hadzi Vasileva –Markovska V., Bejtmen M., Entrepreneurship, Faculty of Economics, Skopje, 2007

Considering the data from the picture 2 it can be conclude that the introduction of new product that is produces with new process of production represents radical innovation; If there is an offer of same product with new process of production we speak about technological adaptation; for pioneer innovation we speak when with help of the same technological process we get new product, whilst the most common kind of innovations are adaptations consisted by small changes of the products and processes for their production and marketing. (Fiti, Vasilevska, Bejtmen, 2007).

The innovation has to be confirmed on the market in order to be recognized as innovation, and the typical market aspects for the creation of innovation are:

- demand pull – when new products are created to meet the needs of the customers;
- supply pull – when the innovation does not arise as a result of the needs and demands of consumers; but as the business entity creates a need and demand for their products.

Innovations are the key feature and a prerequisite for the development of small and medium enterprises. But they do not occur automatically their drive is entrepreneurship - powerful compounds of vision, passion, energy, enthusiasm, insight, judgment and hard work. (Besan & Tidd, 2011).

EMPIRICAL EVIDENCE – ENTEPRENEURIAL ACTIVITY, INNOVATIONS AND BUSINESS ENVIRONMENT IN MACEDONIA

According to the Acs and Szerb (2010) three main components of entrepreneurship may be identified:

- entrepreneurial attitudes;
- entrepreneurial activity and
- entrepreneurial aspirations.

Entrepreneurial attitudes are attitudes toward entrepreneurship. For example, the extent to which people think there are good opportunities for starting a business, or the degree to which they attach high status to entrepreneurs, might be termed entrepreneurial attitudes. Other relevant attitudes might include the level of risk that individuals might be willing to bear and individuals’ perception of their own skills, knowledge and experience in business creation.

Entrepreneurial activity is multi-faceted, but one important aspect is the extent to which people in a population are creating new business activity, both in absolute terms and relative to other economic activities, such as business closure. Within the realm of new business activity,

different types of entrepreneurial activity can be distinguished. For example, business creation may vary by industry sector, by the size of the founding team, and by of other businesses, and in terms of founder demographics, such as gender, age, or education. Entrepreneurial activity is best seen as a process rather than an event. That is why GEM measures entrepreneurial intentions, and nascent, new, and established business activity. Examining multiple components of entrepreneurial activity also allows us to explore differences among the entrepreneurial processes across the three major phases of national economic development. For example, nascent and new business activity is expected to be high in factor-driven economies mainly because much of it is motivated by economic necessity. In innovation-driven economies, the proportion of opportunity-driven entrepreneurship is expected to be higher than in factor- and efficiency-driven economies.

Entrepreneurial aspiration reflects the qualitative nature of entrepreneurial activity. For example, entrepreneurs differ in their aspirations to introduce new products, new production processes, to engage with foreign markets, to develop a significant organization, and to fund growth with external capital. These aspirations, if they are realized, can significantly affect the economic impact of these entrepreneurial activities. Product and process innovation, internationalization, and ambition for high growth are regarded as hallmarks of ambitious or high-aspiration entrepreneurship. GEM has created measures that capture such aspirations. (GEM report)

In Macedonia for the first time in 2008 entrepreneurial activity was calculate according to the methodology of the Global Entrepreneurship Monitor (GEM). Taking into account the data in GEM reports it can make the following conclusions:

- In 2008, TEA (Total Early-Stage Entrepreneurial Activity) index in Macedonia was 14.5%, it means that 14.5% of respondents aged 18-64 years were entrepreneurs, half of them were nascent entrepreneurs (i.e. had business to 3 months), and half were new (i.e. had business to 3.5 years). Also half of them have stated that they are motivated by necessity and half of them are motivated by opportunity;
- In 2010, TEA index has decreased and it was 8.0% (the percentage of nascent entrepreneurs was 4.4% and the percentage new businesses owners was 3.6%) and parallel with this the total entrepreneurial activity has decreased as a result of decreasing the rate of owners of already established businesses;
- In 2012, TEA index was 6.97 %, the rate of nascent entrepreneurs was 3.73 % (those who has a business to 3 months) and 3, 24 was new (business to 3, 5 years). In Macedonia, 52% from the entrepreneurs have stated that they are motivated by necessity, whereas 29% are motivated by opportunity.

The key indicators for the entrepreneurial activity in Macedonia are shown in table 1.

Table 1: Indicators for the entrepreneurial activity in Macedonia

year	nascent entrepreneursh p	new businesses	TEA	established businesses	Mortgage rate of businesses	% of TEA motivated by necessity	% of TEA motivated by opportunity
2008	7,20	7,70	14,50	11,00	5,30	47,17	13,45
2010	4,80	3,10	7,90	7,60	1,60	59,00	23,00
2012	3,73	3,25	6,97	6,73	3,86	51,95	28,73

Source: GEM Report for Macedonia

In order to identify the influence of business environment to SMEs innovation, which is the main focus of research, we have tested several hypotheses, including:

Hypothesis 1: Business environment in the period 2008 to 2012 does not influence to the entrepreneurs interest for innovation

Table 2: Entrepreneurs interest for innovation in Macedonia for the period 2008-2012

Year	Enterprises want to experiment with new technologies and new ways of doing things	Innovations are very appreciated by enterprises	Existing enterprises are open for cooperation with new entrepreneurial enterprises as their suppliers
2008	2.57	3.03	2.91
2010	2.92	3.26	3.34
2012	2.70	3.86	3.11

Considering the data in table 1 we came up to conclusion that the limited component for entrepreneurship in Macedonia for define period is that companies want to experiment with new technologies and new ways of doing things while stimulating entrepreneurship component is that many companies appreciate innovation.

Table 3: Anova: Two-Factor Without Replication

<i>SUMMARY</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Row 1	3	8,19	2,73	0,0313
Row 2	3	9,15	3,05	0,0403
Row 3	3	9,36	3,12	0,0463
Column 1	3	8,51	2,836667	0,056933
Column 2	3	9,52	3,173333	0,049733
Column 3	3	8,67	2,89	0,0427

ANOVA							
Source of Variation	SS	df	MS	F	P-value	F crit	
Rows	0,2594	2	0,1297	13,18983	0,017336	6,944272	
Columns	0,196467	2	0,098233	9,989831	0,027825	6,944272	
Error	0,039333	4	0,009833				
Total	0,4952	8					

Considering the fact that the empirical values of F-variables ($F = 13,18983$ and $F = 9,989831$) are larger than the corresponding theoretical values of the F-variables ($F_{crit} = 6,944272$ and $F_{crit} = 6,944272$) we rejected the hypothesis and the conclusion is that the entrepreneurial environment in the period 2008 to 2012 has an effect to the innovation interest by entrepreneurs. We can come to the same conclusion if we compare the theoretical value of $p = 0.05$ with 5% risk. The value is greater than the corresponding calculated values ($p\text{-value} = 0,017336$ and ($p\text{-value} = 0,027825$, so the conclusion is the same.

Hypothesis 2: Entrepreneurial environment in the period 2008 - 2012 does not affect to the interest in innovations by consumers

Table 4: The consumer's interest for innovation in Macedonia for the period 2008-2012.

Year	Consumers want to try new products and services	Innovations are very appreciated by consumers	Consumers want to buy products and services from entrepreneurial companies
2008	3.53	3.44	3.27
2010	3.67	3.68	3.43
2012	3.55	3.57	3.37

From the estimates in Table 4, it can be concluded that stimulating entrepreneurship component in Macedonia for defined period is that consumers want to try new products and services, they also appreciate innovation and they are open for buying products and services from enterprises which are targeted to innovation.

Table 5: Anova: Two-Factor Without Replication

SUMMARY	Count	Sum	Average	Variance
Row 1	3	10,75	3,583333	0,005733
Row 2	3	10,69	3,563333	0,014433
Row 3	3	10,07	3,356667	0,006533
Column 1	3	10,24	3,413333	0,017433
Column 2	3	10,78	3,593333	0,020033
Column 3	3	10,49	3,496667	0,012133

ANOVA							
Source of Variation	of SS	df	MS	F	P-value	F crit	
Rows	0,094489	2	0,047244	40,11321	0,002255	6,944272	
Columns	0,048689	2	0,024344	20,66981	0,007783	6,944272	
Error	0,004711	4	0,001178				
Total	0,147889	8					

Since empirical values of F-variables (F=40,11321 and F=20,66981) are higher than the appropriate theoretical values of F-variables (Fcrit=6,944272 and Fcrit=6,944272), we refuse the set hypothesis and conclude that the Entrepreneurial environment in the period from 2008 to 2012 has influence on the consumers' interest in inovations. We come to the same conclusion by comparing the theoretical value $p=0,05$ or with 5% risk in statistical conclusion, which value is higher than the appropriate estimated values (p-value)=0,002255 and (p-value)=0,007783.

Hypothesis 3: There are not differences in average marks for entrepreneurial environment by areas in the period between 2008 and 2012 in Macedonia.

Table 6: Average marks for entrepreneurial environment in Macedonia by areas in the period 2008, 2010 and 2012

	2008	2010	2012
	2,41	1,92	2,12
	2,49	2,23	2,48
	2,47	2,81	3,01
	2,43	2,4	2,55
	2,2	2,19	2,3
	2,76	3,04	2,86
	2,01	2,19	2,38
	2,94	3,34	3,52
	3,21	2,19	3,13
	2,31	3,04	2,29
	3,41	3,61	3,57
	2,78	2,49	2,84
	3,16	3,18	3,52
	2,38	2,35	2,4
	2,25	3,28	3,57
	2,69	2,92	3,11
	3,14	3,54	3,36
	2,58	2,72	3,12
	2,84	3,17	2,9
	3,41	3,59	3,52

Table 7: Anova: Two-Factor Without Replication

<i>SUMMARY</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Row 1	3	6,45	2,15	0,0607		
Row 2	3	7,2	2,4	0,0217		
Row 3	3	8,29	2,763333	0,074533		
Row 4	3	7,38	2,46	0,0063		
Row 5	3	6,69	2,23	0,0037		
Row 6	3	8,66	2,886667	0,020133		
Row 7	3	6,58	2,193333	0,034233		
Row 8	3	9,8	3,266667	0,088133		
Row 9	3	8,53	2,843333	0,321733		
Row 10	3	7,64	2,546667	0,182633		
Row 11	3	10,59	3,53	0,0112		
Row 12	3	8,11	2,703333	0,035033		
Row 13	3	9,86	3,286667	0,040933		
Row 14	3	7,13	2,376667	0,000633		
Row 15	3	9,1	3,033333	0,481233		
Row 16	3	8,72	2,906667	0,044233		
Row 17	3	10,04	3,346667	0,040133		
Row 18	3	8,42	2,806667	0,078533		
Row 19	3	8,91	2,97	0,0309		
Row 20	3	10,52	3,506667	0,008233		
Column 1	20	53,87	2,6935	0,169024		
Column 2	20	56,2	2,81	0,286284		
Column 3	20	58,55	2,9275	0,240525		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	10,59866	19	0,557824	8,083885	3,01E-08	1,867332
Columns	0,547563	2	0,273782	3,967593	0,027235	3,244818
Error	2,62217	38	0,069004			
Total	13,76839	59				

Since the empirical values of F-variables ($F=8,083885$ and $F=3,967593$) are higher than the appropriate theoretical values of F-variables ($F_{crit}=1,867332$ and $F_{crit}=3,244818$), we refuse the set hypothesis and conclude that there are differences in average marks for entrepreneurial environment by areas in the period from 2008 to 2012 in Macedonia. We come to the same conclusion by comparing the theoretical value $p=0,05$ or with 5% risk in statistical conclusion,

which value is higher than the appropriate estimated values (p-value)=3,01E-08 and (p-value)=0,027235.

Further in the paper we have analysed the dependency of TEA index value on the entrepreneurial environment, i.e. areas.

We took TEA as dependent variable and environment (area) as independent variables: Finances, Government policies, Government bureaucracy and taxes, Government programs for entrepreneurship support, Entrepreneurship education, primary and secondary, Entrepreneurship education post-secondary, Transfer of research and development, Commercial and law infrastructure, market dynamics, Open domestic market, Physical infrastructure, Cultural and social norms, Possibility for starting new business, Ability, knowledge for starting new business, Entrepreneurial Social image, Intellectual property rights, Support to women when starting business, Focus on high growth, Interest in innovations (enterprises), Interest in innovations (consumers). From the correlation matrix, according to the values of correlation coefficients, the most important segments of the entrepreneurial environment can be identified (represented by the average marks for entrepreneurial marking) and TEA value in 2008, 2010 and 2012.

Table 8: Segment of the correlation matrix (TEA index values and values of the average grades for the entrepreneurial environment or areas)

	<i>Column 1</i>
Column1	1
Column2	0,862069
Column3	0,42959
Column4	-0,966
Column5	-0,43225
Column6	-0,52679
Column7	-0,69628
Column8	-0,91075
Column9	-0,98114
Column10	0,462372
Column11	-0,37712
Column12	-0,95426
Column13	0,246546
Column14	-0,63388
Column15	0,001452
Column16	-0,99529
Column17	-0,93759
Column18	-0,83677
Column19	-0,30782
Column20	-0,54936
Column21	-0,87299

If we make ranging according to the importance of positive influence, we can conclude that the following areas of entrepreneurial environment have influence on the rise of TEA index value: finances (0, 862069), market dynamics (0, 462372) and Government policies (0,42959). If we make ranging according to the importance of negative influence, we can conclude that the following areas of the entrepreneurial environment have such influence on TEA index value: entrepreneurer's social image (-0,99529), commercial and law infrastructure (-0,98114) and physical infrastructure (-0,95426). Here, it is important to note that only 5 of the mentioned areas of the entrepreneurial environment have positive influence on TEA index value increase, while 15 of the mentioned areas have negative influence on the TEA values increase. Namely, by increasing the average marks for entrepreneurial environment in those 15 areas, TEA index value decreases. It should be noted here that the area, or more precisely, the average mark for entrepreneurial environment that refers to abilities, knowledge for starting business, does not influence the TEA index value at all, for the researched period in R. Macedonia.

CONCLUSION

Based on the findings and performed researches, we can highlight some measures and recommendations for improving the business environment in way to stimulate SMEs innovation:

- Passing a legal regulative for encouraging innovation activities and developing national strategic attitude for innovatively development.
- SME interest in research and development is not on a satisfactory level, compared to big interest in technology transfer. As a consequence of poor connection of enterprises, universities and research institutes, SMEs do not use knowledge sources enough, and because of that they have low level of innovation activity and technological equipments. Due to the a.m., the accent should be on the applicable scientific-researching activity, which should develop innovation potential, mainly through establishing new enterprises, products and services, upgrading of processes and business functions, increasing of working efficiency etc.
- Building of stronger and more market-oriented technological-researching centers will encourage innovation activities with business entities. For establishing these centers, it is necessary to have grants for projects, development of financial instruments associated with innovations, help of the network of 'business angels', or funds of risk capital, advancement of the access to the banking capital etc.
- Intensification of the activities of the Fund for innovations and technological development.
- Coordination at policies creating, implementation and monitoring of innovation policies. That would mean providing of consistency of innovation policies via ministries, establishment of interinstitutional mechanisms for dialogue, establishment of agency, department or some other appropriate institution for coordinating policies associated with innovations, improvement of public-private consultations that correlate innovations, monitoring of implementation and effectivity of the measures for supporting innovations.

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**KNOWLEDGE MANAGEMENT PROCESS –
KEY FACTOR FOR INOVATIVE SMEs**

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Abstract

Nowadays knowledge is the most important resource for innovative working and managing with this resource has become an essential part for successful execution of the tasks in the enterprises.

In order small and medium enterprises (SMEs) to be successful and innovative and to work effectively they should have proper use of the knowledge management process. With the help of knowledge management process SMEs can do their business activities much faster and simpler, answer on client's demands properly, use the employees' knowledge much better, manage with their documents and all the written information and many other things that are connected with their business activities. Using knowledge management process in SMEs means innovative way of working.

In the theoretical part of this paper will be explained in details the proper way for implementing knowledge management process in the SMEs and will be listed all the benefits that SMEs can get if they are using this process.

The practical part of this paper will be descriptive and represented by case study. Case study will be medium size enterprise from Macedonia that is using knowledge management process in its working, in order to be shown all the benefits that SMEs can get by using this process and to be shown why, by using the knowledge management process, SMEs can be considered as innovative enterprises.

The aim of this paper is to contribute SMEs that are not using knowledge management process to start using it in the most proper way in order to archive higher results from their working and to become innovative enterprises that all the time seek modern and innovative way of working.

Keywords: knowledge management process, SMEs, innovative enterprises

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KNOWLEDGE MANAGEMENT PROCESS – ROLE AND IMPORTANCE IN THE SMES

Knowledge exchange and mutual learning are crucial for every enterprise, regardless if the enterprise is small, medium or big. Nowadays more and more SMEs are creating strategies for proper managing with the knowledge that they possess. These kinds of strategies can assist managers, programmers and the other employees in the SMEs to bring proper decisions. (Hulsebosch, Turpin and Wagenaar, 2009) Strategies for proper management of knowledge can easily be transformed into process of knowledge management that continuously will be used into the SMEs. Except for bringing decisions, knowledge management process can help managers to organize the work much faster and easier, to delegate the work tasks to the employees on the most convenient way, to solve the problems on creative way, to get more ideas, to improve the team work in the enterprise etc. Knowledge management is a process that through creating, accumulation, organizing and utilizing knowledge helps achieve objectives and enhance enterprise performance. (Rasula, Vuksic and Stemberger, 2012)

Knowledge management process ensures proper collection of the knowledge, proper understanding of it and its proper usage in the SMEs. On this way SMEs can get the information that are necessary for them and they will know how this information to use in the enterprise. Through the knowledge management process the efficiency of the employees is increasing because they share their knowledge and they can handle with the available information much easier. Right usage of knowledge management process in the enterprise means right manage with all the tasks and activities of the enterprise and that shows enterprise can reach its goals through using knowledge management process.

Knowledge management process can help employees to understand what kind of information they need, how to find it, and they can understand the responsibilities and knowledge of all the colleagues in the enterprise. The availability of all the information ensure solving the problems in the enterprise much faster and easier, getting new ideas and working in more flexible and dynamic environment. On this way the productivity of the working is increasing and the results of the higher productivity is new products or services of an enterprise. Also the employees through the knowledge management process complement each other and thus promote team work within the enterprise. Teamwork means constantly upgrade of the knowledge of the individuals and efficient and effective execution of the work tasks and receiving visible results from the working process. When the enterprise uses the knowledge of all employees, enterprise reduces its costs regarding getting new knowledge from outside: hiring experts, consultants or involvement of institutions that offer collecting and transfer of knowledge from different kind of areas.

All of these mention things can be reached in the SMEs if they have proper knowledge management process that continuously is using and improving in order to be up to date with all the needs of the enterprises, happenings in the environment and needs of the clients of that enterprise.

Using knowledge management process in the SMEs means innovative approach in working in order all the goals of the enterprises to be archived and enterprises to have success and improvement.

RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT PROCESS AND INNOVATION IN THE SMES

Innovation in the SMEs can be seen in developing new products, purchasing new machines, implementing new ways of working, implementing new process into the

enterprise, reaching a patent etc. Regarding this, it can be said that using knowledge management process, SMEs can become innovative enterprises.

The intertwining relationship between innovation and knowledge is seen in the approach to ways to increase knowledge and its transfer in enterprises. (Matthews J., 2003) In the SMEs there are different forms of knowledge that can be used for different knowledge process and purposes. Different forms of knowledge in the SMEs are: knowledge for the customers, knowledge for the products or services, knowledge for the working process, organizational memory, knowledge in the relationships and other knowledge assets. All these forms of knowledge can contribute for increase of the knowledge in the SMEs and its better distribution among employees.

In the table n. 1 will be showed different forms of knowledge that contribute different innovative knowledge processes into the SMEs. (Skyrme, 1999)

Table 1. Forms of knowledge and knowledge process in SMEs

Forms of knowledge	Knowledge process
Customer knowledge	Developing deep knowledge through customer relationships, and using it to enhance customer success through improved products and services
Knowledge in products and services	Embedding knowledge in products and surrounding them with knowledgeintensive services
Knowledge in people	Developing human competencies and nurturing an innovative culture where learning is valued and knowledge is shared.
Knowledge in processes	Embedding knowledge into business processes, and giving access to expertise at critical points
Organizational memory	Recording existing experience for future use, both in the form of explicit knowledge repositories and developing pointers to expertise
Knowledge in relationships	Improving knowledge flows across boundaries: with suppliers, customers and employees etc.
Knowledge assets	Measuring intellectual capital and managing its development and exploitation.

With using all of this knowledge and all of these process that arise from the knowledge, SMEs can have many benefits and they can reach their goals much easier.

Regarding the knowledge process that are shown in the table we can see that SMEs will have innovative work through building the team work, satisfying the needs of the customers, satisfying the wishes of the customers regarding the products or services that SMEs are offering, improving business process, creating strategies for work regarding the information that they poses, improving contacts with customers, suppliers etc.

IMPLEMENTATION OF KNOWLEDGE MANAGEMENT PROCESS IN SMES

In order SMEs to be innovative enterprises that work regarding novelties in their area they should implement knowledge management process.

First they should discovered the need for using this kind of process into the enterprise and then to start with implementation of this process.

Steps that are recommended for implementing knowledge management process are:

- Forming the team that will be in charge of implementing the process of knowledge management in the enterprises. This team should be composed from owners, managers or people responsible of some sector etc. In this phase these actions should be happened:
 1. Excitation of interest among the employees of the enterprise regarding using knowledge management process
 2. Recognition about the potentials and capacities of the enterprise for using this kind of process
 3. Bringing decision for this kind of process in the enterprise
 4. Giving responsibilities to the people that will be included in this process
- Analyzing the situation in the enterprise regarding the knowledge that enterprise poses and processes of knowledge management that exists in the enterprise. Also in this part should be realized the culture in the enterprise.
- Creating strategy for using knowledge in the enterprise. In this step are situating these activities:
 1. Doing list with activities that are going to be used in the process of knowledge management
 2. Doing plans and projects for proper knowledge management process
 3. Creation of final strategy for using knowledge management process into the enterprise
- Realization of all the written activities and plans for usage of knowledge management process

Also many other steps should be used in the enterprises while knowledge management process is implementing. For example:

Regarding the author Timo Kucza, the steps for implementing knowledge management process are: (Kucza T., 2001)

- Identification of the need of getting new knowledge in the enterprises.
- Transfer of the knowledge among the employees in the enterprise
- Creation of the new knowledge that can be done through getting new ideas
- Collection and storage of the new knowledge in a format that is proper for use in the enterprise
- Update of the knowledge that enterprise posses

Regarding the author Adnan Dzelihovic, the steps for implementing knowledge management process are: (Dzelihovic A., 2010)

- Infrastructure evaluation: analyzing the permanent infrastructure of knowledge in the enterprise, analyzing the employees about their knowledge, technological improvement etc. or analyzing everything that is nessesary for using knowledge management process.
- Analyze, design and creation of system of knowledge management. In this phase is included creation of components that will be part of all the system for knowledge management.

- Systematic improvement –everything is prepared for start with working with the knowledge management system.
- Evaluation –the knowledge management system is testing in order to be seen if everything is all right with the system. If everything is good with the system, the system can be used in the enterprise. Then follows maintenance and its update when that is necessary.

Different steps can be used for implementing knowledge management process into the enterprises. What kind of steps SMEs will use in the enterprise depends from many factors: business activity of the enterprise, number of employees, technological development of the enterprise, aims of the enterprise etc. Regarding these things SMEs can adjust the steps for implementing knowledge management process regarding their needs.

PRACTICAL PART

CASE STUDY: CERMAT DOO, BIGGEST ICE-CREAM COMPANY IN MACEDONIA

Cermat Doo is the biggest ice-cream enterprise in Republic of Macedonia. Cermat Doo produces different kinds of ice-cream adjusted to different age categories and different customer's needs. This company produces ice-cream divided in these categories: impuls ice-cream (ice-cream on stick, cornet and cup), family ice-cream (1l and 2l) and horeka ice-cream (ice-cream for hotels, restaurants and catering). Despite ice-cream assortment this company produces also frozen cakes, frozen flaky pastry, hot chocolate and toppings.

On the region of Republic of Macedonia now this company is known like innovative and modern company. But, before Cermat Doo to become this kind of company, Cermat Doo faced with many problems regarding different needs of the customers, different requests from different kinds of clients, big number of documents, organizing the working tasks etc. That is why Cermat Doo decided to implement knowledge management process and to organize its work flows much easier. Initially this process was implemented in the enterprise for purpose organizing all the documents and its flow to different sectors in the enterprise.

This process was supported by knowledge management system that was developed regarding the needs of the enterprise. This system has been proved like very successful regarding organizing documents and their paths to the right places. Then, this system was upgraded with another database for customers where were stored information for them, information about their purchase, quantity, period of buying and payments. On this way Cermat Doo knows everything for each customer. Innovative work was applied into the enterprise. Then other knowledge management systems were implemented into the company that helps organizing all the activities into the company started from input of raw materials, organizing production process and division of the activities among all employees in the enterprise.

Instead of using knowledge management system into this enterprise and facilitation of all activities and tasks with the help of this system, in this enterprise knowledge management process is implemented into the organizational culture, attitude among employees and communication. Employees know their own responsibilities and abilities, responsibilities and knowledge of the colleagues. On this way they are solving all the problems much easier, they are giving new ideas for new ways for production of new products and new ways of selling products. This innovative way of working among employees is result of implementation of knowledge management process into the working strategy of this enterprise.

As a result of implementation of knowledge management process into the strategy of working, Cermat Doo created various products that are unique and that are innovative on Macedonian market. Those kinds of products are:

- Eisknodels – ice-cream with shape of perfect ball. This kind of ice-cream is unique on Macedonian market and this kind of ice-cream is produced with technology that is developed by Cermať team. This ice-cream in this market is known by the name “Tartufi”.
- Gugelhupf – ice-cream in a cup that should be covered with water in order ice-cream to be out of the package and to be served like ice-cream desert.
- Frozen cakes with different flavors that can become standard cakes after 2 hour defrost.
- “Brazil 2014” –ice-cream in a plastic ball intended for youngest population. This product was developed for the World football championship.



Products from Cermať Doo

All of these developed products, technology that is used, ways of promotion of the products are results from the new way of working and new way of collaboration that arise from implementation of knowledge management process.

CONCLUSION

Regarding theoretical research and practical research represented by case study of medium enterprise from Republic of Macedonia it can be conclude that implementation of knowledge management process into enterprises is crucial for innovative work. It is very important knowledge management process to be implemented in the working strategy of the enterprise and to part of employee’s attitude and working acts. Also if the knowledge management process is supported with information technology then usage of knowledge management process can be done on much higher level.

Knowledge management process can be support for achieving success and improvement of the enterprises, and can contribute for raising the importance of the knowledge that enterprises possess.

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**DETERMINANTS FOR ADOPTING OPEN INNOVATION
STRATEGIES IN SMEs**

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Abstract

The modern concepts go beyond traditional approaches for developing innovation based primarily on exploiting the internal R&D resources. Thus, they are increasingly promoting the use of external ideas, resources and knowledge for the firms' innovation process. Nowadays, companies employ the concept of open innovation to search the possibilities for generating innovation impulses and improving the innovation performance. This is of particular importance for SMEs having limited innovation capacities to improve their innovation performance and to successfully respond the challenges emerging from dynamically changing competitive environment. Hence, the paper aims at: a) providing a review of the current research relating to the concept of open innovation and SMEs; b) identifying the main determinants to implement the open innovation strategies as a major prerequisite for improving the innovation performance of SMEs.

Keywords: open innovation, SMEs, innovation strategy

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INTRODUCTION

Amid intense and keen competition, developing innovation capability is a strategic factor for the company's success. Innovation represents a new platform for building competitive advantage of companies in the global market. In order to increase and improve their innovativeness, companies are expected to redesign their innovation practices and look towards some new models, such as open innovation.

Open innovation has evoked an increasing interest among the scientific community, thus bringing about various studies and analyses with valuable information and content (Chesbrough, Vanhaverbeke, West, 2006, Ebersberger et al. 2011, van de Vrande et al. 2009, Brunswicker, van de Vrande 2014). However, such a model still fits in an initial phase of development, making the further research necessary for its conceptual design and upgrading.

CONCEPTUAL BACKGROUND

Open innovation is based on a qualitative transformation of the approach to innovation and goes beyond the traditional concept treating innovation within a limited framework that covers processes, activities and participants designed, initiated and implemented within the company.

The new innovation paradigm is based on openness, collaboration and interaction among different actors within innovation ecosystems (EC, 2012). The model of open innovation extends the existing cognitive framework where synergy between innovation and the use of internal and external knowledge stands for a basis of the firms' competitive strategy.

Open innovation, usually, can be referred to as the use of purposive inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation, respectively (Chesbrough et al. 2006). When enterprises look to discover and realize innovative opportunities and generate value, open innovation models assume that enterprises can and should use both external and internal ideas. To generate additional value, internal ideas can also be taken to markets through external channels (Stucki, Finger 2009). Recent studies focused on clarifying the open innovation concept define open innovation "as a distributed innovation process based on purposively managed knowledge flows across organizational boundaries, using pecuniary and non-pecuniary mechanisms in linewith the organization's business model. These flows of knowledge may involve knowledge inflows to the focal organization (leveraging external knowledge sources through internal processes), knowledge outflows from a focal organization (leveraging internal knowledge through external commercialization processes) or both (coupling external knowledge sources and commercialization activities)" (Chesbrough, Bogers 2014). This definition may further be related to three modes of open innovation, namely Outside-In (inbound), Inside-Out (outbound) and Coupled open innovation which points toward the combined knowledge inflows and outflows between actors in the innovation process (Chesbrough, Bogers 2014). Open innovation has several primary dimensions: screening of external information (search); interactive knowledge development and transfer (collaboration); market-based sourcing (e.g. external innovation expenditure); and external technology commercialization (e.g. licensing out or spinning out new firms) (Ebersberger et al. 2011).

OPEN INNOVATION IN SMES

Innovation has long been perceived throughout the prism and role of the large companies. The recent studies have increasingly emphasized the role of small and medium-

sized enterprises (SMEs) in the contemporary innovation landscape (Chesbrough, 2003). Nevertheless, very few studies and research address the issues of open innovation in SMEs, thus inciting an increased interest for such practices (Laursen and Salter 2006; Lee et al. 2010; Brunswicker and Vanhaverbeke, 2011; Van de Vrande et al. 2009).

Strengthening innovation capabilities of SMEs has a specific context and it is not merely a determinant of the formal research and development activities. In general, SMEs do not have the necessary financial resources to invest in research and development activities, create new products and services, and to ensure their commercialization and internationalization. SMEs outweigh the restraints arising from the rather limited R&D resources mostly by taking an advantage of the open innovation potentials.

Several studies indicate that implementing the model of open innovation may deliver significant benefits for SMEs. Hence, it is argued that open innovation requires SMEs to build new internal capabilities when engaging in open innovation, particularly since open innovation is often directly linked to a strategic change in a firm's overall business model (Brunswicker, van de Vrande 2014). Recently, open innovation practices have been increasingly adopted by SMEs. Yet, inbound open innovation practices are more commonly used than outbound open innovation (Brunswicker, van de Vrande 2014). Some authors associate the outbound open innovation in SMEs mostly with the problems at the commercialization stage. Namely, SMEs are focused more on commercialisation because, while many of them have superiorities in technology for invention, they often lack the capacity in terms of manufacturing facilities, marketing channels and global contacts to introduce them effectively to the innovation market (Narula, 2004, Lee et al. 2010) (Figure 1).

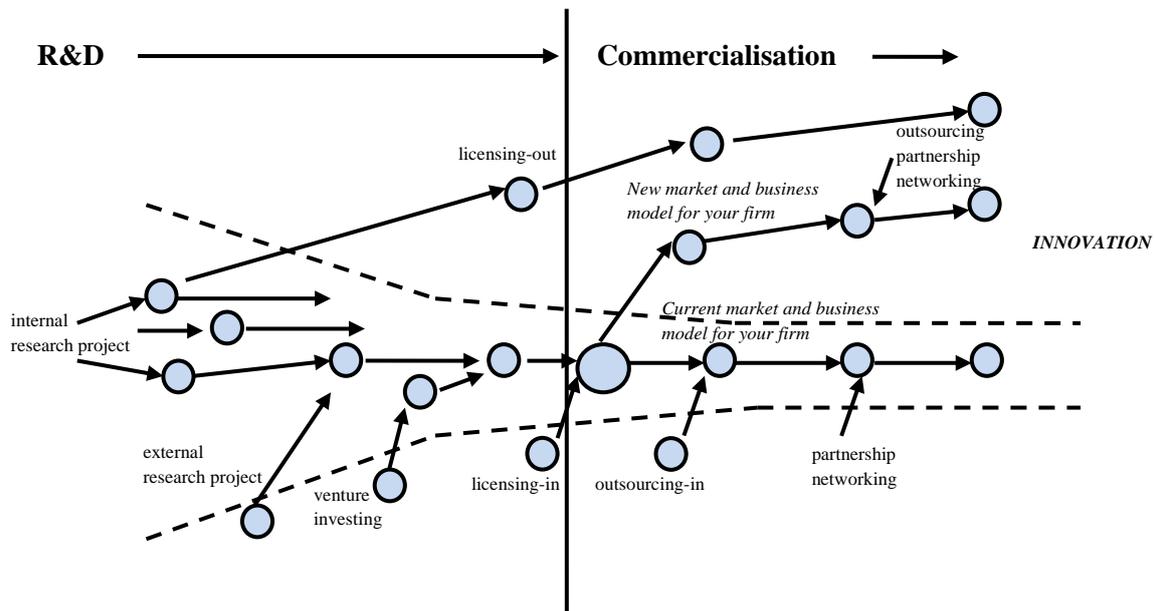


Figure 1. Open innovation model for SMEs

Source: Lee et al. 2010

SMEs are more flexible, more inclined to take risks and are faster in reacting to changing market demands which all together enables them to be better at gaining from open innovation activities compared with larger firms (Parida et al., 2012).

Brunswicker and Vanhaverbeke (2011) identify several key sources and directions of SMEs' open innovation search, such as:

- Interactions along the value chain among customers, indirect customers and suppliers;

- Interactions with universities and research organizations;
- Interaction with experts of intellectual property rights;
- Interaction with network partners.

Likewise, SMEs' open innovation is closely associated with the extent and intensity of internationalization of innovation activities. With the intention of getting access to local knowledge abroad, SMEs which are facing financial and managerial constraints may initially focus on several forms of internationalization which do not entail a high level of capital investments. Potential strategies may include: a) Cooperative agreements with local research institutions and/or firms; b) Outsourcing of parts of the innovation process and c) sharing resources (facilities etc.) with partners. These partners might be other domestic firms with interest in global innovation, firms from other countries, or local firms and research institutions in the target country (Tiwari and Buse, 2007).

DETERMINANTS FOR ADOPTING OPEN INNOVATION STRATEGY

Studying innovative ability of SMEs requires the necessity to identify the key factors that determine the scope and characteristics of the innovation processes. The literature research specifies several determinants for innovative ability of SMEs. De Jong & Brouwer (1999) create a conceptual model containing a list of determinants that are manageable and those which are not manageable for the entrepreneur. They conclude that SMEs will generate more ideas for new or improved products when they hold several of the following features: people characteristics; strategy; culture; structure; availability of means; network activities; company characteristics. The authors also point towards some environmental characteristics that spur the innovative ability of SMEs, such as: innovation infrastructure; market characteristics.

The necessity to identify determinants of the SMEs' innovative ability gains an increasing importance with appearance and the use of open innovation practices. In order to take a full advantage of open innovation benefits, SMEs are expected to build an effective mechanism to overcome barriers of the innovation process as a basic prerequisite for strengthening their innovative ability. In this context, De Vrande et al. (2009) identify the main hampering factors that SMEs perceive when adopting the open innovation practices, such as: bureaucracy, administrative burdens, conflicting rules; obtaining financial resources; lack of technological knowledge, competent personnel, or legal/administrative knowledge; insufficient market intelligence, market affinity, marketing problems of products; balancing innovation and daily tasks, communication problems, aligning partners, organization of innovation; cost of innovation, time needed; ownership of developed innovations, user rights when different parties cooperate; partner does not meet expectations, deadlines are not met; adoption problems, customer requirements misjudged; customer demand too specific, innovation appears not to fit the market; employees lack knowledge/competences, not enough labor flexibility; lack of employee commitment, resistance to change; employees have too many ideas, no management support. The authors conclude that "many barriers for open innovation in SMEs are related to corporate organization and culture, no matter which type of open innovation is pursued. On top of that, different types of open innovation also have their own specific types of problems and barriers to overcome" (De Vrande et al., 2009).

Chesbrough (2010) also stresses the most important structural deficiencies of SMEs posed by open innovation. First, lower absorptive capacity. Second, SMEs frequently lack the ability to absorb external ideas and technologies, even when they are initially identified and transferred. Third, smaller firms often are unattractive as partners to others. Fourth, deficiencies in value capture: SMEs typically do not have the market power to capture the

value of their externally sourced knowledge and innovation, if not protected by intellectual property rights (Chesbrough, 2010).

It is more than evident that the contemporary innovation research emphasizes the absorptive capacity as a key factor for upgrading the SMEs' innovation capacity. The concept of absorptive capacity was first defined by Cohen and Levinthal as "the firm's ability to identify, assimilate and exploit knowledge from the environment" (Cohen and Levinthal, 1989: 569-570) and the "ability of the firm to recognize the value of new external information, assimilate it, and apply it to commercial ends" (Cohen and Levinthal, 1990: 128). Some efforts have been made recently to review the literature for re-conceptualizing the construct both from theoretical and definitional perspectives (Zahra and George, 2002; Todorova and Durisin, 2007; Lane, Koka and Pathak, 2006). "In fact although the concept of absorptive capacity was introduced earlier than that of dynamic capabilities, the former has been greatly influenced by the latter, and absorptive capacity is increasingly being positioned as a firm's dynamic capability" (Easterby-Smith and Lyles, 2011). Zahra and George (2002) define absorptive capacity as a "a set of organizational routines and processes, by which firms acquire, assimilate, transforms and exploit knowledge to produce a dynamic organizational capability." They were the first to make a distinction between potential absorptive capacity and realized absorptive capacity. Generally, internal processes, structures and capacities of SMEs are an important determinant for using external ideas, knowledge and technologies. The firm's disposition of absorptive capacity is a key precondition for inbound open innovation, while, "much of the literature views R&D as a necessary complement to openness for ideas and resources from external actors. It is less clear whether there could be a substitution effect, with openness replacing internal R&D" (Dahlander and Gann, 2010). That is to say, SMEs are required to have qualified R&D staffs so as to access and exploit the knowledge of outside partners. Nevertheless, some scholars propose that absorptive capacity is determined not only by R&D activities, but also by a set of internal factors (Vega-Jurado et al., 2008). In this context, the SMEs' internal management of knowledge is to affect the creation of their absorptive capacity in three ways: organizational knowledge including skills, knowledge and experiences processed by the firm which impacts the accumulative ability; the organizational routine on which the innovation trajectory depends; and the social integration mechanism which determines the ways that knowledge is diffused and shared (Vega-Jurado et al., 2008).

Unlike large firms that have enough resources to achieve economies of scale, SMEs are obliged to find ways for attaining such economies, which usually implies the use of external partnerships and networking. That is to say, due to their limited resources, SMEs have a strong incentive to search for alternative options to generate economies of scale, ensure the provision of support services, reduce the risk, increase operational flexibility, and to market their products effectively. The possibility to collaborate with other organizations is one method (Lee et al., 2010; Spithoven et al. 2011). Generally, SMEs may perhaps be more innovative and flexible, yet they could fall short of resources and capabilities. Large companies could be less flexible, but are likely to have resources for developing inventions into products and processes, while such resources act as a complementary asset for adducing SMEs to collaborate with them (Barney and Clark, 2007). Nevertheless, innovative SMEs are more inclined to create external networks with other SMEs and/or universities and private research establishments, since the strong links with larger companies may possibly limit alternatives and opportunities for them (Rothwell, 1991). In short, SMEs are expected to collaborate with external networks so as to attain strong innovation performance, and successfully develop and commercialize new products (Pullen, De Weerd-Nederhof, Groen & Fisscher, 2008). "In this aspect, one may focus on the following four approaches of open innovation, such as collective or pooled R&D, spinouts or collaborative development,

promoting products in partnerships and attracting similar actors to come forward for creating a positive ambiance through crowdsourcing (West & Gallagher, 2006)” (Rahman and Ramos, 2010). Finally, SMEs are considered less bureaucratic and are likely to have greater incentives to be successful than large companies which make them more appropriate as network partner (Michael & Palandjian, 2004). Nevertheless, question arises as to the way of organizing new product development in networks, since an SME needs the network to attain strong innovation performance at firm level (Pullen et al., 2008).

CONCLUSIONS

Across environmental conditions and industrial settings, innovation has been observed as a source of developing firms’ competitive position. Lately, we have witnessed a certain move from the traditional innovation model (i.e. companies rely on internal R&D to make new products) towards the open innovation model. That is to say, in the world of ample venture capital, labor mobility and the widely distributed knowledge, firms cannot afford to depend exclusively on their own research, but need to involve themselves in alternative innovation practices. Open innovation is the most recent concept in innovation management. As scholars are apt to use different definitions and concentrate their research on different aspects, it is quite difficult to make a coherent body of knowledge. Although researchers consider the open innovation to be valid for both large and small firms, so far it has mostly been studied for large, high-tech multinational enterprises. Small and medium-sized enterprises are obviously different in many innovation aspects. Any further research for open innovation practices in SMEs is therefore more than necessary. Based upon the preceding analysis and research findings, this paper attempts to identify the foremost challenges that SMEs perceive when adopting open innovation practices. With no pretenses to perform a comprehensive analysis of the factors affecting successful implementation of open innovation model in SMEs, it also highlights the importance of absorptive capacity and the possible collaboration in a value network.

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THE FLEXICURITY CONCEPT – CHALLENGE (AND) FOR THE SOCIETIES AND ECONOMIES OF SOUTH - EASTERN EUROPE

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Abstract

The Flexicurity concept theoretical and ideological - political is promoted as an alternative response to the concept the Labor markets flexibility. The Flexicurity concept theoretical is built basically to protect the welfare state in the rich european countries, mainly scandinavian, i. e. not to allow essential its destruction before the attacks by the neoliberal labor markets flexibility. The flexicurity concept did not completely negate the concept the Labor markets flexibility, the Flexicurity concept essentially accepts the concept the Labor markets flexibility, but that concept has merged into an organic unity with the fundamental determinations of the classic scandinavian welfare state - the determinations for social justice for the employees and for the unemployed and for active policies on the labor markets that include a balance of the rights and the obligations of the unemployed. The Flexicurity concept, just like the concept the Labor markets flexibility, basically should to play the role of a factor of the economic competitiveness in global markets through the enabling the labor markets to liberalize and deregulate, but on the other side, should basically to overcome the negative consequences of the concept the Labor markets flexibility on the status and the rights of employees and the unemployed, i. e. the supply of the labor markets. The Flexicurity concept basically should to enable to lower price of labor as a factor of the economic / market competition, but, at the same time, this determination should be put in balance with the social rights of the unemployed, i. e. whit the rights of the supply of the labor markets. For the countries of South Eastern Europe who are included in the process of integration with the EU is important that the Flexicurity concept is adopted by the EU and into that framework he conceptually is connected first with the Lisbon 2010 Strategy, and then with the Europe 2020 Strategy ("Strategy for smart, sustainable and inclusive growth")

Key words: Flexicurity concept, Labor market flexibility, welfare state, economic competitiveness, Europe 2020 Strategy ("Strategy for smart, sustainable and inclusive growth").

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INTRODUCTION

The great financial and economic crisis that exploding and extremely clearly began to manifest itself in the summer of 2008 with shooting the bubble of real estate market in the U.S., among other things, the maximal appeared to expose the issue of the appropriate policies and the necessary that should stretch the labor markets. The crisis with the strongest negative effects is manifested exactly like just as significantly increase in the number of unemployed, followed by the unavoidable social and economic tensions and destabilizing the social relations and loss of the legitimacy of social and the political institutions. The economic and financial crisis and the significant growth in unemployment as the direct and immediate result of the global financial and economic crisis and the strong wave and blow of recession, have led to generation, production acceleration of significant social lines, processes and tendencies of social exclusion. The growth in unemployment due to the global financial and economic crisis across overall structure of the organizing and institutionalizing of the global economy and global social and economic relations and constellations sowed and spread the seed the global economic and social distrust and negative expectations, among other things, placing it in the focus of the multiplicity of the societal science phenomenon of behavioral economics and necessity of interdisciplinary and multidisciplinary its studying, understanding and thinking. Hundred writers, probably is not a coincidence awarding the Nobel Prize for Economics in 2013 exactly on scientific creators who as your own narrower their interest to have precisely this phenomenon of behavioral economy. In conditions of distrust and negative expectations course that by definition the prospective corporate investors discourage and de - motivate to take the necessary investment steps and moves as anti - crisis and anti - cyclical action. Therefore has imposed the necessity and importance of anti – crisis and anti- cyclical actions of the state interventionism and the fiscal and monetary stimulus.

In such conditions of the growth of the unemployment completely normal and expected employment policies and labor markets get such global economic and social importance and climbed on top of the priority economic and total societal tasks and goals. These policies amid a global financial and economic crisis imperatively found themselves in the narrowest and most important one round of the policies that have become strong and without delay challenge for governments around the world, regardless of the actual force with which the crisis was manifested in certain societal and economic frames. The consequences of the global stag – deflationary crisis your own specific way felt by both developed and fast growing economies. In such economic and total societal circumstances, especially in circumstances of the significant growth in unemployment, i. e. in conditions of significant occurrences and tendencies of the social exclusion and global destabilization, scientifically – theoretic and ideological - political strongly has imposed the flexicurity concept as a fundamental alternative of the flexibility concept. The flexicurity concept showed that in certain social and economic conditions can be highly functional and to maintain the stability and inclusiveness of the social relations in general. Of course, that is not possible its mechanical transmission of each other in different social and economic relations and constellations, but of course it as a concept and as a theoretical framework can be an example and a orienteer of the rethinking, operationalization and implementation of the employment policies and markets labor that will be functional and effective in the direction of preserve of the overall economic and social stability and inclusiveness.

FLEXICURITY CONCEPT

The flexicurity concept has imposed as an alternative to the flexibility concept especially in the period after of the shooting bubble property market in the U.S. in the summer of 2008 and causing and the escalation of the global financial and economic crisis. This crisis, as completely naturally consequence of his stag – deflationary essence, resulting in the significant growth in the unemployment rate, with occurrences and tendencies of social exclusion and socially - economic instability and the loss of the legitimacy national political – parties elites and the national institutions of the political systems of liberal democracy (more on this, Hurd M. D. and Rohwedder S. , 2010, Nanto D. K. , 2009) .

The flexicurity concept, which worked quite successfully in the Kingdom of Denmark and in these conditions of global financial and economic crisis, naturally fit within the rehabilitation and resuscitation of the concept of state interventionism of J. M. Keynes – counter – cyclical and counter – crisis activation of the state interventionism in stag – deflationary conditions through the measures and activities of the fiscal and monetary policy and the stimulus aimed at growth of the aggregate supply and demand (more on this, Sasajkovski and Micanovska, 2011, Sasajkovski and Micanovska, 2014) . The state interventionism of the flexicurity concept and its successful functioning in these crisis conditions the turned to draw the attention toward the rehabilitation and resuscitation of the Scandinavian social state / welfare state and the reconsideration of the flexibility concept - a concept set to raise the position of the neoliberal free market with its steel rules and reducing the powers of the state interventionism and the social - democratic welfare state (more on this, Baldwin, 1989) . It must be noted that the flexibility concept does not completely destruct the position and powers of the welfare state, not completely negate the specified positive social - economic action of the state interventionism, but rather gives a clear and strong advantage the component of the policy of deregulation and liberalization of labor markets as an important factor of economic competitiveness and economic growth (more on this, Madsen, 2006) .

Unlike the flexibility concept, the flexicurity concept establishes significant symmetry and balance between the component of the deregulation and liberalization of labor markets, the component of social protection of the unemployed and the component of active measures on the labor markets. This practically mean establishing significantly level of symmetry and balance between the social - economic side of liberalization and deregulation of the labor market and the economic competitiveness and the economic growth and the side of the social - economic security, inclusion and stability (more on this, Andersen and Pedersen, 2008) .

It can be said that the flexicurity concept, such as designed, operationalized and implemented in the framework of the specific societal conditions of the Kingdom of Denmark, quite successfully sets and solves the equation of social - economic "golden triangle" , the equation of the "golden triangle" of the phenomenon of unemployment and the concepts and policies of reducing its negative social - economic implications, the equation of the " golden triangle "of the concepts and policies of labor markets.

It is the social - economic equation of the "golden triangle" of the concepts and policies of labor markets and reducing the negative social consequences which causing and catalyze the phenomenon of unemployment and which essentially establishes a productive and highly a functional symmetry and balance between the three sides of this triangle, an elementary defined in continuation (more on this, Bredgaard, Larsen and Madsen, 2005) .

SIDES OF THE “GOLDEN TRIANGLE”

So, the side of flexibility concept of labor markets, the side of their deregulation and liberalization, which primarily should result in a reduction of labor cost as an important factor of economic competitiveness and economic growth.

The side of the optimal level of the social protection of the unemployed, the level of the social protection that will provide a dignified life for the unemployed and simultaneously not to discourages seeking work.

And, as a third side, the side of the measures of state interventionism to labor markets, strong measures will be aimed at reducing the number of unemployed, side implies a balance of rights and obligations of the unemployed.

Obviously it can be concluded direction the first side towards realization of the interests and goals of the economic competitiveness and economic growth and its equilibrium with the second and third side which should lead to the realization of the interests and goals of the social inclusiveness, stability and security (more on this, Ibsen, 2011) .

In function of analytical reviewing and operationalization of the structure of the flexicurity concept which previously as the basic framework is presented, below need to be focused certain number of its essential the important features. Previously must be pointed out that the flexicurity concept can be recognized and in certain EU documents that are of strategic importance and determination - Lisbon Strategy 2010 and Europe 2020 Strategy. At this point must be noted and emphasized that the attempts within the EU for successful setting up and solving of the equation of the socially - economic "golden triangle" following the example the flexicurity concept substantive collide with quite large heterogeneity of the socially - economic development of the member states, including and within the eurozone.

Generally speaking these essential and the important strategic documents of the EU are trying to consider flexicurity concept as an integrated strategy to simultaneously enhance flexibility and security in the labour market. Flexicurity is designed and implemented across four policy components: flexible and reliable contractual arrangements, comprehensive lifelong learning strategies, effective active labour market policies; and modern social security systems providing adequate income support during employment transitions. All this is done in a context of high minimum wage and high average wage, besides clear progressive taxation.

So, if are talking to direction and sense of the more developed analytical consideration of the flexicurity concept, we highlight that he a means to reinforce the implementation of the Lisbon Strategy 2010, create more and better jobs, modernise labour markets, and promote good work through new forms of flexibility and security to increase adaptability, employment and social cohesion.

Flexicurity concept involves the deliberate combination of flexible and reliable contractual arrangements, comprehensive lifelong learning strategies, effective active labour market policies, and modern, adequate and sustainable social protection systems.

Flexicurity concept approaches are not about one single labour market or working life model, nor about a single policy strategy: they should be tailored to the specific circumstances of each Member State. Flexicurity implies a balance between rights and responsibilities of all concerned. Based on the common principles, each Member State should develop its own flexicurity arrangements. Progress should be effectively monitored.

Flexicurity concept should promote more open, responsive and inclusive labour markets overcoming segmentation. It concerns both those in work and those out of work. The inactive, the unemployed, those in undeclared work, in unstable employment, or at the margins of the labour market need to be provided with better opportunities, economic

incentives and supportive measures for easier access to work or stepping - stones to assist progress into stable and legally secure employment. Support should be available to all those in employment to remain employable, progress and manage transitions both in work and between jobs.

Internal (within the enterprise) as well as external flexicurity are equally important and should be promoted. Sufficient contractual flexibility must be accompanied by secure transitions from job to job. Upward mobility needs to be facilitated, as well as between unemployment or inactivity and work. High - quality and productive workplaces, good organisation of work, and continuous upgrading of skills are also essential. Social protection should provide incentives and support for job transitions and for access to new employment.

Flexicurity concept should support gender equality, by promoting equal access to quality employment for women and men and offering measures to reconcile work, family and private life.

Flexicurity concept requires a climate of trust and broadly - based dialogue among all stakeholders, where all are prepared to take the responsibility for change with a view to socially balanced policies. While public authorities retain an overall responsibility, the involvement of social partners in the design and implementation of flexicurity policies through social dialogue and collective bargaining is of crucial importance.

Flexicurity concept requires a cost effective allocation of resources and should remain fully compatible with sound and financially sustainable public budgets. It should also aim at a fair distribution of costs and benefits, especially between businesses, public authorities and individuals, with particular attention to the specific situation of SMEs (more on this, Philips and Eamets, 2007) .

EQUATION OF THE DANISH “GOLDEN TRIANGLE”

The Danish flexicurity model has its roots in the nineteenth century, when negotiations among employers and trade unions during the so - called September Compromise of 1899 (also called Labour Market Constitution) laid the ground for a mutually beneficial (profitable and secure) state. The “Constitution” was revised in 1960 and renamed Basic Agreement. It settled the freedom of trade union association as well as the managerial prerogative to manage and divide the work including the right to hire and dismiss the labour force at any time necessary. It is thus important to understand that the Danish model of labour market regulation, including the right to form associations, is based on these voluntaristic principles and that legislation or interference of the state is kept on a minimum. The right of association and the recognition of labour market associations are based on the mutual recognition of conflicting interests. The Danish tripartite agreements amongst employers, workers, and the state are supported by an intricate system that allows for an active response from the state, which supports the ‘activation’ of workers.

In the early 1990s, Danish policymakers established a fiscal policy aimed at breaking the unemployment trend of the time and was further coupled to the first active labour market policy (ALMP) of 1994 which sought to reduce structural unemployment. Although some believed that the natural unemployment rate had simply increased, the Danish Government sought to improve the situation by implementing what came to be called the flexicurity model. The policy shift thus came about with the 1994 and 1996 labour market reforms, when the introduction of flexibility was linked to security through the continued provision of generous welfare schemes as well as the “activation” of the labour force through a set of ALMPs. Activation in Denmark is regarded as “a right and an obligation”. The effects

expected from this combination were twofold: qualification effects of the labour market policies (LMPs) as well as motivational effects through the welfare schemes.

The unemployment benefits and training provision that this system entail place a higher burden of taxation upon the higher - earning members of the Danish society. Denmark currently has high taxation rates which in part pay for generous social benefits. Flexicurity may thus favour low - to middle - income earners. However, this might partially be offset by Denmark's high - output growth which is coupled to low unemployment figures (2.8% in 2008) and similarly low social - exclusion rates. In recent years, Danes have been consistently ranked as the happiest nation on Earth, which has in part been attributed to aspects of Denmark's flexicurity model.

It is important to notice that Denmark has among the highest minimum wage in the world (more on this, Madsen, Bredgaard, Larsen and Rasmussen, 2010) .

In the context of the topic of this paper, as a conclusion of this part thereof to the, to be noted that the equation of the Danish "golden triangle" was successfully set and solved of the positions and within the flexicurity concept, primarily and essentially because, among other things, in Denmark there is a tradition of decades of established, developed and stable welfare state, followed by a quite strong trade unions, with strong consensual a political will (and from side of the ideological - political left and from side of the ideological - political right) to preserve benefits of the welfare state in terms of developed economy and materially rich society.

THE FLEXICURITY CONCEPT AND THE ECONOMIES OF SOUTH-EASTERN EUROPE

The flexicurity concept is certainly relevant and in the case of the countries of South - Eastern Europe. These are countries that realization and satisfaction of their basic state and national interests see and understand through the instrument of the membership in Euro - Atlantic integrations. They still in the stages of accession to the EU will contend and are contend with the gradual acceptance and implementation of the complex policies, along with the multitude of its strategies, norms, directives and various other documents. Thus will contend and with the policies and the abundance of various documents relating to the employment policies, labor market, social security and welfare, of. . . In these frameworks inevitably will contend and with the flexicurity concept and the flexibility concept, strictly speaking, with their a conceptual, an ideological and a political opposition. The strategic documents of the EU in these social - economic areas, primarily Lisbon strategy 2010 and Europe 2020 strategy, when completely objectively and realistically will be analyzed and evaluated, inevitably are concludes that represent a compromise attempt for merging into one a whole unit of the determinations and of the neoliberal labor markets flexibilizations and the determinations of the social state interventionism, i. e. the social democratic welfare state. These strategies conceptually attempting to build a framework which as its completely relevant component will include the component of the state interventionism aimed at providing social justice, social stability and social reliability. This conclusion applies particularly to the Europe 2020 strategy, which itself is defined as "Strategy for smart, sustainable and inclusive growth" . So, this is a strategy for economic growth which will be inclusive growth, i. e. growth that will produces new jobs, growth that will reduces unemployment, growth that will lead up to the strengthening of the social justice and welfare and up to strengthening the social stability and reliability (more on this, Sasajkovski and Micanovska, 2011) .

Of course that these documents as strategies need to be operationalized into concrete policies whose specific purpose and sense will be economic competitiveness and economic

growth in the bottom line. In that point intersect series of specific organizational and institutional characteristics, i. e. weaknesses and flaws of the EU. Weaknesses, of course, from the standpoint of those political and intellectual structures who are the positions of European federalism, optimism and enthusiasm. The organizational and the institutional structure and construction of the EU, i. e. its insufficient construction and development as a real state, not allows to define, to legalize and to implemented constitutionally - legal structure and certain policies by which you will realized and materialize their conceptually and ideological determinations in on the total social static properties and dynamics.

At the same time, in line with the organizational and the institutional nature and structure of the Union, it has no concrete competencies and policies in the areas of employment, labor markets, social justice and welfare, social stability and reliability. Exactly these areas and these policies, together with the fiscal area and the fiscal policies, are social areas and policies that the EU Member States the most and most strongly insist on preserving its state and national sovereignty, these are areas and policies that are least prepared, as exercise certain powers, to transfer and delegate of the institutions and authorities of the Union (more on this, Clasen, 2006) .

So, for the countries of south - eastern Europe on their way to full EU membership the flexicurity concept not is a challenge primarily in the sense of a legal framework which must to be strictly respectful and to be implemented. This concept as a challenge to these countries primarily is imposed by is one other social - economic side, especially when it is imposed strongly challenge of the second and the third side of the "golden triangle" . All these countries during the transition period of one (referenced as socialist) in another (referenced as capitalist) social system actually were forced to cooperate with the IMF and WB. This collaborative, especially the cooperation with the IMF, course that was placed the neoliberal conceptual foundations. The economies and societies of these countries have passed through the process of establishing macroeconomic stability (set of nominal anchors which have a structure of monetary aggregates - maximizing the rate of inflation, maximizing the budget deficit, maximizing the public debt and the stability / fixedness of the national currency, and it all as an expression of monetary nature of the neo - liberal concept) , privatization, deregulation and liberalization (more on this, Orenstein, 2009) . The fact is that one of the most important products of like this the conducted transition of national economies and societies of these countries, something as collateral damage, was reduction of socialist welfare state. These states and societies were victims of the wave of recession, unemployment, deindustrialization, brain drain. . . Summarized it all led to a devastating wave of social exclusion, wave of social instability and uncertainty, wave of de - legitimization of the institutions of the new (a referenced as liberally democratic) political system, the wave of de - legitimization of the new political - party structures, the wave. . . All these countries were brought to a situation, within of the requested social - economic structural reform, to must implement policies of flexible labor markets, that means are emphasizes the superiority of the first side of the "golden triangle" of the labor market and noticeable are marginalize his second and third side (more on this, Sanfey and Zeh, 2012) .

If it can serve as some sort of a specific consolation, of this place can be emphasized that the neoliberal reforms of labor markets, i. e. the flexibility of these markets, as one of the most important elements from the complex of the social - economic structural reforms, are imposed even the economies and labor markets and of some of the developed economies, which face long lasting cycles of crisis of competitiveness of the national economy, with recession and with unemployment. This conclusion primarily refers to the economies of France and Italy (more on this, Lusinyan and Muir, 2013, Vranceanu and Barthelemy, 2011) , using as an example should be followed are listed the reforms of the pension system (

Riester reform) and labor market (Hartz reform) that were conducted in F. R. Germany (more on this, Sasajkovski and Micanovska, 2013).

CONCLUSION

The flexicurity concept imposes itself as a quite relevant an alternative to the flexibility concept in the period after of the great financial and economic crisis which has escalated in the summer of 2008 after shooting the bubble of the real estate market in the United States. Although it is an undisputed fact that the flexicurity concept is conceived, modeled and implemented successfully within the social community and state, the Kingdom of Denmark, which is essentially characterized by high levels of economic growth and development and with high levels of understanding and respect for the social justice and the welfare state. The fact is also that this the social - economic concept, as well as anyone else such concept, cannot successfully take passed and implemented of mechanical and linear way in some other economic and total societal conditions, different of the Danish and general of the Scandinavian. However, this concept at least as a framework shed light and the traced the way along which you have to go the understanding and solving of major social – economic crisis conditions, trends and tendencies, particularly those conditions of labor markets.

The Danish society and the Danish state is one of the societies and the states where it emerged, where it develops and where are confirmed through the everyday economic and social life concepts of social - market economy and the welfare state. These are the concepts of the Scandinavian social - market economy and the Scandinavian welfare state which in the whole period after World War II successfully were functioning operated and which have resulted in establishing, developing and validating of economies with high growth and development and whit societies of social - economic welfare. These concepts preserved their successfulness and in the period the global penetration and imposition of neoliberal concepts of Thatcherism and Reaganomics as thoroughly competitive economic and a social - economic concepts. The Scandinavian societies and states have shown extremely high level of resistance before the neoliberal social - economic concepts.

The Scandinavian societies and states never gave up his concept of understanding, modeling and implementation of togetherness and unity of the social - economic policies of the state interventionism and the action of the legalities of the free market. It are societies and states which successfully found, define and implement continuous whit high level of success its specific social - economic mode of enabling the entirely favorable conditions for competitiveness and growth of their economies in togetherness and unity with the achieving of also a high level of social - economic security, stability and welfare.

On the basis of this concept of social - market economy and society these societies and states essentially reached and solidified his viewing, his understanding and his response to the problem, dilemma and question the establishment and provision of overall social balance, stability and security. On the basis of this concept these societies had based and operationalized their truth regarding the problem, dilemma and question of achievement and ensuring at an optimal level of overall social functionality.

In this economic and total societal context completely and naturally fits well the flexicurity concept that allowed, primarily in the Kingdom of Denmark, challenge of the great financial and economic crisis, primarily its negative consequences in terms of the emergence of the stag – deflation and in terms of the unfavorable contractions labor market, to be resolved this social - economic challenge with full readiness. The flexicurity concept has functioned and is functioning quite successfully through resolving and overcoming the adverse conditions, movements and tendencies of the Danish labor market.

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**CONSIDERATIONS ON IMPROVING THE ENERGY OPERATORS EFFICIENCY BY
BUSINESS PROCESS REENGINEERING. CASE STUDY: ROMANIA AND FYR OF
MACEDONIA**

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Abstract

In the early 1990's, the concept of "Business Process Reengineering" (BPR) was first introduced by Michael Hammer and James Champy. Nowadays, many projects aiming a better management focus on better processes, as obtained by reengineering the existing ones, using different techniques. This paper approaches this aspect of the management processes redesign in a field which has been (and still is) highly regulated and ruled by bureaucratic laws: electricity production and distribution. Introducing the corporate management in this field is not always possible but, up to some extent, it is desirable, both because the competition occurred and is growing but also due to the globalization of the energy market. Processes control is necessary for almost all processes run at the level of the energy operators, concerning production, distribution and trading. This paper identifies the most important aspects to be taken into account in order to implement corporate management redesign and especially BPR in the energy sector of Romania and FYR of Macedonia, emphasizing the resemblances and differences between the two cases and offering recommendations for fulfillment of this approach.

Keywords: Business Process Reengineering, electricity production and distribution, Management Information System, cost optimization, corporate management in state-owned companies

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INTRODUCTION

This paper broadly presents the opportunities for energy operators to implement management reengineering with focus on the production and distribution processes in Romania and FYR Macedonia. We consider this topic innovative through its energy-efficiency approach and through the new outlook on corporate management in state-owned companies. Therefore, BPR simulation below aims to estimate results on cost optimization, time saving and energy losses reduction in electrical power systems.

Electricity industry in Southern Europe is currently facing cost control challenges, both as a result of losses in the supply chain, and because the level of funding in sustainable energy is still low. Therefore, operators often develop strategies to reduce additional investments, produce less and save energy.

Romanian energy legislation, even as part of EU, doesn't entirely transpose the European rules and standards. Beside the national targets for efficiency and use of renewables, there is a steady problem of electricity losses, which have been rising as a result of electric power demand increase. Moreover, the Romanian distribution network faces challenges like a high degree of physical wear, or even damages caused by energy or components robbery. Hence, there is an urgent need for further investment and improvement in terms of energy performance for buildings, while the main policies in the area should be based on the large (industrial) consumers energy audits. But perhaps the most direct way to improve the competitiveness of national energy field is to redesign the corporate management for each category of actors in the supply chain.

FYR of Macedonia is making significant progress regarding the national system of renewable energy, while the most substantial investment in the area aims the hydro plants. As well, Macedonian energy policies are focused on greater flexibility, new generation capacities and decrease of consumption. However, important problems, such as an unfavourable energy mix with a high prevalence of lignite, a strong dependence on energy import, poor condition of the energy system and inefficiency in energy production and use, remain in the sector. As contracting party of European Energy Community, Macedonia needs to prioritize the corporate management for its national electricity operators.

There are many aspects that make classical management techniques no longer sufficient when it comes to new challenges in the global energy system. Given the consumption-based pricing models, speed-to-market and the need of information sharing, one of the most competitive innovations can be the use of BPR, on various management levels. Intensifying global competition, combined with volatile economic, regulatory and market conditions means that energy companies have to generate higher performance and greater operational agility, with costs reductions.

As a structure, this paper identifies the main needs in terms of electricity production, distribution and consumption for two countries of the Balkans, Romania and FYR of Macedonia, where all these processes are pretty expensive for the stakeholders and slowed down by bureaucratic laws. Subsequently, the article explains the advantages of a redesigned management, employing the cloud computing technique, given the fact that BPR for large utilities producers is currently revealing its first benefits in US and Western Europe. In the end, the paper aims to quantify the differences between the classical, usual corporate management and the one based on reengineering, highlighting the cost optimization effect of the latter. The main purpose is to offer a feasible management alternative for the two countries energy system, starting from their own shortages.

LITERATURE REVIEW BUSINESS PROCESS REENGINEERING

It is argued by some researchers (for example, van Meel et al., 1994; MacIntosh and Francis, 1997 etc.) that there is no commonly agreed definition of BPR. However, Yih-Chang Chen (2001, “Empirical Modelling for Participative Business Process Reengineering”) considers BPR a concept which focuses on integrating both business process redesign and deploying IT to support the reengineering work. S.L. Mansar (2007, “Best practices in business process redesign: use and impact”) identifies 6 components which must be linked through this technique:

- 1.the internal or external customers of the BPR,
- 2.the products(or services) generated by the BPR,
- 3.the business process,
- 4.the participants in the business,
- 5.the information used or created by BPR and
- 6.the external environment, other than customers.

BUSINESS PROCESS MANAGEMENT

Process management is a structured approach to performance improvement that centers on the disciplined design and careful execution of a company’s end-to-end business processes. Business process automation, often labelled BPM (Business Process Management), is a growing activity, albeit one which tends towards a narrower, IT-centric, context. As M. Hammer (2002, “Process Management and the future of six sigma”) noticed, process based interventions, in particular, Six Sigma (Six Sigma provides a way of measuring the variability in a process as it delivers services to an end-user or customer), are becoming more and more popular, although doubts remain as to the durability of such interventions in the absence of a process management framework. Most people think of BPM as the logical continuation of the interest in business processes that started in the Eighties and reached a crescendo in the mid-Nineties with Six Sigma, Business Process Reengineering, Workflow and ERP software. According to Z. Dabaghkashani (2012, “A Success Model for Business Process Management Implementation”) , BPM helps organizations by providing real benefits such as: automation of standard procedures and processes, ability to visualize, simulate and trouble-shoot Business Processes, manage and monitoring the performance of operations and personnel.

THE ENERGY FIELD APPROACH

As most of the industries, energy sector is very likely to migrate to management redesign and especially to cloud computing use. We consider that the large number of entities involved in the energy field and power systems – producers, distributors, infrastructure and auxilliary services providers etc. – is the main reason why they should employ process orientation more and more. Currently, national and international operators are looking for ways to optimize costs, reduce losses and process duration, modulate prices or even interact with users/consumers through IT platforms. Watson and Howells (2012, “Energy Informatics: Initial Thoughts on Data and Process Management”) observe that there is a need of a new discipline, Energy Informatics, whose goal is to stimulate research in reducing energy consumption through practical solution and power of information systems.

Even if some large energy (electricity) corporations in countries like USA or UK have already virtualized their internal infrastructure, the great majority have yet to implement the full-scale automation in terms of process design and simplification. This is also the case for Romania and FYR of Macedonia, where such system is still incomplete as respects automation of standard procedures and management processes.

METHODOLOGY

Firstly, it’s important to clarify our future working concept, the *smart grid*. It generally refers to a class of technology used in order to bring utility electricity delivery systems into the 21st century, using computer-based remote control and automation. When talking about energy operators, this communication technologies are quite new in process development, despite the fact that they have been used for decades in another industries. There is a wide category of actors in the power system which has begun to use smart grids, from the power plants and distributors, to business and non-business consumers. The table below exposes some of the benefits a smart grid could bring as against a classical one:

Table 1. Traditional grid vs. Smart grid in terms of efficiency

	Traditional grid	Smart grid
Communication and control infrastructure	<ul style="list-style-type: none"> Technology: Data transmission along the power grid (for example, unidirectional control of demand) Purpose: Remote (fault) sensing and substation switching Metering: Mainly manual meters 	<ul style="list-style-type: none"> Technology: Multidirectional broadband-communications network Purpose: Enabling smart features such as remote performance analysis and automatic remediation, and demand-generation matching Metering: Digital smart meters (active remote-control and remote-readout devices)
Grid and energy-management-software solutions	<ul style="list-style-type: none"> Systems support the operation of manual control centers (from network control stations) <ul style="list-style-type: none"> Monitoring and remote-sensing systems Manual remote controls and switches 	<ul style="list-style-type: none"> Systems provide "intelligence" that facilitates smart-grid behavior <ul style="list-style-type: none"> Power routing and flow optimization Pricing for feed-in and consumption
Energy infrastructure	<ul style="list-style-type: none"> Power is distributed to customers from central sources and power hubs <ul style="list-style-type: none"> Tree-shaped structure Slow response to changes 	<ul style="list-style-type: none"> Power is distributed between central and decentralized elements, sometimes switching the roles of source and consumer <ul style="list-style-type: none"> Mesh-and-ring structure Fast response to changes
	Run by grid operators	Competition from new players

Source: Boston Consulting Group

Considering all these classes of benefits, we will detail the energy management approach, with focus on flow optimization, basically because it is the starting point for another advantages, such as cost control, energy saving or fair taxation.

The next evolution of smart grids technology will allow all the actors involved in the power system to control usage, through *demand side management* (DSM). DSM is a set of interconnected and flexible programs which allows customers a greater role in shifting their demand for electricity during peak periods. Overall, operators that develop DSM techniques do it because it also helps them to reduce further investment in generating capacity. Development of energy management programs ensure reduce the pressure on energy resources, including on imports of primary energy resources, improving energy management (through the introduction of energy consumption modern tracking and production processes automating), more efficient use of energy and delaying investments in new power generation capacity.

Types of demand side management include:

- Demand controllers to automatically react to control peak demand
- Control and cycling of equipment
- Behavior modification
- Thermal energy storage (TES) systems such as ice banks for air conditioning
- Back-up generators
- Renewable energy integration

Further, we will explain a gross example of reducing daily peak demand by load leveling using DSM:

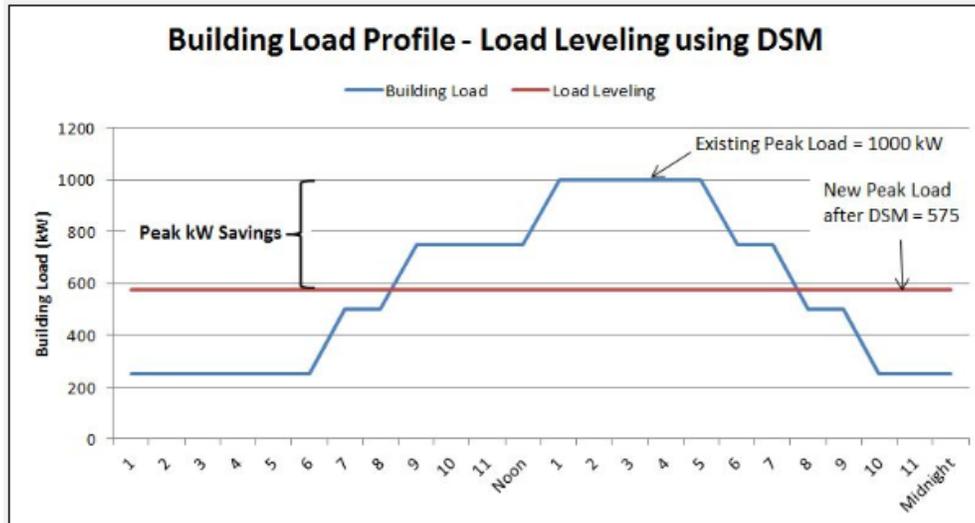


Figure 1. Load leveling using DSM, during one day

The blue line represents total demand / consumption during a whole day and this demand function reaches its maximum value around noon. The red line describes an ideal situation of a constant demand, which may occur as a result of DSM techniques listed above. As one can notice, the peak load decreases from 1000kW to 575kW. Many statistical modulations and even real examples (cases from USA or Australia) have shown that, overall, the electricity consumption doesn't lower, but becomes more balanced. Moreover, the peak load decreases and this can lead to a substantial benefit: the households and business' bills lower (because it costs the utility more to produce power during on-peak hours of high energy demand).

RESULTS

Given the fact that both Romania and FYR of Macedonia face similar difficulties in their attempt to boost energy efficiency, we argue that investing in DSM techniques could be lucrative and safe on long term.

Among common issues of both countries there are problems like consumption behaviour, the need to upgrade capacities and plants and the fact that , in the past, DSM measures were applied unsystematically. Describing this type of management technique and its consequences can be resumed as Figure 2 shows:

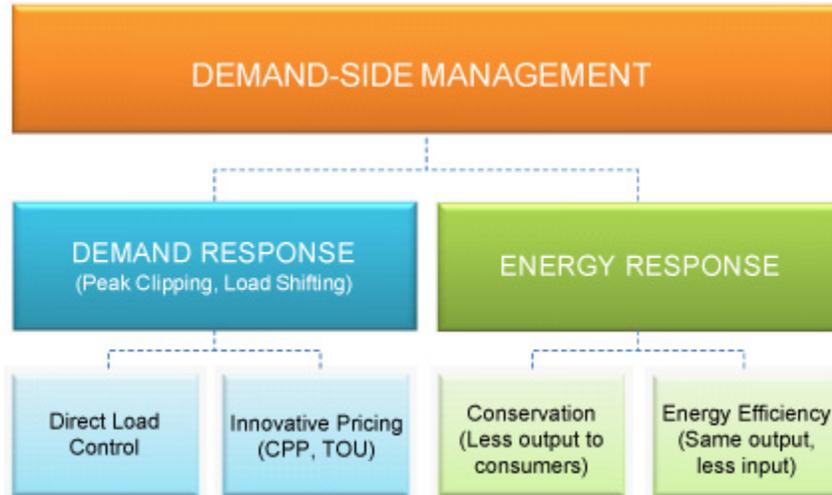


Figure 2. Responses for Demand Side Management

Therefore, DSM has potential benefits on two main coordinates: the economic changes caused by demand and supply variation (demand control, average price decrease on energy market etc.) and the environmental dimension (diminish impact associated with greenhouse gas emissions).

BRIEF SW ANALYSIS OF DSM USE IN MACEDONIA AND ROMANIA

On the whole, some of the DSM benefits could be:

- Cost reduction: many DSM and energy efficiency efforts have been introduced in the context of integrated resource planning and aimed at reducing total costs of meeting energy demand.
- Environmental and social improvement: energy efficiency and DSM may be pursued to achieve environmental and/or social goals by reducing energy use leading to reduced greenhouse gas emissions.
- Ameliorating problems in the electricity network through reducing demand in ways which maintain system reliability in the immediate term and over the longer term defer the need for network augmentation.
- Improved markets: short-term responses to electricity market conditions (“demand response”), particularly by reducing load during periods of high market prices caused by reduced generation or network capacity.

But there are also some barriers concerning DSM:

- Monopolistic market structure, both in Romania and Macedonia, which might lead to traditional and inefficient tariff structure.
- Lack of proper incentive schemes to consumer on using energy efficient appliances and utility to implement DSM solutions.
- Low awareness among consumers about the efficient use of energy.

IMPLEMENTATION THROUGH BPM

Basically, DSM tools depend, to a large extent, on IT platforms, new generation apps and on cloud computing. Subsequently, management redesign will involve the automation and power of information systems for the following aspects:

- develop end-use demand forecasting
- review cost sharing and viability option
- (pilot and large scale) programme selection and design
- management and evaluation for the programme

CONCLUSIONS

Electrical grid has been facing important challenges regarding quality and quantity to meet the increasing requirements of consumers. Environment friendly and economical generation along with efficient consumption through effective DSM in future smart grids will help in addressing most of these challenges because of integration of advanced information and communication technologies.

Romania and FYR of Macedonia are two countries with short tradition in terms of energy efficiency policies and consumers awareness. In the same time, they both have potential for a larger renewables use but need substantial investment to take advantage of it and to reduce the energy imports dependence. For these reasons and not only, techniques such as smart grids and side management are currently worth being applied and could be somehow seen as an “investment to avoid a larger investment”.

To conclude, we argue that IT infrastructure to fulfill this approach is affordable and benefits target many aspects: the local energy market, consumers and energy intensive industries, producers and power plants and also the whole environment. Therefore, DSM and the concept of smart grid, even if difficult to be entirely implemented, are one of the most innovative and productive ways to redesign corporate management in this complex sector.

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REENGINEERING THE MANAGEMENT SYSTEM IN SMALL AND MEDIUM ENTERPRISES

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Abstract

Adaptability should be one of the major advantages of the Small and Medium Enterprises (SMEs) and we expect to see such firms continuously developing in an environment which favors permanent adaptation to the turmoil of different crisis and transitions. Unfortunately, the reality shows that both in Macedonia and in the surrounding countries – UE members or not- there are hundreds of SMEs closing every year even their products and services are really needed. Instead, these products and services are imported at high costs or replaced by more expensive substitutes, in both cases rising the daily expenses of people or other companies. This situation, paradoxically in some ways, is due to the lack of management knowledge at the level of SMEs and consequently to the difficulty to initiate and manage efficient changes.

In the Republic of Macedonia almost 98% of the companies are small and medium enterprises and for the Macedonian economy it is very important that the SMEs have the capacity to innovate. The need for change is high and this is why reengineering is becoming fundamental for all organization. In this paper we propose a simplified methodology for reengineering the management system in such a company, based on a process approach of Business Processes Reengineering, affordable for those who cannot afford a consultant to do that and recommended for the first stages of the development of a SME.

Keywords: Business Process Reengineering, Small and Medium Enterprises, Improvement

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INTRODUCTION

Business process reengineering, considered like a major change within the life of enterprises, has a very important role for the success or failure said enterprises where the change has occurred. I consider in many cases as last solution to the major of challenges of the market is the business process reengineering. Many companies become successful in reengineering their business processes.

This paper answers series of these questions concerning the reengineering process in Small and Medium Enterprises. Respective: What is business process? What is process redesign? What is business process reengineering? It is possible to apply reengineering successfully in Small and Medium Enterprises? Can methodologies concerning reengineering developed the companies?

BUSINESS PROCESS MANAGEMENT (BPM)

Business process management represents a measured, structured set of activities designed to produce a specific output for a particular client or market. Business process is thus a specific ordering of work activities space and time, with a beginning and an end, were inputs are generating the outputs.

A business process is a collection of activities that takes one or more kinds of input creates an output is a value to the customer. (Hammer and Champy, 1993).

According (T. Davenport, 1993) Business process are structured, measured set of activities designed to produce a specific output for a particular customer or market. It implies a strong emphasis on hoe work is done within an organization, in contrast to product focus's emphasis on what. A process is thus a specific ordering of work activities across time and outputs: a structure of action. Taking a process approach implies adopting the customer's point view. Business process are the structure by which an organization does what is necessary to produce value for its customers.

Business process management-process lifecycle, has eight steps that should be followed in fig.1 when setting up a process within a BPM frame work:

1. Identify the process
2. Model the process
3. Discuss, audit, review the process
4. Automate the process
5. Implement the process
6. Track the process
7. Optimize the process
8. Dismiss the process

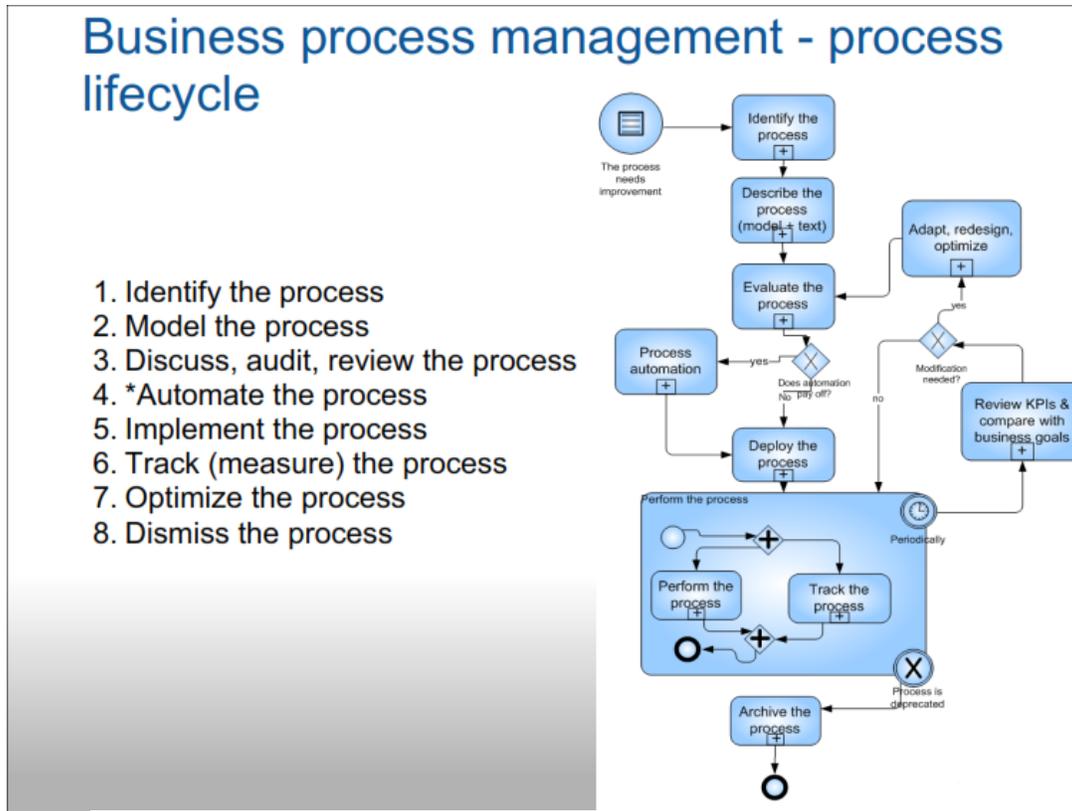


Figure 1 Source (Certified Business Process Manager Training Material Committee)

BUSINESS PROCESS REENGINEERING

The term “Reengineering” first appearance was in the IT filed in 1990. Many enterprises adopted Reengineering as useful tools to become more effective and efficient, and it is still getting adopted by more and more organizations nowadays; it has become imperative for survival. Business Process Reengineering is behind a lot of successful stories such as: it was adopted by many wellknown companies such as Ford, Dell, HewlettPakard...etc,

Business process Reengineering (BPR) is the redesign and analysis of workflow within the companies (Hammer and Champy, 1990). At 1980s after the global recession, many companies and enterprises across the world made the attempts to revitalize their performance. Business Process Reengineering is “the analysis and design workflow and processes within and between organizations” (Davenport &Short 1990). The term reengineering process is used by large consulting firms around the world in helping their client to restructure business and improve operation. According to Ovenden (1994,p.56) reengineering is “ a fundamental re-appraisal of the purpose of process involved, with no holds barred, and putting in place what might radically change organization and operations”. Hammer and Champy(1990) defined reengineering as follows in their book *Introduction to Business Process Reengineering*, Business Process Reengineering (BPR) as analysis and redesign of workflow within and between enterprises. I consider in many cases as the last solution to the major of challenges of the market is the reengineering.

How to improve the organization’s outputs?

Continuous improvement is the part of any company’s strategy. Usually we talk about: improvement of efficiency, market share, sales, customer satisfaction> company output. Is the

way we business now the best way? Can it be optimized? Can it be improved? Optimization refers to the selection of the best option out of a set of available alternatives. Automation will help any business process to choose the best element out of given alternatives, faster and easier, while reducing costs, time and stress. Optimization and automation of any process requires project management approach. Vision, structure and requirements have to be established. The road map needs to be created.

LITERATURE REVIEW

The literature review of this article was obtained by the reputable published source. The literature sourced dated back in the '90s, from the authors who are the fathers of Business Process Reengineering. The more recent literature (2000-2014) developments in the Business Process Reengineering theory of the last period, different case studies on SMEs, where reengineering was implemented, were analyzed using a quality methodology.

METHODOLOGY

Hammer, M. and Stanton, S.A defined reengineering as “Fundamental rethink and radical design of business process to bring out dramatic improvements in performance.”

According to this definition the authors are talking about radical redesign or re-think of the existing business processes in the organization. There are many steps involved in the process reengineering, we can see those steps in the following figure.

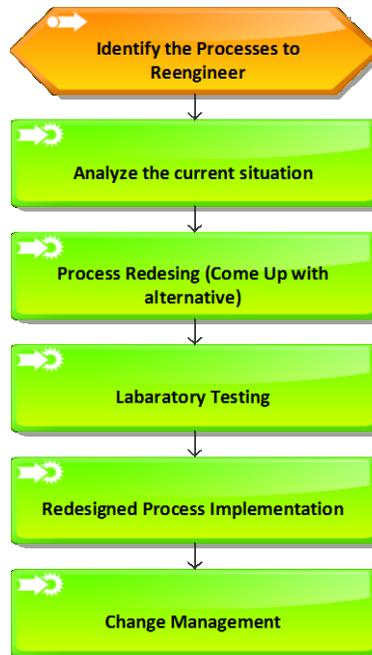


Figure 2 Steps in Business Process Reengineering (Aris Express)
Source (Hammer, M. and StantonS.A)

The steps in the business process reengineering are explained in Figure 2. For The Business Process Reengineering, one should identify the processes in the organization to be

redesigned. The results from the business process reengineering can increase in profits, improvement in quality and service, reduction process duration, reduction costs.

The business process reengineering literature is associated with large-scale innovation. M, Hammer and J, Champy (1993) identify four fundamental key activities associated with reengineering:

- Dramatic improvement in business process;
- Business process redesign;
- A radical change in business process;
- A process orientation.

Success of reengineering depends on the successful streaming and identification of process that value to the services or the products being provided. The reengineering efforts must focus on the cost or proceed sides of business. Another key activities associated with reengineering is starting over approach. The seventh activities of reengineering is Strong leadership. The support and responsibility from the top management is the results of the success or failure of process reengineering project. The following are the premises regarding the redesigning process:

- Managerial modernization inside the organization is necessary for superior qualitative parameters for management system;
- Management consultants;
- Analyze SWOT as a managerial methods;
- The top management has to established the change program.

BUSINESS PROCES RE-ENGINEERING (BPR) FOR SMALL BUSINESS

Business process reengineering for small business is the BPR method adopted by *JC Management Consulting Co., Ltd* for small businesses. BPR is a common term used by many consulting firms around the world

According *JC Management Consulting Co., Ltd* the answer of the question “How many of small or medium size business people could really understand about strategy? Most of them manage their business solely on hard bother about the world of “strategy” which especially in under developing countries business environment. What they usually believe in business success is to be hands on, always in control and hard work. And work, and usually their owner is the leader, manager and worker by own self. Most of the success SMEs people are hands on person, and most likely they do not even expect their staff of worker to be the same.

Confirm figure 3 and figure 4 *JC Management Consulting* are reengineering the business process SMEs just is turning the above charts upside down with further modification.

Figure 3

Source (JC Management Consulting Co., Ltd)
Reengineering the business process in large companies

Figure 4

Source (JC Management Consulting Co., Ltd)
Reengineering the business process in SMEs

RESULTS

This section presents the main findings of the study, namely we have developed the following methodology regarding the business reengineering process in SMEs.

- Company diagnostic
 - Diagnosing the main activities (commercial activities, human resource activities, production activities, etc.)
 - General diagnostic (its refer of the general indicators of the organization)
 - Diagnostic methodology to identify the main strong and weak points of the organization, for giving recommendations.
- Using of the knowledge-based strategy.
 - Knowledge is the main for all resources (objectives, resources, competitive advantage, mission).
 - Choosing, defining and elaboration the global strategy of the company.
- Reengineering management system process
 - Established the specialists's team for process reengineering: choosing the members; learning the reengineering methodology; defining the main changes; elaboration action plan of the organization for reengineering.
- Reengineering the informational system: the reengineering team should identify the software and hardware and implementsophisticated software ex. ERP, CRM, SAP.
- Reengineering the methodological system: selection the managerial system; Improving new management methods - SWOT, brainstorming etc; introducing the classical methods- meeting, delegation.
- Reengineering the decisional system: Improving new decisional list for each coordinator.
- Reengineering the organizing system: establishing the organizational structure; reengineering the tasks, posts and organization chart.

The last steps are implementing the new system after the reengineering, evaluation the efficiency and efficacy of the system. We consider these phases should be examples for implementing of business process reengineering.

CONCLUSION

Many organizations in Macedonia and elsewhere need to reengineer their process to improve the efficiency. Based upon the study findings, the researchers have formulated recommendations for organization implementing Business Process Reengineering. Implementing the BPM in Small and Medium Enterprises methodology would be like a benefit for companies to designing, modeling, monitoring and optimization of business process. Business Process theory has involved in the past few years and Business Process Reengineering represents a potential new solution for organizationAlthough Business Process Reengineering is very difficult to implement to the SMEs, this article tried to establish main steps that should not be omitted in BPR implementation.

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BUSINESS CASE: FROM IAAS TO SAAS

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Abstract

Cloud computing has become not only a scientific novelty, but also a business driver for companies. Companies can significantly reduce their CAPEX and OPEX if they migrate their business information systems on cloud. Since the cloud offers a variety of services, it offers new and huge opportunities for business growth. That is, a company can rent some hosting services (for example, virtualized server resources organized in virtual machines) of one cloud provider, deploy some business information system there and sell its services (now as cloud-based) to other companies. In this paper, we analyze the cloud service offers on the market, their pay-as-you-go models, and we model the cloud services reselling from cloud hardware resources (Infrastructure as a Service) to cloud scalable and elastic application (Software as a Service).

Keywords: Cloud economic, business model, IaaS, SaaS.

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INTRODUCTION

The dynamic life that we are living in has reached the zenith of the companies' powerful servers and data centers to serve their business information systems. The unpredictable number of company customers in a day, or even in a second, has enforced the emerging new concept in ICT where the companies can focus on their main business, rather than on administering or maintaining very complex IT and network computer systems.

Moving the powerful and expensive computing and storage resources towards the companies, in order to support their companies' Enterprise Resource Management (ERP), Customer Relationship Management (CRM), or Ticket Management Systems (TMS) has decreased. Companies could not predict well the size and complexity of the equipment, as well as the software that can support their business, which can grow to the sky or crush to the bottom of the sea even in a single day. Their ICT equipment will be usually underutilized at the beginning of their business, or over utilized in their peak business growth.

The cloud computing paradigm is an excellent ICT solution for companies' business. Several definitions of cloud exist in the literature. It is a parallel and distributed system with a set of interconnected and virtualized servers that are dynamically provisioned as one or more unified computing resources, which is based on Service Level Agreements (SLAs) established through negotiation between the cloud service provider and its consumers (Buyya et al., 2008). Another definition comes from NIST, where it is defined as a model, by which the provider enables ubiquitous, convenient, on-demand network access to a pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction (NIST, 2011). These definitions mean that companies should not buy IT systems, build expensive and secured data centers and server farms any more, but they can rent a virtualized server whenever they need, and release it when they do not need it any more. Once a company increases its business, it will rent more computing or storage resources in a minute, without employing system administrators, and if for a reason they lose the customers, they will make free of some resources to reduce the cost.

The cloud service providers offer their cloud services in three main layers: (1) Infrastructure as a Service (IaaS – virtualized servers replacing the hardware equipment of data centers), (2) Platform as a Service (PaaS – virtualized machines with preinstalled special platforms to deploy their own business information systems), and (3) Software as a Service (SaaS–some already developed and deployed elastic business information system ready to start working). For example, some of the most common IaaS providers with their products are: Amazon AWS, Microsoft Windows Azure, Google Compute Engine, Rackspace Open Cloud, IBM Smart Cloud Enterprise and HP Enterprise Converged Infrastructure; PaaS providers with products: Engine Yard, Red Hat Open Shift, Google App Engine, Heroku, AppFog, Windows Azure Cloud Services, Amazon AWS etc; and SaaS providers: Force.com, Office 365, Google Mail and many more.

The PaaS providers have their own or rent resources from some IaaS provider, while SaaS providers have their own or rent resources from some PaaS or IaaS provider. This business is not an easy task. The cost for a virtual machine (IaaS) is for how many hours it has been activated, while the revenue of the SaaS application depends directly on the number of customers (if they pay flat rate) or transactions (if they pay per access / usage). Since both the renting and selling are very dynamic, the company must create a good and fair model in order to maximize

their profit. This will save not only the company’s CAPEX and OPEX, but also the administration and management resources (Rana 2014). In this paper we overview the current offers and pricing models on the market and model the reselling of cloud hardware resources (IaaS) to cloud scalable and elastic application (SaaS).

The rest of the paper is organized as follows. Section 2 presents the on-premise and current cloud service layers, as well as the cloud service provider’s and customer’s responsibilities of each service layer. The current most common cloud service providers’ cloud pricing models are presented and discussed in Section 3. Section 4 presents a model of how a company can resell the cloud services, that is, how to utilize IaaS services and sell the SaaS services. Section 5 concludes the paper.

THE CLOUD SERVICE LAYERS

This section elaborates the main cloud service layers and how they can drive the business. It also presents the responsibilities of both actors (cloud service provider and its customer) for the whole IT stack.

Cloud service providers offer their cloud services in three main layers: SaaS, PaaS and IaaS. Each service layer differs in the responsibilities that the cloud service provider and the customer has, as presented in Figure 1 (Clayton 2011). For all three cloud service layers and on-premise, the cloud service provider is responsible for the IT services that are colored in green, while the customer is responsible for the red IT services.

If a company wants to deploy its business information systems in its own data center, it has the full responsibility for each part of the IT management, i.e. the equipment, system software, network and application software. Going from IaaS to PaaS, a company reduces its responsibility by transferring the work to the cloud service provider. By renting the IaaS resources, it achieves virtualized servers, already preinstalled with some operating system, which reduces its need for network and equipment administration. PaaS subscribers do not care even for system software, while SaaS subscribers do not need to employ IT staff to administer and maintain the SaaS business information system.

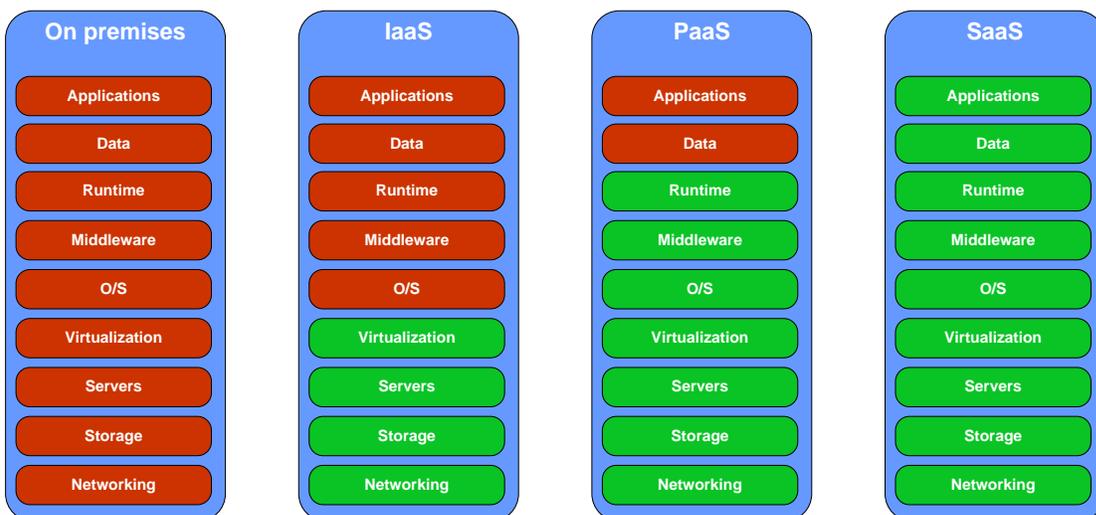


Figure 1. Comparison between the cloud service layers (IaaS, PaaS and SaaS) and on-premise computing

THE IAAS CLOUD SERVICE LAYER

The IaaS cloud service layer is the lowest layer in the cloud stack and it should be the first choice for the customers if they want to migrate their application, services and data in the cloud, especially if they do not want to modify their code and architecture. This service layer improves the IT agility, moves the initial huge CAPEX to reduced monthly OPEX, reduces the investment to IT and allows the company to focus on its primary business products and solutions, increases the business agility, and provides scalable and elastic capacity that cannot be available in its on-premises.

THE IAAS CLOUD SERVICE LAYER

This cloud service layer allows the customers to deploy the whole solutions in the cloud, especially those that are service oriented, which can be scaled independently. Also, another important usage for PaaS is the testing environment for software developing companies. That is, they can rent PaaS resources with similar environment as the production, deploy the solution, test it and release the resources after successfully testing. This will cost the software developing company only a small amount of money, rather than buying similar real equipment, which will stay underutilized more of the time.

To conclude, beside the possibilities of IaaS, this service layer additionally increases the time for bringing the solution to the market, reduces the security concerns, reduces the requirements for IT staff for administration, and reduce the maintenance concerns.

THE SAAS CLOUD SERVICE LAYER

The SaaS cloud service layer allows the companies to provide a new account to existing multi-tenant application that is hosted and completely administered by the cloud service provider. This cloud service layer is more appropriate for new companies that do not have its own software, regardless if it is developed by them self or bought by some software developing company. The most common applications offered as a service are: email, office tools, CRMs, TMSs, ERPs, etc.

Companies that migrate to the SaaS cloud service achieve all benefits from IaaS and PaaS cloud service layers, and additionally they neither deploy the applications nor need to administer them. If they do not need the service any more, they will simply stop their usage and the cloud service provider will disable their account.

CURRENT PRICING MODELS OF MOST COMMON CLOUD SERVICE PROVIDERS

This section explains the benefits of the migration in the cloud and presents the current pricing models of the most common cloud service providers.

The cloud computing is defining a new “usage-based” (or pay-as-you-go) model in the business, apart of buying and renting. This model is neither just transformation the cost from CAPEX to OPEX, nor paying for renting, because the cloud customer pays only when it uses the

cloud services and resources, rather than for the renting period, where he / she pays the rent for the renting period, regardless if the rented resources are used or not.

Three use cases emerged for companies that need computing resources (Armbrust, et al. 2010):

- *Varying demand*–if a company builds a huge datacenter in order to survive the occasional peaks (for example, telecom’s bills calculation at the beginning of the month), they will be underutilized in the rest of the month;

- *Unknown demand in advance* –startup companies should survive potential huge business growth, but also to save money in case of possible business decay; and

- *Huge demand*– companies that need to compute big amount of data (weather forecast, stock exchange, big data analytics) by using parallel or distributed computations, need huge amount of computing resources in a relatively small period of time, instead of using small amount of computing resources in a relatively huge period of time. For example, weather forecast should be calculated in a period of several hours for the next day. Therefore, cloud providers offer both X machines for one hour and 1 machine for X hours for the same cost.

Another important pricing model is the price for scaling the resources in a virtual machine, which is linear. That is, using one medium virtual machine (with 2 CPU cores) is two times more expensive than the one small virtual machine (with 1 CPU core). Further on, the price for the large virtual machine (with 4 CPU cores) is four times bigger than the small one, and for the extra large (with 8 CPU cores) is eight times bigger (Simjanoska et al. 2013a).

Although the pricing models are linear, no cloud service provider guarantees that the performance will be linear. Some papers reported that linear pricing model is fair for the customers (Simjanoska et al. 2013b), sometimes they achieve even superlinear performance (Ristov et al. 2012). This means that the clients can achieve better performance, but still, if the cloud service provider spread its virtual machines among many physical servers.

Another challenge for the customers is how to scale the resources; either they utilize more smaller virtual machines, or less greater virtual machines. The price will be the same in both cases, but the performance also varies (Gusev et al. 2014).

MODELING THE SAAS PRODUCTS WITH IAAS INPUTS

This section presents some directions for business growth for small or medium enterprise (SMEs) by using the cloud services. That is, in order to be fully elastic and scalable, with the smaller risk factors, the SME should utilize the IaaS resources from one cloud service provider, deploy some SaaS application and sell it to its customers as a service.

The SaaS providers should come up with a good trade-off between the provision of multi-tenancy and the cost-savings yielded by multi-tenancy as reduced overhead through amortization, reduced number of on-site software licenses, etc. (Dillon et al., 2010). Several challenges of how to become a profitable SaaS provider, by using the IaaS / PaaS resources are discussed by (Schwanengel and Hohenstein, 2013).

OUTGOING COSTS FOR IAAS RESOURCES

This section presents the outgoing costs that the SaaS provider has for IaaS resources. Figure 2 presents the basic model for outgoing costs. The SaaS provider need virtual machines of various types for different purposes: application servers, database server, web server,

management server, etc. All these servers need specific hardware resources (CPU, RAM, HDD, NICs).

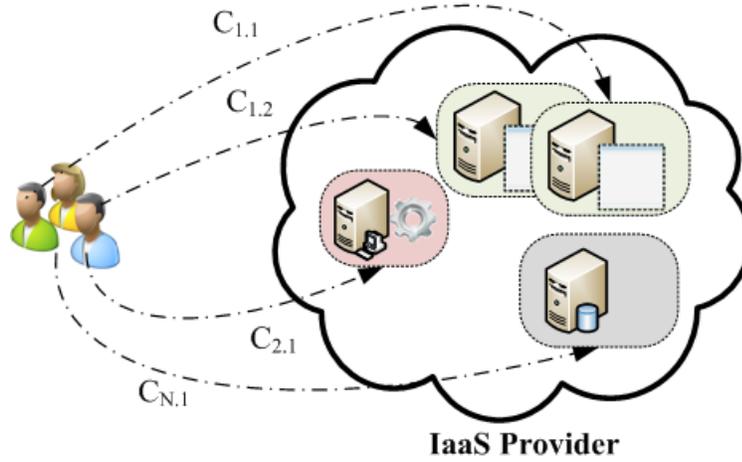


Figure 2. Outgoing costs model for IaaS resources

The cost for utilized IaaS services mainly consists of two parameters: the price for each different type of virtual machine PT_i and the number of utilized virtual machines N_i per each type i . The sum of products of these two parameters gives the total outgoing cost OC , as defined in (1).

$$OC = \sum_{i=1}^N PT_i \cdot N_i \quad (1)$$

The SaaS provider should rent several virtual machines on IaaS layer and deploy the SaaS application on them. Either he / she should use some its own load balancing technique, or get someone from the IaaS provider. Nevertheless, he / she must model the number of users (customers) that can be served with a minimum IaaS resources (single virtual machine instance for application and one for database) in order to minimize the outgoing costs.

INCOMING REVENUE OF SAAS CUSTOMERS

This section presents the incoming revenue that the SaaS provider will achieve of his / her customers. Figure 3 presents the basic model for incoming revenue. In this model, the SaaS provider's revenue consists of licenses for software as a service of each customer. That is, the total revenue TR for the SaaS provider is calculated as a sum of revenues R_i of all M customers, as defined in (2).

$$TR = \sum_{i=1}^M R_i \quad (2)$$

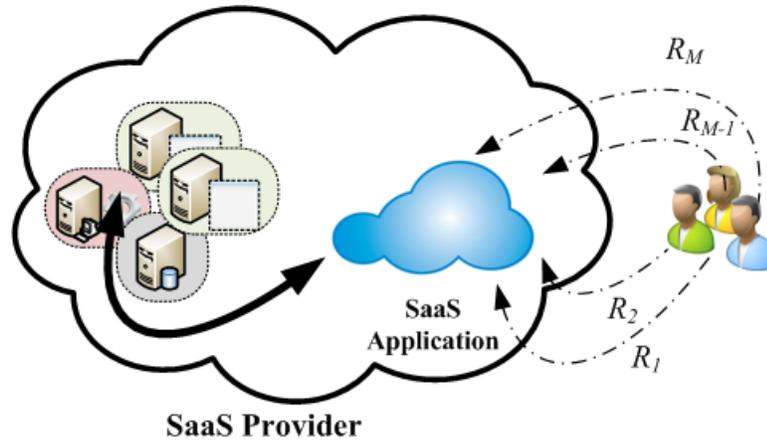


Figure 3. Incoming revenue model for SaaS customers

JOIN THE INCOME REVENUE AND THE OUTGOING COST

The SaaS provider has to build such a model that minimizes the total outgoing cost OC and maximizes the total revenue TR , keeping the elasticity on both sides (incoming and outgoing). Therefore, the SaaS provider must satisfy (3).

$$OC \leq TR \quad (3)$$

This is not an easy modeling and several proposals exist, both post paid and pre paid. The SaaS provider should periodically send a bill for usage (Lindner et al. 2010) by observing and aggregating the tenant usage (Ruiz-Agundez et al., 2011). The smallest risk for the SaaS provider is if he / she charges the tenants by using the same pay-as-you-go pricing model as PaaS/IaaS providers do for his / her resources, plus an additional charge for his interest. But this is a too technical model, and therefore it is important to model how many tenants can be served by a single virtual machine, or the percentage of the virtual machine that one tenant is using. The best way for the tenant is that the SaaS provider charges him / her with more understandable parameters, such as usage time or monthly fix rate.

CONCLUSION

Each technique and technological development will not succeed if it does not offer a business growth, regardless of its scientific, social or environmental impact. Cloud computing, as the newest ICT platform for deploying the business information systems, is forcing almost all companies, especially SMEs to migrate their services to some cloud service provider. This migration can save many costs of various types for SMEs.

However, apart from cost saving, the cloud paradigm could enlarge the SMEs business additionally if the SME resell the cloud resources, going from IaaS to SaaS cloud service layers. This paper presented the pricing models of most common cloud service providers and showed a model of how the SaaS provider could resell the IaaS resources.

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**THE EFFECT OF ORGANISATIONAL CULTURE ON A BANK IMAGE IN
THE FUNCTION OF DEVELOPMENT AND MAINTAINANCE OF THEIR
COMPETITIVE ADVANTAGES**

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Abstract

The transition from the industrial to the informational era has generated unpredictable, continuing, radical and accelerated changes, so that the informational society has adopted the characteristics of accelerating and hypercompetitive society. These conditions have resulted in complex and dynamic structure of relations between banks and their surroundings, which has brought the need to search for new sources for the development and maintenance of their competitive advantages. The recent theoretical and empirical research, as well as the operational politics, show that the organizational culture, understood as a leading model of values, motives, beliefs, assumptions and norms, presented through language, symbols, goals, technology, management activities and interactions, have a multidimensional effect on various aspects of bank operations. This complex nature of the phenomenon of organizational culture is also presented in the powerful effect on bank image, which usually represents the wholeness of presentations, attitudes, experience and opinions, made consciously or unconsciously by certain group or person about a particular bank. Considering this, the research attention will be focused on the role that an organizational culture has in the development of its image and in the context of modern banks concern on ensuring new blocks on which the competitive advantage may be built. This paper will analyze research results of effect of culture on service quality and through that, the bank image. The research is conducted through Mystery Shopping method in bank headquarters that operate in Bosnia and Herzegovina. The research has scoped the following aspects of bank operations: general characteristics of the physical surroundings of banks, bank clerk assessment, sales interview, knowledge of services, and a general assessment of quality by the Mystery Shopper. Mystery Shoppers have visited a total of 26 (89.65%) of banks in Bosnia and Herzegovina.

Keywords: organizational culture, bank image, competitive advantages

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INTRODUCTION

The modern conditions of bank operations are determined by numerous changes in the marketing environment. Financial deregulation has enabled a quick development for insurance companies, trusts, and other non-banking institutions, that have widened their assortment with banking services. The conditions of competition have been made harder due to consequences of globalization, that is, a strong appearance of foreign banks on domestic markets. Much faster development of informational-communication technologies enables client a unique approach to information about banking services, which affects their critical thinking when they are assessing the quality of a banking offer, as well as it lowers their level of loyalty. A consequence to this is that clients will more often decide to cancel their business with their bank if they are not satisfied with its operations.

In order to keep the existing and attract the new clients, banks should be clearly positioned at a market, and they can achieve this by creating their identity and image. Namely, in the modern literature in the field of bank marketing, identity and image are more often mentioned as an efficient weapon for gaining competitive advantage of banks. A clearly profiled identity, as well as a strong image, will differentiate a bank from its competition, and they will clearly position it at a targeted market. A unique identity and a well-positioned image represent competitive advantage that is impossible to copy. This is especially significant for banks, considering that banking services have a short cycle of development and cannot be patented, which enables the competition to imitate their innovations and create a similar offer.

Between the identity and the image of banks, a clear distinction needs to be made. An identity is a way in which a bank sees itself and the way it desires to position itself and its services. A bank identity represents a foundation on which trust and recognition is built on, which is transferred to public through banking communication, design, and behavior of foundational value, that are determined in banks' operational orientation and culture.

In the past years, bank managers are increasingly noticing that creation and management of an organizational culture can be an important platform on which a recognizable identity and image can be built. Namely, since they are aware of the hyper-competition on a banking market, managers are trying to ensure new sources of value that are hard to imitate and copy, and this exactly is enabled to them through the organizational culture.

CHARACTERISTICS AND SIGNIFICANCE OF AN ORGANIZATIONAL CULTURE

DEVELOPMENT OF THE CONCEPT OF ORGANIZATIONAL CULTURE

Authors from the field of management and organization have widened the concept of culture, and in this context, it usually means organizational or corporate culture (Abercrombie, Hill and Turner, 2006, p. 247). E. Schein, one of the authors that have dealt with this phenomenon most systematically, has defined organizational culture as "group of significant conclusions, made up, discovered or developed by a given group while it is facing issues of outside adaptation and inside integration, and it is formulized enough to be seen as valuable, and as such, to be transferred to new members of an organization as a correct way of perception, thinking and feeling about those issues" (Schein, 1985). Daft states that organizational culture is "...a whole series of common foundational values, beliefs, understandings and norms that determine the way employees think, and the same transferred onto new members of an organization" (Daft, 1995, p.333), while for Deal and Kennedy, it is "a way in which things are done here" (Deal and Kennedy, 1982. One of widely accepted

definitions of an organizational culture is also the one offered by French, Kast and Rosenzweig, and it states that: "An organizational culture is a leading model of values, beliefs, assumptions and norms, that is seen in a language, symbols, goals, technology, management activities and interactions" (French, Kast and Rosenzweig, 1985). Organizational culture, therefore, represents a whole complex made up of values, beliefs, basic assumptions and symbols that is shared by the members of an organization. A more intensive use of the term organizational culture, as a beginning of a more systematic and a more studious research, is connected to a name Petrigrew and his article called „On Studying Organizational Cultures“ from 1979. However, the significance of organizational culture in an organizational life has been recognized earlier also. For the affirmation of a psychological approach in the theory of organization, according to most authors, Lewin gets credit, since he, along with Lippitt and White, in 1939, introduced terms social climate and social atmosphere for the first time, and with that, initiated a great number of authors to start researching this in a more serious manner. A psychological approach in an organization, at the beginning of the 20th century, is possible to recognize also in Weber, Fayol and Mayo (Delić, 2012, Šehić and Delić, 2010).

From the last decades of the 20th century until today, the concept of organizational culture has been used so intensively that, for example, Alvesson, in his book *Understanding Organization Culture*, has stated that overuse of the term organizational culture and functionally-pragmatic approach to this complex phenomenon have led to its trivialization, and according to him "...term culture should be replaced with something such as "...informal forms of behavior', 'system of norms', or simply 'social form'..." (Alvesson, 2002, p.3).

In the most significant authors of the 21st century, that research different aspects of organizational culture, we will name: Martin (in the book named *Organizational Culture: Mapping the Terrain* (2002) it describes potential advantages of observation of organizational culture from different perspectives); Schein (three publications of his book *Organizational Culture and Leadership* /1985, 1992, 2004/ they represent the foundation for a better understanding of organizational culture) and Alvesson /book *Understanding organizational culture* from 2002. it sums up his papers on organizational culture/ (Clayton, Fisher, Bateman, Brown and Harris, 2005).

THE AFFECT OF ORGANIZATIONAL CULTURE ON ORGANIZATIONAL PERFORMANCES

Organizational culture has multiple significance in organizational life, and from there, it should be adequately managed. Even though, we speak of a phenomenon that is hard to research empirically, there is evidence that shows a positive correlation between organizational culture and organizational performances (Cameron and Ettington, 1988; Denison, 1990; Trice and Beyer, 1993, Kotter and Heskett, 1992). A few studies (Kozlowski, Chao, Smith and Hedlund, 1993) have confirmed the effect of organizational culture on individuals as well (moral, dedication to work, productivity, and also physical and emotional health of employees) (Cameron and Quinn, 2006). Practice has showed that organizational culture can provide significant support but also a rock to trip on when it comes to the implementation of strategic (such as, for example, mergers and acquisitions, forming of strategic alliances, and other) and organizational changes (Delić, 2012, Šehić and Delić, 2010).

According to Cameron and Quinn, programs of organizational changes, such as, TQM, BPR, Downsizing, Organization Development, Learning Organization and others, that do not accept the complexity of organizational culture, have inadequate potential to generate

permanent improvements of organizational performances (Cameron, and Quinn, 2006, pp. 5-20.). Therefore, for example, during the implementation of the TQM concept (that includes management orientation focused on quality in all phases of the manufacturing process or process of providing services, as well as in the management process itself, that is, its phases – planning, organizing, managing human resources, leading and controlling), organizational culture plays a very important role, and from there, it assumes the name of quality culture. In this way, the emphasis is put on that without the acceptance of the TQM concept by employees and without integrating focus on quality into the content of organizational culture, the implementation of this program of conducting organizational changes will not produce desired effect on organizational effectiveness and efficiency (Delić, 2012).

Organizational culture in a company should be managed adequately in order to realize positive effects on company's operations, but also to avoid its possible negative effects. It has a multiple significance to organizational life. First, culture ensures a higher level of cooperation between employees. Second, culture can alleviate making and implementation of decisions, because, common beliefs and values give members of an organization a consistent group of foundational assumptions and preferences. Third, culture encourages efficient and productive communication. Namely, common assumptions enable action without the need for verbal or written communication. Also, common assumptions provide guidelines for correct interpretation of received messages. Fourth, through culture, so-called "clan" control in organization is realized, since common values, beliefs, and group norms direct individual behavior. Fifth, through culture, a higher level of acceptance of organizational goals as individual goals is ensured (Perace and Robinson, 1997, p. 333). Several studies have also confirmed the effect of organizational culture on individual (moral, dedication to work, productivity, and also physical and emotional health of employees (see for example: Kozlowski, Chao, Smith and Hedlund, 1993, in Cameron and Quinn, 2006)). In spite of the fact that materialization of culture and its application within an organizational environment has caused numerous debates, there is a large agreement that culture can serve to an organization in many positive ways, such as: makes management of collective unpredictability easier; creates social order; continuous and collective dedication to identity; encouragement of ethnocentrism; and generating dual consequences. We start here from the idea that agreement on values of individual and values of organization lead to the increase of the level of satisfaction with work (McAlesee and Hargie, 2004, p. 167). According to Aktas, Cicek and Kiyak, true diagnosing of organization culture, the determining of strategy, politics, and human resource practices in accordance with organizational culture will enable the organization to reach desired organizational efficiency dimensions on the condition depending the stability or variability of internal and external environment (Aktas, Cicek and Kiyak, 2011, p. 1570).

Since the 90-ties, deliberation of the phenomenon of organizational culture in the context of marketing is intensified. In 1993, a study of the effect of organizational cultures, market orientation and innovativeness on the performance of Japanese firms was published (Deshpande, Farley and Webster, 1993 in Deshpande and Farley, 2003, p.3). Also, the Marketing Science Institute (MSI) recognized the need for integration of organizational culture, market orientation, and innovation as linked to firm performance by designating interdisciplinary research leading to a better understanding of customer-oriented organizations as a highest research priority (Marketing Science Institute, 1994 in Deshpande and Farley, 2003, p. 4). Deshpande and Farley have, according to conducted research, come to conclusion that relatively open, externally oriented organizational cultures related to better performance, while relatively closed, internally oriented organizational cultures related to poorer performance (Deshpande and Farley, 2003, p.18).

BANK IDENTITY AND IMAGE DEFINITION OF TERMS BANK IDENTITY AND IMAGE

Considering that corporate identity was determined in different ways, where authors observed it through a prism of communication, design, marketing, organizational behavior or management, as well as the fact that it was usually analyzed only partially, a few academics have agreed that it is necessary to create an interdisciplinary approach that is in accordance with its complex structure. The result of that is The Strathclyde Statement, a statement of corporate identity by The International Corporate Identity Groups, that is created through a cooperation of academics and consultants for identity, image and corporate communication, and it directly points to the necessity of the interdisciplinary approach.

The Strathclyde Statement³

Every organization has an identity. It articulates the corporate ethos, aims and values and presents a sense of individuality that can help to differentiate the organization within its competitive environment.

When well-managed, corporate identity can be a powerful means of integrating the many disciplines and activities essential to an organization's success. It can also provide the visual cohesion necessary to ensure that all corporate communications are coherent with each other and result in an image consistent with the organization's defining ethos and character.

By effectively managing its corporate identity and organization can build understanding and commitment among its diverse stakeholders. This can be manifested in an ability to attract and retain customers and employees, achieve strategic alliances, gain the support of financial markets and generate a sense of direction and purpose. Corporate identity is a strategic issue.

Corporate identity differs from traditional brand marketing since it is concerned with all of an organization's stakeholders and the multi-faceted way in which an organization communicates.

In the frame of this statement, the strategic significance of corporate identity in the process of differentiating is clearly defined, and it enables gaining significant advantage within competition. It has been additionally emphasized that the image needs to be created as a consequence of integrated communication in order for it to correctly present the values upon which the corporate identity is based on. Still, we can extract the emphasis to the need for a multidisciplinary approach, which has special importance to determine the concept and the process of management of corporate identity.

This multidisciplinary approach can be defined through Balmer and Soenon's determination of corporate identity as «soul, mind and voice» of an organization (Balmer, Soenon, 1999, p.74). Where, named authors consider that «soul» includes: key values, culture, inside image, employee habits and history; «mind»: vision and philosophy, strategy, characteristics of products and services, characteristics of a corporation, brand architecture, ownership or a corporation; while «voice» represents: controlled and uncontrolled communication, personal and corporate behavior, indirect communication.

Bank identity is a group of specific, interconnected characteristics, determined by culture and business orientation, that are seen through communication, behavior and design, seen by the internal and external public (Smajlović, 2010, p.74).

³ The original statement is formulated in Strachur, Argyll, Scotland, 17-18. February of 1995, and the author translated it from Balmer J.M.T., Wilson A., *Corporate Identity There Is More to It Than Meets the Eye*, Int. Studies of Mgt. & Org., Vol. 28, No. 3, Fall 1998., p. 16

The effective identity is seen in norms and values upon which bank operations are founded on, and this determines their character and emotional strength of their offer. In order for bank identity to function, it must be seen in outside and inside design, staff presence and behavior, symbols, events, meaning, in all communication instruments and media that a bank uses to communicate with its surrounding. Only through permanent placements, banks could, using chosen messages, affect perception of clients as targeted, that is, create a desired bank image.

Image and reputation are very closely connected concepts, but they are not interchangeable. Reputation is targeted (for example, validation with certain intent), while image is a wider concept and it can contain different kinds of reputation presented in different targeted groups (Sjekloča, 2003, p.62). Such determination of image, as a wider concept of reputation, only partially explains the connection and differences between these two terms. Under reputation, we mean a picture of a corporation as seen by public, and that shows how much the desired image has been achieved. Therefore, reputation can be seen as feedback on image that corporation is longing for. Image, on the contrary, reflects the corporation identity and, with that, its own perception of corporation and its characteristics (Schwalbach, 2001, p.3). Therefore, image is a way in which the public perceives the corporation identity, and it is made up of many different kinds of reputation. Created corporation reputation serves as a basis for measuring how successful image management is. Analyzing different definitions, *bank image* can be determined as a way in which the public perceives banks or their services. The wider definition of image would be: *bank image is wholeness of presentations, attitudes, experience and opinions, made consciously or unconsciously by certain group or person about a particular bank (Smajlović, 2006, p.24).*

INTERACTION OF BANK IDENTITY AND IMAGE

In banking practice, corporate identity and image are usually treated as synonyms. Even though these concepts are interconnected, we must emphasize that they do not have the same meaning. Therefore, it is necessary to provide a stronger distinction between these concepts so that the process of their mutual interaction can be brought to light.

Image is a way in which the public perceives banks, and this cannot be always controlled by the management. Namely, image can be created as a result of numerous unplanned situations on which management does not have effect on. On the contrary, corporate identity can be controlled by banks. If it is planned well, with superior visual elements, it enables banks to transfer to the public: stockholders, clients, staff and other stakeholders, what they want to say about themselves and how they want to be perceived. A good corporate identity will visually distinguish and differentiate banks and their services from the competition (Nelson, 2004, p.113)

Therefore, corporate identity is described as how bank sees its organization. Image, on the contrary, is a picture of a bank as seen by the public. With the help of corporate identity of banks and their instruments (corporate design, corporate behavior and corporate communication), a certain picture of banks is created in the public.

An ideal state for which banks long for is a total overlap of identity and image. However, image is formed as a consequence of public perception and it is not in banks' control, which means that, banks can come close to this ideal picture, but they cannot completely realize it. The level of bank image and identity overlap is an important indicator for image management where a greater level of overlap is an indicator of a successful image management and vice versa.

Bank competitiveness is conditioned by their position on a market and a strong image that differentiates them from the competition. A bank's personality and diversity is based on its identity. Bank identity represents a foundation upon which trust and recognition is built on, which is transferred to public through banking communication, design, and behavior of foundational value that are determined in banks' operational orientation and culture. The interconnection between bank image and identity can be summed up in ten characteristics that will soon be considered in the following paragraphs (Buß, Fink-Heuberger, 2000, p.81).

Irreplaceability relates to the level in which a picture of presentation and success of a certain bank is typical and independent. This means, recognition symbols by which clients identify banks. This characteristic is basically recognition.

Independence is own picture of a bank that is independent from constant changes in the pressures of public topics or interests. Independence is a term that marks bank non-dependability and strength.

Mutual similarity: A picture that represents banks that is synchronized with all forms of communication with the corporate identity. The recipient must experience all information relating to banks as very important. The concept of mutual similarity means similarity on three levels: a) behavior, b) communication and c) perception. In other words, this means that the outside appearance of a bank, the inner design and order, staff appearance and communication, way in which is presented, etc., have to be synchronized so that the conception of the identity can be subsumed without difficulties.

Durability: Bank identity should be based on continuity and history, that is, same characteristics in the longer time period, while the historic profile is adapted by the modern social and economic frames.

Under *significance*, we mean how much appreciation the public has for banks' values, that is, their economic, technical, ethical and social values. In significance, the relevance of a certain bank is seen.

Popularity: The public gains a certain sum of experiences with banks, which leads to a subjective opinion about them. Popularity is a basing characteristic of image. If image changes, and re-positions the bank, it can come to clients as unknown, and the consequences can be seen in different ways, and move from public insecurity to bank rejection.

Theme pragmatics: Bank communication should be done in such frame to enable a successful transmission of the basic message of identity, so that a clear bank profile is created and the main differentiating characteristics are emphasized. Complex information, a controversial representation, advertising oriented on trends, are ruining theme pragmatics, and they produce a contra-effect in banking clients.

Distance: Identity should create a distance in comparison to competition through adequate positioning at a market, that is, create a bank rank-position. Through distance, bank economic reputation is managed.

Balance: Culture and bank identity have to be adapted to the changes in society.

Customs toleration: The public has a certain limit up to which it tolerates public bank representation, in order for them to maintain the current picture. This invisible line represents a measure that must not be deviated from, between the bank behavior style in practice and the proclaimed identity of value.

Each of the named ten factors marks bank identity profile, while their total evaluation might signalize possible strengths and opportunities. Corporate communication of banks should introduce the public with the bank identity. The result of this transfer of value into the public is the bank image.

ORGANIZATIONAL CULTURE AND BANK IDENTITY AND IMAGE

In the frame of analysis of corporate identity, numerous authors have emphasized that this phenomenon is greatly affected by the corporate culture (Balmer and Wilson, 1998, Birkigt and Stadler 1986, Herbst, 2003, Melewar and Jenkins. 2002, etc.). In the past, a relationship between organizational identity and culture was researched mostly on the conceptual level. The advocates of the perspective of social behavior have noticed how organizational culture can be used as a significant mean of differentiation and work as a «marker» of organizational identity. As Albert noticed: «From this perspective, the relationship between identity and culture is clear: personal culture (...) can, but does not have to, be a part of the identity question: Who am I? What kind of corporation is this?» (Ravasi, Schultz, 2006, p.437).

Bank culture can be understood as a group of basic assumptions, beliefs and values, created by a certain group, and adopted by internal stakeholders. It is manifested through business norms, banking symbols, and opinions and behavior of bank staff (Smajlović, 2010, p.77).

Bank cultures are collective phenomena that determine staff reactions to the experiences during their employment. These reactions can be divided into two basic categories Rouse M, Rouse S, 2005, p.80): the essence of culture and forms of culture. The essence of culture of banks is made up of common systems of assumptions, values and beliefs, which set certain emotions in the internal environment, and are expressed in cultural models. In this way, up until recently, the new assumptions in bank operations were maximization of income and increase of the scope of sales. In the last period, banks have recognized the significance of loyal clients, and, in different ways, tried to keep them long term. However, creation of long term relationships with clients requires a change of traditional assumptions and values in bank operations. With cultural forms of banks, we assume visible behavior, as well as the material object with which cultural members communicate its essence, and with that exactly, they express and confirm it. The new staff can meet characteristics and culture customs in trainings, meetings, through mentorship, study of rules and procedures of banks, or through informal communication with other staff.

Understanding the bank culture is necessary for successful creation of their image. Business orientation of banks, along with its three elements vision, mission and purpose, makes a basis for creation of culture. Namely, bank culture should express the ideal represented in the vision, the specifics of operations expressed in the mission, and the realization set in the purpose. The second significant determinant of bank culture is nationality, that is, the national culture. Its effect on bank culture is realized through staff, when they bring in their own assumptions, beliefs, values, and norms of their national culture when they are hired. In this way, the national culture makes up a foundational platform upon which the elements of culture are built on. National culture is especially significant for the creation of bank identity and image, because its perceived values directly affect the perception of bank values. And so, for example, Switzerland banks are perceived as especially secure, and this is positively reflected on the perception of the quality of their services.

History of operations is also significant for culture and the way banks are represented. Considering the specifics of banking services, that affect the low level of client trust, many banks try to emphasize their business tradition, and in this way, attract new clients.

The content of bank culture can be divided into a cognitive and a symbolic component. Cognitive elements of bank culture are: beliefs, values, expectations, assumptions, ethics, feelings, meanings, informal rules, a way of thinking and perception of the world. Phenomenon of culture effects on the way of thinking is called a self-reference

criterion (SRC). During the SRC effect, individuals, mostly unconsciously, compare events in their environment with their personal cultural values (Onkwisit, Shaw, 1997, p.207). Symbolic elements of culture are: language, jargon, stories, myths, legends, heroes, rituals, logotype, physical appearance, etc. (Petković, Janićijević, Bogićević, 2002, p.391). Cognitive elements are found in people's minds, and so they are called invisible, while symbols are visible in every day bank operations. Therefore, culture is usually presented as a floating ice berg. Not knowing the invisible, «under water» aspects of culture might lead to a wrong understanding and problems in the process of bank identity creation.

THE RESULTS OF THE RESEARCH

Mystery Shopping or secret shopping is a qualitative research method, that is, a business tool that represents an engagement of previously especially trained secret shoppers. They, on the request of an organization that engaged them, pretend to be potential and regular customers. Secret shoppers evaluate the quality of provided service by previously defined criteria, and after that, they report about their experience.

Mystery Shopping is not explicitly focused on interaction of a customer and sales persons, but on the whole shopping experience that is affected, besides sales persons, also by space, service, price, a way in which a service was provided, etc. Process of conduction of *Mystery Shopping* project contains five phases, that is: definition of issues, creation of an observational catalogue, election and training of secret shoppers, receiving data and analysis of received data (Swoboda, 2001, p.306).

Mystery Shopping method is used to evaluate: outside and inside appearance of bank space, staff service, knowledge of products and services, sales persons' approach, sales skills and skills of making a sale, the way in which customer complaints are handled, the way of promoting new services, communications over telephone, selling process over the Internet, and speed and quality of replies to customers over e-mail communication. According to needs and requests of banks, having in mind the specifics of their operations, other elements can be evaluated as well. Continuity in the application of *Mystery Shopping*, and introduction of adequate measures for the improvement of quality of banking services, results in the increase of the level of satisfaction of bank clients. Satisfied clients will by bank products and services again, they will use a greater number of services of the same bank (*Crossselling*), they will recommend their bank to their friends and associates and they will stay loyal. The significance of the application of the *Mystery Shopping* method in the process of bank identity and image research is seen in determination if there are discrepancies between targeted identity characteristics and the real ways in which a bank operates, and if there is, how distinguished it is. In this way, banks could receive significant indicators of successfulness of management of the process of creating identity and image, and they could receive guidelines for further action. By correcting the determined discrepancies between targeted and real identity characteristics, the level of deviation between anticipated and perceived characteristics would be brought to a minimum, that is, bank image goals would be realized.

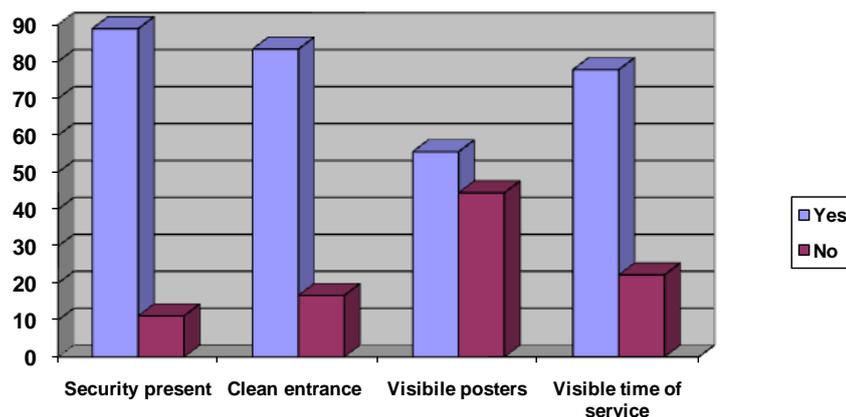
Starting from the previously mentioned, this paper started from the attitude that the research through the *Mystery Shopping* method will indicate in which way bank cultures affect the quality of their services, and with that, the process of image creation. Data was gathered by the authors and trained secret shoppers. The assessment of kinds and qualities of bank services was conducted in bank quarters of researched banks in B&H. Secret shoppers presented themselves as employees of a local company that has good business credibility. They stated that they do not have an open bank account, but they were looking for conditions for approval of a short run non-purpose loan in the amount of 5,000 KM. With that, the

following aspects of bank operations were evaluated: general characteristics of physical bank surrounding, evaluation of bank staff, sales interview, knowledge of services, and general evaluation of service quality by a secret shopper.

Secret shoppers have visited 26 banks in Bosnia and Herzegovina (B&H): BOR banka Sarajevo, Bosna Bank International d.d. Sarajevo, Hypo Alpe-Adria-Bank d.d Mostar, Intesa Sanpaolo Banka d.d. Bosna i Hercegovina, Investiciono-komercijalna banka d.d. Zenica, Komercijalno-investiciona banka d.d. V. Kladuša, NLB banka d.d. Tuzla, Moja banka dd Sarajevo, Privredna banka d.d. Sarajevo, ProCredit Bank Sarajevo, Raiffeisen Bank d.d. Sarajevo, Sparkasse banka d.d. Sarajevo, Turkish Ziraat Bank Bosnia d.d. Sarajevo, UniCredit Bank d.d., Union banka d.d. Sarajevo, Vakufska banka d.d. Sarajevo, Volksbank d.d., Bobar banka ad Bijeljina, Hypo Alpe-Adria-Bank a.d. Banja Luka, IEFK Banka a.d. Banja Luka, Komercijalna banka AD Banja Luka, NLB Razvojna banka, Nova banka ad Banja Luka, Pavlović International Bank a.d., UniCredit Bank a.d. Banja Luka, Volksbank a.d. Banja Luka.

Secret shoppers also evaluated the presence of security in front or inside the bank. From the total number of banks 88.88% have security present. Clean and orderly entrance has 83.33% of banks. Only 55.55% of banks have put out posters with current offers, while time of service was visual in 77.77% of banks.

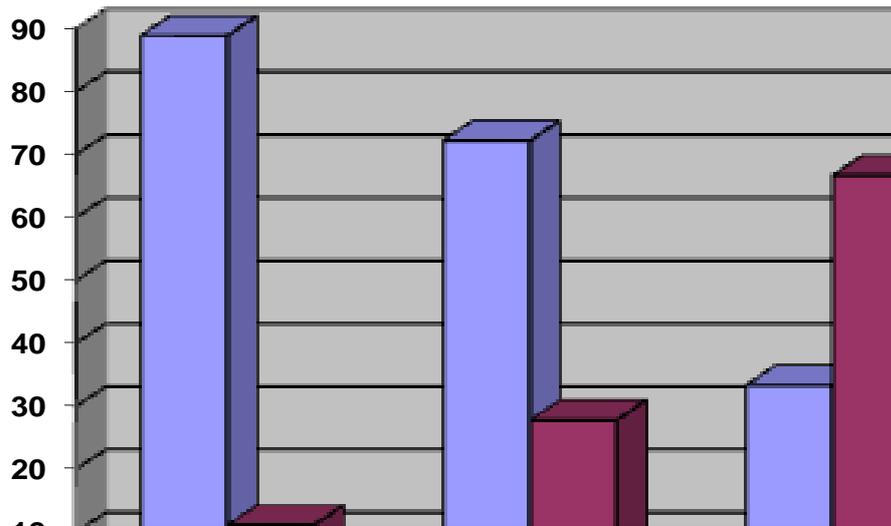
Figure 1: Bank Exterior



Source: Research conducted by authors

Banks most often have a clean interior (88.88%), while some of them a little less tidy (72.22%). However, visibility of signs that help clients orient themselves in banks, such as signs for cashier, counselors for individuals and entities, and such is very weak (33.33%). Even though, access to brochures is simple in 88.88% of banks, where current offers are laid out in 77.77% of banks, surprising 83.33% of clerks did not direct secret shoppers to feel free to take the brochures so that they can get informed about current offers. Secret shoppers realized that 83.33% of banks have an available working ATM machine inside or in front of the bank.

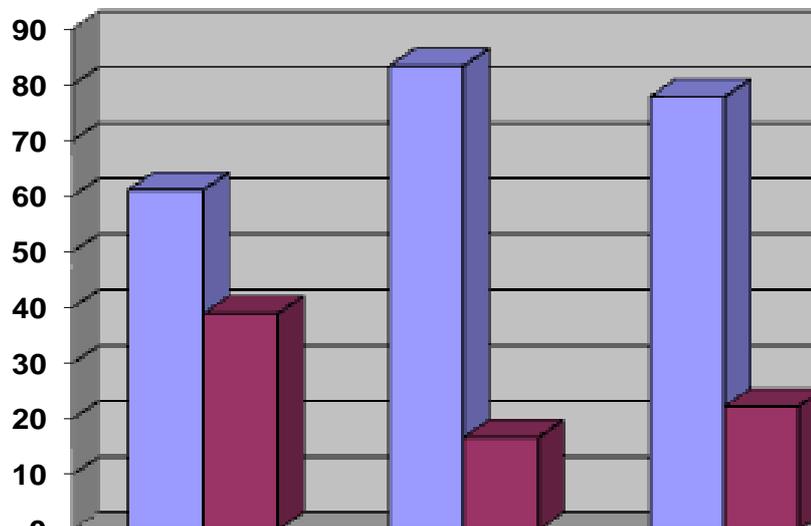
Figure 2: Bank Interior



Source: Research conducted by authors

Secret shoppers were greeted in only 61.11% of banks. Clerks usually had a tidy working space (83.33%). Bank clerks' clothes are adequate and appeared serious in 77.77% cases, while only 22.22% of clerks had a visible name tag.

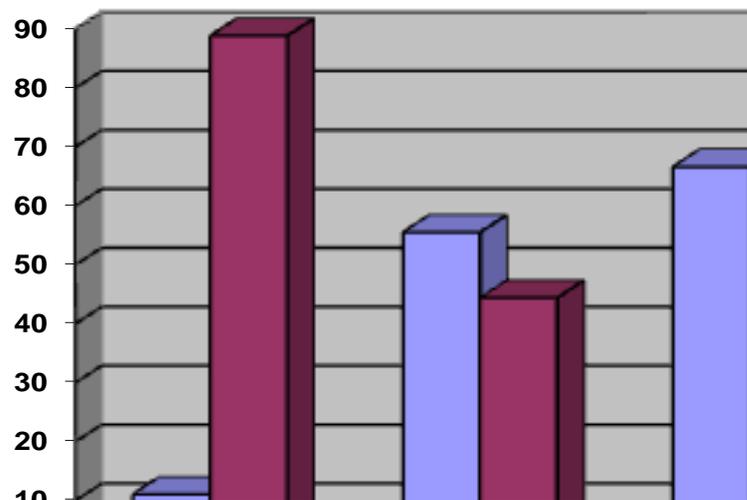
Figure 3: Evaluation of Staff at Bank Quarters



Source: Research conducted by authors

In the evaluation of the sales interview in banks, secret shoppers evaluated discretion of the interview and the way in which clerks treated them during the whole communication. Even though this was their first meeting with the secret shopper, only 11.11% of clerks introduced themselves. Interview discretion is mostly not ensured in banks. Other clerks could follow the conversation with the secret shopper in 55.55% of banks, while other clients could hear the conversation in 66.66% of banks. Clerks were concentrated on servicing the secret shopper, and they were not doing other thing such as answering phones and talking to other clerks and

Figure 4: Start of a Sales Interview



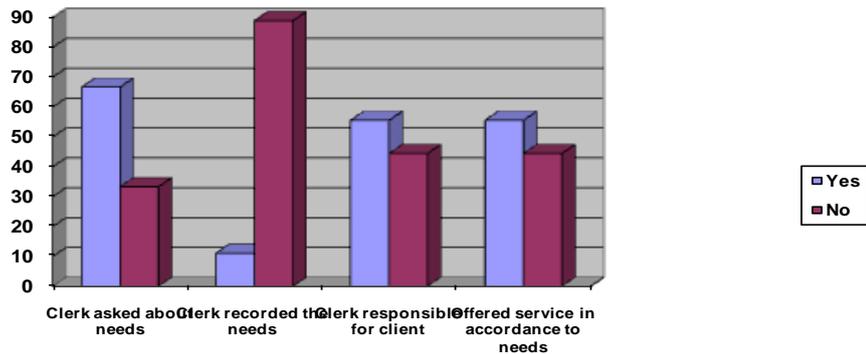
Source: Research conducted by authors

During the sales interview, 66.66% of clerks were interested in personal needs of the secret shopper, and asked them for personal data. However, only 11.11% of clerks recorded the data received from the secret shopper. From the total number of clerks, 55.55% of them have stated that they were personally responsible to fulfill needs of the secret shopper, where adequate service was offered in 55.55% of banks (Figure 5).

Secret shoppers also evaluated in which way clerks explain their offers. With that, it was evaluated that 88.88% of explanations were clear and understandable. Clerks, very rarely (27.77%) used promotional materials such as brochures, while 66.66% of banks used other tool such as computers and calculators. Clerk behavior was evaluated as very professional in 50% of banks.

In the frame of general service characteristics, the following were evaluated: time spent in a bank, waiting for service and the service process flow itself. The results have show that average time spent in banks is 14.88 minutes. Form that, secret shopper spent 7.11 minutes on average waiting in a bank to be services, while the average time of the service process was 7.77 minutes.

Figure 5: Flow of the Sales Interview and Making a Sale



Source: Research conducted by authors

Secret shoppers gave a general evaluation on the bank servicing quality, by which they set an all inclusive experience of competency and clerk politeness, a desire to understand their needs and such. The average servicing quality evaluation was very good in only 5.55% of banks, in 33.33% of banks it was pretty good, while in 44.44% of banks the quality of servicing was evaluated as neutral (not good nor bad), and pretty bad in 11.11%, and very bad in 5.55% of banks.

From the total number of additional comments that secret shoppers had about services, only 11.11% can be seen as positive, with which the emphasized are the competency and professional behavior of clerks. Other comments (88.88%) were in a negative context, and they usually related to the non-interest and poor clerk behavior, complexity of procedures, and high cost of banking services (interest rates and loaning fees).

CONCLUSION

Organizational culture, understood as a system of values, beliefs, basic assumptions and symbols, shared by the members of an organization, is understood more and more as an important foundation to build competitive advantage on, in a dynamic and complex modern environment. Organizational culture potential, during the identity and image creation, is recognized by banks as well, and more and more attention is paid to this phenomenon, in theory, but also in practice of bank marketing. Some authors state that even 75% of consulting business in the creation of new identity belongs to understanding of the organizational culture. The advocates of the perspective of social behavior have noticed that organizational culture can serve as a significant mean of differentiation and act as «marker» of organizational identity. From there, the understanding of culture content is useful in creation of effective marketing strategies of banks.

Since banking market in B&H has become saturated and good clients rare, banks are facing the challenge of creation and implementation of new approaches to their clients in order to increase market participation and profit. *Mystery Shopping* is a method by which banks get an insight in the quality of the service they offer to their clients, and they analyze the possibility of improvement of service quality and client satisfaction. The research on service quality that banks in B&H offer showed that banks, in some segments, have very

good results. For example, 88.88% of banks have clean interior, in 88.88% of banks a simple access to brochures is ensured, 83.33% of banks has an available working ATM machine and 88.88% of clerks provides clear and understanding explanations to clients. However, the conducted research has established that banks have a lot of room for improvement in the quality of their services. Banks cannot be satisfied with the evaluation from the secret shoppers for entrance to banks (61.11%), percentage of clerks wearing name tags (22.22%), and for the level of discretion of a sales interview in banks (other clients could hear the interview in 66.66% of cases).

Results received through *Mystery Shopping* show that banks in B&H have not adequately recognized the significance of organizational culture when creating their identity and image. This especially relates to the so-called cognitive elements of organizational culture, and this can be seen from the research results that show a relatively high level of non-satisfaction of clients with their treatment by the banking clerks and the level of discretion that a bank ensures for them. From there, banking managers in B&H should pay more attention to the creation of quality culture and on that basis, create their bank identity and image.

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INNOVATION FOR COMPETITIVENESS AND GROWTH IN MACEDONIAN COMPANIES: MAIN CHALLENGES

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Abstract

Many researchers and policymakers acknowledge the great significance and contribution of private businesses for the national economic growth. In addition, knowledge and innovations are in the essence of modern knowledge-based economies. Therefore, the innovative and knowledge-intensive activities of the companies are of a great importance for the modern world.

Investigating the main challenges for Macedonian companies in increasing innovation and achieving sustainable growth is the main goal in our research. The methodology used is based on statistical analysis of survey results that we conducted in 2014.

Companies' growth is widely influenced by the overall context in the national economy where they coexist. The governance of Macedonian high-educational institutions is centralised at state level, with public sector dominance in R&D funding and performing structures. During the last two years, the government has been committing constant reforms in R&D and innovation policies, which results in improvement of the business climate and the competitiveness. However, the Innovation Union Scoreboard 2013 assessed the country as modest innovator with a below average performance, but with growth performance above the EU average and above the average growth performance of the modest innovators group.

Although there is an extensive set of general literature for growth and competitiveness, the number of studies where Macedonian segment is discussed is very limited. Therefore, our findings are very beneficial for Macedonian institutions, as well as for other countries of the region where the societal and economic contexts are alike due to similar development processes.

The contributions of this study are twofold. Firstly, its practical implications are significant not only for the industrial sector, but also for the policymakers and for the academicians and researchers who are interested to collaborate with the industry. And secondly, the scientific importance of the paper is in its theoretical contribution to the strategic business literature.

Keywords: Innovations, competitiveness, growth, knowledge-based economies, Macedonia

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INTRODUCTION

This paper explores the factors that inhibit innovative activities in Macedonian industrial sector. The innovative and knowledge-intensive activities are crucial for the development of modern economies based on knowledge. A variety of studies have indicated that the character of firm's behaviour regarding the innovativeness is influenced by its internal characteristics, such as: size, strategy, market orientation (Laforet, 2008), company's culture, leadership, strategic planning (O'Regan et al., 2006), corporate climate, learning orientation (Calantone et al., 2002) and entrepreneurial orientation (Hult et al., 2004). Even more, Hult et al. (2004) demonstrated that the direct effect of learning orientation on company's performance is insignificant, suggesting that learning orientation must be mediated by another construct, such as innovativeness, in order to have an effect on business performance. Since the attention paid on innovation has been raised due to its importance for knowledge-based economies, the governments have been dedicating significant efforts for building the national innovation systems (NIS), accompanied by innovation ecosystem of institutions, actors and links between them. The development of the NIS is evolutionary, path-dependant process; therefore its structure widely varies between different countries. The variations of the NIS pose difference in the socio-economic context of the countries, the policy framework and the business climate, which in respect to enterprises means different environmental settings. Therefore, the outcomes and implications of the extensive literature for innovations and competitiveness need to be tested and tailored to the Macedonian case.

In order to fill this gap, the aim of the study is selecting the most important findings on the variables that influence the company's innovativeness for achieving sustainable growth and testing them with the survey dataset that was conducted in Macedonian industrial sphere. In light of the Macedonian NIS, the main challenges for business innovativeness are presented.

Overall, the study makes a significant contribution towards an understanding of innovation- and growth- related issues of Macedonian enterprises in the recently emerged context of Macedonian NIS. We therefore believe that the outlined conclusions can be of a great importance for scholars who research the strategic positioning of the industrial entities in developing economies. Moreover, this study assists companies' managers and directors in improving of their strategic decisions for steering the companies toward sustainable growth. The practical implications of this paper are also beneficial for the policymakers who create the legal frame for the university-industry interactions. And finally, the results presented give certain indications for researchers and experts who assess the progress of Macedonian industry in relation to the other countries of the region.

The paper is organised into four sections. The first section explores the literature on innovation, business growth and competitiveness and examines the main challenges relevant to the Macedonian businesses, wrapping them in three research questions. The next section describes the research methodology used. The third section outlines the main results and discusses them in light of relevant findings from previous studies, and the final section concludes the outcomes and their practical implications.

CONCEPTUAL BACKGROUND AND RESEARCH QUESTIONS

The primary theoretical base for this research is the literature on innovation and innovativeness. Innovations are in the core of the economies based on knowledge. This

triggers many studies to focus on determining the factors for achieving greater innovativeness in all spheres of the societies. There are many attempts for examining topics closely related to innovation, such as knowledge transfer, absorptive capacity, learning practices and eventually, proposing models for business growth, success or competitiveness (Cohen and Levinthal, 1990). All these theoretical contributions are of a great importance and should be considered, however some relevance to the country of interest and their political and socio-economical context should be demonstrated. Therefore, this section will select some of the main contributions on the literature of innovation and will present them in light of the Macedonian NIS, as a base for constructing the research questions.

Innovation is introduction of new products, processes and ideas in the organisation. Innovativeness refers to firm's capacity to engage in innovation (Hurley and Hult, 1998). Innovation and marketing are the only two fundamental business functions for every company (Drucker, 1954). The innovativeness is acknowledged as one of the most crucial factors that influence the business growth (Schumpeter, 1934; Porter, 1990). The Schumpeter's early innovation model observing the entrepreneur in isolation is replaced by newer interactive models where the entrepreneur is a segment of innovation ecosystem of actors and institutions (Tidd et al., 2000; Brown and Eisenhardt, 1995; Szulanski, 1996). In the last decade, the open innovation model is becoming more popular (Chesbrough, 2003). This model suggests that the advantages gained from internal R&D have decreased, while the firms' innovativeness is based on utilising external sources for knowledge and expertise. Openness to the innovation, or willingness by the members of an organisation for considering the adoption of the innovation, is critical for the initiation stage of the innovativeness process (Zaltman et al., 1973). Innovativeness is often used as similar term to entrepreneurial orientation. According to Lumpkin and Dess (1996), innovativeness is different than entrepreneurial orientation because it does not require new market entry. Hult et al. (2004) demonstrated that, not only entrepreneurial orientation, but also market and learning orientations influence firm's innovativeness. Many scientists devoted serious efforts to develop a model for assessing the innovation capacity in companies. One of the most comprehensive is the attempt of Scott and Bruce (1994) who tested their model and found that leadership, support for innovation, managerial role expectations, career stage and systematic problem-solving style to be significantly related to individual innovative behaviour.

For knowledge-based economies, knowledge, or more precisely its accumulation through learning, is driving force and tends to lead to economic growth and development (Penrose, 1959; Spender, 1996). The conversion of knowledge into economic and social benefit is facilitated by good innovation systems, efficient technology-transfer and highly qualified personnel. The evaluation of knowledge assets can be assessed through its subcomponents: human capital, social/market capital and structural and renewal capital (Ndou and Del Vecchio, 2013). There is growing interest for researching the knowledge-based economic development in the emerging regions (Scott and Garofoli, 2007; Phan et al., 2008). Macedonia is often discussed as part of Western Balkan Countries (WBC), or South-East Europe. This type of regional grouping of the countries originates in the treatment of the region as economic entity for achieving regional competitiveness (Huggins and Srakova, 2012).

Measuring of the business performance as it relates to market share, product quality, sources of competitive advantage, the industry structure is discussed in many studies (Buzzell and Gale, 1987; Porter, 1980; Porter, 1985). There are several alternative views for performance, such as long vs. short term and financial vs. relationship building, but in this study we take an

exploratory perspective aiming to assess the relations between the innovativeness and the performance in general.

According to the classification derived by Nauwelaers and Wintjes (2003), Macedonian NIS is a combination of firm-oriented and system oriented policies. The former refers to principal access to human, financial and physical capital, while the latter refers to regional, system oriented policies, such as building of: networks, clusters, innovation system, innovation culture with cooperation and mobility. The governance of the NIS is at state level, with dominance of the government over the other two spheres: industry and academia. This type of state-dominant structure of the triple helix model can be seen in many post socialist countries (Huggins and Strakova, 2012). The main criticism refers to the financially dependent high-educational institutions and low scale of commercialisation of innovations and knowledge.

From this discussion the following anticipation that will be a subject of statistical testing and analysis emerges: the organisations have to leverage the capacity of their human personnel with new skills, knowledge and expertise in order to achieve higher turnover rates that result from innovative products, services, processes or activities. In respect to Macedonian NIS, we would also like to investigate the main challenges and problems for increasing the innovativeness. And finally, the willingness and readiness of the industrial sector to collaborate with external knowledge provider, such as universities, research centres or an expert, is the last question of interest in this study.

METHODOLOGY

For investigation of the research questions, a survey entitled “Survey for Macedonian companies” was constructed. The survey aims to investigate the needs of Macedonian companies and their main challenges when they innovate. The questions were formed based on the summary from the theoretical background in combination with the questionnaires constructed by the European experts for assessing the innovativeness of the countries. The pilot survey yielded critical and constructive comments from the managers which resulted in improvements of the questions and the questionnaire structure. It was conducted online in the first half of 2014. The invitation for the survey was sent out to a sample of around 500 companies, and 104 responses were collected. One of them was eliminated because the respondent was not for profit organisation.

A profile of informant’s firms is shown in Table 1. The industries vary, the three most frequent industries in the sample are: retail, other services and ICT/communications, with more than 10 representatives each. From the surveyed companies, 55 are micro businesses with 5 or less full time employees, 15 are micro businesses with up to 10 employees, 18 are small businesses and 12 are medium-sized businesses. The rest 3 surveyed companies are large corporations with the number of employees 250 or more. Regarding the companies’ age, the sample presented 12 or more representatives from each researched group, and the largest group is consisted of 33 companies operating between 10 and 20 years.

In order to compare related sets of results for the questions of interest, we used Wilcoxon rank-sum test for non-parametric statistical hypothesis testing (Statistic Toolbox, MatLab). This test assumes that the two compared sets are independent and can have different lengths, which actually was the case in most of our analyses because the respondents firms were classified based on their answers. The method assesses whether the population mean ranks of the sets differ significantly.

Table 1 Characteristics of informants' firms

Characteristics	Number in sample	Percentage
<u>Number of full-time employees in 2013</u>		
0-5	55	53.40
6-9	15	14.56
10-49	18	17.48
50-249	12	11.65
250-500	1	0.97
>500	2	1.94
<u>Industry</u>		
Retail	17	16.50
Other services	15	14.56
ICT/Communications	12	11.65
Construction industry	7	6.80
Health and social services	7	6.80
Manufacturing industry	6	5.83
Textile industry	5	4.85
Scientific services and consultancy	4	3.88
Agriculture, forestry and fisheries	3	2.91
Food processing industry	3	2.91
Other industries	24	23.30
<u>Years of trading</u>		
1-3	12	11.65
3-5	14	13.59
5-10	18	17.48
10-20	33	32.04
>20	26	25.24
<u>Gender of the CEO/owner/dominant owner</u>		
Male	68	66.02
Female	28	27.18
More owners have equal ownership shares	7	6.80
<u>Annual turnover in 2013 in €</u>		
0-10,000	20	19.42
10,000-50,000	20	19.42
50,000-100,000	15	14.56
100,000-250,000	12	11.65
250,000-500,000	11	10.68
500,000-1 million	6	5.83
1-3 millions	14	13.59
3-10 millions	3	2.91
>10 millions	2	1.94

RESULTS AND DISCUSSION

Considering the results of the survey, this section will emphasize the outcomes that answer the research questions of interest. The assessment of the companies' readiness to participate in joint research or other types of collaboration with high-educational institution, research centre or expert for knowledge transfer revealed very interesting behaviour, presented on Figure 1.

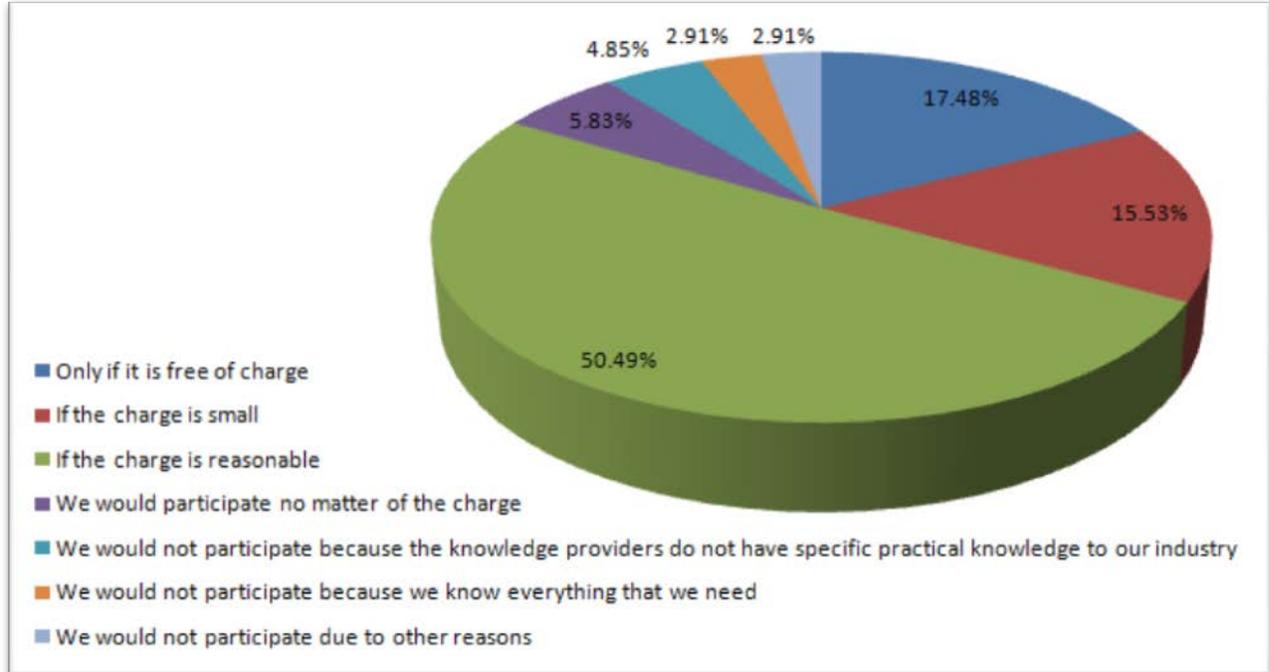


Figure 1 Willingness for collaboration with high-educational institution / research centre / expert

The pie chart points one of the criteria to be drastically more significant motivation factor for collaboration with the academic/research institution. The demonstrated high willingness for cooperation increases the importance of university – business relations and should be a driving force for the regional research and knowledge producers to improve the quality and applicability of the research.

To gain further insight into the role of different factors on innovativeness, we examined the causes that inhibit the innovative activities. The list of offered choices was shaped based on the managerial suggestions in the pilot survey. The bar chart presented on Figure 2 demonstrates that from the listed innovation inhibitors, the financial obstacles are the most selected by the companies. Other studies that research the innovation potential of the WBC determine the lack of finance as indirect inhibitor for innovation, because it causes the importance of innovation among SMEs not to be recognised (Huggins and Strakova, 2012). Also, the demonstrated significance of the lack of market demand for innovations for the companies poses a challenge to the policymakers to enhance the innovation culture and recently established framework for commercialisation of innovations. When it comes to the IP protection, the legal environment is already set and the mechanisms for financial support are offered. Nevertheless, the level of real activities is limited, which suggests the necessity for further investigation and intervention.

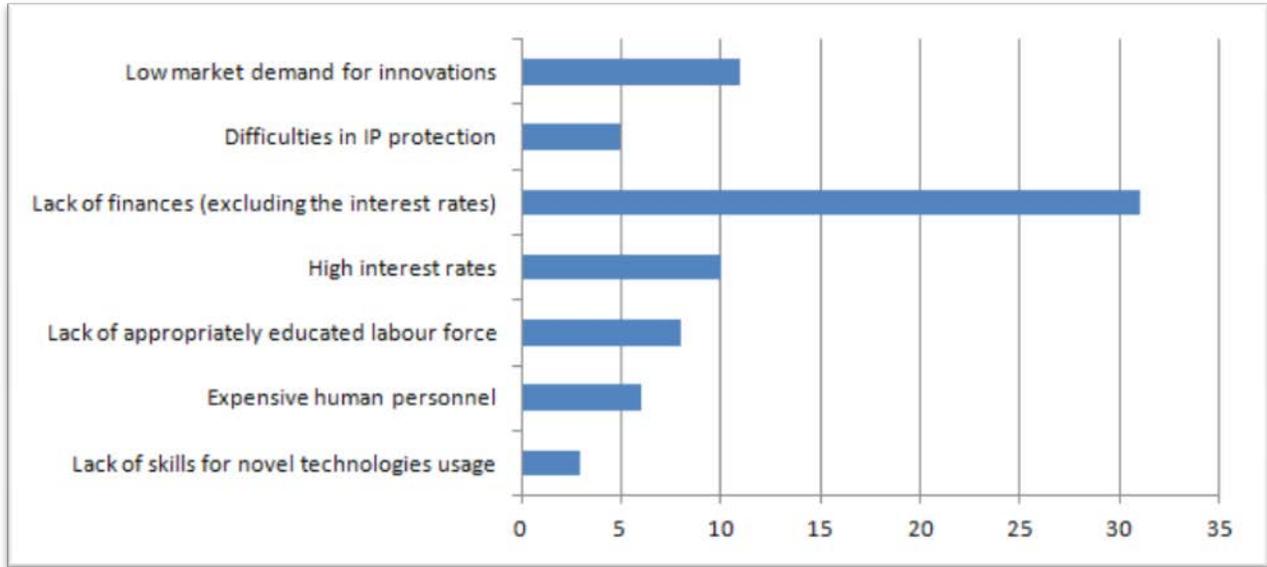


Figure 2 Main inhibitors for innovative activities

We also compared the constant training and improvement of the capacities of the internal human capital. The returned impact was measured through the percentage of turnover that comes from innovative products, services or processes. Although the difference between the means of the compared datasets was not very drastic in numbers, it was significant at a level 0.05 (the p value is 0.04). This finding confirms a trend that companies who train their employees or hire new staff when novel expertise is needed, have greater turnover percentage coming from innovations. Indeed, utilised knowledge, or absorptive capacity is of a great value for innovative activities (Cohen and Levinthal, 1990).

CONCLUSION AND IMPLICATIONS

This study deepens our understanding on some critical issues for innovation and sustainable economic growth. However, we must note that some of the recent governmental efforts for financial and infrastructural support of the innovative activities, to name the recently established innovation fund, is expected to be fruitful after certain period of time and to have real impact on the indicators measured by the Innovation Union Scoreboard.

The business sector indicated that they are ready to participate even though the interaction might not be free. For the policymakers and knowledge providers, this research outcome is very significant because it suggests them to prioritise the quality of the knowledge and credibility of the experts, rather than the cost minimisation. It is more reasonable the trainings organised for Macedonian business sector to be with some affordable fee for the companies, because the expenses create a motivation factor for the participants to grasp the maximal benefits from the opportunity and they are formally or informally obligated to their host companies to utilise the gain of knowledge and skills. Therefore, it is wise the government to dedicate some share of the financial resources planned for capacity building to wider promotion of the initiative in order to recruit as many business representatives as possible, and the financial deficit for the training organisation to supply from the companies co-financing.

Constant training and leveraging the skills, capabilities and knowledge of the human personnel in companies is the main prerequisite for boosting the innovative capacity. The

government should continue with the reforms and measurements for encouraging and strengthening the industrial links with the universities and research institutions as fundamental source for knowledge and technology transfer.

The main challenge for companies to innovate is still the financial obstacle. In light of the reforms for supporting of the innovative companies and novel methods for financing the businesses promoted, it should be devoted more effort to their promotion and popularisation. Further investigation is needed to discover the reason behind financial difficulties, despite the governmental efforts for financial support. Some of the possibilities that might be a matter of future investigation are: the companies are not well informed about the introduced methods for external financing; the conditions offered are not acceptable or do not suit the companies' needs; or they are still not convinced enough that the investment in innovative activities is the key for success. Huggins and Strakova (2012) pointed out the necessity of convincing SMEs, intermediaries and knowledge creators that innovation investments affect their medium and long-run growth. The determined financial obstacle poses another rationale for strengthening the cooperation with the research institutions. Due to the uncovered financial challenges for innovation on one hand and the demonstrated strong willingness for collaboration and knowledge transfer on the other, the government should turn the measures, policies and isolated initiatives for stimulation of the synergies into structured, well planned framework for mass involvement of the enterprises and maximal exploitation of the research capacities, with clear set of goals and indicators for assessing the impact of this framework to the national economy.

We hope that our findings will broaden managerial views and will lead to improved practices in managing the industrial innovative development. This research should inspire future investigation that delves more deeply into the determined challenges. Also, the organisational constructs discussed here, both industrial and governmental, and their interrelationships in a variety of settings should be the main focus on the governmental efforts for boosting the national economy.

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**THE ROLE OF EFFECTIVE SOFTWARE MAINTENANCE IN INCREASING
COMPETITIVENESS OF VERY SMALL
SOFTWARE COMPANIES**

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Abstract

Competitiveness is defined as an ability to sell and supply goods and services in a given market, in relation to the ability and performance of other firms, sub-sectors or countries in the same market. It is also one of the most significant factors which determine the survival of small software companies in highly dynamic and uncertain business environment. Being competitive is very important since recent investigations show that small software companies are dominant in economies across the globe, the software industries bankruptcy rate is much higher than the rates in other industries, and small software companies have increasing share in economic activity, employment, innovation and wealth creation in many countries. In this paper, the challenges of the software maintenance are discussed, as being an integral part of the software application life cycle, from the aspect of competitiveness. It has been widely recognized that software maintenance is the most costly part of the software life cycle, which deserves more attention from both researchers and practitioners. Since software maintenance is an ongoing process with the aim of keeping software useful, the imperative in software maintenance is achieving well-managed processes that will reduce errors through the software life cycle. Moreover, managed maintenance processes increase credibility and viability of software organizations that provide maintenance services, and also has a positive impact on business performance and competitiveness. As a case study, a maintenance request process improvement approach implemented in a small software company is presented. Based on the light process assessment technique, it increases effectiveness of the whole software organization, the quality of products and services provided to clients, which contributes in gaining competitive advantage on the market.

Keywords: very small software companies, software maintenance, process improvement, competitiveness, competitive performance

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INTRODUCTION

Small companies dominate in the economies of most countries across the globe (Richardson and von Wangenheim, 2007). Because of their importance to economic activity, employment, innovation and wealth creation in many countries, research on small companies deserves important attention (Bell *et al.*, 2004). Fayad *et al.* (2000) stated that small software companies produce the most of the software for consumers with the constrained budget than for large industry and deep-pocket government. Therefore, it is not surprising that the vast majority of software and data processing companies are small and that those with more than 50 employees comprise only a few percent of the total number (Fayad *et al.*, 2000). Coleman and O'Connor (2008) reported that 61% out of a total of 630 indigenous software companies in Ireland employed 10 or fewer people. Laporte *et al.* (2006) reported that in Europe 85% of IT sector companies have between 1 and 10 employees, while in Montréal area in Canada over 50% have fewer than 10 employees. Ania and Mejia (2007) found that 24% of the software services companies in Mexico are micro enterprises (less than 15 employees), while 79% are SMEs (less than 250 employees).

Software industry, mainly based on small and medium sized software companies, has been recognized in developing countries as an option for gaining competitive advantages in globalized market (Baeza-Yates *et al.*, 1995; Heeks, 1999; Ania and Mejia, 2007). Permanent contact with suppliers, continuous improvement and measurement of customer satisfaction are necessary for survival of any firm in highly competing business environment. However, empirical study presented by Gulbro *et al.* (2000) revealed that small firms are less likely to use common practice improvement activities and methods. In addition, very small software companies rarely implement standards and best practice recommendations that might result in the long-term benefits and gradual improvement of software development and maintenance processes (Ribaud *et al.*, 2010). Researchers have already pointed out several ways how software firms can improve their competitiveness through assessment and improvement of their everyday practice. For example, improvement of the software development processes through reusability of software components, which is considered a key determinant of application development productivity and maintainability of applications is a common approach in increasing productivity and competitiveness (Malan and Wentzel, 1993; Ah-Fock and Cavaye, 2003).

It has been recognized that software maintenance is the most costly part of the software life cycle (Bennett and Rajlich, 2000; Boehm and Basili, 2001; Pfleeger, 2006; Pino *et al.*, 2011). Both researchers and practitioners from industry reported that software maintenance consumes between 40% and 90% of the total costs for typical lifecycle of a software product, and, therefore, provides important business opportunity. Since software maintenance is an ongoing process with the aim to keep software useful, the imperative in software maintenance is to reach managed process that will reduce errors through the software life cycle (Banker *et al.*, 2002). In addition, managed maintenance process increases credibility and viability of software organization that provides maintenance, and also has impact on business performance aspects such as productivity and profitability (Alsyouf, 2007). Because of high costs of maintenance, maintenance processes are promising area for gaining competitive advantage. According to Stark and Oman (1997), selection of an inappropriate process model can result in increased user dissatisfaction reflected in the growing number of requests, problems with scheduling and increased costs, as well as a higher number of defects in released products.

O'Neill (1997) identified categories that influence effectiveness of software maintenance and have important impact on competitiveness of software organizations. These categories are presented in Fig. 1. Each of identified categories (engineering, management,

personnel, product, customer and government) includes several indicators suitable for assessing the effectiveness of software maintenance.

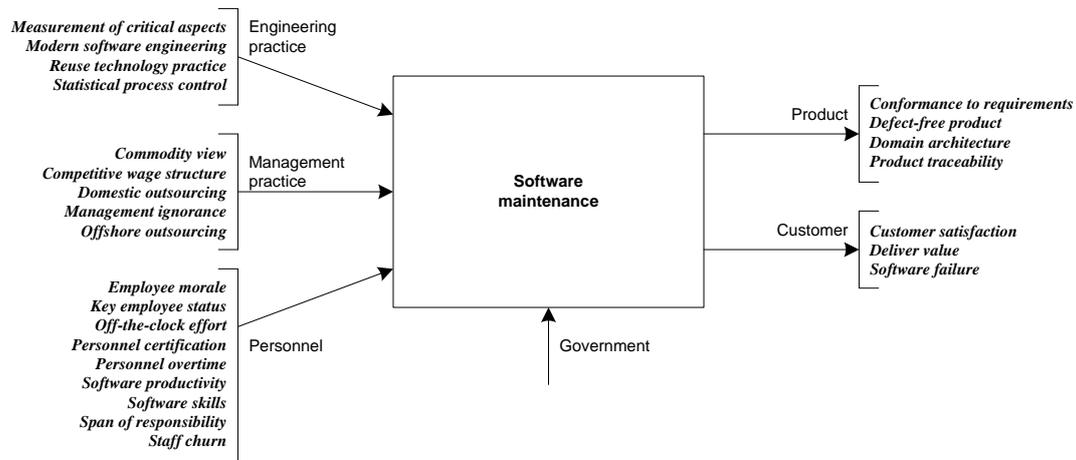


Figure 1. Categories and indicators relevant for assessing software maintenance competitiveness (O'Neill, 1997)

This paper provides evidence how indicators for maintenance effectiveness, presented in Fig. 1, have been used in a local small software company to increase its competitiveness. Based on the discussion related to proposed indicators, a lightweight assessment approach for maintenance process assessment and improvement is presented. The paper also contains reflections on experience and lessons learned in the practice.

RELATED RESEARCH

The focus of this paper is on small software firms and challenges of the software maintenance from the perspective of competitiveness. Software applications, as fundamental building blocks in enterprises' business strategies, need continued support and maintenance. Providing optimum application maintenance and support on time is a key premise to successfully addressing the vital issues of software performances, as well as its dependability (availability, reliability, safety, etc.) which altogether add great value to competitiveness of small software firms. However, successful implementation of improvements in the maintenance practice requires deeper understanding of relevant issues identified in the practice and in the appropriate literature. This might be a problem because of the gap between the research and practice, especially when the focus is on small software companies (Stojanov, 2012). The rest of this section will provide short overview of related researches in the fields of assessment and improvement of software maintenance processes and competitiveness of small software companies.

COMPETITIVENESS OF SMALL SOFTWARE COMPANIES

In the globalized, both highly dynamic and uncertain business environment, the notions of competitive advantage, competitive performance, and competitiveness, in general, have recently become increasingly important for enterprises worldwide. Due to intense competition, software firms are pressured to respond quickly to market changes through reduced time-to-market, better cost-effectiveness and by delivering high-quality products (Cusumano, 1991; Nidumolu and Knotts, 1998). Having in mind these observations, the essential question to deal with is: how can software enterprises improve their software

development and maintenance processes in order to achieve and sustain a competitive advantage over their business opponents on the market?

Most of the investigations in this area have been done on a regional or national/country level. They mainly focus on analyzing and elaborating the current status of the software industries within countries, as well as proposing recommendations for software enterprises how to join and sustain on the global market. For example, Brown *et al.* (1995) have assessed the global competitiveness of the U.S. computer software and service industries, while Arora and Gambardella (2005) have made a thorough research on rise and growth of software industries in Brazil, China, India, Ireland, and Israel. Radošević (2006) has explored the growth and competitive advantage in Central and East European (CEE) software firms, based on a survey data gathered from six CEE firms. Recently, Saković (2010) has proposed a quantitative methodology for leveraging the competitiveness of Serbian firms in doing ICT offshore outsourcing services among selected CEE countries.

A plethora of research has been undertaken in the last two decades to enlighten the competitiveness-related issues of both software industries and software firms worldwide. For instance, Shee (2011) has studied the competitiveness' factors of software firms, proposing a framework, which hierarchically organizes 72 criteria into 15 factors, and factors into three facets of competitiveness: assets, process and performance. In addition, Li *et al.* (2010) have thoroughly investigated the reasons why firms fail or survive in a volatile software industry by taking account how their internal business capabilities (marketing, operating, and research & development) and competitive actions (both innovation-related and resource-related) affect their ultimate survival. On the other hand, Shee and Pathak (2005) have pointed out the fact that competitive performance of software firms depends heavily on the technological knowledge of software professionals, not solely on the adopted hardware/software technologies. They have concluded that sustainable competitiveness can be achieved through continuous recruiting and nurturing, training and upgrading of the human resources, especially the technologically skilled workforce.

SOFTWARE MAINTENANCE ASSESSMENT AND IMPROVEMENT IN SMALL SOFTWARE COMPANIES

Software process assessment and improvement initiatives in small software organizations have achieved some promising results. However, because of well-known limitations and characteristics of small software organizations they have not been entirely successful (Espinosa-Curiel *et al.*, 2013). In addition, a large number of factors influence implementation of assessment and improvement initiatives (Dyba, 2003), and their understanding is necessary for success. Despite the fact that software maintenance is the most costly part of software life cycle, it has not gained appropriate attention in the literature oriented towards small software companies.

Kajko-Mattsson (2002) reported that many software organizations have not defined maintenance process models. According to Van Bon (2000), there is a lack of process management in software maintenance. Some proposal of heavyweight maintenance process models for large software organizations have been reported, such as SMmm (April *et al.*, 2005), MANTEMA (Polo *et al.*, 1999; Polo *et al.*, 2000) or corrective maintenance maturity model – CM3 (Kajko-Mattsson, 2002). These models are not suitable for small software companies or cover only a particular type of software maintenance.

Based on comprehensive literature review, the only methodology for managing and improving maintenance processes suitable for small software companies is Agile_MANTEMA, proposed by Pino *et al.* (2012). This agile methodology proposes detailed guide for implementation of maintenance processes in small software companies.

The goals of Agile_MANTEMA are to handle the complexity of maintenance processes and to allow small companies to define their own maintenance processes based on their specific needs. Agile_MANTEMA methodology was implemented in two small companies. Reported experience by the companies confirmed that Agile_MANTEMA offers useful, practical and suitable methodology for small companies.

FIELD STUDY

The field study was conducted in a very small local software company located in Zrenjanin, Serbia. According to Lethbridge *et al.* (2005), improvement of software engineering practice should be based on the field studies conducted in real settings with real practitioners. The aim of the field study is assessment and improvement of software maintenance processes based on the in-depth investigation of the software practitioners' work in a real setting. The study was implemented as a part of the long-term project (2011-2014) named “*The development of software tools for business process analysis and improvement*” supported by the Ministry of Education, Science and Technological Development, Republic of Serbia. Based on the proposed research goal, research question and research design were derived, which influenced the selection of techniques for collecting and analyzing empirical data. Because of the complexity of the practice influenced by both human and technical factors, a multi-strategy approach based on both quantitative and qualitative data collection and analysis techniques was used in the study, which ensures more comprehensive and reliable implementation of process improvement activities (Rainer and Hall, 2003). This approach was based on establishing a relationship of trust between university researchers and company employees that work together on assessing and improving selected aspects of the practice.

THE CONTEXT

The company is oriented towards local clients in Serbia. It maintains over 30 business software applications that are highly dependent on the regulations proposed at the national level in Serbia. Six programmers were grouped in small groups associated to software applications. Each programmer is the member of several groups based on the participation in the development of software applications. The main idea that guided the distribution of programmers in several groups is to assure more balanced distribution of tasks and faster processing of clients' requests.

Maintenance activities are based on maintenance requests (MRs) received by clients. Each received MR is forwarded to a programmer from a set of programmers assigned to a software application affected by the MR. Insight into records available in local repository of tasks in the company for the period from May 2010 to November 2011 revealed that 1,896 tasks out of totally 2,252 tasks are related to software maintenance (84%), while 356 tasks are related to other activities (16%). Maintenance trend analysis was conducted by researchers and programmers (Stojanov *et al.*, 2013a).

SOFTWARE MAINTENANCE PROCESS ASSESSMENT AND IMPROVEMENT

Field data used for assessing maintenance practice were collected by using various techniques: quantitative data from the local task repository were extracted by using SQL script and by using survey among clients, while qualitative data were collected through practice observation and interviews with programmers (Given, 2008). Majority of data analysis was done on feedback meetings in the company (Stojanov *et al.*, 2013a).

Lightweight method for Maintenance Process Assessment based on Frequent Feedbacks (LMPAF²) was developed in order to assist small software companies to assess the state of maintenance processes, and identify potential improvement directions. The method was developed and initially implemented in the selected local small software company. LMPAF² was developed as a part of the lightweight software maintenance process improvement (SMPI) approach for Very Small Software Companies (LSMPI4VSSC). Execution of LMPAF² in the context of LSMPI4VSSC is presented on Fig. 2. The high level flow of documents is presented with dashed lines.

The core of the LMPAF² approach is the feedback that aims at feeding data back to relevant individuals or groups (managers, programmers, researchers). The feedback is usually part of a typical sequence of activities, which includes collecting, analyzing and interpreting data (Dyba *et al.*, 2004). It is usually followed up with other activities based on the results and conclusions agreed during feedback session. Feeding back data during feedback sessions is conducted in order to interpret measurement data and experiences, compare them with the proposed goals, and to suggest further assessment or improvement of activities. Based on the feedback meetings' conclusions further activities are determined.

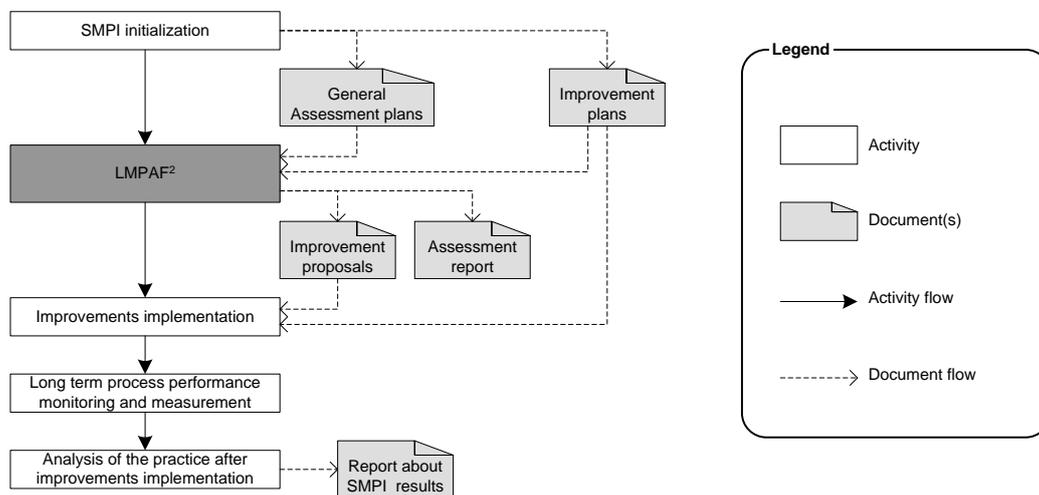


Figure 2. Lightweight SMPI approach for very small software companies

All feedback meetings were prepared in advance in order to reflect the current state of the assessment. Meetings' schedules were arranged with expected participants (researchers, manager and programmers). Some initial material and meeting agenda were prepared and distributed via e-mails before the meeting. All discussions were type-recorded, and records were later transcribed and analyzed. Sessions lasted between 30 and 60 minutes. Practically, they were semi-structured, which means that a session plan and an initial discussion had been prepared in advance, but discussions during the sessions included many issues that had not been planned.

The process assessment results in two reports:

- *Assessment report.* Document that contains relevant details about the assessment activities: definition of the context, personnel included and defined roles, planning activities, data collection methods and activities, data analysis methods and results, feedback meetings details.
- *Improvement proposals.* Documents containing a list of elaborated improvements that should be implemented in the practice.

The implementation of improvements in the practice was based on proposals documented after finished assessment. Few improvements related to timeline of the

maintenance request processing were implemented. These improvements included modification of the local task repository where all tasks and associated maintenance requests were recorded, modification of the interface of web-based application for tracking tasks and requests, and modification of affected software components in the business layer of the application.

EFFECTS ON SOFTWARE MAINTENANCE EFFICIENCY

The implementation of proposed improvements requires long-term monitoring and measurement to ensure the maximum effect in practice. Currently, few proposed improvements were implemented at the beginning of 2013 and further detailed analysis will provide insight about their effectiveness. The implemented improvements are continually monitored, but detailed statistical analysis of repository records is planned for the last quarter of 2014. However, personal subjective reports, provided by programmers and the company manager (recordings taken during working meetings in the company), provide initial evidence that improvements have made some maintenance tasks easier for tracking and more comprehensible. These subjective opinions suggest that improvements had a positive impact on maintenance tasks.

It is important to note here that improvement proposals related to providing additional services to clients have not been implemented yet. These improvements will be implemented after statistical verification of the efficiency of the currently implemented improvements.

DISCUSSION ABOUT CONSEQUENCES ON THE COMPANY COMPETITIVENESS

The discussion in this section is based on the shortfalls that influence maintenance effectiveness and competitiveness, identified by O'Neill (1997), and lessons learned from the maintenance process assessment and improvement activities in the company. The following major indicators were elaborated: government initiatives and regulations, engineering practices, management practices, personal resources, software products and clients contribution. Implemented assessment and improvement activities significantly contributed in achieving higher level of competitiveness in the areas identified as the most critical for the practice.

Engineering practice. The main concern in efficient engineering practice is measurement of critical aspects of processes and statistical analysis of identified issues. This is achieved through comprehensive analysis of maintenance repository with 1,896 tasks related to software maintenance. Trend analysis (Stojanov *et al.*, 2013a) and regression analysis (Stojanov *et al.*, 2013b) provided statistical evidence on the assessed maintenance processes. Both analyses revealed a high level of process efficiency before implemented improvements, and helped in identifying possible directions for improvements. In addition, the use of modern software engineering methods and tools during the work increases the efficiency of provided maintenance services. This is reflected in using MR tracking repository and web-based system for tracking MRs, as well as using modern software engineering tools for developing and maintaining software applications.

Management practices. Company management is aware that efficient practice and competitive advantages might be achieved only if the company has *competitive wage structure* for employees and *managers that are aware* of market conditions, and through adoption of modern technologies and best practices in the daily work. The fact that the core of the company team is comprised of programmers that work together more than 10 years confirms the positive management practice.

Personal resources. The key factor for the success of software companies in the competitive market are *motivated* programmers and analysts that also shows the *highest level of morale* in facing demanding and difficult challenges. In addition, the company management devotes special attention in providing *special benefits and compensations* for employees based on their contribution to the success in the developing the company and its competitive positioning in the market. Taking care of the *balanced distribution of the responsibility* (Stojanov *et al.*, 2013a), the company management ensures that *programmers are not overloaded* with tasks and that all tasks will be completed in proposed deadlines.

Software products. Efficient maintenance of products is ensured through the implementation of an organizational policy, which ensures that programmers included in development of software are also responsible for the maintenance. With this approach, it is *easy to trace changes* in the products used by different clients and to ensure that relevant *domain knowledge* is incorporated in the product.

Clients' contribution. Issues elaborated in the previous paragraphs of this section ensured the highest level of clients' satisfaction. This is confirmed after analyzing *survey* results conducted among the company clients. This survey was conducted before implementing improvements, and the results have not been published yet. Another survey is planned after long-term monitoring of improvements. However, survey results revealed the high level of the company's competitiveness in the market segment dedicated to business applications based on national regulations.

Government initiatives and regulations. Since the company develops and maintains business software applications that are dependent on national regulations, company employees *regularly monitor changes in regulations* relevant for their software applications, as well as *researches published* by relevant bodies.

CONCLUDING REMARKS

Management and improvement of software maintenance processes in small software companies is challenging and demanding task, which requires systematic approach that will provide detailed implementation guidelines. This is very important because of the well-known constraints of small software companies and significant share of software maintenance in their business activities.

This paper reports positive experience in implementing lightweight maintenance process improvement approach in a local very small software company in Serbia. Several proposed improvements have been implemented in the practice. Initial subjective opinions, provided by the programmers and the company manager, are encouraging.

Further work will include several promising directions. The first and currently the most important one is the completion of the current improvement project by providing a formal statistical evidence on the effectiveness of implemented improvements, as well as their influence on the business performance and competitiveness. The next direction is an adaptation of the proposed approach to other process in small software companies and development of a more comprehensive approach for process improvement suitable for small software companies.

ACKNOWLEDGEMENTS

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THE EFFICACY OF MACEDONIA'S INNOVATION PLATFORM

Stojanovska Slagjana, PhD¹

Abstract

The innovation is important for driving economic progress and competitiveness for both developed and developing economies and thus it is a crucial element of sustainable growth. The experience of developed countries shows that it is necessary mutual action from of institutions and the interactive processes in the creation, application, and diffusion of knowledge, human capital, and technology. This means that today's innovation system is no longer restricted to R&D laboratories and to published scientific papers as it was previously seen. On the contrary now it emphasizes the collaborative nature of innovative processes regarding productive interactions among innovation actors as firms, the public sector, academia, and society. Therefore, national politics and strategies should be directed towards improving the linkages between the innovation actors and towards encourage social innovations and business model innovations as well. This article has several goals: first, to understand the innovation, the innovative drivers and their mutual influence; then, to assess the extent of Macedonia's environment of innovation and the linking among innovation actors, to determine its strengths and weaknesses and finally, this compared with innovative performance of countries in same income group. For this purposes, the key drivers of the framework of Innovation Input Sub-Index in the Global Innovation Index (GII) are considered. The findings present that Macedonia must institute a national model that establishes coherent linkages in innovation systems. This findings should help policy makers, decision makers and other stakeholders to identify and to create better policies, practices and other levers which will foster national innovation as well as to implement strategy for inclusive innovation based on collaboration at both the firm and country-wide levels.

Keywords: innovation, Global Innovation Input Sub-Index, Macedonia's innovation platform

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SETTING THE CONTEXT OF EFFICIENT NATIONAL INNOVATION PLATFORM

Innovation has important role for both the companies and country. For the companies, innovation improves productivity, enables development and investment return. On other hand, the increased productivity encourages economic grow, raises living standard and stimulates employment in the countries. Productivity is the heart of the competitiveness. The best way for companies and countries to raise competitiveness is they to find new methods for productive utilization of natural, human and capital resources. To achieve this goal they must innovate.

Over the last two decades innovation is perceived and understood as: “the implementation of a new or significantly improved product, or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations (OECD, 2005). This definition clearly reflects that innovation includes research and development that areis not directly related to the development of a specific innovation and improvements in business practices, relationships and organizations. Besides, the definition implies that the innovation process includes various innovative actors and a broad range of activities that help the company become more productive and competitive. Based on “Oslo Manual” (OECD, 2005) developed by the European Communities and the OECD as innovation activities are seen, considered all scientific, technological, organizational, financial and commercial steps which actually, or intended to, lead to implementation of innovations. The main actors involved in innovation process (at macro and micro level) can be identified as: knowledge producers (universities, research institutes, R&D labs, training institutions, etc;), knowledge applicators (business and industry) and governance structure. The collaboration and the flow of ideas between these actors that form the innovation system of the country and access to knowledge are all increasingly important ingredients of innovation, which also opened a new perspective in understanding the forces of competitiveness and national progress.

The three main actors (1) Industry (companies), (2) Academia (researchers and universities) and (3) State (politicians) -the same elements are recognized in the Triple Helix (TH) concept - are interrelated and work with each other through a number of different links, processes and structures. This concept, developed in 1990s by Etzkowitz (1993) and Etzkowitz and Leydesdorff (1995) and today it is still developing through theoretical and empirical research, is a spiral model of innovation that captures multiple reciprocal relationships at different points in the process of knowledge capitalization (Etzkowitz, 2000). The thesis of TH model is that the potential for innovation and economic development in a Knowledge Society lies in a more prominent role for the university and in the hybridization of elements from university, industry and government to generate new institutional and social formats for the production, transfer and application of knowledge (Ranga & Etzkowitz, 2013). In this process the TH boundaries among institutional spheres are blurred and their tasks are overlap. For example “... the university assumes this role not only as a supplier of useful knowledge and human capital, but as another “industrial actor” creating intellectual property and coshaping new firms.

Furthermore, industry should not only use practical appliance of knowledge, but also producing knowledge with a purpose of creating a wealth. And, finally, governments enter the scene as entrepreneurs directly and/or indirectly, to variable extents, not only supplying the resources to the other actors or regulating their relations with each other, but as an instigator of organizational innovations and structural adjustments that increasingly form the basis of

innovation systems (Leydesdorff., Etzkowitz, 2001). The Triple Helix concept is widely applied in characterizing all interactions between actors in the fields of business, science and politics which produces effective innovation systems in national, regional or sectoral contexts. This concept is used as the general framework emphasizing the network of institutions in the innovation and entrepreneurship system to be viewed and taken into account in relation to the new roles and responsibilities universities take in the modern world. (Levi-Jakšić et al., 2012b).

The main objective of this paper is to add a common understanding of the national innovation system framework in Macedonia (in this article is called Macedonian platform), to indicate of its structure and stakeholders but also to assess the quality of their mutual relations. For this aim the drivers in the Innovation Input Sub-Index of The Global Innovation Index (GII) are analyzed and quality, capacity and potential of the Macedonia's innovation platform are assessed for 2012 and 2013. This sub-index is built around five pillars that content indicators for 57 drivers and due it represents a useful tool on determining strengths and weaknesses of our innovation platform. Also, in the index are ranked a number of countries around the world, so it allows their mutual comparison. This relative ranking is helpful for policy makers and experts to understand existing successes and areas of improvement.

MAPPING OF THE NEW NATIONAL INNOVATION PLATFORM

Important step in the development of modern EU innovation policy was the Green Paper on Innovation, published in 1995 (European Commission) and the First Action Plan on Innovation in Europe in 1996. The principles formulated in these documents had a great influence to the common EU as well as National public policies of the Member States. In same sense the newest trends in EU innovation policy were defined by 2000 Lisbon Summit of the Council of Europe, which set the strategic goal for the next decade: "... to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion." (European Commission, 2000).

One of the main tools of achieving this goal is innovation. In sense of it European Commission (2000) in its Communication sets five objectives: (1) coherence of innovation policies, (2) a regulatory framework conducive to innovation, (3) encourage the creation and growth of innovative enterprises, (4) improve key interfaces in the innovation system, and (5) a society open to innovation. Recognizing this innovation challenge, the European Council, in March 2006, endorsed the European Commission proposals for a comprehensive EU approach to innovation policy. As a result of this, the development of an innovation policy is considered as one of the cornerstones of the economic strategy of governments (OECD, 2010a). Today, innovation is at the core of the Europe 2020 Strategy (EC, 2010a) agreed upon by EU Member States at the June 2010 European Council. Within the context of the Europe 2020 Strategy, the EU Member States have agreed on an action plan to achieve an Innovation Union (EC, 2010b).

In line with the Innovation Union policy the government of the Republic of Macedonia embarked the country on a path of reforms to facilitate growth and innovation. Since 2008, our country starts the process of developing and adopting several policies that have an influence or are targeted towards innovation in the country. For the development of the first the Innovation Strategy, a comprehensive review of the national innovation system has been conducted (OECD,

2012). In addition to these efforts, four priority objectives were determined in the recently adopted National Innovation Strategy 2012-2020 and Action Plan 2013-2015. Those goals are (WB, 2013, p. 26): (1) enhance the business sector propensity to innovate, (2) strengthen human resources for innovation, (3) create a regulatory framework to support innovation, and (4) increase knowledge flows and interactions between research institutions and business. Our innovation strategy aims to transform the country into a knowledge-based economy able to compete in international markets through its skilled labor and innovative companies. Therefore, its implementation relies on triple helix principles, overlapping of responsibilities and cooperation between innovation actors: the business community, the academic sector, and government bodies.

THE GLOBAL INNOVATION INDEX: MEASURE TOOL OF INNOVATION POLITICS

The Global Innovation Index (GII)² is measure tool that allows a number of countries in the world to follow their innovation developments and the progress of national innovation strategies and on this basis to assess what worked (or not) and where. GII captures two sub-index: the Innovation Input Sub-Index and the Innovation Output Sub-Index, each built around pillars that includes total 84 indicators. The overall GII score is the simple average of the Input and Output Sub-Indices. In the Innovation Input Sub-Index are included drivers of the national economy that enable innovative activities, while Innovation Outputs Sub-Index presents the results of innovative activities within the economy. Thus way this tool contributed countries to assess the national climate and infrastructure for innovation and related outcomes. Also, GII allows ranking of nations with respect to innovation.

In 2012 the GII looked at 141 economies, while this year, GII 2013 includes 142 countries around the world. In GII report the results are assessing on the basis of the development stages of countries, captured by the World Bank income classifications (April 2012). According to this principle, countries are divided into: High-income (HI), Upper-middle-income countries (UM), Lower-middle-income countries (LM) and Low-income countries (LI). So, this tool enables the countries in the same region or of the same income group mutual to compare their innovation performance and to identify and adopted the best innovative practices in order to build sound innovative platform.

THE GLOBAL INNOVATION INPUT SUB-INDEX: THE INNOVATION PLATFORM FRAMEWORK

The national innovation platform is defined through the framework of the Innovation Input Sub-Index. This sub-index relies on five pillars significant for innovative activities in the country, as: (1) Institutions, (2) Human capital and research, (3) Infrastructure, (4) Market sophistication, and (5) Business sophistication (see Figure 1). Each pillar is divided into three

² Since 2007, the GII was first published by INSEAD, and the World Intellectual Property Organization (WIPO, a specialized agency of the United Nations). The GII go beyond the traditional measures of innovation such as the level of research and development. Today it is a major benchmarking tool for business executives, policy makers and others seeking insight into the state of innovation around the world.

sub-pillars and each sub-pillar is composed of individual indicators. The score of this sub-index is an average of total 57 indicators

The Institutions pillar captures the following three sub-pillars: the political environment, the regulatory environment and the business environment (see Table 1.1). The political environment sub-pillar reflects perceptions of the likelihood that a government might be destabilized; the quality of public and civil services, policy formulation, and implementation; and perceptions on violations to press freedom. The regulatory environment sub-pillar includes three indicators, as: regulatory quality, rule of law and cost of redundancy dismissal. The business environment sub-pillar includes also three aspects: the ease of starting a business; the ease of resolving insolvency, and the ease of paying taxes captures the institutional framework of a country.

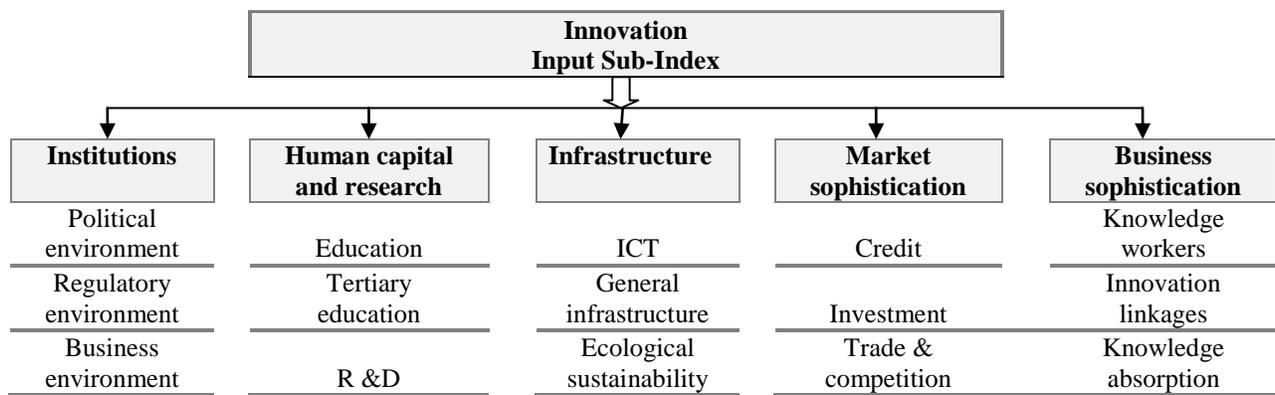


Figure 1: Framework of national innovation platform

Source: The Global Innovation Index 2013, INSEAD and WIPO 2013, p. 6

Human capital and research pillar includes three sub-pillars: education, tertiary education and R&D (see Table 1.2). The education sub-pillars cover this follow indicators: expenditure on education; public expenditure on education per pupil; school life expectancy; assessment in reading, mathematics, and science; and pupil-teacher ratio, secondary. The tertiary education sub-pillar use indicators by: tertiary enrolment; graduates in science and engineering; tertiary inbound mobility; and gross tertiary outbound enrolment. The last sub-pillar, on R&D, measures the level and quality of R&D activities, with indicators on researchers (headcounts), expenditure, and perceptions of the quality of scientific and research institutions (QS university ranking average score of top 3 universities).

Infrastructure pillar includes three sub-pillars: information and communication technologies (ICT), infrastructure, and ecological sustainability (see Table 1.3). The Information and communication technologies (ICTs) sub-pillar includes indicators for: ICT access; ICT use; government’s online service; and online e-participation. In the general infrastructure sub-pillars are capture indicators for: electricity output; electricity consumption; logistics performance; and gross capital formation. In the last sub-pillar are included indicators for: GDP per unit of energy use; Environmental performance; and ISO 14001 environmental certificates.

Market sophistication pillar has three sub-pillars structured around market conditions and the total level of transactions, as: credit, investment, and trade and competition (see Table 1.4).

First sub-pillars include follows indicators: ease of getting credit; domestic credit to private sector; and microfinance institutions' gross loan portfolio. The investment sub-pillar captures four indicators: ease of protecting investors; market capitalization; total value of stocks traded; and venture capital deals. Third sub-pillar tackles applied tariff rate, weighted mean, market access for non-agricultural exports and intensity of local competition.

Business sophistication pillar reflects the level of business sophistication to assess how conducive firms are to innovation activity (Table 1.5). This pillar captures three sub-pillars: knowledge workers, innovation linkages, and knowledge absorption. The first sub-pillar includes follows indicators on knowledge workers: employment in knowledge-intensive services; firms offering formal training; R&D performed by business enterprise (BERD); expenditure for R&D that is financed by business enterprise; and two indicators related to the Graduate Management Admission Test (GMAT). The GMAT mean scores and total number of test takers (scaled by population aged 20 to 34 years old) were taken as proxies for the entrepreneurial mindset of young graduates and for their overall aptitude for success in global innovation markets (where skills in English and mathematics are crucial). The innovation linkages sub-pillar draws on both qualitative and quantitative data regarding business/ university collaboration on R&D; the prevalence of well-developed and deep clusters; the level of gross R&D expenditure financed by abroad, the number of deals on joint ventures and strategic alliances; and Patent families filed in at least three offices. The last, knowledge absorption sub-pillar includes indicators that are linked to sectors with high-tech content or are the key to innovation: royalty and license fees payments; high-tech imports; imports of communication, computer and information services; and net inflows of foreign direct investment (FDI).

WHERE DO WE STAND?

Macedonia with GDP per capita from 10,717.5 \$ in GII is placed in group of upper-middle-income countries with other 40 economies. In the group of upper-middle-income countries among 141 countries in 2012, the best top 10 performers in the Innovation Input Sub-Index (GII 2012, p.19) are: (1 position) Malaysia (29th place among 141 countries), (2) Latvia (36th), (3) Lithuania (38th), (4) Chile (43rd), (5) South Africa (45th), our two neighbors (6) Bulgaria (47th) and (7) Montenegro (48th), follows (8) Mauritius (49th), (9) Romania (51st) and finally (10 position) Macedonia (52nd among 141 countries).

Table 1: The structure of Macedonia's innovation platform and ranking

	Macedonia				Montenegro		Bulgaria		
	2012 (out of 141) Score Rank (0–100)		2013 (out of 142) Score Rank (0–100)		2013 (out of 142) Score Rank (0–100)		2013 (out of 142) Score Rank (0–100)		
GII	36.2	62	38.2	51	41.0	44	41.3	41	
Innovation									
Input Sub-Index	43.2	52	44.5	48	47.7	40	44.0	50	
Pillars	1. Institutions	68.8	42	65.4	58	67.9	52	68.0	51
	2. HC and research	36.6	65	36.1	52	46.7	29	35.7	55
	3. Infrastructure	35.1	62	33.2	67	34.0	65	40.0	43
	4. Market sophistication	43.1	52	51.4	41	57.3	29	43.9	83
	5. Business sophistication	32.2	110	36.4	51	32.4	64	32.2	65

Source: Author's compilation from data of GII 2012 and GII 2013

In 2013 (see Table 1) among upper-middle-income economies with top 10 positions in the Input Sub-Index (GII 2013, p. 19) three economies are highlighted from the Balkan region, we of 7 position (48th out of 142) and two our neighbors: (4 position) Montenegro (of 40th) and (8 position) Bulgaria (of 50th). The progress of the Montenegro is mostly a result of a good policy mix on multiple fronts: institutions, skills, infrastructures, integration with global markets, and linkages to the business community.

Our performance has been improving steadily in recent two years in relation of 2011, but there are major changes and among the indicators in 2013 compared with those in the 2012. As Table 1 shows, according to GII Macedonia is currently ranked 51th among GII 2013 countries (among 142 countries), an improvement of 11th places over 2012 (among 141 countries) while in 2011 was ranking of 67th (among 125 countries).

The Innovation Input Sub-Index of Macedonia has improvement in 2013, ranking of 48th, in relation of 2012, where is ranking 52nd. The Macedonia's innovation platform has improved indicators in three pillars: human capital and research (52nd) and market and business sophistication (where it ranks 41st and 51st, respectively). It needs to make improvements in the institutions framework (58th) and in infrastructure (67th) to move up in the rankings (see Table 1). The in-depth analysis of these five pillars shows where improvement occurred and where not.

In terms of the Institutions pillar (Table 1.1) findings suggest that our major strengths in 2012 was the sub-pillar Business environment (where it ranks 12th) while it compared of 2013 dropped 20 places (32nd). In 2013 also the score of sub-pillar Political environment dropped five positions (82nd) compared of 2012 (77th) while only the sub-pillar Regulatory environment has improved, ranking 56th, up one position from 57th in 2012. In terms of our two neighbors from upper-middle-income group, Macedonia shows lower performance in respect of the last two sub-pillars.

Table 1.1: The structure of institutions pillar and ranking

Pillar 1	Macedonia				Montenegro		Bulgaria	
	2012		2013		2013		2013	
	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank
Institutions	68.8	42	65.4	58	67.9	52	68.0	51
Political environment	54.0	77	52.1	82	62.3	55	61.2	56
Regulatory environment	69.8	57	69.7	56	70.8	49	77.2	39
Business environment	82.7	12*	74.5	32	70.5	44	65.5	64

Note: the mark * indicates a strength

Source: Author’s compilation from data of GII 2012 and GII 2013

This pillar reflects the ability of the government to formulate and implement policies which facilitate the work and development of the private sector and the extent to which the rule of law prevails (in aspects such as regulatory quality, rule of law and cost of redundancy dismissal). According to findings presented above our government should make improvements to its policies because nurturing an institutional framework that attracts business and fosters growth by providing good governance and the correct levels of protection and incentives is essential to innovation. The framework conditions regulating the complex relations between these innovation actors are essential to build an innovation-friendly environment and foster innovation infrastructure in the country.

Regarding the HC and research pillar (Table 1.2), our major strengths in 2013 is found in Education (at the primary and secondary levels mainly), ranking 13th, what it means high jump from 64th place compared to 2012, while Tertiary education system (59th) show relative weakness, dropping six places (53th) compared to 2012. Macedonia has improvement at the research activity in 2013 (ranking 84th) compared to 2012 (ranking 92nd).

Table 1.2: The structure of HC and research pillar and ranking

Pillar 2	Macedonia				Montenegro		Bulgaria	
	2012		2013		2013		2013	
	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank
HC and research	36.6	65	36.1	52	46.7	29	35.7	55
Education	53.1	64	70.7	13*	65.1	30	55.4	63
Tertiary education	39.7	53	33.5	59	63.8	3*	42.5	37
R&D	17.0	92	4.1	84	11.3	62	9.4	69

Note: the mark * indicates a strength

Source: Author’s compilation from data of GII 2012 and GII 2013

This pillar reflects the level and standard of education and research activities in the country that is crucial for economies to move up the value chain beyond simple production processes and products. On the other hand the accumulation of human capital through education, especially

higher education and giving priority to R & D activities is a necessary condition for innovation to take place. So, when a country has good innovative capacities companies can foster their productivity, competitiveness and innovation potential by employing highly qualified professionals and technicians. In order to increase their innovative capacities Macedonia should continue to improve the performance of the drivers placed in HC and research framework.

In terms the Infrastructure pillars (Table 1.3) there is improvement only in the ecological sustainability indicator (ranking 45th globally in 2013 compare at 2012 at 60th), while our two other drivers ICT (69th) and general infrastructure (86th) are ranked below compared of 2012 (where it ranks 63th and 71st, respectively).

Table 1.3: The structure of infrastructure pillar and ranking

Pillar 3	Macedonia				Montenegro		Bulgaria	
	2012		2013		2013		2013	
	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank
Infrastructure	35.1	62	33.2	67	34.0	65	40.0	43
ICT	36.3	63	36.0	69	43.2	54	35.5	71
General infrastructure	36.0	71	27.5	86	27.7	83	35.2	44
Ecological sustainability	33.2	60	36.2	45	31.0	65	49.2	18*

Source: Author’s compilation from data of GII 2012 and GII 2013

According to this Macedonia’s infrastructures framework should also be improved because a good and ecologically friendly communication, transport, and energy infrastructure helps the production and exchange of ideas, services and products into the innovation system through that our country can reduce transaction costs, to improve access to markets and to supports sustainable growth.

The Market sophistication pillar reflect improvement, ranking 41st this year, up from 52nd in 2012, due improving of two drivers: investment climate (43th, up from 72nd in 2012) and credit political and condition (52nd up from 55th in 2012). Opposing this third sub-pillar Trade and competition indicates relative weakness (50th, dropping from the high efficiency ratios, ranked 26th in 2012). Having in mind that a well functioning market contribute to the innovation environment through competitive pressure, trade and investment, alignment between supply and demand, improve efficiency and economies of the transaction it is necessary to raise the level of these drives in order to improve the Macedonia’s market sophistication.

Table 1.4: The structure of market sophistication pillar and ranking

Pillar 4	Macedonia				Montenegro		Bulgaria	
	2012		2013		2013		2013	
	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank
Market sophistication	43.1	52	51.4	41	57.3	29	43.9	83
Credit	34.3	55	42.6	52	69.2	17*	40.7	58
Investment	24.4	72	32.6	43	25.7	73	17.0	114°
Trade and competition	70.7	26*	78.9	50	77.0	71	74.0	88

Note: the mark * indicates a strength; °a weakness

Source: Author’s compilation from data of GII 2012 and GII 2013

The Business sophistication pillar has the best improvement compared of the previous four pillars in 2013, with the highest jump up fifty nine positions (ranked at 51st place) from 110th place in 2012. Our major weaknesses knowledge workers (ranked 105th) and innovation linkages (ranked 119th) in 2012 are drastically improved compared of 2013 (where it ranks 94th and 33st, respectively). Also, the third sub-pillar Knowledge absorption, ranked 65th in 2012 jumped of 48th place in 2013.

Table 1.5: Structure of business sophistication pillar and ranking

Pillar 5	Macedonia				Montenegro		Bulgaria	
	2012		2013		2013		2013	
	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank	Score (0–100)	Rank
Business sophistication	32.2	110	36.4	51	32.4	64	32.2	65
Knowledge workers	34.9	105°	37.4	94	38.2	88	45.2	59
Innovation linkages	25.8	119°	39.5	33	20.5	95	19.9	100°
Knowledge absorption	35.8	65	32.1	48	38.6	22*	31.4	50

Note: the mark * indicates a strength; °a weakness

Source: Author’s compilation from data of GII 2012 and GII 2013

The businesses are important driver of innovation. If our country continues to generate innovative capabilities through better conditions for development of knowledge workers and for incitement business / university collaboration in R&D it can expect better results in business sophistication framework.

At the end of this analysis should be noted that the Innovation Input Sub-Index in 2013 has a better score (44.5) compared with the GII score (38.2). The fact that the overall GII score is the simple average of the results of the Input and Output Sub-Indices this comparison suggests that

our country enables better conditions for innovative activities but they are not completely used by the players in The Triple Helix concept.

CONCLUSIONS

Today innovation policy emphasizes the need for systems and infrastructures that support innovation. This includes boosting supports to education, lifelong learning, skills and supporting knowledge and physical infrastructures. Generally in the innovation process are included various actors, but the Triple Helix (TH) concept recognized main three: (1) (companies), (2) researchers and universities) and (3) politicians. Under this concept, the actors are interrelated and work with each other through a number of different links, processes and structures. Overlap among these three players is the core of an innovation system. Their mutual interaction is important determinant of knowledge production and dissemination.

Currently, Macedonia is in start a phase of implementation of the National Innovation Strategy for the 2012-2020. The strategy is built based on triple helix principles and provides overlapping of responsibilities and cooperation between innovation actors: the business community, the academic sector, and government bodies. It should cover research institutions in the context of developing human resources for innovation and establishing linkages and knowledge flows with the businesses sector. This the strategy aims to transform the country into a knowledge-based economy able to compete in international markets through its skilled labor and innovative companies.

The efforts of our innovative strategy implementation, for the last two years (2012 and 2013) are recorded in Innovation Input Sub-Index of The Global Innovation Index (GII). This measurement tool is built around the following five pillars: (1) Institutions, (2) Human capital and research, (3) Infrastructure, (4) Market sophistication, and (5) Business sophistication. In this way numerous countries of the world can follow their national innovation strategy and assess the strengths and weaknesses of the national innovation platform. Also, GII allows ranking of nations with respect to innovation.

The analysis of Macedonia's innovation platform showed that has improvement in 2013, ranking of 48th among 142 countries, in relation of 2012, where was ranking 52nd among 142 countries. Their improvements are in three pillars: human capital and research (52nd) and market and business sophistication (where it ranks 41st and 51st, respectively). It needs to make improvements in the institutions framework (58th) and in infrastructure (67th) to move up in the rankings. The overall findings of the activities of innovation policy showed that understanding of the interactive nature of the innovation process and various actors involved in it exists in Macedonia. However, the need to work together is not always recognized. Raising awareness requires a systematic and coordinated effort by major stakeholders within the national system of innovation – including government, business associations and universities. The economic performance of the country or region depends not only of how each of the innovation actors performs individually, but also of how they interact among themselves in the process of knowledge creation and distribution. Future innovation platforms in Macedonia cannot be isolated from these changes that are now reshaping the world economy. "In fact, innovation is

rapidly becoming a rallying symbol for forces of progress and reform around the world”³ said Mr. Bruno Lanvin, the report’s co-editor and Executive Director of INSEAD’s European Competitiveness Initiative.

From the findings in this paper, empirical guidelines for policy-makers, university and business managers can be derived, in order to strengthen the collaboration among Triple Helix actors.

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MANAGERIAL INNOVATIONS AND ORGANIZATIONAL CHANGES IN ORDER TO ACHIEVE SUSTAINED COMPETITIVE ADVANTAGE: CASE STUDY - "FOD" LLC – NOVACI, R.MACEDONIA

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Abstract

The purpose of this paper is to elaborate that with effective management of the innovative organizations, i.e. those who are able to use innovation to improve their processes or to distinguish their products and/or services, can improve their competitiveness expressed in terms of market share, profitability and growth.

Organizational changes are a necessity for any organization because of the need for adjustment to the dynamic external environment. Creative and innovative managers with the resources available in the organization and beyond have the opportunity to develop new products/services and processes, resulting with the development and profitability of the organization. The new environment requires from companies to act differently in order to survive and prosper, so they have been forced to search for new sources of competitive advantage and to enter into new forms of competition. This research concerns the important issues related to the competitiveness of organizations, giving guidance to the managers how to overcome their weaknesses and limitations through opportunities to get into organizational transformation and development of the organizational capabilities in order to achieve sustainable competitive advantage.

In this research paper we elaborate the interdependence of the innovation as a process and organizational changes directed towards specific areas of the functional management as a means for achieving sustainable competitive advantage in the case study of LLC "FOD" Novaci, R. Macedonia. Perspectives are offered regarding the application of managerial innovation and organizational changes and their impact on the process of the creating a sustainable competitive advantage.

Keywords: managerial innovation, organizational change, sustainable competitive advantage

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INTRODUCTION

Managerial innovation involves the introduction of novelty in an established organization, and as such it represents a particular form of organizational change. In its broadest sense, then, management innovation can be defined as a difference in the form, quality, or state over time of the management activities in an organization, where the change is a novel or unprecedented departure from the past (Hargrave & Van de Ven, 2006; Van de Ven & Poole, 1995). We define management innovation as the generation and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organizational goals.

The main focus in this case study are the organizational changes and the innovative management as opportunities for building competitive strategies and the role of human resources in building competitive advantage of “FOD” LLC - Novaci. The high share of the participation of the employee’s wages of the total profits of the company and the small share of the participation of the foreign markets would be the principal threats to future failure. From the presented parameters would be offered specific strategies for competitiveness and methods to achieve them. Because of this, it is necessary to suggest organizational changes that would have made innovations in the processes, as well as the opportunities to develop strategies, whereby the company will acquire new and profitable customers by taking them from competition or capturing uncovered areas, and in no way not to forget existing customers, their needs and desires, as they would be retained by the company and their satisfaction would be increased.

First, we will make elaboration of the current state of the company “FOD” LLC - Novaci and through SWOT-analysis will be located all its strengths, opportunities, existing threats and current weaknesses. Then analysis of the financial operations will be made through certain financial indicators that would significantly affect the work of the company, analysis of the human potential through internal and external environment as well as human resource planning in order to optimize necessary personnel, both in terms of their number and in terms of their importance, abilities, skills and other characteristics. We estimate the needs for the managerial innovation and determine the areas of management where the organizational changes will be committed.

The concluding observations of this study represent a summary of the overall results of the research and perspectives are being offered, regarding the application of the innovation management and the organizational changes and their impact on the process of creating a sustainable competitive advantage.

THEORETICAL BACKGROUND

An innovation may be defined as “any program, product, or technique which represents a significant departure from the state of the art at the time it first appears in the organization” (Kaluzny, 1982). Most literature in this field understandably addresses the important areas of product, service or change innovation. Fewer studies have paid attention to managerial innovations, which may be defined as innovations that “affect the nature, location, quality and/or quantity of information that is available in the decision-making process” (Kaluzny, 1982). Managers continually seek to improve the performance of their organizations. New challenges such as decreasing product lifecycles, global competition, customer’s becoming more demanding and greater technological progress will present new problems to such managers and hence they will seek to find new or innovative managerial approaches with

which to address these. Recent research indicates that the rate of production and adoption of managerial innovations is increasing and the life cycle of each innovation is decreasing (Carson et al, 2000). Building on the UK Department of Trade and Industry definition of innovation - the successful exploitation of new ideas (DTI, 2005), management innovation involves both an idea (typically taken from another context) (Zbaracki, 1998) about what might work and the implementation or introduction of that idea. Innovation as a goal-oriented activity (rather than as an activity undertaken for its own sake) (Staw and Epstein, 2000), so innovation is done with the intention of furthering the firms' performance. Taken together, these elements produce the following definition of management innovation: the introduction of management practices that are new to the firm with the intention to enhance firm performance.

Today, business leaders are facing the complex task of leading their organizations and even their countries into the future. Decentralization, involvement, and personnel development are believed to be better means to capture the essential value of an organizational coordination and productivity. Competition, globalization, and continuous change in markets and technologies are the principal reasons for the transformation of organizational structures and human resources management (Ambruster, et al., 2008). Additionally, a revolution in capital markets has given shareholders a more powerful voice and has made possible for them to claim a larger share of the corporation's resources. As a consequence of these forces, organizations all around the world are finding themselves in the middle of a revolution in the way of organizing and managing people that will continue well ahead into the twenty-first century. On the one hand, organizations desire change in order for them to remain competitive, to adopt more effective and efficient means of operation, and to remain in harmony with their environments. On the other hand, organizations often resist change because of their desire for relative stability and predictability (McKelvi & Aldrich, 1983).

Organizational change is both the process in which an organization changes its structure, strategies, operational methods, technologies, or organizational culture to affect change within the organization and the effects of these changes on the organization. However, as Narayanan, 2000 observes, in any organization, change management is about responding to the changing environment: 'a key part of the management function is to maintain an awareness of such changes and prepare responses to them'. An organization that maintains the status quo may find that it has a great deal of stability and familiarity, but also that the status quo generates staleness, boredom, and atrophy. Change can bring forth new challenges, new markets, and new technology, however, may also imply a source of instability, uncertainty and unpredictability. Finding the proper point on these continua where the desirable and undesirable consequences of change are at balance is a critical challenge for managers. According to Gales, Tiernry, and Boynton (1995), the process of changing an organization may be a complex one and involve many people, large amounts of organizational resources, and a great deal of time.

In the following section, we present the case study of LLC "FOD" Novaci, R. Macedonia showing the interdependence of the innovation as a process and organizational changes directed towards specific areas of the functional management as a means for achieving sustainable competitive advantage.

**CASE STUDY- “FOD”, LLC - NOVACI
SITUATIONAL AND COMPETITIVE ANALYSIS OF “FOD”LLC – NOVACI FOR THE
PURPOSE OF INTRODUCING MANAGERIAL INNOVATION IN THE COMPANY**

“FOD” LLC – Novaci as part of the complex of the metal, energetic and mining industry maintains and manufactures mechanic and electric equipment. Manufacturing is a complex system because it is composed of different both physical and human elements, some of which are difficult to predict and control. These difficulties include factors such as providing and prices of the goods, changes on the national and global market, the influence of the technology that constantly develops and human behavior and performances.

The target market for “FOD” LLC is firstly ELEM, LTD with all its branches and LTDs, other mining and energetic facilities and the mechanical industries in Macedonia and on the Balkan. The main goal of “FOD” LLC and ELEM, LTD, in order to promote itself as an owner, should be the market outside the boundaries of the country.

Basic goods and services of “FOD” LLC are transporter of continuous transport of friable materials, roller for transporters, drum for transporters, steel construction for transporters with conveyors, reducers for transporters, spare parts for the equipment of transporters, rubber parts for transporters, spare parts for basic and accessory equipment for mining, spare parts for mechanized machines and vehicles and spare parts for process equipment.

The services include: reparation of mechanical equipment, reparation of electrical equipment, overhaul of mechanized machines and equipment, overhaul of mining equipment, overhaul of energetic equipment, overhaul of machines for manufacturing metal, overhaul of process equipment, overhaul of hydraulic equipment, overlaying of mechanical equipment with rubber layers, inside and outside with the process of warm vulcanization and cutting of materials.

Aggressive marketing performance on the target markets, development of new products and services, reduction of non-productive workplaces through retraining and repositioning, employment of new, young workers eager to perform, reduction of supplies are the basic business concepts that have to be established in every management.

Table 1: SWOT – analysis of “FOD” LLC - Novaci

SWOT-analysis	
<p align="center">Strengths</p> <ul style="list-style-type: none"> - Production and reparation following personal documentation - Minimum time spent on production and reparation during a standstill of the equipment of the buyer - Suitable location for our best buyer - Maximum ratio of the prices during standstill of equipment with the prices of the products and services 	<p align="center">Weaknesses</p> <ul style="list-style-type: none"> - Due to functionality the aesthetic appearance and quality of the product is not important; - Due to inadequate organization and absence of marketing function of the company- the products and services are not presented on every target market - Non-specialized and old machines lead to lower production and extra expenses for maintenance - Inadequate labeling of the produced parts and remanufactured components complicates their tracking through all their phases of usage, analysis of the encountered problems and locating responsibility.
<p align="center">Opportunities</p> <ul style="list-style-type: none"> - Venturing on the foreign markets - Automated production in order to reduce the costs - Innovations for the new products on both the domestic and foreign markets 	<p align="center">Threats</p> <ul style="list-style-type: none"> - Processes of consolidation of competitors - New competitors established by foreign investors

Firstly it should be noted that experience, high motivation, support of the founder, suitable location, stable financial position, secured placement of the products and services are the basic facts and advantages in front of our competitors. However, in order to have good quality and quick response to the needs on the market the condition of the machines and their diversity and in many cases specialized machines are an important factor.

The most important factor for the need of managerial innovations is the competitors. In the Republic of Macedonia there are many facilities that can be competitors of “FOD” LLC. Most of them are in a difficult position as a result of the problems with the transformation of the capital.

The competitors on the market for specific products and services of “FOD” LLC are not strong, but there are processes of consolidation and it is expected that in future the company would lose the monopolistic position. During the last few years the demand for rollers increases for the needs of ELEM, LTD as well as for the market in the country and outside.

DETERMINING THE FUNCTIONAL AREAS OF THE MANAGEMENT IN THE ORGANIZATIONAL CHANGES WOULD BE REALIZED

The capacity of “FOD” LLC at the moment satisfies the needs of ELEM, LTD, a facility which is the biggest buyer of this type of product which comprises 98% of the annual production. In the last few years, the demand for newly produced and remanufactured products increases for the facilities of ELEM, LTD and for the market in the country and abroad. The small percentage of sale outside ELEM is due to two reasons:

1. Limited production capacity, and
2. High selling price.

Limited capacity of the production

As previously stated, 98% of the capacity of the company is placed at the disposal of ELEM in order to satisfy its needs. The remaining capacity is not sufficient for participation on other markets. That is result of the obsolete machines, old technologies of production and longer time spent on transport between the phases. All these factors lead to a relatively longer period of delivery. In order to create better conditions for international expansion of the company, it is necessary to modernize the machinery being used in the company which, on the one hand will contribute to cutting costs, and on the other hand will increase the productivity of the existing workforce, which will be able to produce a larger number of products for a shorter period. This, ultimately, will contribute to greater profit and additional increase of the current capacity and a greater potential for emergence on the foreign markets.

High selling price

The high selling price is due to the high percentage of participation of the costs spent on the labour force in the total production costs. The total number of human resources needed for the production of rollers is 30 directly included and 16 indirectly included, in total 46 workers. This is the minimal number of employees needed in order to reach the annual production of 35.000 rollers. If we take into consideration that the average gross salary of one employee is 45.000 denars, 546.000 denars annually, the total amount for salaries reaches 25.116.000 denars (408.400 Euros) annually for all employees.

These two indicators lead us to conduct a research on the market in order to increase the capacity, reduce the costs and improve the quality.

Competitiveness of a company could be achieved through adoption of a low costs strategy, a method which is adopted by a number of companies world-wide. That means:

- Increasing the capacity while maintaining the current costs, or
- Reorganizing the production process (the structure of the employees and technical and technological changes) in order to maintain (or to increase) the current capacity and at the same time to decrease the production costs.

At the moment, with a new investment plan for the production of rollers the company plans to renew the machines, to buy new equipment to replace the old one in order to have larger capacity. That way the technical and technological process would generally stay the same and the costs for human resources and other costs would stay the same.

From the analysis of the capacity and the way of production of competing European firms, we came to the following indicators for their achievements:

- Fully automated and specialized lines for production;
- Small number of workers; and
- Opportunity for a larger production capacity

In these companies there are lines which are manufactured and reduced to a small number of stages in the line production. The entire process is reduced to a few workers and varies from 6 to 8 directly included workers in the entire process of production of rollers as a final product, or 1 to 2 workers in the production of the raw material. As for the capacity, the number is between 70.000 and 90.000 rollers per year manufactured during an eight-hour shift of one line.

This way of production provides them a competitive price on the market, a small number of human resources in the final price, large production capacity, high quality and fast period of production.

Adopting the strategy of low costs in our company would be best implemented by introducing a new automated and specialized production line of the axes. With this line, the process of production of the axis would be done with two specialized machines. The first machine would cut and align the correct measure, and the second one would perform the complete production following the accurate measures. Comparison of operations with the current situation can be seen in *Figure 1*:

Ordinal number	Operation	Type of machine
1	Cutting before measurement	Bandsaw
2	Alignment and boring	Lathe
3	Complete processing of the material before measurement for sharpening	CNC lathe
4	Drilling of holes and notching	Borer
5	Grinding of the material	Grinder

Ordinal number	Operation	Type of machine
1	Cutting and alignment of the material with the correct measure Special machine for cutting and alignment	Special machine for cutting
2	Complete processing of the material with the correct measure Special machine for complete processing	Special machine for complete processing

Figure 1: Change in the technological process, the process of preparation of the axle

The range of cutting of the first specialized machine ranges from F12mm to F70mm and the length is not limited, so it absolutely satisfies the needs for the production of the axis. Its capacity ranges from 1,700 to 1,800 pieces (the most commonly manufactured rod material F42mm) and it has almost six times greater capacity than the capacity of the second specialized machine, and it can be used for other purposes such as cutting of pipes, which are also needed for the production of rollers.

The second specialized machine can work with axis with length of $L = 500\text{mm}$ to 1500mm (in over 90% of the current treatment the length of the shaft is from 600mm to 1200mm), with a possibility of a combination of different processing. Visualization of the new technology changed line is shown in *Figure 2*:

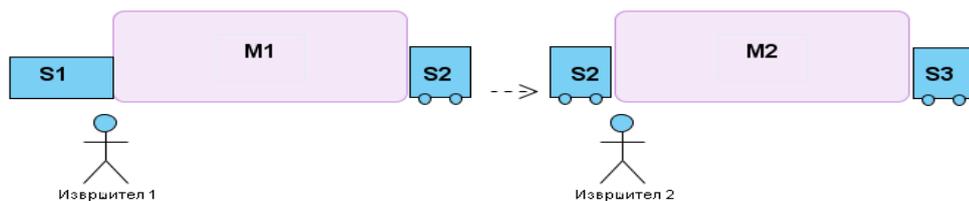


Figure 2: Visualization of the new technology changed line

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- M1 – Specialized machine in cutting and alignment
- M2 - Specialized machine for complete processing
- S1 - Warehouse space for raw materials
- S2 - Warehouse space (waste bin) for semi-products
- S3 - Warehouse space for finished products – axis

To the M1 warehouse the material with a length up to 6m is being distributed. Once the worker gives the parameters for the length for cutting, further the whole process is

completely automated. The only activity of the worker is to control the process and to monitor the waste bin S2 with semi-products. The process of transporting is simplified since the distance between the two machines needed for this phase should not be larger than 3m and the waste bin S2 with semi-products on the first machine is portable, so it avoids employing a transport worker and using of a forklift. Once the waste bin is transported to the second machine it serves as an entrance to the next operation. With M2 is done complete processing of the axis according to previously entered program parameters. This machine performs a complete treatment of the exact dimensions and it executes all necessary operations (turning, notching, drilling, automatic control, and/or other functions depending on the needs). The time interval from one to other production program with different sizes and different tools and its adjustment in the range of 500 to 1500mm length lasts for a maximum of 1 hour. With this technological line the operation perforation is avoided and it is not needed because the fastening on this specialized machine is done on the middle part of the axle. The processing is performed parallel on both sides of the axle since the fastening is on the middle part, chances for lack of the axle of the basis on both sides is avoided. With this machine the worker’s task is to put the semi-product obtained from the first machine and then the whole process is completely automated.

The number of pieces produced during the eight-hour shift with the current technology is about 70 pieces, and by introducing a new technological line for the production of the axis would be 260-300 pieces (depending on the complexity of processing), from 1700 to 1800 pieces on the machine for cutting and alignment and 260-300 pieces on the machine for complete processing. According to these indicators, the annual output of 35000 axes would be done for a maximum of 25 weeks or 6 months working in one eight-hour shift and a maximum number of 2 workers.

The way of transporting the semi-products that are received by the end of the first and second operation can be described through *Figure 3*:



Figure 3: Way of transporting the semi-products

The difference between the current technological process and the innovated organizational and technological solution is in the fact that the transport between the phases from four is reduced to one transport. There is a solution where even this transport between the phases is avoided, but it increases the cost of the investment and it is not economical because the capacity of the first machine is six times greater than the capacity of the second machine. Automated inter-phased transport makes the two machines dependant on each other and an arrest of one machine pulls halt to the entire line.

From the above-mentioned data on the method of production, the expenses for salaries and overheads for the workers are given in *Table 2*:

Table 2: Costs for one shift with 2 workers given in denars

Type of worker	Costs for one shift with 2 workers given in denars		
	Daily (280 axes)	Minimum annually (70,000 axes)	Current capacity (35,000 axes)

Directly included worker	2.625,00	682.500,00	341.250,00
Transport worker	200,00	52.000,00	26.000,00
TOTAL	2.825,00	734.500,00	367.250,00

In *Table 2* are presented data for the costs for salaries which would be obtained by applying the available solution. The unitary costs are taken from the actual situation and the amount of 2.100,00 denars daily per worker. To attain a daily capacity of 280 axes it is necessary to engage two workers for two hours on the first specialized machine (spending 525, 00 denars per day) and eight-hour engagement on the second specialized machine (spending 2,100.00 denars per day), or a total of 2,625 denars per day for directly involved workers. For transport the current time of 1:30 would be decreased by at least half by avoiding inter-phased transport and therefore it is estimated to be 200, 00 denars per day.

THE CURRENT SITUATION IN THE TECHNOLOGICAL PROCESSES IN “FOD” LLC AND THEIR INTERACTION WITH THE MANAGERIAL AND ORGANIZATIONAL INNOVATIONS

One of the key technological and organizational processes in this organization is the production of rollers for transporters with a rubber band and as it was stated, is among the best-selling standardized serial products.

The total income from the production of newly produced rollers for transport systems participates with 45% to 57% of the annual income of the finished products of the company in the last 5 years. For the same period, the annual production of newly produced rollers ranges from 22.000-35.000 pieces per year with a total annual income of 97 to 141 million denars.

For achieving the maximum production results in working in the previous period, for the production of part of the elements for rollers are engaged subcontractors for processing axle and for cutting the pipes and in order to satisfying the demands of the customers and their timely executing.

According to the conducted analysis in production, analysis of the market and the surrounding it is suitable to purchase a line for production of rollers so that it would increase the productivity, effectiveness and economy of the production.

With the noted errors in production, the research conducted on the market and the way of production of rollers with the new production line all anomalies of our products and production would be avoided and the production would increase from 70.000 - 90.000 rollers per year with an eight-hour shift daily.

After the introduction of organizational and technological innovations, the process of production of rollers as one of the key processes in this organization would be done in the following three phases:

- Phase 1* - Complete production of the axis for the roller,
- Phase 2* – Complete production of the part with the pipe and the hub,
- Phase 3* - Complete assembly.

In the further analysis the first phase of the process will be described because it is a priority phase and a phase for which are reserved funds in the investment plan of the company.

Within the first step of our analysis, the subject of interest will be the first phase of the process of production of rollers which covers the complete production of the axle of a roller and it will take into consideration the capacity for production of 35,000 axes per year. In addition, the current situation for the production of the axle for the roller with the existing technology of production can be reviewed through two indicators: actual duration and actual costs.

In the current process of production of the axle, reviewing the current planning process of production, the time required for production can be classified in the following way:

1. Effective time for production and
2. Time of transport between the needed aid-machines.

This classification is expressed in numbers that are derived from weekly and monthly reports of production.

Table 3: Effective time of production

Ordinal num.	Operation	Number of pieces in one shift (8 hours)	Type of machine
1	Cutting before measurement	100-120	Hacksaw
2	Alignment and boring	110-130	Lathe
3	Complete processing of the material before measurement for sharpening	70-80	CNC lathe
4	Drilling of holes and notching	60-80	Borer
5	Grinding of the material	60-70	Grinder

From the given table it can be concluded that the maximum number of manufactured axes in optimal conditions during one shift with one worker per operation is about 70 axes per day.

The way of transportation of the semi-products +which are received by the end of each operation can be described through the following image.

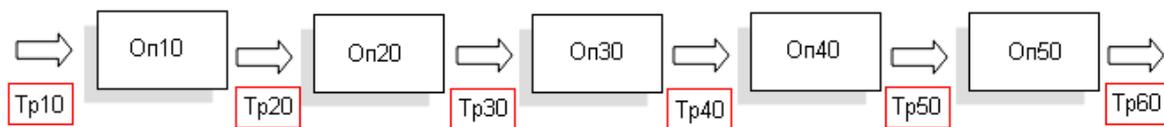


Figure 4: The time of transport between the needed aid-machines

Agenda

Tp10 - Supply of the material - pipe (forklift)

Tp20 - Tp50 – Inter-phased transport (with a forklift and/or a transport worker)

Tp60 - Transport to the storage place for the semi-products (forklift)

The time required for transport is not measurable because the location of the machinery that are used for the operations is relative and it can be stated that the eight-hour working time is 1:30 hours required for transport all day.

If you look at the costs arising from the manufacturing of axes, they can be divided in the following way:

1. Overhead and amortization expenses for the machinery,

2. Costs for salaries and other overhead costs for workers and
3. Transportation costs.

Amortization and overhead costs for the machinery

In the process of production of axes a minimum of five machines are directly included. In this type of expenses are included the costs for amortization, spare parts for all of them, current maintenance and other overhead costs (electricity, oil, emulsion ...).

Costs for salaries and other overhead costs for workers. The average points of a worker involved in the process of production of the axle is 273 points. According to this record, the monthly gross salary is 45,000.00 and 540,000.00 denars per year. If you add to this amount and other overhead costs 6,000.00 per employee such as insurance, physical examination, chemical-equipment and the like, we come to a total annual amount of 546.000,00 denars. For the eight-hour working hours a worker costs 2.100,00 denars (the 2080 average number of working hours). For the five employees required for this process, during the eight-hour working shift the costs amount to 10.500,00 denars.

Transportation costs

If it is assumed that the employee on the forklift for this process during one shift spends 1:30 hours, then the costs would equal approximately 400, 00 denars per shift. In this type of costs it should be added both amortization and overhead costs for the employee on the forklift (service, amortization, fuel, etc).

During uninterrupted operation and in optimal conditions for it, “FOD” LLC produces 35,000 per year and the same number of axes. If we take into consideration the given data for the effective time of production, for 52 weeks of the year we produce 700 axes per week. So, according to the capacity that is currently available for producing the axle it amounts to 60-70 axes during one shift, per day should be included twice more working hours. It can be accomplished through the recruitment of double number of machines and workers or working in two shifts on the same number of machines with twice as many workers.

For the fulfillment of the capacity of 35,000 rollers annually it should be achieved an output of 140 axes per day. According to Table 4, for operations 30, 40 and 50 two shifts are required, or two machines of the same type should be used, which means six workers. On the other hand, for the operations 10 and 20 it will be needed 12-hour working for the fulfillment of the required capacity or mathematically calculated 3 workers, or a total number of 9 workers. Thus, the costs per worker would be these:

Table 4: Costs per worker

Type of worker	Daily		Annually (35,000 axes)
	One shift with 5 workers (70 axes)	Required daily capacity – 9 workers (140 axes)	
Directly included worker	10.500,00	18.900,00	4.914.000,00
Transport worker	400,00	800,00	208.000,00
TOTAL	10.900,00	19.700,00	5.122.000,00

From *Table 4* it can be concluded that the annual costs for human resources involved in the process of production of 35,000 axes equals 5,122,000.00 denars or 83,284.55 Euros.

From the overall analysis of the current situation it can be concluded that the process of production of the axle is complex and includes a number of consecutive and mutually dependent operations. In addition to the technological complexity, the process of production includes a large number of workers that financially burdens the cost of the product.

With the introduction of the new technologically innovative line the number of operations done by the workers is reduced and they are automated so that on the one hand the costs for the human labour are reduced and on the other hand the products are of a higher quality and the number of defective products and errors is decreased. And for the workers themselves this process is made simpler and it does not require great physical strength because their task consists only of routine filling the raw materials in the machine, which further manufactures them.

Another significant benefit that the company will get with the introduction of this innovation is the increase in productivity so that the number of manufactured finished products will increase four times and the annual production intended for the needs of the domestic market would be implemented in a twice shorter period and the rest of the year, the company will be able to produce products for the emergence on the foreign markets which, on the one hand will be able to serve with much larger number of products, and on the other hand those products will be of higher quality and competitive as opposed to foreign producers. The technology and machinery which are at the company's disposal at the moment, in order to increase the production twice, we need twice as many machines and employees. However with the implementation of this innovation with the same number of employees the given aims can be achieved.

There will be savings when it comes to the inter-phased transport which is simplified from four to one phase. In that way time will be saved and amortization of the machines that are used and part of the machines will be eliminated from the inter-phased transport so that the company will achieve savings in the maintenance of such machines or will purchase new.

On the other hand, all this will have implications on the human resources that need to be trained to use this new technology and they will need time to adjust to it. All this, in addition to the employees, would affect the management as well and it will need to adapt to this change and to create conditions for all members of the company to successfully adapt. Furthermore, the management, as a result of this innovation and increased productivity and competitiveness, will need to look for new markets for the products, and it will need to employ multiple individuals who will work on the promotion of products and signing of contracts.

ECONOMIC FEASIBILITY OF THE INNOVATIVE TECHNOLOGICAL SOLUTION

The change in the technology for producing the axis leads to significantly reducing the number of machines that participate in the production, and that is from the total of ten machines (with 2 for each operation) for the production of the 140 axes a day, or 35,000 axes per annum to two machines for production of 260 -300 axes per day or a minimum of 70,000 a year.

With the first machine, the required daily capacity for the second machine would be satisfied within less than two hours, which means that for the rest of the time which is six hours, the machine can be put into operation for other purposes.

With the introduction of the new technology the costs and time for maintenance is reduced, as well as electricity, tools, spare parts for the machines and supplies from ten machines to two new machines. Moreover, the new technology, due to the fully automated

operations, reduces the inter-phased transport four times because with the current technology, it is required and compulsory at the end of each individual operation. The costs for inter-phased control and time delay in the control are not taken into account in the analysis of this study.

This type of work minimizes the possibility of errors that depend on the human factor and there is no need of specific qualifications and expertise by the workers because the process is fully automated.

Based on the conducted analysis for the competing companies on the European market, we came to the fact that the price of such a line ranges from 380,000.00 to 430,000.00 Euros depending on the producer and the options (tools) of the machine. The amount can be compared with the conducted trials for the purchase of a semi-automatic saw (operation 10 of the current technology) and CNC lathe (operation 30 of the current technology) for a total amount of approximately 160,000.00 to 200,000.00 Euros, and the costs would stay the same or would go up. The fact that the capacity of the first specialized machine is 16 times higher than the current one cannot be avoided, although the supply of semi-automatic saws would increase the capacity of cutting up to 100%, it still is at least ten times lower than the proposed specialized machine. Reaching capacity of 1700-1800 pieces can be accomplished with extra ten days of working (ten times higher costs for workers), or by hiring ten machines (purchase of equipment). With the supply of CNC lathe for solving the narrow throat - operation 30, a significant change in the total capacity will not be achieved only it would increase the capacity of the operation. Other machines required for the current technology would stay old and they would become subject to further investments.

From the data in *Table 5* for the costs of the labor force in the current situation and the available solution, it can be concluded that with the introduction of the new production line the capacity of 35 000 axes per year would be reached in the period of half a year and that way 4,754,750.00 denars or approximately 77.300,00 Euros per year would be saved. Accordingly, the money invested in the new technology would be fully returned in the period of five years with an annual capacity of 35,000 axes and 25-week production per year.

Table 5: Costs for the labour force in the current situation and the innovated solution

Type of worker	Producing 35,000 axes		
	Current technological line	New technological line	Difference
Directly included worker	4.914.000,00	341.250,00	4.572.750,00
Transport worker	208.000,00	26.000,00	182.000,00
TOTAL	5.122.000,00	367.250,00	4.754.750,00

If we take into consideration that the remaining seven workers on the old production line may fulfill other tasks and to realize other revenues, the economic justification is even greater.

The data obtained only by saving the costs for the labor force is a sufficient indicator of the economic justification of this production line and therefore other savings are only mentioned in this analysis. Only the savings of the costs for electricity would be a sufficient reason for the application of such a technology.

CONCLUSION

If the company wants to be competitive in the market, its strategy of action should be based on constant innovation in different segments of its production. Innovation would secure it to be one step in front of the competition, but also it would give the opportunity to offer something that has not been produced on the market. Many companies, especially in our country, believe that innovation and change require major investments and carry a big risk, but nowadays the biggest risk is not to undertake the risk.

In the company “FOD” LLC - Novaci, there are excellent preconditions for the implementation of innovation and change and, as was previously mentioned, these innovations will introduce a new technological line for the production of one of its most important products. The new technological innovation will allow the company to double its production as it was presented and with concrete data and actual figures obtained from the production of the company. On the other hand, it will increase the productivity of both the employees and the management, who will have better results and all losses that the company has experienced on the basis of the defective products will be eliminated.

The company will be in the market to deliver a product of great quality at a great price which would bring a very good reputation, and what is more important it would bring profit to the company. The company would have the necessary preconditions for its growth and development, partially on the domestic market where its competitors offer the product, but also it would have the chance to expand in the international markets where the potential for growth is much greater. With the introduction of the proposed innovation and change “FOD” LLC - Novaci will be much better to fight the competition and to build its brand and become recognizable on the market.

The economy and the business sector could benefit from the progress of science and technology, but for that we need good managers who would be willing to undertake the risk and introduce changes and innovations that need to be adapted both to the conditions and the resources of the company.

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**MAINTAINING AND STRENGTHENING THE COMPETITIVE POSITION OF
SERBIAN BREND AND BUSINESS IN THE REGIONAL MARKET IN ORDER
TO INCREASE THE EXPORTS OF THE REPUBLIC OF SERBIA**

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Abstract

For the realization of the company's business objectives, in terms of the global crisis and the growing market instability, it is crucial for the survival and success of the company to succeed in a variety of ways to provide a competitive advantage in the market.

Competitive advantage is the competition of players in the market competition, where competitors compete against each other which will produce and offer exactly what customers are looking for, that at the same price offer a better quality product, that is the same quality product which offers the lower price. Competitive advantages of the high turnover and profits, companies that fail to win and outperform their competition. Therefore, it is very important that companies follow trends and innovate their products. The aim of this paper is to highlight the ways in which Serbian companies can gain from their products and maintain competitive advantage in the region, thus to outdo the competition in order to increase exports of Serbia, as one of the main macroeconomic indicators of a country. The results of this study it is necessary to point out the importance of developing regional competitiveness and good positioning and placement of Serbian products on the regional market, as well as providing support for this purpose because it is the way in which it can improve the economic position and importance of the Republic of Serbia in the region, which in turn brings and the strengthening of the region in the framework incorporates all European.

Keywords: business, market, competitive advantage, dominance

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INTRODUCTION

Any country that wants to develop have a challenge of creating conditions for the development of competition-oriented economy. In this context, the role of government is to create an environment that will foster competitiveness. In addition to creating such an environment it is very important ability of most companies to create and maintain competitive advantage especially in the modern business environment that characterized global crisis and increasing market volatility.

Bearing in mind the particularly difficult period of transition in which is Serbia and its economy, the aim of this paper is to highlight the ways in which Serbian companies can benefit from their ~~products and maintain competitive~~ competitive advantage in the region, which surpass the competition in order to increase exports of Serbia as one of the main macroeconomic indicators of the country. The concept of national competitiveness is developed and evaluated on the basis of various theoretical basis. According to Potter, the competitiveness of the national economy is the result of its ability to generate innovations in order to achieve or maintain an advantage over other nations in a number of key industries. On the other hand, the universal concept of national competitiveness involves increasing the productivity of the economy and improvement of the living standards of the population through the effective engagement of resources, application of knowledge and new technologies, as well as creating a favorable business environment.

RATING COMPETITIVE POSITION OF SERBIA AND OTHER COUNTRIES IN THE REGION ACCORDING TO THE GLOBAL COMPETITIVENESS INDEX

When it comes to competitiveness at the international level, there are different methods of measuring the competitiveness involving one-criteria assessment and multi-criteria approach to measurement. Affirming the problems of competitiveness of countries in the global context is predominantly associated with the operation of the World Economic Forum for its Global Competitiveness Index - GCI. It is a composite index based on the twelve pillars of competitiveness, which are organized into three groups. These pillars are covered by the microeconomic and macroeconomic factors as well as factors of development institutions which taken together determine the competitiveness of the national economy. Level of competitiveness expresses the capacity of the national economy in the medium term to generate sustainable economic growth at the existing level of development.

According to the World Economic Forum in 2013, Serbia is ranked at 101 position on the list, which includes 148 countries with the recorded value of the GCI of 3.8. Compared to the previous year, the value of GCI Serbia dropped to 0.1, which led to a shift to lower-ranking Serbian for six positions, from 95th to 101st place on the list, while the value of the index remained unchanged as last year. Serbia can to improve her position when/if she takes 93.place on the list. Historically, the highest value of 3.90 GCI Serbia has made on the eve of the first wave of the crisis in 2008 and already the next 2009. the value GCI markedly decreased to 3.77. Declining value GCI is compatible with the fact that the competitiveness of the economy declined due to negative expectations of businessmen affected by the first strong wave of the crisis of global proportions. Table 1 is presented the position of Serbia towards the 12 pillars that make up the GCI for 2013, as well as the score with which they found themselves in that position

Table 1: Position Serbia to the pillars of the Global Competitiveness Index

	Rank (od 148)	Score (1-7)
GCI 2013-2014	101	3,77
The main factors of competitiveness (40%)	106	4,0
1. Institution	126	3,2
2. Infrastructure	90	3,5
3. Macroeconomic stability	136	5,7
4. Health and primary education	69	6,0
Factors increasing the efficiency (50%)	92	3,8
5. Higher education and training	83	4,0
6. Goods Market Efficiency	132	3,6
7. Labor market efficiency	119	3,9
8. Development of financial markets	115	3,5
9. Technological capability	60	3,9
10. Market Size	69	3,7
Innovation and Sophistication Factors (10%)	125	3,0
11. Business sophistication	137	3,2
12. Innovation	112	2,9

Source: World Economic Forum (WEF): The Global Competitiveness Report 2013-2014

Individually speaking, it can be concluded that the Serbian best position is in health and primary education, technological competence and size of the market, while the worst grade is when it comes to institutions, macroeconomic stability, market efficiency goods and business sophistication. The rating other pillars of competitiveness are roughly in line with the overall average grade for Serbia. The following tables 2 and 3 provide data on the value of GCI and rank Serbia and the countries in its neighborhood. Data included nine countries: Albania, Bosnia and Herzegovina, Croatia, Hungary, Macedonia, Montenegro, Romania, Serbia and Slovenia.

Table 2: Values of the Global Competitiveness Index for Serbia and neighboring countries

	Albania	BiH	Croatia	Hungary	FJR Macedonia	Montenegro	Romania	Serbia	Slovenia
2010.	3,94	3,70	4,04	4,33	4,02	4,36	4,16	3,84	4,42
2011.	4,06	3,83	4,08	4,36	4,05	4,27	4,08	3,88	4,30
2012.	3,91	3,93	4,04	4,30	4,04	4,14	4,07	3,87	4,34

Source: WEF Global Competitiveness Reports 2012/2013-2007/2008

Table 3: Position Serbia and the neighboring countries according to the Global Competitiveness Index

	Albania	BiH	Croatia	Hungary	FJR Macedonia	Montenegro	Romania	Serbia	Slovenia
2010.	88	102	77	52	79	49	67	96	45
2011.	78	100	76	48	79	60	77	95	57
2012.	89	88	81	60	80	72	78	95	56

Source: WEF Global Competitiveness Reports 2012/2013-2007/2008

Based on the analysis of these data, the conclusion is that the judgment of the GCI and position in the ranking of countries from which these assessments follows, Serbia is the worst site in compared with other countries in the region, which means that the overall competitiveness is very bad. Although the previous years, Serbia was ranked higher compared to some countries in the region, such as Albania, Bosnia and Herzegovina, Macedonia, such a position is lost. The reason for this was that the Serbian particularly regressed, before it could be said that these countries have progressed but Serbia stagnated. The following tables show the 4 and 5 detail assessment and positioning of Serbia and some countries in the region according to the values of all sub-indicators that have been defined in order to determine the GCI. These sub-indicators determine the indicator of competitiveness at the national level and competitiveness of the surveyed countries at the international level.

Table 4: Position and score of the domestic competition

INDICATOR SUB-INDICATORS																
DOMESTIC COMPETITION	Intensity of local competition		The degree of market dominance		Efficiency of competition policy		The impact of taxation on incentives for investment		Total tax rate		The required number of procedures for starting a business		It takes time for the commencement of work		Costs of agricultural policy	
	rank	score	rank	score	rank	score	rank	score	rank	score	rank	score	rank	score	rank	score
SERBIA																
2013/2014	138	3,8	142	2,6	141	3,0	130	2,8	53	34,0	47	6,0	57	12	130	3,2
MONTENEGRO																
2013/2014	135	3,9	80	3,6	94	3,8	46	4,0	14	22,3	47	6,0	49	10	3	4,3
CROATIA																
2013/2014	107	4,5	110	3,3	96	3,8	143	2,3	44	32,8	47	6,0	43	9	146	2,5
FJR MECEDONIA																
2013/2014	85	4,8	89	3,5	81	4,0	37	4,2	1	9,4	3	2,0	2	2	26	4,4
BOSNIA AND HERZEGOVINA																
2013/2014	143	3,4	111	3,3	68	4,1	119	3,1	19	24,1	126	11,0	120	37	76	3,8
ALBANIA																
2013/2014	144	3,4	131	3,0	125	3,4	75	3,7	74	38,7	20	4,0	8	4	115	3,4

Source: World Economic Forum: The Global Competitiveness Report

Based on the presented data, the positioning of Serbia in terms of this indicator is based on the value of the individual sub-indicators that make it very bad. On the other hand are almost incredible data and the success it has achieved Macedonia, which is as much as three sub-indicators ranked among the top three of the 148 countries that are doing this assessment. Other land for individual sub-indicators is remarkably value, while on the other hand some are disappointing. The following table 5 presents an indicator of international competitiveness same countries for the same period.

Table 5: Assessment of competitiveness and positioning of Serbia on the international market

INDICATOR	SUB-INDICATORS											
	Representation of trade barriers		Trade tariffs		Representation of foreign ownership		Impact of business regulation at the level of FDI		Burden on customs procedures		Imports as % of GDP	
	rank	score	rank	tariff rate	rank	score	rank	score	rank	score	rank	%
SERBIA												
2013/2014	109	4,0	70	5,2	118	3,9	129	3,5	112	3,4	42	60,7
MONTENEGRO												
2013/2014	82	4,3	45	3,5	66	4,7	78	4,5	68	4,1	38	65,3
CROATIA												
2013/2014	58	4,4	44	3,3	102	4,2	140	3,0	62	4,2	82	42,5
FJR MACEDONIA												
2013/2014	69	4,3	71	5,3	109	4,0	43	4,9	45	4,6	27	77,8
BOSNIA AND HERZEGOVINA												
2013/2014	107	4,0	67	4,9	88	4,4	92	4,3	55	4,3	41	60,8
ALBANIA												
2013/2014	99	4,1	39	2,7	128	3,6	81	4,5	117	3,3	60	52,6

Source: World Economic Forum: The Global Competitiveness Reports 2013/2014 – 2011/2012

According to the values defined sub-indicators and rankings of the surveyed countries, most of them achieve average mark when it comes to international competition. Serbia again have mainly a bad position when it comes to most of the sub-indicators, except the latest import as % of GDP, according to which Serbia is relatively well positioned but still not good enough when compared to Macedonia, which is far better scores on other sub-indicators. Macedonia achieves good results and making great strides forward.

OPPORTUNITIES TO ENHANCE THE COMPETITIVE POSITION OF SERBIA AND SERBIAN COMPANIES IN THE REGIONAL MARKET

Analysis of results in recent years indicates that the competitiveness of the Serbian

economy is stagnant, and there is no significant change in its structure, and therefore cannot reach higher positions in the world rankings, as other countries of the Western Balkans. There are many reasons that have led to this situation. Certainly one of the most important is the speed of the reform process, which is in a number of transition countries was vital. A transitional characteristic of Serbia's reformist stagnation is slow pace of reforms. Based on the analysis of the EBRD in 2012., Serbia has achieved significant progress average rating of progress in transition 3.17 which is unchanged, compared to neighboring countries where is higher than the value of the H (3.00). According to the EBRD indicators, Serbia lags behind neighboring countries in the field of privatization of large systems, governance and enterprise restructuring and the implementation of competition policy. According to reports of the relevant international organization, there is many critical areas in Serbia which as soon as possible require changes if it is aim to strengthen national competitiveness. Among the numerous stand out is⁴:

- protect the interests of small shareholders,
- the performance of state-owned corporation,
- efficiency in solving disputes,
- the burden of state regulation,
- the extent of staff training,
- extent of market dominance,
- the effectiveness of competition policy,
- sophistication of customers,
- strength of local competition,
- brain drain,
- cooperation between the employee-employer,
- the introduction of new technologies in the enterprise,
- willingness to delegate authority,
- quality of competitive advantage.

In terms of deep social and economic crisis in which the Serbia is already a long time, the concept of developmental state could be one of the most successful ways to overcome the current situation, as well as for efficient implementation of qualitative systemic changes that are needed and the economy and society. Starting from the present dissatisfaction with the results achieved so far the transition process, the need for transitional twist and the establishment of a new concept of economic and social development, which would serve the public interest and the needs of the citizens of the country for quality of life and higher standard of living.

Comprehensive reform activities, which should result in improving the business environment, you need to be focused on institutional capacity building with a view to increasing the efficiency of public institutions, it improve business operations and stimulate innovation as a key factor in economic competitiveness⁵. At this stage of development, Serbia should develop its own manufacturing processes and improves the quality of its products through continuous

⁴ WEF Global Competitiveness Report 2012/2013 <http://www.weforum.org/issues/global-competitiveness>

⁵ Jakopin, E., Institutional performance competitiveness of the Serbian economy, Proceedings, Symposium Institutional change as a determinant of economic development of Serbia in 2013, Faculty of Economics, University of Kragujevac, April 2013

improvement in higher education, professional training of the workforce and the ability to use available technology in order to, ultimately increased the cost of labor and raised the standard of living. However, a prerequisite to increase the efficiency and the transition to innovative development to generate high productivity, are good institutions and competent macroeconomic policy, in which Serbia significantly lags behind other countries. Serbia is in a very unfavorable competitive position, because according to most indicators below the average of the second phase of development, which means that it is far from the average of the EU countries.

According to the level of international competitiveness of Europe dominates the global trade, which has the largest market share. The euro area is the world's largest exporter with 25% share in world trade (the United States about 15%, Japan 9%, China 7%). The essence of European competitiveness is not in lower export prices to price, in a strength and ability to adapt to changes in the margin of cost and demand. However, Europe lags behind the USA and Japan in terms of technological competitiveness and structural factors, including her biggest problem, which is the rigidity of the labor market. That was the reason for the adoption of the so-called: Lisbon strategy aiming to improve the innovation performance of the European economy. The European Innovation Scoreboard came to the bitter conclusion that the innovation gap between Europe on the one hand, and the United States and Japan, on the other hand, there is even increasing. The best innovation index is Japan with 0.77 maximum of 1.00, and the following: Sweden and Finland with 0.75, 0.70, and the United States to Germany with 0.55, while the - the average EU-15 was 0, 44.⁶ In this respect and in accordance with the policies of the development of the European Union, Serbia as a European country that aspires to reach middle and high-income countries and need to effectuate competitive strategy that is based on innovation. According to numerous authors, innovation driven economy competitive position in the global marketplace creates constant innovation of products and services as a key factor of competitive advantage. Such economy in the modern business environment uses possibilities of modern technology to maintain competitive ability in the long run. Serbia in the new development stage should create and maintain a competitive advantage through entrepreneurship and innovation companies, raising the level of knowledge and rapid technological development and on that basis increased economic and technical possibilities.⁷

Due to the large decline in the value of innovation factors, Serbia has significantly weakened its competitiveness in recent years. While Serbia is characterized by low levels of state investment in advanced technology to support the development of innovative and high-tech capacities for achieving a higher level of development of the countries joining the EU, it is not enough to increase total investment in research and development. Serbia has pushed many constraints that need to be resolved, such as the wrong number of researchers, the outflow of highly educated people in the country, outdated structure of the sector R&D to the dominant public in relation to the business sector, a weak scientific and research cooperation between the academic and business sectors, inadequate and unplanned use of available national resources an

⁶ European Commission 2012. The cost competitiveness of European industry in the globalisation era. Industrial Policy and Economic Reform Papers No. 15. Brussel

⁷ Bosnjak, M., Competitiveness and development as well as leverage the European perspective of Serbia, Economic Annals No. 166, July 2005 August 2005

the available EU funds. Conclusions *Competitiveness Report Europe 2020* show that compared with most developed world economies, the EU as a whole, progress in building an inclusive and sustainable society, but significantly behind in the critical area of smart growth, which calls into question its innovation capacity, the ability to increase the competitiveness and potential to maintain a high and rising standard of living. In Europe, the Nordic countries are leading advanced in the creation of smart, highly productive economy. Serbia has a lower grade of the candidate countries, including neighboring member states Bulgaria and Romania, in almost all areas. Although the Serbian economy has improved significantly in its digital agenda in relation to 2010, raising its performance to a level comparable with those in Bulgaria and Romania, we need comprehensive reform efforts to improve the business environment, and education and training as a basis for intelligent growth.⁸⁸

Based on appropriate development strategies Serbia needs to achieve macroeconomic, sector and microeconomic competitiveness. Achieving macroeconomic competitiveness should contribute to exchange rate policy, tax policy, demand management, encouraging mobility of capital markets of the labor market and product markets, encouraging competitiveness in the fields of infrastructure, education and research. Achieving competitiveness of the economy should be provided by improving the sector structures which form number, size, concentration, market power, technological capability and business strategy of the company, as well as by improving the factors specific to individual sectors. Microeconomic competitiveness plays a crucial role when it comes to building, maintaining and strengthening the competitive position of the country, in this sense, Serbia in particular should be given to this aspect of his development. Competitiveness of company is predominantly determined by technological and organizational adjustments companies and strengthening the business, financial, marketing and technological capabilities of enterprises to change the existing sector and market structures and to adapt these structural changes. Enterprises as the main actors of development, in terms of increasing scientific inventions and technological innovations and strong competitive pressure on the open market, we need to reduce costs and technological development through improving the quality, features and performance of products and services and thereby increase their pricing and technological competitiveness in domestic and foreign markets.

In such conditions, companies are motivated necessarily oriented to the development of its technology and the acquisition and development of technology of foreign origin. Companies in the market system cannot cover the loss of business arising from technological backwardness through pricing policies at the expense of successful companies that have a competitive technological development.⁹ Obviously, the economic reform and the transition to more serious interventions of Serbian economy and companies take an active stance, in terms of strengthening their own competitiveness. Active approach does not mean that she only actively follow current trends and are interested only in the growth of market share, but also to recognize and develop their internal capabilities and develop the critical success factors as a precondition for strengthening its strategic position and improving competitiveness. Improving the competitiveness of enterprises in Serbia must be based on:

⁸ European Commission. 2010. A strategy for smart, sustainable and inclusive growth. EUROPA 2020. Brussels

⁹ Bosnjak, M., Competitiveness and development as well as leverage the European perspective of Serbia, Economic Annals No. 166, July 2005 - September 2005

- competence development,
- on innovation,
- the development of an entrepreneurial culture,
- strong market orientation and
- developed leadership and management.

Further progress towards a functioning market economy and improvement of Serbia's position in the global market depends on the success of the implementation of the next essential steps to reform include strengthening the role of science and technology and encouraging innovation, improving the quality and effectiveness of education, promotion of employment, encourage development of high tech industries and of dynamic companies in the industry, improving the legal and institutional framework for improving the investment climate, accelerate reform of state and public enterprises, the internationalization of SMEs, effective implementation of competition policy, strengthening regional and local competitiveness, etc.

FOREIGN EXCHANGE SERBIA

Lack of economic and technological competitiveness of the Serbian economy has deep structural problems caused by low skills of the companies, industries and sectors of the economy to lower operating costs and improve the performance of products and services. Competitiveness of the Serbian reduced during the seventies and is characterized by extensive borrowing of the economy. Thereafter during the eighties occurred stagnation of the economy during the nineties stagflation and away from the market economy. Even after the 2000. economic policy was focused on the export competitiveness of the Serbian economy.

Non-competitiveness of the Serbian economy caused by the recent economic policy that was focused on increasing and maintaining the competitiveness of the real, financial and public sectors, undeveloped and inefficient institutional order without strong institutions and the rule of law and protection of individual rights and interests, the shortcomings of corporate governance and lack of innovation enterprises operate in a dysfunctional and inefficient commodity and factor markets. After the outbreak of the global economic crisis, the trend in foreign trade has been faster in terms of exports as opposed to imports, as the weakening of domestic demand resulted in a limited increase in imports, and demand recovery in demand of European economies has led to export growth. From 2011. there is an increase in imports, which are mainly tied to the import of capital goods for the production car (Zastava-Kragujevac), while in 2012. there is a decline in imports. It is known that Serbia has large, untapped opportunities when it comes to agriculture. Agriculture is an absolutely underutilized potential that should and could be a major component of economic development of Serbia in the future. About how many options are not used, demonstrated by the data in the following table.

Table 6: Foreign trade exchange of agricultural and food products in 2012 (in mil USD)

	EXPORT		IMPORT		SALDO	
	2011	2012	2011	2012	2011	2012
Total goods	11779.5	11353.6	19861.9	19013.3	-8082.4	-7659.7
Agriculture total	2696.7	2716.8	1404.7	1470.2	1392	1246.6
Food and live animals	2091.5	2108.4	1055.2	1076.4	1036.4	1032
Meat and meat preparation	58.8	63.6	57.1	77.4	1.7	-13.8
Dairy products and eggs	90.7	94.1	57.8	57.9	32.9	36.2
Fish and preparations	4.4	4.1	96.7	92.4	-92.3	-88.3
Cereals and cereal products	731.8	838.4	84.2	85.4	647.6	753
Vegetables and fruits	657.6	539.3	302.4	290.1	355.2	249
Sugar and honey	187.3	195.3	39.9	47.3	147.4	148
Coffee, tea, spices	84.9	77.9	214.1	210.5	-129.2	-132.6
Various products for nutrition	99.6	103.6	133.6	127.7	-34	-24.1
Beverages and tobacco	273.9	286.3	197.9	191.3	76	95
Drinks	215	213.1	81.4	80.6	133.6	132.5
Tobacco products	58.8	73.1	116.4	110.7	-57.6	-37.6
Oil seeds and fruit	61.1	57.8	40.4	76.3	20.7	-18.5

Source: Macroeconomic forecasts and analysis, Economics Institute, Belgrade, 2013

When it comes to trade in foreign trade of agricultural and food products, which should bring Serbia to the net income in the budget, to be the most important segment of the export structure, does not achieve good results. As the data show, Serbia achieved a negative result regarding the relationship of imports and exports, which is a devastating statistic for a country that has so many options when it comes to trade between these types of products. A large number of agricultural products with which Serbia can be viewed regionally very well positioned in the market. There are even some of which may have a significant role in the global scale, and this is confirmed by the following example. Serbia is the second world producer of raspberries, just behind Russia. Our raspberry is have the highest quality, the most delicious, and the most curative ones. In 2011, on an area of 15,400 acres were harvested a record 89,600 tones of the fruit of which is the average yield was 5.8 tons per hectare. Serbia is not only the world's leading producers of raspberries, but at the very top in export of this fruit. The largest part of the Serbian raspberry production is exported and it brings an annual income of between 150 and 200 million USD. Raspberry production is the backbone of rural development in certain areas of Serbia and the Serbian raspberry own brand even more. The raspberries are involved with migrant workers more than 200,000 inhabitants Serbia. In the last two years, production has been significantly reduced, but the demand for raspberries from Serbia does not have tendency to fall.

Table 7: Showing increase sown raspberries in hectares and the annual yield in tons

Year	Area in hectares	Production in tons
1951.-1960.	2.167	4.790
1961.-1970.	4.304	11.668
1971.-1980.	5.113	15.663
1981.-1990.	7.475	34.346
1991.-2000.	11.815	54.461
2005.	15.413	71.520
2010.	14.570	70.000
2013.	15.600	59.000

Source: <http://www.pks.rs/PrivredaSrbije.aspx?id=13>

Market operations, open economy, export orientation and reallocation of resources to more productive sectors of the economy include the continuing economic adjustment through structural changes and shifts in the functioning of the national economy. Increase national competitiveness is the primary task for Serbia, because only competitive economy can withstand the challenges and pressures of other market participants and at the same time provide economic development and economic growth and social welfare. Research has indicated that the greatest risks of raising the competitiveness are the macroeconomic economy (account deficit and inflation) and educational character (brain drain, reducing the quality of human capital). Without modernization of production capacity, with continuous investment in training and upgrading skills of workers, Serbia cannot improve efficiency in other spheres of economy, nor can attain a higher level of development. In the long term, human capital and technology are two key factors that determine sustainable economic growth and competitive position of an open market economy. Good institutions and competent macroeconomic policy, outstanding achievements in higher education and professional training, the rule of law, judicial efficiency and a high level of transparency of public institutions, with quality infrastructure allow these countries achieve high productivity, which received a special impetus through technology and innovation.

CONCLUSION

Research competitiveness of the economy are of paramount importance for economic theory and economic policy, bearing in mind that the competitiveness of developing phenomenon which is theoretically ending and that they needed a valid scientific basis for the formulation of active policies to increase the competitiveness of the economy. Competitiveness is a measure of the success of the development process relying on the market that determines the value of goods and services and economic feasibility of the use of human and material resources and investment funds. The Republic of Serbia in the current development process has not achieved satisfactory competitiveness. The most important task ahead for the promotion competitiveness is related to the improvement of the factor conditions, which is primarily related to the infrastructure and institutions. Demonstrated weaknesses in this area, in the area of administrative and innovation infrastructure, led Serbia to a back-end Europe. Responsibility for

solving this problem and build an appropriate institutional environment is primarily the state. In improving certain factors that are currently considered bottlenecks low competitive position of Serbia, some reforms have been started yet. When it comes to improving education and innovation infrastructure and capital markets and the financial system, the state's responsibility must be shared with the educational and financial institutions. Without improvements in this segment Serbia cannot get out of the trap of its own underdevelopment.

Entering the investment-guided phase Serbia imposes new challenges in terms of improving competitiveness, a shift in the innovation stage in the future will require more fulfilling quality requirements. A key factor in initiating innovation is human capital, which, in some cases, so-called „intangible asset“ reaches up to 90% of the company. This is a confirmation of the view that knowledge is embodied in a number of competences, crucial for defining the competitive position of the company. Strong need for specialized knowledge and skills is one of the dominant features of the modern business environment. In this sense, Serbian companies have the necessary human resources who are trained to carry out expertise, critical thinking and analytical thinking, that finally have the power of synthesis. Therefore, the management of human resources is direct source and improves quality and productivity, and a team of the competition, but at the same time that resource must be continuously developed and improved. In this sense company professional training, consultancy support and vocational training and the development of specific skills of managers and employees must occupy a significant place. Leaders should become a key strategist with a clear vision of the company. Their goal should be to create the greatest possible value, they must reorganize the company, not only in order to maintain a competitive advantage, but in order to improve competitiveness and ultimately placing strategic emphasis on flexibility and adaptively must continually broadcast creative energy and innovation in the enterprise. Development of an entrepreneurial culture in Serbian companies include: stimulating individual creativity and innovation, motivating and rewarding to team and individual contributions, the creation of mutual trust and credibility and create a sense of belonging and partnership in firm. An important trend in contemporary business and an important source for increasing competitiveness is a cooperation of companies, namely the company's co-operation and integration. The fact that the enterprises in Serbia to recognize opportunity in opening up to other markets, the development strategies of cooperation and active participation in regional and international level, which is certainly a positive and supportive measure in developing their competitiveness.

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ALTERNATIVE SOURCES OF SMEs FINANCING IN REPUBLIC OF MACEDONIA

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Abstract

Long - term financial policy and strategy of small and medium-sized enterprises in terms of market economy should allow realization of the current and developing goals aiming towards strengthening of long-lasting ability of financing and payment as well as preserving and increasing of the property. In fact, the financial policy as a complex and heterogeneous activity focused towards the study of the process of financing for the purpose of optimization of financial goals and improving financial decisions, has a priority goal to allow realization of financial interests of all participants in the process of distribution of the financial result and competitive advantage of SMEs which would be a result from the selection of appropriate sources of funding. Under these provisions, SMEs have an emphasized need for optimization of funding sources that will allow maximization of the final financial effects on the one hand and minimizing the initial investment on the other.

In the Macedonian economy, due to the complex economic and social conditions, many businesses are faced with the issue of providing quality funding sources. In the structure of funding sources of financing of SMEs in the Republic of Macedonia, the participation of short-term bank loans dominates, and that results in permanent increasing of the financing costs in the total cost of operation. The absence of quality funding sources for businesses, in most cases is a consequence of the underdevelopment of the financial market, especially the capital market, financial policy of bank institutions and high interest rates of their long-term investments in economy, limited knowledge of management teams regarding the possibilities and the advantages of other alternative funding sources, not including the bank loans etc.

Therefore, special focus and analysis of the condition regarding the financing of SMEs in the Republic of Macedonia will be presented in this paper.

Keywords: financial policy, funding sources, financial markets.

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INTRODUCTION

Small and medium enterprises are drivers of economic growth and development of each national economy. They can provide necessary resources for realizing investing projects through internal and external sources. Internal financing of business entities allow them higher independence and freedom in making business decision. But, often, the business entities are not in a position to meet the capital need only by internal sources of financing, and then necessity for providing capital from external sources appears. In the developed market economies, capital market enables the business entities to use various forms of financing. Efficient capital market enables providing of necessary financial resources through: long-term investing credits, issue of long-term securities- shares and bonds; and use of different derivative financial instruments.

ADVANTAGE OF CAPITAL MOBILIZATION THROUGH ISSUE OF SECURITIES

Capital market is a very important segment of the financial market, mainly because of that , that in this market the business entities can come to indispensable capital either through credits from banking institutions or through issue of long-dated securities. It must be pointed out that there is not an universal combination that can be used by all business entities when mobilizing financial resources. Therefore, the business entities, before they decide on the way of financing, should make detailed analysis of all factors and chose that combination which will enable maximizing of their value and minimizing capital costs.

The companies that provide their indispensable capital through use of long-term credits should realize revenue of the invested capital which must not be smaller than the credit interest rate, because the interest rate is the capital price. In order one business entity to be able to get a credit, it should meet the following conditions:

- To have credit rating,
- To use the approved credit appropriately,
- To meet special conditions agreed in the credit contract

Almost always there are restrictive provisions in the credit contract, among which more important are the following ones:

- The credit beneficiary should maintain minimal level of net working capital , which is a condition for the company liquidity;
- Restrictions concerning the transfer of permanent resources;
- Restrictions for further long-term independences ;
- Restriction of statute changes and bigger changes in its organization;
- Restrictions on the extent of the issue of securities, for the creditor's protection;
- Restrictions on the dividend pay-off up to definite income percentage.

Financing of the business entities through issue of shares brings them many benefits , i.e.:

- This financing source has the lowest pressure on the company, because the mobilized resources can be continuously used, while the dividend pay-off to the shareholders is made by internal decision of the managing bodies;
- The dividend need not be paid-off, while not paid-off dividend can be transformed into dividend shares;

- Increases the company's ability for engaging financial resources from foreign sources.

Besides the advantages, this source has some disadvantages, i.e. the issue of ordinary shares creates a possibility, through inclusion of new shareholders, to change the power schedule, in fact to change the proprietary, and with that, the managing structure. Also, this way of capital mobilizing's followed by expenses for the issue and sale of shares.

On the efficient capital market, the business entities can come to the indispensable capital through issuing corporative bonds. This way of mobilization has many advantages, among which the most important are the following ones:

- Possibility to mobilize higher amount of resources, because the bonds are sold to a large number or interested entities;
- The capital is mobilized without changing the proprietary capital;
- The expenses for the debt are restricted , i.e. the only expense is the interest rate which the issuer should pay to the bonds holders;
- Since the interest rate paying represents an expense, it can bring to the business entity some savings in the payment of income tax;
- The inclusion of a clause for premature buying out of the bonds if some cheaper source of financing has been found enables flexibility in the financial structure.

As the disadvantages in financing by issue of bonds the following ones can be stated: the interest rate is a fixed expense which should be compensated whatever the obtained results are, the credit agreement can stipulate some restrictions for the issuer, as for example, a ban for property transfer, a ban for additional issue of securities, a ban for dividend pay-off above some confirmed amount (should the issuer is a shareholding company) etc.

With the business entities in the developed market economies, in the structure of the capital sources, the bonds participation is dominant, followed by the shares and long-term credits.

FINANCING OF BUSINESS ENTITIES IN R. MACEDONIA

R. Macedonia is a small country with total area of 25.173 km², total population of 2.052.772, of which 953.200 are fit for work. Such country size determines the market. Macedonia is still not enough developed country and is on the lowest level of medium-developed countries. Macedonian economy is almost two decades in stagnation and as a result of this the unemployment rate is 32% and is the highest one compared the neighboring countries.

The business entities in R. Macedonia still finance the largest part of their working and their investing projects by resources provided through expensive banking credits, which naturally has negative influence in their long-term financial balance and on the capital structure.

The banking credits are still dominant source of capital for the economic entities in the country, i.e. the capital market is mainly a credit market. The business entities long-term crediting means longer burdening with expenses for these financing sources. Here, we must stress the risk of a change in interest rates , which is very important because the approved credits are mainly with variable interest rate.

Total debt of the corporative sector in 2013 increased by 5.5% annually, that is the lowest annual growth rate in the last 5 years. Corporative debt dynamics in 2013 was mainly governed by the increase of the debt to foreign creditors, which contributed with 72.2% in the total annual growth of the corporative sector debt. In the debt structure, the most important place has the debt to non-residents (55,8%) , followed by the debt to domestic banks (42,7%), while the participation of other financial system segments in financing the activity of the domestic

corporate sector, is insignificant. Slowing down of the corporate debt growth is due, from the one hand, to the slowing down of the debt to non-resident creditors, while on the other hand, the carefulness of domestic banks in the process of establishing new credit exposures towards enterprises, has its own contribution. The corporate sector realizations, especially the existing level of indebtedness and relatively modest assets turnover, are also limiting factors for higher indebtedness growth.

However, besides the slowing down, at the end of 2013, relative importance of the corporate debt for the economy as a whole is historically on the lowest level.

Namely, the corporate debt participation in gross domestic product at the end of 2013 is 66,1% , increasing by 1,3% on annual base.

CAPITAL MOBILIZATION THROUGH ISSUE OF SHARES

The business entities in the country have possibility to mobilize free financial resources through issue of shares and bonds but, a small number of companies finance their working through capital market. Their appearance as eminent, i.e. issuers of securities, is very rare.

During 2012, the Commission for securities approved totally 16 submitted applications requesting an approval for issuing long-dated securities, and all approved requests were realized during the year. The subject of all requests for an approval for issuing long-dated securities in 2012 is shares issuing, i.e. there was not any request for an approval of bonds issuing.

Total value of the approved 16 issues of shares in 2012 is 10.031,54 million denars, i.e. about 163.1 million EUR. From the approved 16 issues of shares in 2012, 15 are private offerings, while 1 is a public offering for shares. The approved 15 issues of shares by private offering have been made on the following ways:

- 1 is realized by the company resources, with an aim of dividend pay-off to the shareholders by issuing new shares (scrip dividend);
- 5 are realized by non-financial shares, of which 4 on the basis of the Law for converting credits in R. Macedonia for public expenses into permanent company share. These 5 issues are intended for the Government of RM, as a shareholder in shareholding companies;
- 1 issue is made due to a merger and is intended for the company shareholder which merges – institutional investor;
- The remaining 8 are realized by new shares, of which 6 are intended for 1 shareholder-institutional investor; one is intended for 1 shareholder-institutional investor and 1 natural person, and one for the Government of RM.

For the purposes of comparative analysis, in continuation you will see data for the number and value of the given decisions for approving issue of securities in the last three years.

Table 1.

	Number of given approvals	Value of the issued securities	Value of the issued securities
2010	6	2.289,14	1.393,30
2011	11	3.655,1210.03 1,54	3.655,12
2012	16		2.736,97

Given approvals for issue of long-dated securities in the last three years (in million denars)

During 2012, of the approved 16 issues of shares, 6 requests were submitted by shareholding companies, 5 requests are submitted by banks, 3 requests are submitted by insurance companies and remaining 2 requests are submitted by other financial institutions.

The value and number of the given approvals for issue of shares are shown in the table below according to the type of offering (public or private) and as per the kinds of issuers:

Table 2.

Shares issuers	Number of given approvals	Value of the issue in million denars	PublicOffering(PO) /Private Offerin (PrO)
Shareholding companies	6	7.294,57	PrO6
Banks	5	2.545,85	PO1/PrO4
Insurance companies	3	172,95,18,17	PrO3
Other financial institutions	2	18,17	PrO2
Total	16	10 031,54	PO1/PrO5

Namely, according to the number of given approvals for issue of shares as per the offering type in 2012, 94% were realized through private offering, while only 6% by public offering.

On the other hand, according to the value of given approvals for issue of shares as per the offering type in 2012, even 99% were by private offering, and only 1% by public offering.

According to the kinds of issuers, the largest participation have the entities from economy with 37.5%, then the banks with 31.25%, the insurance companies with 18,75% and at the end – other financial institutions with 12,5%.

6 issues of shares are approved to shareholding companies from the economy, of which four of the approved issues refer to converting the credits of R. Macedonia for public expenses into permanent share in the companies.

One of the approved issues is made on the basis of the Law for converting the credits of R. Macedonia for the paid liabilities towards foreign creditors and foreign railway enterprises, into permanent share.

The remaining one approved issue of shares to shareholding companies from the economy, is the issue of Macedonian energetic resources AD Skopje. This issue, like the a.m. 5 issues, is intended for the state, but contrary to the other 5, where the state has converted its credits into permanent share, at this issue the state has invested new financial shares.

Namely, in 2012 all issues of shareholding companies from the economy, are realized according to a special law and are intended for the state on the basis of conversion of the credits into permanent share, except one issue which is realized with new shares, but it is also intended for the state. In fact, in 2010 and 2012, except the issues of shareholding companies from the economy intended for the state, no other shareholding company came up as an issuer.

CAPITAL MOBILIZATION THROUGH ISSUE OF BONDS

Capital mobilization through issue of bonds in R. Macedonia has dated since recently. The first issue of bonds was intended for selective credits, issued on the account of NBRM, with which the irretrievable credits of the bank were settled. The principal of these bonds (on which

interest rate is not calculated) amounts to 1.039.318.418.00 denars, which is due on 01.04 2020. The resources for paying off these bonds are provided by the Budget of R. Macedonia.

Other kind of state bonds, issued in R. Macedonia, are the bonds for deposited foreign currency shares. Namely, in order to deposited foreign currency shares of the people under warranty of R. Macedonia, a Law was passed (published in the Official Gazette no. 32 dd 2000) that came into effect on 21 April 2000. The Law stipulates the way and procedure for paying off the deposited foreign currency shares of the people , for which the warrantor is R. Macedonia.

As the most relevant bonds in R. Macedonia are the bonds for denationalization. The first issue of bonds for denationalization in R. Macedonia, was in fact the issue of bonds for denationalization issued on 17.06 2002 under ISIN mark 4064585 den.01. The official trade and quote of these securities on the Macedonian stock exchange started on 26.06 2002. These securities were issued as dematerialized as per nominal value that the claimer, on the basis of denationalization, receives as a compensation. These bonds reads on a name, and are issued in EUR currency and are transferable without limits. This first issue had total nominal value of 2.500.000.00 EUR. The interest rate of these bonds was 2%, which together with the principal were being paid off within the period of 10 years.

The second issue of bonds for denationalization was approved on the meeting held on 24.03 2003 by the Managing Board of the Macedonian stock exchange, as dematerialized securities reading on a name and transferable without limits, under the code RMDEN02,0 , at the total issue amount of 38.100,00 EUR.

All ten issues of bonds for denationalization, with their total nominal value, are shown in the table below.

Table 3.

Issue	Issue amount	The first instalment	The first interest rate
1.	2 500 000,00	01.06 2003	01.06 2003
2.	38 999 198,00	01.06 2004	01.06 2004
3.	47 000 000,00	01.06 2005	01.06 2005
4.	58 000 000,00	01.06 2006	01.06 2006
5.	34 000 000,00	01.06 2007	01.06 2007
6.	18 000 000,00	01.06 2008	01.06 2008
7.	30 000 000,00	01.06 2009	01.06 2009
8.	23 000 000,00	01.06 2010	01.06 2010
9.	30 000 000,00	01.06 2011	01.06 2011
10.	10 984 398,00	01.06 2012	01.06 2012

Source: <http://www.cdhv.mk/default-MK.asp?ItemID=44>

The table does not contain the last 11th and 12th issue of bonds for denationalization , for which decisions were made by the Board of Directors of the Macedonian stock exchange on 14.05 2012 and 27.05 2013 respectively.

The issue of bonds , as an alternative for providing extra capital, is not practiced by the Macedonian non-financial companies. That is mainly due to the lack of expertise associated with structuring and promoting this kind of securities. The first two issues of bonds were brought down to providing resources from loans with international financial institutions. The first public bid of corporative bonds in R. Macedonia was realized in 2008, and the issuer was NLB

Tutunska bank. The first issue was approved by the Securities Commission on the meeting held on 07.05 2008 for 12.000 bonds, with individual nominal value of 1.000 EUR and total issue value of 12.000.000,00 EUR, with maturity term of three years. These bonds were issued for the needs of managing structural liquidity , providing of long-term sources for financing the bank's activities and managing interest rate risks. The issue was realized with success percentage of 88,86%, i.e. NLB Tutunska bank made a profit of 10.663.000 EUR, mainly through sale of 10.663 bonds.

ANALYSIS OF THE RESULTS OF THE CONDUCTED POLL (QUESTIONNAIRE)

In order to learn why the shares and bonds are not used as a capital source with the small and medium enterprises in R. Macedonia, a research was conducted by the way of questionnaire. Part of the questions are dichotomist (yes-no questions), while part are questions with several offered answers, of which only one can be chosen or more. The questions were carefully selected in order to get clearer pasture and better quantitative analysis of the actual conditions connected to the possibilities that the stock exchange offers for capital mobilization through issue of long-term securities. The questionnaire was realized on a representative sample of 50 small and medium business entities in the region of Pelagonija. The questionnaire was conducted generally via direct contact or via electronic mail with representatives of the management team of the business entities. 36 small and medium enterprises answered the questionnaire.

From the quantitative analysis, good conclusions can be drawn, on which basis usefull recommendations can be given.

On the first question: Do you have separate sector within your firm, that makes analysis of possibilities for financing capital market? - from the polled 36 firms, only 2 firms have separate financial sector which examines the sources of money that can be used for financing the current and developing projects.

On the second question referring to that if they had investments in the previous 3 years, even 35 business entities answered positively, while only 1 business entity answered negatively.

On the third question referring to the sources from which necessary resources for financing investments have been provided, for which it was allowed to select more options from the offered answers, 18 business entities , i.e. 43,9% of the respondents- business entities answered that they had provided by their own sources, 56,1% from banking credits and loans. Disturbing is the fact that none of the business entities did not answered positively that it had provided needed resources for investments financing in the last 5 years by an issue of shares or long-term bonds. The reason for such answers should be searched either in not sufficient knowledge of the business entities about the possibilities for financing, or in distrust towards some financing sources for which the business entities declares negatively.

The fourth question referred to planning of investments into new projects. Even 97,5% of the business entities gave an answer that they planned to invest into new projects in future. Only one business entity declares negatively on this question. This means that the business entities are prepared for future development.

On the fifth question: Do you know the advantages of financing by issue of securities? , 25 answered positively, or 60.9% of the polled business entities. Although this is a relatively high percentage of positive answers, even 39.1% of the respondents answered negatively , which confirms the fact that investments realized by these business entities , are not realized in a strategic way.

The sixth question referred to that how much they know about the procedures for issue of securities. Only 2 business entities answered that they knew the steps in the issuing and selling the long-term securities. This detail is more than disturbing, and imposes the need for education of managers for the possibilities and procedures for capital mobilizing through issue of securities.

The seventh question referred to that If the managers need additional education for providing necessary extra capital through issue of long-term securities. More than 80% of the polled business entities answered that they needed additional education by experts for the possibilities for and advantages of capital mobilization through issue of shares and bonds.

SUGGESTIONS FOR INCREASING CAPITAL MOBILIZATION THROUGH LONG-TERM SECURITIES

The obtained data from the performed analysis show the main reasons why the business entities, besides the fact that they have possibility to choose alternative sources for financing, they do not use them yet. Because of that, it is indispensable to take the following measures:

➤ Organizing of seminars and workshops for managers. Knowledge for advantages offered by the issue of long-term securities, contrary to the expensive banking credits, is on a very low level, that points out the necessity of trainings, information for increasing the consciousness of Macedonian small and medium business entities on alternative ways of financing,

➤ The Macedonian stock exchange for that reason should make more aggressive propaganda about the advantages of issuing of and investing in securities. In that way, the demand for capital would increase, and that is in fact one of the main social-economic preconditions for functioning of the capital market.

➤ It is indispensable to have a statistical system which will provide data, indicators and publications from the area of financial markets working. It should especially treated the relations between the prices and incomes of securities, trading scope, maturity terms of securities, current market prices etc.

➤ Existence of rating agencies which will assess credit status of the issuer on the base of five factors, i.e.: the applicant's characteristics, capacity, collateral, capital and working conditions.

➤ To introduce tax reliefs for investing into corporative bonds. Tax reliefs will stimulate the owners of free financial resources to invest them in such securities, instead to deposit them into banking institutions.

➤ Organizing of seminars for population education on the benefits from investing free financial resources into long-term securities. In that way, the investors will be acquainted with the ways and terms for alternative sale of the free assets on the financial markets, because with that they will maximize the income at defined risk rate. The population in R. Macedonia is mainly focused on saving and realizing income through banking deposits (in denars and foreign currency), and very rarely people invest into long-term securities. That is confirmed also by the fact that at the moment, in the form of deposits, there are 2.8 million EUR with the banks, which are in function of capital transformation by the banks. Due to that, however, seminars and special courses should be organized for persons who want to invest their liquid assets into securities.

CONCLUSION

Developed capital market, through its mechanisms, acts on increasing the entire efficiency of national economy. The efficient capital market, on which the stock exchange has a special place, provides indispensable capital for prosperity and economic growth. The business entities in R. Macedonia have chronic lack of capital. They still provide that capital through expensive banking credits, instead through issue of long-term securities. There are many reasons for this situation, among which the most important are: the managers are not interested in learning the advantages of capital mobilization through issue of securities, not prepared for data transparency, people's poor information on the benefits of investing free assets into effects etc...

In order to overcome this situation and to use alternative way of financing, it is necessary to take over numerous measures, among which, according to the results obtained from the research, are: need of manager's education on the advantages of capital mobilization through issue of securities.

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THE REASONS FOR LOW LEVEL OF E-COMMERCE ADOPTION AMONG THE SMALL AND MEDIUM ENTERPRISES IN THE REPUBLIC OF MACEDONIA

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Abstract

E-commerce offers many advantages for the companies and the citizens. The global amount of products and services bought through Internet has increased dramatically, in the past two decades. Unfortunately, the level of e-commerce development is not equally distributed among the countries, and the companies with different size. In the time when the companies and the citizens in the developed countries enjoy the benefits of e-commerce, the situation in the developing countries is different. The majority of small and medium enterprises (SMEs) in the developing countries are refusing to adopt e-commerce. They find it very costly and risky, and neglect the fact that e-commerce offers many opportunities for the growth of their sale and for the international promotion of the company. The aim of this paper is to explore the reasons for the low level of e-commerce adoption among the SMEs in Macedonia. In order to get reliable results we made a questionnaire, which was distributed to the 60 SMEs with different activities. The questionnaire was accomplished on the territory of different cities around the Republic of Macedonia.

The results from the questionnaire have shown that the reasons for low level of e-commerce adoption among the SMEs in Macedonia are the shortage of information about the benefits of e-commerce, the cost of initial investment, especially the cost for e-software, the fright about the security of the transactions, etc. The results from this paper should be used by the policymakers, in order to be introduced adequate measures for e-commerce promotion among the SMEs in the Republic of Macedonia.

Keywords: E-commerce, Small and medium enterprises, Republic of Macedonia

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INTRODUCTION

E-commerce offers many opportunities for companies, citizens, government. That is exactly why the usage of e-commerce grows rapidly. However, the implementation of e-commerce is not equally distributed among the countries. Actually, the difference in usage of e-commerce varies in the developed world, compared with the developing countries. While the companies in the developed countries enjoy the benefits from e – commerce, the companies in the developing world are still far from that level.

The implementation of e-commerce in the Republic of Macedonia does not differ very much from the situation in the other developing countries. In order to improve the overall usage of Information Communication Technologies, the government in the Republic of Macedonia has introduced many measures, which have given some results, but still there is a big gap in the implementation of e-commerce compared with the companies from the developed world. That means that it has to be done much more in order to inform and stimulate the companies to understand the need of e-commerce.

E-commerce spread dramatically between Small and Medium Enterprises (SMEs). The role of SMEs is huge, since they dominate in the economy. Namely, in the USA more than half of all employment comes from the firms with fewer than 500 employees (Baldwin et. al. 2001). In the UK, SMEs employ 67% of the work force (Lange et. al. 2000). In the most of the EU member states, SMEs make up over 99% of enterprises, 67% of job and 59% of GDP. In the Republic of Macedonia around 97.3% of the “total business population”, are SMEs. SMEs also create about 80% of the total jobs in the country (Fiti et.al. 2007, p.226). All those facts give clear image about the real meaning of the SMEs for the economic development of the countries. Unfortunately very few SMEs enjoy the benefits of e-commerce. Most of them do not consider e-commerce as an opportunity for the revenue growth.

That is exactly the main objective of this paper; to explore the reasons for the low level of e-commerce usage among the SMEs in the Republic of Macedonia. In order to get reliable results we made a questionnaire, which was distributed to the 60 SMEs with different activities. The questionnaire was accomplished on the territory of different cities around the Republic of Macedonia.

For the purpose of this research we have used broad range of statistical methods, as well as descriptive, analytic – synthetic and comparative methods. We have also used tables and charts for better visual presentation of the results, so that the reader can get qualitative understanding of the data that are shown in the paper.

The paper is organized in four sections. In the first section we will analyze the benefits of e-commerce implementation. In the second section we will investigate some disadvantages that may come from e-commerce. In the third section we will describe the methodology which was used in order to get results for the survey, and the final section elaborates the results provided from the questionnaire.

BENEFITS FROM E-COMMERCE

The fact that more and more companies are implementing e-commerce, confirms the statement that there are many benefits for the enterprises which implement e-commerce in their work. The benefits could be even bigger for the SMEs, which can capitalize on the opportunity to sell goods on an unlimited territory.

Although there are many benefits from e-commerce, we will mention the most important ones:

1. Overcoming geographical limitations - Physical stores are limited by the geographical area. E-commerce makes whole world as potential market.
2. Gain new costumers with Search Engine Visibility – opportunity to sell to the costumers who never heard about the company.
3. Lower costs – a part of the reduced cost could be passed to the costumers in the form of discounted prices.
4. Location of the products in a quicker and easier way.
5. Elimination of the traveling time and costs.
6. Providing a comparison while shopping.
7. Enable Deals, Bargains, Coupons and Group Buying.
8. Providing abundant information.
9. Create targeted communication.
10. E-commerce offers the opportunity to sell 24/7.

All these advantages and benefits from e-commerce can improve the overall business image of the company. The benefits can be even more expressed for SMEs, which may capitalize on the access to the big market, new customers, low costs and other benefits from e-commerce.

E-COMMERCE DISADVANTAGES

Although, generally speaking the benefits from e-commerce implementation are huge, there are some side effects, which have to be taken into consideration, before implementing e-commerce. We will try to summarize the most usual disadvantages and side effects from e-commerce.

1. Lack of personal touch – very often the salesman has the unique ability to convince the buyer to buy some goods. Personal touch is not available during the online shopping.
2. Delays goods – the delivery of the goods which were bought through Internet, usually takes more than 2 days. Depending on the distance between the buyer and the seller the delivery may take more than 2 months.
3. Many goods can not be purchased online.
4. Online shopping does not offer the opportunity to see and to try the products before purchasing them. For many products the possibility to try them is crucial.
5. It is easy to set up an e-commerce website, and so anyone can open one. That means that there is a great competition online.
6. Security was and is expecting to be one of the biggest concerns for both sides; buyers and sellers.

Surely, the previously mentioned disadvantages can influence on the decisions weather to implement or no e-commerce. However, the practice has proved that the benefits are far beyond the side effects. That is why e-commerce is accepted as a needed tool for sale boost.

METHODOLOGY

The data for this survey were collected using a structured questionnaire. The questionnaire was distributed to the SMEs with different activities. The SMEs are coming from

different cities and regions in the Republic of Macedonia. We have surveyed 60 SMEs which are successful in their work for more than five years. The aim of the survey was to give answers on the following questions:

1. Are the SMEs informed about the benefits of e-commerce?
2. How many of SMEs offer the possibility for online shopping?
3. How many of those SMEs which have not implemented e-commerce are thinking about the possibility to implement it in the future?
4. What are the main reasons for not implementing e-commerce in the past? (for those SMEs which have not implemented e-commerce)
5. What were the main reasons for implementing e-commerce? (for those SMEs which have already implemented e-commerce)
6. How much of the annual turnover is coming from online shopping? (for those SMEs which have already implemented e-commerce)
7. Are you content with results? (for those SMEs which have already implemented e-commerce)

The questionnaires were filled by IT managers or other managers in the SMEs who have knowledge and understanding about e-commerce issues.

KEY FINDINGS

In order to determine the SMEs in the function of this research, we have used the definition of SMEs given by Kapurubandara et al (2006). According to this qualification micro enterprises are those companies which have less than 10 employees, small enterprises are those which have between ten and fifty employees, and medium enterprises are those between fifty and two hundred and fifty employees. Based upon this definition 28% of the SMEs which were analyzed by us were qualified as micro enterprises, 54% of the SMEs were qualified as small enterprises and the rest (18%) were qualified as medium enterprises.

In order to get better visual understanding of the results we will continue the presentation of the results with elaborating the answers on the questions in the questioner.

1. The first question in the questionnaire was whether the SMEs are informed about the benefits of e-commerce. The answers on this question was as follows:

- Yes ----- 70% of the companies
- No ----- 10% of the companies
- Partly ----- 20% of the companies

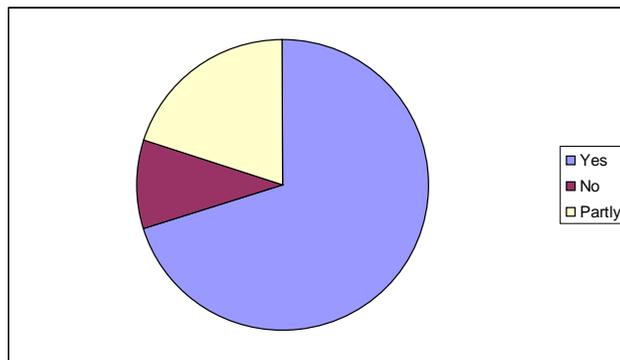


Chart 1. Are you informed about the benefits of e-commerce?

According to the results, the majority of the companies consider that they have enough information about the benefits of implementation of e-commerce. Only small part of 10% of the companies are not informed about the e-commerce advantages.

2. The second question in the questioner was whether the companies offer the possibility for online shopping. These were the answers:

Yes ----- 25% of the companies

No ----- 75% of the companies

The results show that the greater part of the companies has not implemented the e-commerce in their work. Only 25% of the surveyed companies offer e-commerce as an option.

3. The third question was targeted to the companies which answer that they have not implemented e-commerce, till now. The question was whether they consider the option to implement e-commerce in their business.

Yes ----- 25%

No ----- 25%

Partly ----- 50%

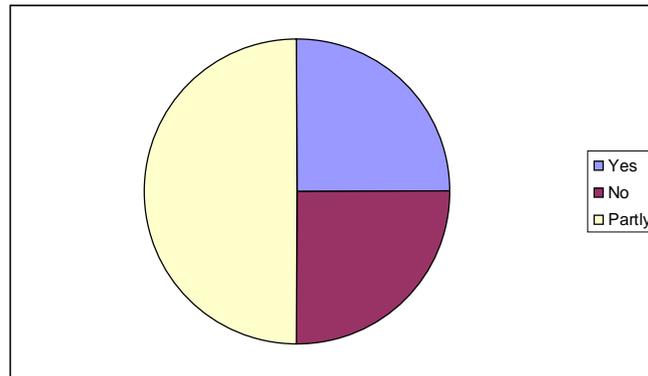


Chart 2. Do you consider the option to implement e-commerce in the future?

The results suggest that the number of those companies which answered with yes, is the same as the number of companies which answered with no. The majority of the companies answered that they partially think to implement e-commerce in their work.

4. The following question was also designed for the companies which do not offer the possibility for online shopping. The question was about the reasons for not implementing e-commerce in the past. These were the answers:

The cost of initial investment ----- 44.2%

Security ----- 15.5%

Insufficient information ----- 22.2 %

Do not believe in benefits ----- 8.9%

Other reasons ----- 8.9%

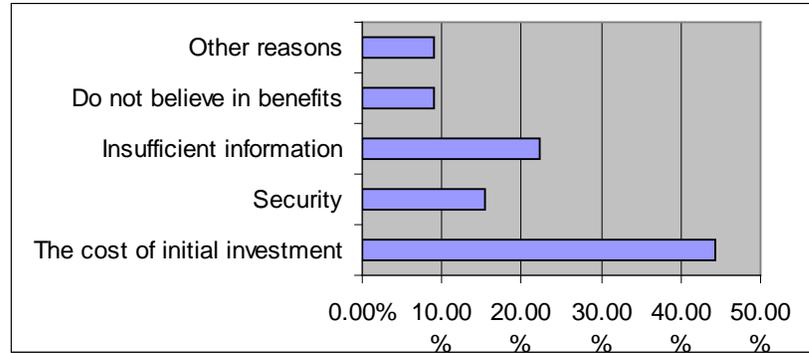


Chart 3. The reasons for not implementing e-commerce

According to the results from the questioner around 44% of the total companies which have not implemented e-commerce till now, answered that the main reason for not adopting e-commerce were the big cost of initial investment. About 22% answer that they did not have enough information about e-commerce benefits, 15.5% answered that they find security of the transactions as a serious problem, and 8.9% answered that they do not believe that adoption of e-commerce will bring benefits. Same percent of 8.9% of the companies, answered that there are other reasons for not implementing e-commerce.

5. The next group of questions were directed to the companies which have already implemented e-commerce. The first question was about the reasons for adopting e-commerce. The answers were as follows:

Answer on the competition -----	20%
Access to more customers -----	26.6%
Turnover increase -----	40%
Better image -----	6.6%
Customers request -----	6.6%
Other reasons -----	0%

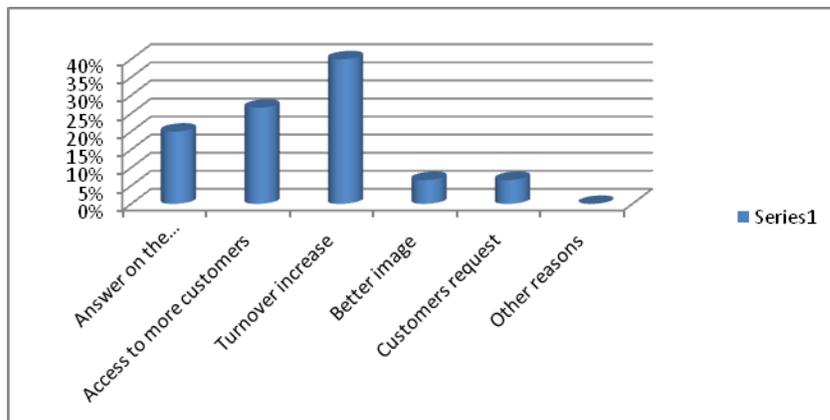


Chart 4 Reasons for implementing e-commerce

The results suggest that the main reasons for adopting e-commerce were correlated with the desire for turnover increment. Namely 40% of the companies answered that they expected that e-commerce will bring an increase of the companies' turnover. 26.6% of the surveyed answered that they thought that e-commerce would bring new customers. 20% of the companies

said that e-commerce implementation was a kind of answer on the competition actions. Only 6.6% answered that better image and customers requests were the main reasons for e-commerce implementation.

6. The sixth question was how much of the total turnover is made through online sale. These were the answers:

0-5% -----	66.6%
5-15% -----	26.7%
15-40% -----	0%
40-70% -----	0%
More than 70% -----	6.7%

The majority of the surveyed answered that online shopping participate with only 0-5% in the majority of the companies which have implemented e-commerce. Namely 66.6% answered that only 0-5% of the total turnover is realized online. 26.7% of the companies answered that 5 to 15% of the total turnover is realized online. Only one company answered that online shopping participate with more than 70% in the total turnover.

7. The last question in the questioner was whether the companies which have already implemented e-commerce are satisfied with the results.

Very satisfied -----	6.7%
Relatively satisfied -----	40%
We did not receive the expected results –	46.6%
Not satisfied at all -----	6.7%

The results suggest that the great part of the surveyed gave negative opinion for e-commerce. Namely 46.6% of the SMEs find that they did not receive the expected results. 40% of the companies which have already implemented e-commerce considered that they are relatively satisfied with the e-commerce effects. 6.7% of the companies find that they are very satisfied with e-commerce results, or they are not satisfied at all.

ANALYZE OF THE RESULTS FROM THE QUESTIONNAIRE

The results from this research suggest that the SMEs in the Republic of Macedonia generally speaking are well informed about the benefits from the e-commerce implementation. However, although they have much information for e-commerce advantages, very few of them have taken real steps in order to exploit those benefits. Only 25% of the surveyed have offered an option for online shopping, and the majority of 75% of the companies did not have such opportunity.

The analyze has also shown that the majority of the SMEs which have not implemented e-commerce till now, partly find e-commerce as an option for further development. The same number of SMEs, which represent 25% of the surveyed, answered that they find e-commerce as an option/did not find e-commerce as an option. The majority of the SMEs consider that the high cost for initial investment are the reason for not implementing e-commerce, while 22% of the companies think that they do not have sufficient information about e-commerce. Small part of the surveyed find security as an obstacle for e-commerce usage.

The great part of the SMEs which have already implemented e-commerce answered that the main reason for adopting e-commerce was the belief that e-commerce will bring an increase in turnover. 26.6% of the surveyed find access to more customers as the main reason for e-commerce implementation. 20% answered that they implemented e-commerce as an answer on the competition actions. However, although most of the SMEs which have implemented e-

commerce have had big expectation the surveyed has shown that only small part of the total turnover is realized online. Namely, the majority of 66.6% of the surveyed answered that only 0-5% of the turnover is realized through online sale, and 26.7% answered that have realized 5-15% of the total turnover through online sale.

On the question whether surveyed get the expected results from e-commerce, approximately same number of the surveyed answered that they did not receive the expected results, or that they are relatively satisfied.

CONCLUSION

The analyze in the paper has shown that although SMEs are generally informed about the benefits of the e-commerce, the majority of them still have not implemented e-commerce in their work. They consider that the costs for initial investment are the main obstacles for not implementing e-commerce.

The surveyed has shown that the majority of the companies which have already implemented e-commerce find a belief in turnover increase, as the main reason for adopting e-commerce. However, very little of them are satisfied with the results they got.

The results are showing that the usage of e-commerce among the SMEs in the Republic of Macedonia is far below the level in the developed countries. The SMEs are generally skeptical concerning the benefits of e-commerce. They do not believe that e-commerce implementation would bring big benefits for their work. From the other hand the SMEs which have already implemented e-commerce although had big expectation from e-commerce, nobody answered that is satisfied with the results. Those findings suggest that probably even the customers are not prepared and informed well for the options and benefits which offer e-commerce.

At the end of this paper we can conclude that the fact that very small part of the total turnover in the SMEs is made through online sale and that the companies are not satisfied with the results, suggest that the customers and the community as a whole are still not ready for accepting e-commerce. Namely, if the companies which have already implemented e-commerce have big benefit, that would have been a signal for the other companies to accept and implement e-commerce, if they want to survive on the market. Otherwise they would not be interested to spend money for something that would not impact on their profit, just to be up to date with the new global shopping trends.

Finally, we can summarize that the officials have to introduce new measures in order to improve the overall usage of e-commerce. They must influence on the SMEs as well as on costumers, in order to convince them that e-commerce offers save, quick and cheap shopping.

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CHOOSING OPTIMAL BUSINESS STRATEGY: CASE STUDY FOR E-ASSESSMENT

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Abstract

A multi-tenant Software as a Service (SaaS) application in the cloud can cause insufficient utilization of resources that the SaaS provider has paid for in advance to its Platform as a Service provider. That means, the application's tenants do not always exploit the full capacity from the particular Virtual Machine's (VM) configuration - a cost disadvantage for both the SaaS providers and their customers. The new challenge in the literature is to propose a cost-profitable solution by which the SaaS providers will rent less VM instances from the IaaS (Infrastructure as a Service) providers and then maximize their usage among their tenants. As much as the distribution of the resources is more optimized, the SaaS providers can gain more for their business. SaaS providers use the payment models defined by IaaS providers. By introducing the new manner of managing the resources, the existing pricing model will no longer be useful for the SaaS providers and new tenant-specific billing needs to be provided. In this paper we perform a comprehensive business case study where we compare the costs for renting resources from the IaaS providers for the purpose of deploying e-Assessment system in the cloud. The costs are then compared to a case where the SaaS providers buy resources and provide self-hosting. The conclusion from the analysis is very important for the SaaS providers since it gives the right direction for renting resources from different providers. Even more, this research can be used for proposing a new pricing model in the future, which will be more beneficial for the SaaS providers.

Keywords: Business Analysis, IaaS, SaaS, Resources, Multi-tenancy

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INTRODUCTION

The business increasingly depends on the implementation of IT Information Systems (CRM, ERP, TMS, etc.). Those systems help the companies to reduce the costs for managing the internal business processes. However, new costs are introduced for administration and maintenance. The new paradigm of computing in cloud is expected to reduce those costs, depending on the type of migration (IaaS, PaaS or SaaS) which are discussed later.

CLOUD COMPUTING – A BUSINESS DRIVER

The cloud is conceived as a type of parallel and distributed system consisting of a collection of interconnected and virtualized computers that are dynamically provisioned and presented as one or more unified computing resources based on Service Level Agreements established through negotiation between the Cloud Service Provider and consumers (Buyya, 2008). These resources can be dynamically re-configured to adjust to a variable load, allowing for optimal resource utilization (Vaquero, 2008). Hereupon, there are three new aspects that are introduced by the cloud computing paradigm (Armbrust, 2010):

1. The illusion of infinite computing resources available on demand – the cloud's elasticity;
2. The elimination of an up-front commitment by cloud users – which means that the users are not obligated to purchase hardware resources in advance;
3. The ability to pay for use of computing resources on a short-term basis as needed – which is actually the key when the providers created their pay-per-use, or pay-as-you-go charging policy.

Beside these aspects, there are few more characteristics that distinguish computing in cloud from the traditional computing and can be described as follows (Zhang, 2010):

- *Multi-tenancy* – an approach that aims to adapt the application software architecture so that multiple instances, from multiple cloud consumers, can run on a single application (Dillon, 2010).

- *Shared pool of resources* – The computing resources of a Cloud Service Provider are offered in one shared pool in order to serve multiple consumers using either the multi-tenancy or the virtualization model. The resources are dynamically assigned and reassigned according to consumer demand (Dillon, 2010).

- *Broad network access* – In order to achieve high network performance and localization, many of today's clouds consist of data centers located around the globe. Therefore, the clouds are generally accessible through the Internet and use it as a service delivery network (Zhang, 2010).

- *Service oriented* – The services in the cloud are mainly organized in three main types: Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS). All those services are guaranteed to the customers with clear specification of the expectance and objectives via Service Level Agreements (Zhang, 2010).

- *Dynamic resource provisioning* - Cloud computing allows dynamic allocation of computing resources. The dynamic resource provisioning allows Cloud Service Providers

to acquire resources based on the current demand. This feature can considerably lower the operating cost (Zhang, 2010).

- *Utility-based pricing* – This feature is in the focus of this research. The current pricing model that Cloud Service Providers offer are based on pay-per-use manner. The exact pricing scheme may vary from service to service. For example, a SaaS provider may rent a virtual machine from an IaaS provider on a per-hour basis. On the other hand, a SaaS provider that provides on-demand customer relationship management may charge its customers based on the number of clients it serves. The pay-per-use pricing lowers service operating cost as it charges customers on a per-use basis (Zhang, 2010). In this paper we will see if this model is profitable for the SaaS providers.

The rest of the paper is organized as follows. We present details of the cloud services and also the current pricing schemes that the Cloud Service Providers offer. We also discuss the most recent business analyzes of whether the pricing models are payable and beneficial for all parties. Our latest research is presented where we derive the conclusion of the most cost-effective cloud configurations. Further on, a case study is discussed and a conclusion is derived.

THE CURRENT BUSINESS MODEL

Clouds are generally comprised of three categories of cloud services: SaaS, PaaS and IaaS. Each layer of the cloud architecture uses the services of the layer below, exactly as depicted in Figure 1 (Online, 2014).

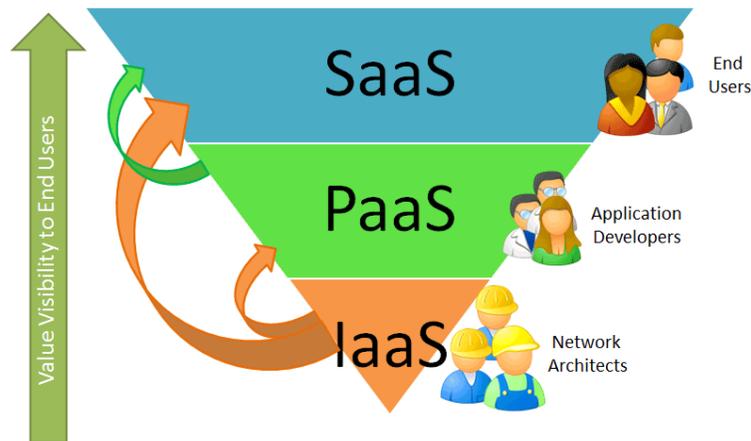


Figure. 1. Cloud services categories

In this chapter we briefly explain the features of each of them (Dillon, 2010):

- *SaaS* layer refers to providing on demand applications through the Internet. Cloud consumers release their applications on a hosting environment and they can be accessed through networks from various clients. The cloud consumers do not control the infrastructure layer which often employs a multi-tenancy system architecture. This means that different cloud consumers' applications are organized in a single logical environment on the SaaS cloud in order to achieve benefits in terms of speed, security, availability and maintenance.

- *PaaS* is a development platform which allows cloud consumers to develop cloud services and applications directly on the PaaS cloud. Thus, the difference between SaaS and PaaS is that SaaS only hosts completed cloud applications whereas PaaS offers a development platform that hosts both completed and in-progress cloud applications. Therefore PaaS supports application hosting environment, development infrastructure, programming environment, tools, configuration management, etc.

- *IaaS* allows the cloud consumers to directly use processing, storage, networks and other fundamental computing resources. Virtualization is extensively used in IaaS cloud in order to meet growing resource demand from cloud consumers. The basic strategy of virtualization is to set up independent virtual machines that are isolated from both the underlying hardware and other virtual machine instances. This strategy is different from the multi-tenancy model, which aims to transform the application software architecture so that multiple instances from multiple cloud consumers can run on a single application - the same logic machine.

Figure 2 presents the cloud’s business model. Currently, IaaS and PaaS providers are often parts of the same organization and are called the infrastructure providers or cloud providers (Zhang, 2010).

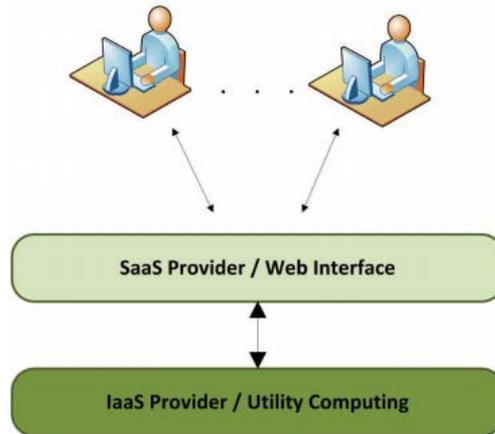


Figure. 2. Cloud business model

In comparison to the traditional type of computing where the cost is based on consumptions of static computing, the infrastructure providers use virtual machine instance as a unit for cost analysis. Therefore, the current charging model incorporates all expenses of the infrastructure providers and is launched as follows.

In Table 1 and 2 we present the latest prices indicated in USD of virtual machine instances rented per hour for both the Windows and Linux platforms. We took into account the three most famous clouds: Microsoft Azure, Google Compute and Amazon EC2. As we can see in the tables, there are 3 basic configurations that all three providers offer to their customers. The user can rent a virtual machine with 1, 2 or 4 CPU cores. In the following Section 3 we will see how we used those configurations in terms of investigating the cost-effectiveness of the clouds.

Table 1. Pricing scheme for Windows based configurations

Type	1 VM	2 VMs	4 VMs
Windows Azure	0,090	0,180	0,360
Google Compute	0,145	0,290	0,580
Amazon EC2	0,091	0,182	0,364
Scaling factor	1	2	4

Table 2. Pricing scheme for Linux based configurations

Type	1 VM	2 VMs	4 VMs
Windows Azure	0,060	0,120	0,240
Google Compute	0,145	0,290	0,580
Amazon EC2	0,060	0,120	0,240
Scaling factor	1	2	4

From a SaaS cloud providers point of view, the cost for developing multi-tenant applications may be very substantial in terms of costs. In order to achieve profit, the SaaS provider should take into account the development, costs for customization of the application, the performance and the security issues due to the concurrent user access. Thus, the SaaS providers should come up with good trade-off between the provision of multi-tenancy and the cost-savings yielded by multi-tenancy as reduced overhead through amortization, reduced number of on-site software licenses, etc. (Dillon, 2010).

CASE STUDY

In this section we present a comprehensive business case study for the sustainability of an e-Assessment system set in the cloud. We choose the best offer from the available SaaS providers and also which of the IaaS, SaaS or on-premise is the most payable solution.

SIMULATION TOOL – PLAN FOR CLOUD

In order to obtain reliable cost reports, we used the *Plan for Cloud* tool (Plan for Cloud, 2014). Creating the plan consists of few steps which were configured as follows:

- *Creating deployment* – a step where the user names the deployment.
- *Creating server* – After creating the deployment, the user is supposed to add the appropriate amount for resources needed for the project. When creating servers, the user can select an appropriate configuration from several cloud providers. Each of them offers different servers with different configurations in terms of CPU, RAM, HDD and Operating System. Accordingly, the providers charge the customers for a rented server per hour. Hereupon, the user obtains information for the base monthly cost.
- *Creating storage* – This step is needed for the application to specify the type of cloud storage. Besides, the user is able to specify the number of storage units as well as the capacity in GB.
- *Creating database* – This option is used in the same manner as the option for creating the storage.
- *Creating link for data transferring* – This step is very important since it presents the elasticity, flexibility and scalability of cloud computing. Here we define the links for

appropriate functioning of the system in the future. Links refer to the transfer of data between the servers, databases, storage, users, etc.

- *Creating cloud expenses prognosis report* – The tool allows us to create a prognosis of the costs for a three year period. Hereupon, we graphically present the monthly costs for each of the three years. From the graphic presentation we can perceive the months with highest as well as the months with lowest prices, but we can also see which of the services offered by the Cloud Service Providers affect the price at most. Usually, 50.7% of the costs are for the servers, 30.8% are for data transferring and 18.5% are for the application’s storage.

COST PARAMETERS

Therefore, on top of the list are the servers and databases. For the servers, there are three parameters that form the price: CPU, RAM and the capacity of the HDD. Similarly, some of the databases also have their own processor and RAM memory to speed up the assigned tasks. Considering the storage, the customers are allowed to define the capacity of the offered storage options, as well as to specify the number of read/write requests by month according to the application needs.

One of the most important costs is the transfer of data which can significantly change the amount of money that need to be paid in a three years period. The transfer refers to the data that is exchanged between the servers or databases with the end users.

Obviously, the price of the resources is defined by their performance potentiality. Additionally, other parameters that affect the price for resources are: the region for hosting, whether the renting is on demand or in advance, the number of virtual machine instances, number of working hours per day and the tools used for resources usage optimization.

In our case study we compare two types of hosting, self and cloud hosting. At the end of the research we will derive conclusion of the most payable solution for hosting the e-Assessment system.

Our faculty owns 8 laboratories, each capable to serve 20 students. That means that as much as 160 students can do an exam at the same time. According to our assumptions, a server with 1 CPU can handle a group of 20 students. Therefore, for a group of 160 students, we will need 8 CPUs. Thus, all the following analyzes are based on renting or buying server with 8 CPU cores.

Considering the capacity of the database and storage needed to keep text and some images from the questions in the exam, we took into account all the questions from the last 10 years and got a necessity of 400MB for a database and 80MB for storage. Since the number of students increases each year, we assume that the need for database and storage capacity will increase by 5%.

In order to achieve continuous system work, we set a minimum value for the data transfer. In a case each student needs to click 100 times on the test, and each page of the test is 1MB in size, we got the following formula to determine the value:

$$\text{Transfer} = \text{clicks} * \text{page size} * \text{num. of all students} * \text{num. of courses in semester} \quad (1)$$

Using this formula we obtained:

$$100 * 1 * 1200 * 5 = 600000 \text{MB data/month} = 586 \text{GB data/month.}$$

Previously we presented the benefits from using the tool for planning the cloud costs. Now, we use the tool to create a cost plan particularly for the needs of the e-Assessment system. Thus, the planning was as follows:

- At the beginning, we add a server with 8 CPU cores. When choosing the resources, we chose those whose price is lowest. In this case we chose server from HP provider with 8 CPU cores, 8GB of RAM memory and 240GB HDD.

- In the next step we add the storage. Considering that the lowest price for 1GB is offered by AWS provider, we chose this storage to be appropriate for our case. Using the existing patterns, we defined the increasing rate of 5% per year.

- For the number of readings from the database, we took the value of 120000 read requests/month (needed for the questions that contain images). This value is obtained by calculating the number of students in all four years, 1200, times the courses in the semester, 5, times the number of questions with images, 20.

- Similarly, we chose database from Windows Azure and we set the number of hours per day to be up to 12.

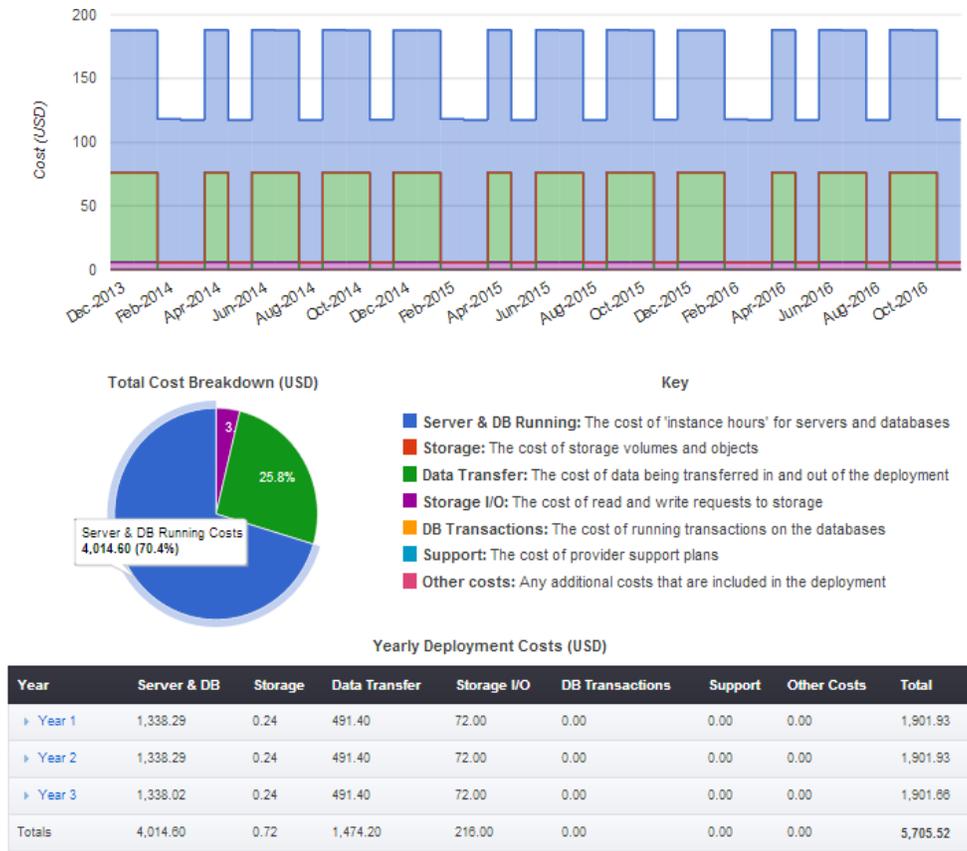
- For the number of transaction in month, we took into account the number of lectures, the number of possible answers for a question of one of the lectures and the number of students that are able to do the exam in a same time; which is $50 \times 4 \times 160 = 32000$ database insertions.

- In the end, we needed to define the data transfer. Considering the 586GB data/month obtained from (1), we used the appropriate patterns to set this value strictly for 7 months period.

Once we specified all the requirements, we obtained the plan for costs for a three years period, presented in Figure 3. The report consists of three parts. The first graphic represents the price for each of the resources. We can see that the month pattern we defined is well introduced since the value for December and January is 586GB and the same value for February and March is 0. The second graphic depicts the percentage of the resources that are rented by the customer for the particular deployment. 70.4% of the costs are for the server and the database, 25.8% are for data transfer and 3% are for the storage. On the bottom of the Figure 3, there is a table that presents details for the costs for each of the resources distinctively by month for a three years period. By clicking the years, we obtain details from the analysis.

According to the results, the total amount for a three years period is 5705.52\$. For each of the years this amount is approximately 1901\$. Even though we chose increasing rate of 5% per year, however the price hasn't changed since the limit until the providers do not provide additional charges is not transcended. For example, the initial capacity of the storage is 1GB and the price for it will not change until this capacity reaches 2GB.

In order to compare few different types of configurations, we changed some of the resources to see whether it will affect the price. When choosing a database with better performance potentiality, the end amount of money increased for only 80.76\$ per three years, which means this option is far more payable for the customers.



[Download Report CSV](#)

Figure. 3. Graphical representation of the cloud costs for deploying e-Assessment system (the cheapest configuration)

In order to compare the costs for operating system, we performed cost analysis in a case the customer chooses Windows operating system. We also made changes for the region where the system is hosted. The results, however, showed an enormous change in the price, mostly due to the licenses assessed by the Windows Azure cloud provider. According to the new analysis, the costs for each year increase by 1000\$, or 3000\$ for three years. Another change that also affects the price in a negative manner is the region for hosting. All these settings implicate a difference of 3035.88\$ for three years, i.e., the price for renting resources with Windows operating system is 8822.16\$.

The next type of analysis refers to the most expensive configuration whose results are presented in Figure 4.

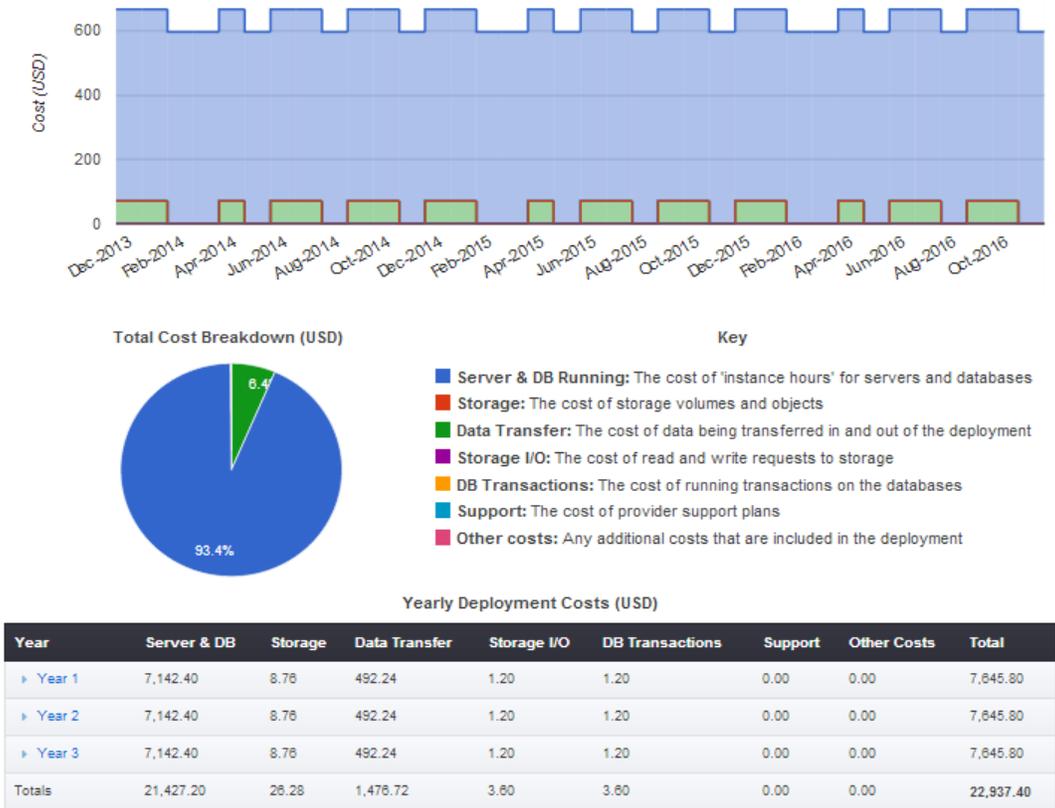


Figure. 4. Graphical representation of the cloud costs for deploying e-Assessment system (the most expensive configuration)

In this case, the resources that dominate are the server, the database and the transfer. All other resources almost do not affect the end price which is 22937.40\$. According to the results, the range of price for renting resources in the cloud varies from 5705\$ to 22937\$.

Repeating the analysis for a Windows operating system, we got an increasing of 9000\$, or a price of 31487.40\$.

To determine which hosting is most payable, we did a little research to investigate the opting for self-hosting. The following Table 1 presents the current prices for HP servers, which are exactly the same as those offered by the cloud providers.

According to the table, the price for servers is from 3059\$ up to 7899\$. However, the customers need to take into account the costs for maintaining the equipment. Therefore, we add 500\$ for network switch, 1000\$ for UPS and 500\$ for cooling. This amount also increases if we add the costs for electric power for a three years period, i.e. 3kW for cooling and 2kW for ICT for three years is:

$$3 \text{ years} * 365 \text{ days} * 24 \text{ hours} * 5\text{kW} * 0.12\$ = 15768\$.$$

Table 3. Current prices for HP servers.

Type	Quantity	Price	Total
HP ProLiant DL380e Gen8 E5-2403 1P 4GB-R Hot Plug 4 LFF 460W PS Entry Server(648255-001)	2	\$1,649.00	\$3,298.00
HP ProLiant DL360e Gen8 E5-2403 1P 4GB-R Hot Plug 4 LFF 460W PS Entry Svr(668812-001)	2	\$1,609.00	\$3,218.00
HP ProLiant DL360e Gen8 E5-2403 1P 4GB-R Hot Plug 8 SFF 460W PS Entry Server(668813-001)	2	\$1,999.00	\$3,998.00
HP ProLiant DL385p Gen8 6320 1P 16GB-R P420i/512 Hot Plug 12 LFF 750W PS Server(703930-001)	1	\$3,059.00	\$3,059.00
HP ProLiant DL160 Gen8 E5-2603 1P 4GB-R SATA 4 LFF 500W PS Entry Server(662082-001)	2	\$1,679.00	\$3,358.00
HP ProLiant DL360p Gen8 E5-2650v2 2P 32GB-R P420i/2GB FBWC 460W PS Perf Svr(733739-001)	1	\$7,899.00	\$7,899.00
HP ProLiant DL360p Gen8 E5-2609 1P 8GB-R P420i/ZM SATA 460W PS Entry Svr/S-Buy(670632-S01)	2	\$1,989.00	\$3,978.00
HP ProLiant DL360p Gen8 E5-2603 2P 8GB-R P420i SFF 460W PS Energy Star Server(677198-001)	2	\$3,299.00	\$6,598.00

N	MI	MA
	X	
\$3,059.00		\$7,899.00

Choosing the server with lowest price brings us to a total of 20827\$. This price is nearest to the most expensive type of deployment in the cloud. However, we did not add the expenses for the technical support, employment, etc. which are an inevitable part during self-hosting.

CHOOSING THE MOST OPTIMAL SOLUTION

The difference between the most expensive deployment and the self-hosting is 2110\$. If we add the expenses for one employee for three years we got an amount of 35227\$, or a higher price in comparison to the cloud hosting (22937\$). Furthermore, if we want to use Windows operating system, this price goes up to 1054419\$ when adding all the licenses and the other costs.

Therefore, the overall conclusion which can be derived from this research is that the cloud hosting is far more beneficial for the SaaS providers that want to host their applications.

CONCLUSION

In this paper we presented a comprehensive study of the most appropriate resources renting scheme for hosting a high-demanding e-Assessment system. We assume that this system is hosted by SaaS provider and then is shared among multiple tenants. In order for the SaaS provider to have benefit from the hosting, it supposes (is supposed??) to take few different configurations in the cloud, as well as to take into account self-hosting. In order to make reliable comparisons we used a specially designed tool for creating plans for costs and obtained detailed results for the expenses for a period of three years.

All the results pointed towards cloud as the most payable and scalable solution. Considering all the costs for equipment and maintenance, when we compared cloud to self-hosting, we came up to the lowest price of 5705\$ and highest price of 31487\$ for the cloud; and 35227\$ and 105419\$ for the lowest and highest price for the self-hosting case. Therefore, we conclude that the highest price for hosting in the cloud is approximately equal to the lowest price for the self-hosting.

The results reported in the paper are of great importance for the SaaS providers that want to maximize the benefit from the resources they rent. Providing the right usage analysis is very important for the selection of the most payable cloud solution. This research can be used in the future for creating a new model for charging the application tenants and thus, make the SaaS choice even more advantageous.

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**ELEMENTS NEEDED FOR ECONOMY BASED ON KNOWLEDGE
CONTRIBUTING FOR GROWTH AND DEVELOPMENT OF THE SMALL AND
MEDIUM COMPANIES**

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Abstract

In the framework of the contemporary theory of the economic sense, within the scientific researches and debates the emphasize is more and more put on the analysis of the link between knowledge, i.e. education and the research and innovation activities (as basic institutional channels for generating and cumulating knowledge) and economic growth. Knowledge, innovations and the human capital take central position within such analyses, working as factor inputs which increase the activity of the whole economy creating the so called invisible or untouchable capital. The basic competitive advantage of a modern economy, or the so called economy based on knowledge is no longer the cheap labor or the low taxes, nor the geostrategic position. It is the knowledge of workers, their creativity and innovativeness, proactivity, the entrepreneur spirit and the expertise in defined areas. A certain economy can be highly competitive and survive on the world market only by continuous investing in the knowledge of its own citizens, in the education and the scientific and research activities. In this paper, through the methods of induction and deduction, analysis and synthesis, as well as historical and trendy comparative analysis, we have come to generalized attitudes, conclusions and recommendations about the subject of research but also about the applicability of these perceptions in the case of Republic of Macedonia. In this context, the purpose of this paper is to determine the economic justifiability of investment in human capital, to approbate the channels of influence of education and scientific and research developmental activity on the creation of human capital and together with it on the economic growth and development, to set the basic elements needed for economy based on knowledge and to determine the interaction among education, innovation, and the small and medium enterprises through the prism of the cost-benefit analysis.

Keywords: education, scientific research activity, human capital, invisible capital.

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INTRODUCTION

Living in the new contemporary society implies to setting of new postulates for the functioning of economy. Development of new techniques and technologies and globalization led to additional needs and possibilities in which education and knowledge take a greater part. In contrast to the traditional understanding of economy as a science of prompt allocation of the rare and limited resources, the new concept of economy based on knowledge focuses on knowledge and abundance of information and ideas which are used and multiplied collectively. Here, a certain initial quantum of knowledge is needed so that they can be used selectively. The basic instigator of the growth of economy based on knowledge is knowledge which is a sublimite of all technological and scientific acquisitions.

The total amount of knowledge creates the human capital defined as a series of production abilities, skills and knowledge, and the talent of the individual, acquired through: the educational process (in the broad sense: formal and informal education), the scientific-research activities, trainings and experience.⁵ Investment in the humancapital through its basic institutional channels: education and scientific research developmental activities in a certain economy implies to a more profound utilization of labour, capital and the natural resources; it is essential for efficient allocation of the economic resources (the basic paradigm of the economic science), reduction of the unemployment, increase of production, growth of the spendings and improvement of the level of the living standard and the quality of knowledge in the community. The higher level of education increases the possibilities for employment and acquiring of better earnings, and the knowledge and innovations in a certain economy bring to successful allocation and substitution of the various resources and forms of capital, with the aim of maintenance of sustainable economic growth and development. In times when knowledge and innovations are understood as an intellectual ownership of the individual with a certain price on the market of labour, the 21st century is also called a century of knowledge.

HUMAN CAPITAL IN THE MODELS FOR ECONOMIC GROWTH

The significance of human capital in the function of social and economic growth was first analyzed in 1776 by the founder of the classical doctrine for freedom on the market, Adam Smith. He defines human capital as "an amount of acquired and useful potentials of all members of the society. Acquiring and maintenance of such talents during the educational process always requires great expenses. These talents influence on creation of personal welfare and the welfare of the community to which they belong. The increased skillfulness of the worker can be viewed as a significant device in production which on its part influences the increase of the productivity of labour....",⁶

The need to quantify the input of the individual as a worker in the production process, i.e. to define the method for measurement of its production power, in 2004 leads us to the genesis of the theory for human capital in economic sense, whose founder is said to be Becker Gary. According to the theory of human capital, the differences in the earnings of the individuals are a result of the individual productiveness which derives from the differences of education, skills, experiences and trainings of the very individual. Hence, this theory in the context of econometrical analysis can be brought to a micro level - when the measured link is between the amount of human capital and the earning; and macro econometric analysis -

⁵N. Gregory Mankiw (1995) "The Growth of Nations," Harvard Institute of Economic Research Working Papers 1732, Harvard - Institute of Economic Research, 1995

⁶ Smith Adam (1776) *An Inquiry into the Nature And Causes of the Wealth of Nations* Book 2 – Of the Nature, Accumulation, and Employment of Stock. USA: Editor's Introduction by Edwin Cannan

which focuses on the aggregate human capital as a factor of economic growth and development.

The link between the human capital and the economic growth and development is a subject of research of many scientific researches, starting from the pure theoretical analysis to the empirical panel studies for a group of studies. There are two types of models which investigate the channels of influence of the human capital and the level of its development on the economic growth.

The first models in the framework of the classical and later the neoclassical economy put the accent on the accumulation of capital through alternation of the saving rate and / or by reallocation of the savings towards different innovations and capital-production technologies (Solow 1956⁷, 1957⁸), which especially emphasizes the interaction: savings and innovation, creativity, knowledge i.e. of the human capital in the function of technological growth and development. This kind of analyses are often based on the production function of Cobb and Douglas, on a level of an individual case or $Y = K\alpha X$, where Y is GDP per capita, K is physical capital per capita, X is a determinant of the growth per capita and α is a parameter of the production function. Many neoclassicists (King and Levine, 1993)⁹ consider that the growth of X comes from innovation and technological development i.e. from the cumulated knowledge, skills, innovativeness, and creativity as a basic precondition for technological growth and development. Schumpeter in his capital work emphasizes that a well developed banking system influences stimulating on the technological innovations, finding the entrepreneurs with the best chances for innovative products and production processes.¹⁰

The second models define that the functions performed by the financial system increase the rate of technological innovations. In these models Lucas and Romer include technological development as an endogen variable of the growth (on which the human capital has the greatest impact) and the assumption for perfect competition is replaced by imperfect competition and growing profit. Lucas¹¹ sets a model of growth through the function: $Y = AKa$ (uhL) $1-a$, where Y stands for the overall income in the economy, A for the physical resources, K is the capital, L - the manpower, u is defined as proportion of the overall working hours dedicated to the working process, and the variable h stands for the supplies of human capital. Romer¹² suggests a model the economic growth, above all, requires accumulation of knowledge on all levels and claims that the economic growth derives from inside the system, regardless of whether we speak about a country or an enterprise. As segments of his model of endogen growth he takes capital, labour, human capital and the index of the level of technology.

COST-BENEFIT ANALYSIS FOR INVESTMENT IN HUMAN CAPITAL

The aggregation of knowledge is capital or welfare which has its value and can re-create i.e. produce additional, new welfare, which is on the other part related to the justifiability of the expenses, i.e. to the investment in the human capital, education, scientific research activity, trainings and experience as the main pillars in the creation of this kind of

⁷ Solow Robert (1956), „A Contribution to the Theory of Economic Growth,, Quartely journal of economics, 1956

⁸ Solow Robert (1957) „Technical Change and the Aggregate Production Function,, Review of economics and statistic, 1957

⁹ King Robert and Levine Ross (1993)-, „Financial and Growth: Shumpeter Might be Right,, Quartely Journal of economics, 1993

¹⁰ Schumpeter Joseph (1911) Theorie der wirtschaftlichen Entwicklung (transl. 1934, The Theory of Economic Development: An inquiry into profits, capital, credit, interest and the business cycle), Vienna: Kyklos, 1911

¹¹ Lucas, Robert (1988), „On the Machanics of Economic Development,, Journal of monetary economics, 1988

¹² Paul M. Romer (1990), „Endogenous Technological Change The Journal of Political Economy, Vol. 98, No. 5, Part 2, 1990

capital. For this reason are the big number of studies and cost-benefit analyses whose main purpose is to measure the aggregate expenses (as a price of investment in the human capital) and the social benefits as a result of these investments.

Determination of the price of human capital is done in an indirect manner: taking its market value as an equivalent of the debating of the supply and demand for the human capital. Hence, until the current value (and/ or productivity) of the human capital exceeds the expenses for its creation, investment in human capital is economically worthy. Valorization and estimation of knowledge and human capital to a great extent depends on the given context, because in different institutional surrounding and different levels of development, they carry bring different profit. Unlike the expenses which are spent on investment in human capital, benefits from these investments come with delay; they influence indirectly on the productivity and are difficult to measure.

The econometrical and comparative analyses show that, observed through the prism of participation in the growth of GDP, accumulation of human capital is three to four times more significant than the accumulation of unqualified labour, while the growth of the entire factor productivity (labour, capital and natural resources) is meaningfully defined by the initial level of the human capital. Here, the results show that the workers with high educational qualifications almost three times contribute to the growth of the productivity in contrast to the workers without qualifications.¹³ In a group of researches in the field of the American economy the conclusion was that if the productivity of the labour stays unchanged, then only 31% from the changes of the total output have an explanation: 15% of them are assigned of increase of the quality and the quantity of the country and the physical capital, and 16% to the increase of the quantity of labour, whereas to the increase of the quality of labour (human capital), are assigned significant 38%¹⁴.

The scientific-research developmental activity and education are the basic institutional social channels through which human capital is generated as a pillar of the economy based on knowledge. These are activities through knowledge and innovations of the individual and the society in general are acquired and they are proportionally related to the growth of the economy through:

- generation of human capital and a more quality manpower for development of the small and medium businesses, entrepreneurship, the service sector (as the most productive), and the propulsive, fast-growing industries; and
- generation of scientists and researchers as instruments for innovations, new technical and technological discoveries.

THE INTERACTION LINK BETWEEN THE INVISIBLE CAPITAL AND THE SMALL AND MEDIUM ENTERPRISES

The political and economic changes in the socialistic countries of the 80s of the previous century caused big failures in these economies, especially within the large enterprises because of their complexity of management and the slower adaptability to the changes. Together with the deepening of the problems within the large enterprises in the world at the end of the 80s of the last century, the economic policies of the most developed countries started to deal seriously with the question of development of the small and medium enterprises, innovativeness, the technical and technological blooming, competitiveness, restructuring and privatization and the question of sustainable growth and development in the

¹³Vrateovska N. Dance, Nikolovska Dj. Vanja and Tikvesanska N. Violeta (2014)- "Micro and macroeconomic aspects of the influence of education on the human capital, the market of labour and economic growth and development" International Scientific - expert conference: *Modern upbringing and education, states, challenges and perspectives*, 2014

¹⁴Gocevski Trajan (2012) The paradigm of the human capital in the countries of transition and the role of the university in its creation. *Annual compilation, University "Ss. Cyril and Methodius" - Skopje, 2012*

framework of the concept of economy based on knowledge. As a result of these trends, today 99% of the enterprises in the highly developed countries are small and medium and they employ about 70% of the totally engaged manpower. Beside the large number of thinkers who represent the thesis that forcing of the sector of small and medium enterprises is actually going back to the phase of the classical capitalism which is old-fashioned and long left over as well as that in conditions of globalization of the world markets, the only generators of economic and technological growth and development can be the large companies¹⁵. Yet, in the contemporary context, the focus of attention is not directed to the extent of the enterprise but to the role and the meaning of the large and small enterprises in the framework of the same sector and the thesis that none of the enterprises is big enough to satisfy the aggregate demand for the given product and / or service on the market. In conditions of reorganization of the economy in the context of changes derived from economy based on knowledge, when it is no longer primarily important the extent and accumulation of physical and fluent capital but the generation of knowledge, ideas and innovations, the role of the small and medium enterprises as main carriers of the competition in these socially-economic flow is especially strengthened.

The contemporary world phenomena, processes and changes in the framework of globalization, technical and technological bloom, the appearance of the internet and the social networks produce informed consumers, a new business logic based on a business model based on knowledge, possibilities and creating of new economic goods, services and values (for whose creation it is necessary to possess adequate initial quantum of knowledge and ideas, than physical resources), management with the non-material goods and innovations, management with the changes, new indicators of the business success, creation of multi-functional teams, etc. Human capital, i.e. knowledge, innovations, information, dissemination of ideas, creation of new values, the bases of data, the software solutions, branding, talented individuals, implementation of new projects etc. define the so-called invisible capital. The invisible or the untouchable capital is a significant resource in the nowadays economy and unlike the physical and the material resources (which are amortized with time and have a decreasing value) has an increasing value. This is because of the fact that knowledge (even though becomes obsolete), is not expendable, i.e. certain knowledge, findings or ideas can be reused, updated, and even to become public goods. In relation to the expenses for creation of the non-material capital, its benefits are more difficult to measure because of its indirect way of participation in the profitability of the companies. Thus, one of the challenges of the scientific branch for finding out methods for management with non-material capital and measuring of its value as part of the total assets of the enterprise. Here, the most frequently used method for estimation of the value of the disposable non-material capital in an enterprise is the correlation between the market and the accounting value of the enterprise. The newest researches show that in the successful companies the participation of the non-material and the invisible capital is in the average of about 80% in their total assets. Welfare is now more in the non-material value, i.e. knowledge and innovativeness, which canalized through the rights of intellectual ownership confirm their value, and hence they easily move where the demand for them is at the highest level and the laws and the tax barriers are at the lowest level, they become social and international. In such conditions, in the framework of the competitiveness of the economies based on knowledge, the comparative value of each economy will be the accumulated human capital, innovations and knowledge. For this, it is needed a multi sectorial and integrated long-term activity with the aim of supplying of legal infrastructure which will provide an environment for better conditions for business, induce competitiveness, entrepreneurship and innovations and a solid struggle of the countries in the support and

¹⁵Jovanovski Tihomir (2003) "LargeVS small and medium enterprises" at the round table: Large enterprises in the economy of the Republic of Macedonia, ZOR, 2003

development of education, science and researches. In his researches Romer¹⁶ comes to the conclusion according to which, if the states aim to induce economic growth, it is necessary that their economic policies:

- encourage investment and development of new ideas, and not investment and accumulation of physical capital, and
- subsidize accumulation of the total human capital at the level of the state.

A special input of the researches of Romer are the sublimations that the motion factor of the economic growth are not for example the government measures but the competition of the enterprises which compete through their innovations, and that innovations initially come from the inside of the system whether it is at the level of an enterprise or the level of the state, because if they come from outside, they will not provide competitive advance of a certain entity.

FOCUS OF THE REPUBLIC OF MACEDONIA

Macedonian economy as a small and opened economy, for the last recent years has been facing huge challenges starting from the consequences from the long-lasting inside privatization, lost markets, low rate of utilization of the capacities, the low productivity, insufficient economic growth, high level of unemployment, continuous deficit in the commercial and payment balance, insufficient financial intermediation and conservative banking system, by attracting foreign direct investments for transfer of new technologies and fluid capital, by maintaining of the external stability and arbitration of the collision of the global economic crisis. At the same time, economy faces the need of its overall restructuring, where the essential factors are the development of human resources, inventiveness and knowledge, as significant resources which will determinate the growth of Macedonian economy. In our country micro enterprises with less than ten employed persons are dominant - 91,2% in the total number of active legal entities. In them 33,7% from the total number of employed are engaged, and 25,1% from the total value-added tax. In 2012, in the framework of the structural business statistics 54 392 business subjects with 335 771 employed persons were analyzed, and in them a total profit of 94 741 0 millions of denars was achieved as well as a value-added tax of 19 798 9 millions of denars. In the big enterprises¹⁷ (0,2%) 23,3% from the total number of employed persons were engaged, with 34,4% from the total added value within the business sector. The biggest number of enterprises belong to the sector of Wholesale and retail (44,6%), with 28,1% of the total number of employed and 41,6% from the total profit were realized. As second by its significance, the sector of Manufacturing industry participates by 13,3% of the enterprises, 30,2% of the employed persons, 26,6% from the total profit.¹⁸ In the below-given charts it is evident that small and medium businesses are dominant in the overall business structure with total participation of 99,8%, and the percentage participation of the total number of employed in this sector in relation to the total number of employed persons in the country, is high 77%. This two indicators speak about the significance of the small and medium business and in contribution to the need of proactive and multi-department support of this structural part, especially starting from the itching problem of Macedonian economy: the continuously high unemployment which in the

¹⁶ Romer M. Paul (1986) "Increasing Returns and Long Run Growth," *Journal of Political Economy* 94, October 1986

¹⁷ According to the Law of trade companies (Official Gazette of the Republic of Macedonia No. 28/2004...48/2010), according to the criterion of the number of employees, small and medium enterprises are considered those of 1 to 250 employees; microenterprises are considered those with up to 10 employees, and large enterprises are the entities of more than 250 persons employed.

¹⁸ <http://www.stat.gov.mk/OblastOpsto.aspx?id=39>, accessed on 28/05/2014

first quarter of 2014 was reduced to the lowest level from the independence of the country till today, of 28,6%.

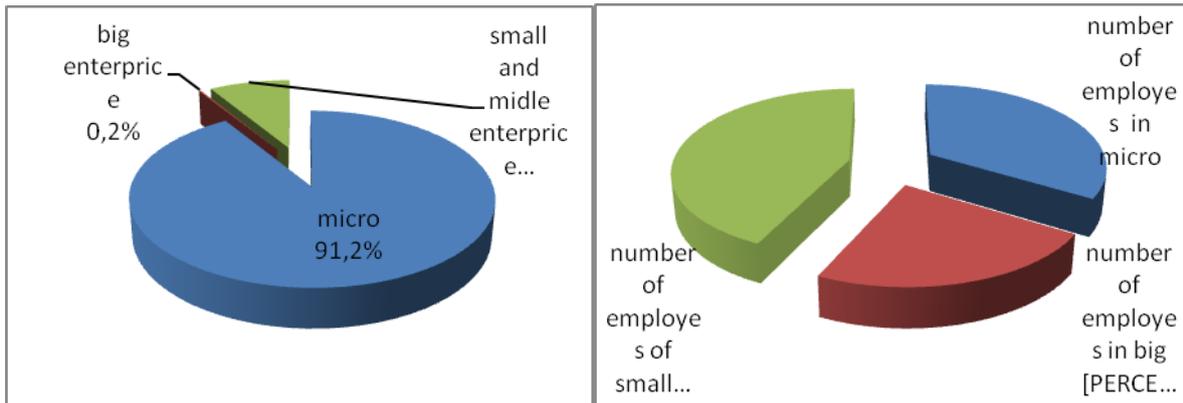


Figure 1: Representation of the enterprises according to the number of employed persons

Figure2: Total number of employed persons in the enterprises according to their extent

Source: State statistical office, structural statistics for 2012, elaboration of the author

In the framework of the analysis of the influence of education on the better utilization of the resources, employment, i.e. the labour market, numerous studies have proved that there is a narrow correlation link between the levels of education and the possibilities for employment on the labour market. Another proof is the analysis of the data of unemployed persons in the Republic of Macedonia according to the education structure. Namely, the total participation of unemployed persons who have acquired university degree, Master degree or PhD degree is 17,9% of the total number of unemployed persons in January 2014, whereas the rest of 82,1% are the workers without education or primary, secondary or college education. Furthermore, several researches show that the statistical correlation between the rates of growth of the BDP and the level of development of the human capital is proportional function with the growth of the part of the GDP which is aimed for the department of education. In this sense, we present the below given diagram which deals with the last thirty years in the Republic of Macedonia and shows the growing trend of the aggregate budget expenses (as a percentage of the GDP) aimed for the department of education. Even though it is still modest in relation to the needs, it is a positive indicator for the country as a society which deepened investments in the development of education.¹⁹

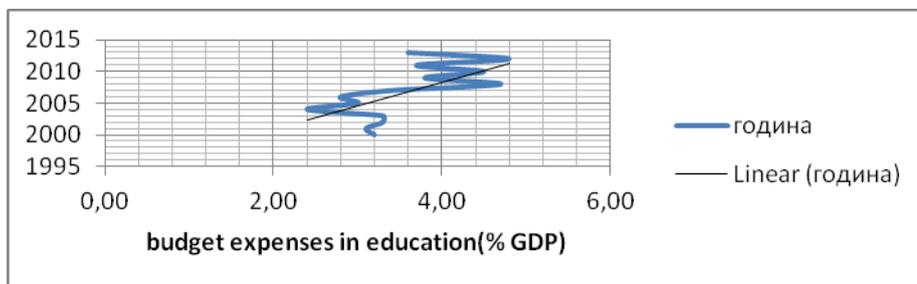


Figure 3: Budget expenses in education as % of GDP in Macedonia from 2000 to 2013

¹⁹Vrateovska N. Dance, Nikolovska Dj. Vanja and Tikvesanska N. Violeta (2014)- “Micro and macroeconomic aspects of the influence of education on the human capital, the market of labour and economic growth and development” International Scientific - expert conference: Modern upbringing and education, states, challenges and perspectives, 2014

Source: Vrateovska N. Dance, Nikolovska Dj. Vanja and Tikvesanska N. Violeta (2014)-“Micro and macroeconomic aspects of the influence of education on the human capital, the market of labour and economic growth and development” International Scientific - expert conference: Modern upbringing and education, states, challenges and perspectives, 2014

Besides education we have underlined that scientific research activity is also one of the basic institutional channels for creation and accumulation of human capital and in direction of creating of business ambience in the economy based on knowledge. Hence the interest for analyzing the overall expenses over the sectors in this activity in an interval of six years as a proportion with the GDP.

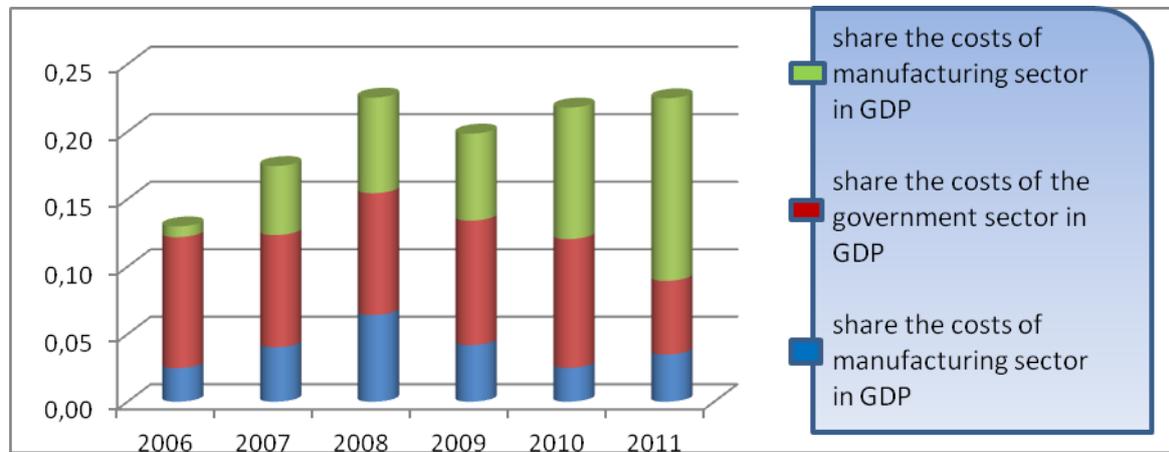


Figure 4: Sectorial participation of the expenses for scientific and research development activity in the total expenses of the activity as % of GDP from 2006 to 2011

Source: Science research development activity 2007, 2008, 2009, 2010 and 2011, State statistical office, elaboration of the author

In the shown graficon it is evident that in the average, from 2006 to 2011 participation of the total expenses for science research development activities is between 0,24% in 2005 to 0,22% in 2011, or an average participation in the analysed time interval of 0,21%. Here, in the framework of the sectorial participation in the total expenses in this activity, with growing trend are the expenses in the sector of university education, which is from 0,01% of GDP in 2006 to 0,14% in 2011, and in the average of the observed interval this participation on a year level is 0,07%. Participation of the expenses of the governmental sector is variable, from 0,1% of GDP in 2006 to 0,05% in 2011, and in the average of the analysed period it is 0,09% of GDP yearly. Participation of the manufacturing sector in the research activities as a percentage of GDP is highest in 2008 with 0,06%, and in the average of the interval it is 0,04% of GDP at a year level. The data that besides the relatively growing trend of expenses, i.e. investing in the activity, in relation to 2006 we have a decreasing trend of the number of completed scientific research development projects is indicative. This number in the mentioned year is 254, and in 2011 it is 169. The biggest part in the total decrease take the completed projects of the government sector, where the number of 100 projects completed in 2006 decreased to 38 completed projects in 2011.

Table 1: Sectorial participation of completed projects in the total number of completed projects for science research development activities from 2006 to 2011

yaer	Number of completed projects	Complete d projects in manufact orin sector	Complete d projects in governme nt sector	Complete d projects in higer education sector
2006	254	56	100	98
2007	185	45	59	81
2008	182	50	57	75
2009	200	49	60	91
2010	183	44	51	88
2011	169	66	38	65

Source: Science research development activity 2007, 2008, 2009, 2010 and 2011, State statistical office, elaboration of the author

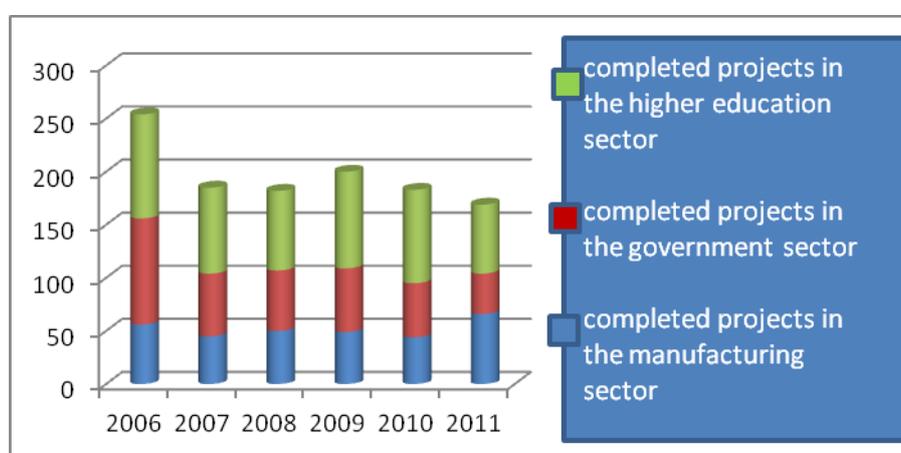


Figure5: Sectorial participation of completed projects in the total number of completed projects for science research development activities from 2006 to 2011

Source: Science research development activity 2007, 2008, 2009, 2010 and 2011, State statistical office, elaboration of the author

Table 2: Number of employed within the sectors of science research development activities from 2007 to 2011

year	Total emplyes in the sector	Total number employed in the producing sector	Total number of employed in government	Total employed in education sector
2007	6245	1865	710	3670
2009	5085	1465	647	2973
2011	10072	5834	453	3781

Source: Science research development activity 2007, 2008, 2009, 2010 and 2011, State statistical office, elaboration of the author

It is interesting that a big increase of 39% of the number of employed in research projects was registered in the interval from 2007 to 2011. Here, the employees engaged in the manufactural sector are dominant and with a growing trend, where the growth of the expenses for researches is cumulative 9% in the analysed interval and the number of employed persons in the same period increased for more than three times. In relation of this correlation we have an increase of the expenses for researches in the sector of university education for more than three times in the analysed interval and the number of employed stays relatively stable, with a mild growing trend and in the governmental sector a decrease of the number of employed of 42% in relation to 2007 as well as reduction of the expenses 21% was registered.

In the last period many institutions, bodies, measures and instruments were established in the Republic of Macedonia with the main purpose to enable organised appearance of the small and medium enterprises at the global market, and with the aim of outgrowing of the existing barriers as well as improvement of the competitiveness of the economy through increase of the level of innovations and the level of education and knowledge. In the framework of these mechanisms are the Agency of entrepreneurship with the regional centres for support of entrepreneurship, the chambers of commerce and the clusters at the level of branches, training centers and business incubators, the European informative innovative centre in Macedonia, the Fund of development of human resources, membership of the country in the European network of mentors for development of female entrepreneurship, the Foundation of entrepreneur service of youth, the Fund of innovations, the Institute of industrial ownership, the National Center for development of entrepreneurial learning, the Programme for development of entrepreneurship, competitiveness and innovativeness of small and medium enterprises (in its framework €29600 were approved and 27100 were paid off in 2012; 21600 were separated and 20800 were granted in 2013; and in 2014 the budget was extended to €39000), the Programme for supply of the needed occupations at the labour market, the Programme for granting and subvention loans for self-employment and employment of other unemployed persons, the measures of the Ministry of Education and Science for financing of published works with impact factor and scholarship of the talented students within the country or abroad, financing of student program trips at some renown universities abroad, the concept of compulsory secondary education, the project of computer for every child, free schoolbooks and transport to the schools, dispersed studies at the state universities, accessibility to the international funds of programmes for innovativeness, education and entrepreneurship: for example, the European programme Erasmus, etc. As a sublimation of the so far functioning and implementation of the above-mentioned mechanisms and instruments we can emphasize that a more efficient coordination between policy and the carriers of the measures and services is needed within the measures which are implemented at the level of pilot-projects and are with a high degree of successfulness - finding out system solutions which will be accessible to larger target groups and concerned parts, as well as finding out domestic solutions for sustainability within the donor projects after their termination.

CONCLUSION

In direction of creating of an ambience of economy based of knowledge and in function of development of the small and medium enterprises, we suggest directions which are further to be set on the level of operating: transformation of the educational system from repetitive to creative, cognitive and sufficiently flexible for a prompt response to the rapid technical-technological changes and the individual educational / developmental needs of the participants, implementation of the concept of lifetime learning, conduction of the principles

of entrepreneurial learning on all levels of education (starting from the basic one) and through adoption of the principle of economy based on knowledge, infiltration of programmes for development of entrepreneurship and the innovational management in the framework of the programmes of the secondary schools and universities, stimulations for multiplication of the research projects, continuous development of public policy for promotion of entrepreneurship and innovations within small and medium enterprises, strengthening of the capacities of the national providers of services, promotion of the existing instruments for support of the small and medium businesses and providing of their coordinated and continuous appearance, formation of purpose-built funds for financing of the innovative ideas and business plans within the existing small and medium enterprises and the new start-up businesses, strengthening of the fund for scientific and research development activities, conduction of macroeconomic measures for improvement of the regional competitiveness of the enterprises and promotion of the brands, affirmation of the possibilities for patenting and the industrial ownership, creation of regional innovative clusters and marketing chains, implementation of joined projects in direction of commercialization of technology, sharing of the best practices for financing of innovative ideas within the small and medium enterprises, development of an economic platform for support and networking of the business innovators, creation of institutional support for shortening of the time gap for placement of a new product at the market, creation and implementation of border systems for innovation, strengthening of the legal framework and the infrastructure for support of entrepreneurship and the small and medium enterprises; stimulation and promotion of the female entrepreneurship (as insufficiently represented), distribution of information in the domain of the EU policies, incentives and courses relevant for small and medium enterprises, creation, keeping and updating of bases of companies of the country for international support, support in the finding out of international partners for business collaboration, technological exchange and joined participation in development projects, organization of international events such as forums, fairs, company missions, stock-exchange events and other types of bilateral and multilateral collaboration, etc.

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SCIENCE, COMPANIES AND ECONOMY THROUGHOUT PERSPECTIVE OF INNOVATIONS: CASE OF SERBIA¹

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Abstract

The intention of this work is to clarify relationships of science, companies and economy throughout perspective of innovations. In the paper are explained main mentioned concepts, programs of innovative activities in Serbia, basic measures of innovativeness and competitiveness. Main reasons of Serbian non-innovativeness and non-competitiveness are lack of financial capital and market research analysis, outdated equipment, inadequate use of management techniques and modern technologies, quality management, etc. On the other hand, the most effective strategies for strengthening the links between companies and scientific institutions certainly are transfer of knowledge, innovativeness rising and skilled and knowledgeable work force.

Keywords: Science, Company, Economy, Innovativeness, Serbia

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INTRODUCTION

Innovation in terms of the law is a new product, process, technology or service with unique characteristics, created by using personal or other people's results of scientific research, discovery and learning through own concept, idea or method of its creation, which is with appropriate value placed on the market.

A firm adopting an innovative style relies on knowledge that is possessed by players of the market. Innovativeness is the predisposition to support new ideas and favor change. It embraces creativity in technology adoption and internal processes.

Innovativeness is a firm's tendency to engage in creative processes, experimentation of new ideas, which may result in the institution of new methods of production or bringing new products or services to current or new markets. As a firm specific, valuable and socially complex resource that is neither easily transferable nor imitable by other firms, innovation could confer a unique competitive advantage (Jalali, 2012).

The relationship between technology and every organization considered from the perspective of innovative economy must include factors which make long-term trends in technological development, the relationship of innovations and economic progress and the role of the organization as a source of innovative activities (Đorđević, 2012).

Innovations have become one of the most important vectors of sustainable enterprises development and economic prosperity of the whole society. Companies must constantly promote or renew their products and services, if they want to keep or capture market share and remain competitive. Companies often invest large sums in research and development especially in the advertising and marketing of their products or services. These investments will not occur if the company is not in a position to recover their costs. Therefore, adequate and effective protection of intellectual property gives innovative companies a powerful incentive to invest and contribute to economic progress.

It is considered that a key driver of understanding the “driving spirit” lays in the innovation. On the other hand, in the information mode of development is present particularly strong effect of knowledge which creates new knowledge, as the main source of productivity.

While the productivity and competitiveness are the factors that encourage high economic growth (excluding inflation), innovation is a key driver of the new economy. In fact, "innovation is a function of the skilled labor force and existing knowledgeable created organization." Innovation is itself a function of three main factors:

- first, the creation of new knowledge in science, technology and management (of basic innovation);
- second, the availability of highly educated and self-programmed workforce which can use new knowledge for improving productivity (may be a result of the quality and quantity of the educational system);
- third, the existence of entrepreneurs able and willing to take the risk of transformation of innovation in business (commercialization).

This talent is associated with the existence of an entrepreneurial culture, and with the opening of the institutions of society towards entrepreneurship. Thus, the "technological innovation is - according to Schumpeter version - entrepreneurship."

Innovation and entrepreneurship are at the heart of national competitiveness, so the significant turnover could happen, if for example at the sight are "huge" investments in research and development of information technology (IT), which needs to create an architecture that meets the needs of all types of users: first, those dealing with information; second, those involved in development programs; third, IT departments that maintain systems and support it, linking the appropriate program (regardless of used program language). In the field of development (software, for example) will be promoted only the ones that have the most powerful tool for development and the ability to adapt to currently used and accustomed standard.

The connection with each other is changing the technology, society, economy, culture, actually all of the areas that innovation is affected, i.e. in which it is entered or about to enter. This suggests to a broad integration of knowledge on a new basis, because it creates innovative networked environment whose dynamics and goals have become, to a large extent, independent (Fig. 1).

Innovation is the only way to be included in the universal (digital) language and pure logic of system networking technology in order to create the conditions for horizontal, global communication (Zjalić, 2007).

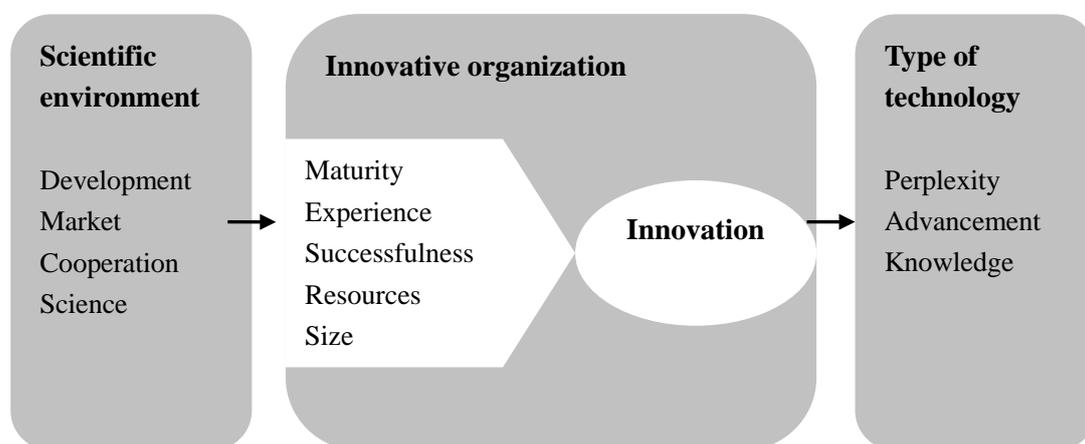


Figure 1: Model of innovative networked environment

Source: Nikolic et al, 2009

PROGRAMS OF INNOVATIVE ACTIVITIES IN SERBIA

In Republic of Serbia the ministry responsible for science is responsible for developing, implementing and promoting innovative activities. The Ministry maintains the Register of innovation activity that is open to the public. Users of

government incentive measures and budgetary resources for the development of innovation activity can only be subjects who are listed in the Registry.

In order to support the development of innovative products and services, encourage application and commercialization of research results, support the use of modern technology and build infrastructure of innovative organizations, the Government, at the proposal of the Minister, adopts programs of innovative activities for the current fiscal year.

MEASURES AND REPORTS OF A COMPETITIVENESS AND INNOVATIVENESS

The innovation of one economy is quantified by means of a number of indicators. The best-known measure is the Global Innovation Index (GII) based on indicators of innovation inputs and innovation outputs. Innovation results are classified as scientific and creative outcomes. On the other hand, innovation inputs mostly are about factors that stimulate innovations. Innovation inputs have been classified into five groups:

1. institutions,
2. human capital and research,
3. infrastructure,
4. market sophistication and
5. business sophistication.

In practice, there are a number of approaches to quantification of competitiveness. The most commonly used is the Global Competitiveness Report (GCR), developed by the World Economic Forum. It is considered as the best and most comprehensive indicator of the competitiveness of countries because it quantifies the macro and micro drivers of competitiveness. Global Competitiveness Index place factors of a country's competitiveness in the following twelve categories: institutions, human capital and research, infrastructure, macroeconomic stability, health insurance, high education and training, efficiency of product market, development of financial market, technological readiness, scope of the market, business sophistication and innovativeness (Cvetanović, Nedić & Despotović, 2013; Cvetanović, Despotović & Nedić, 2012).

Using the model shown on Fig. 2, the countries are ranked in accordance with their innovation input and innovation output, which together determine total value of the GII. Countries get their position in the rankings on the basis of this index. Since 2011, beside the Global Innovation Index, the Innovation Efficiency Index has been introduced, which, as a ratio of innovation output and innovation input, shows an innovation efficiency level of an economy.

- The average of the values of the first five pillars makes *the Innovation Input Sub-Index*.
- The average of the values of the last two pillars makes *the Innovation Output Sub-Index*.
- *The Global Innovation Index* is presented as an average of the Innovation Input and Innovation Output: $(II + IO)/2$.

- *The Innovation Efficiency Index* represents a ratio of the Innovation Output and the Innovation Input: IO / II (Cvetanović, Despotović & Nedić, 2012).

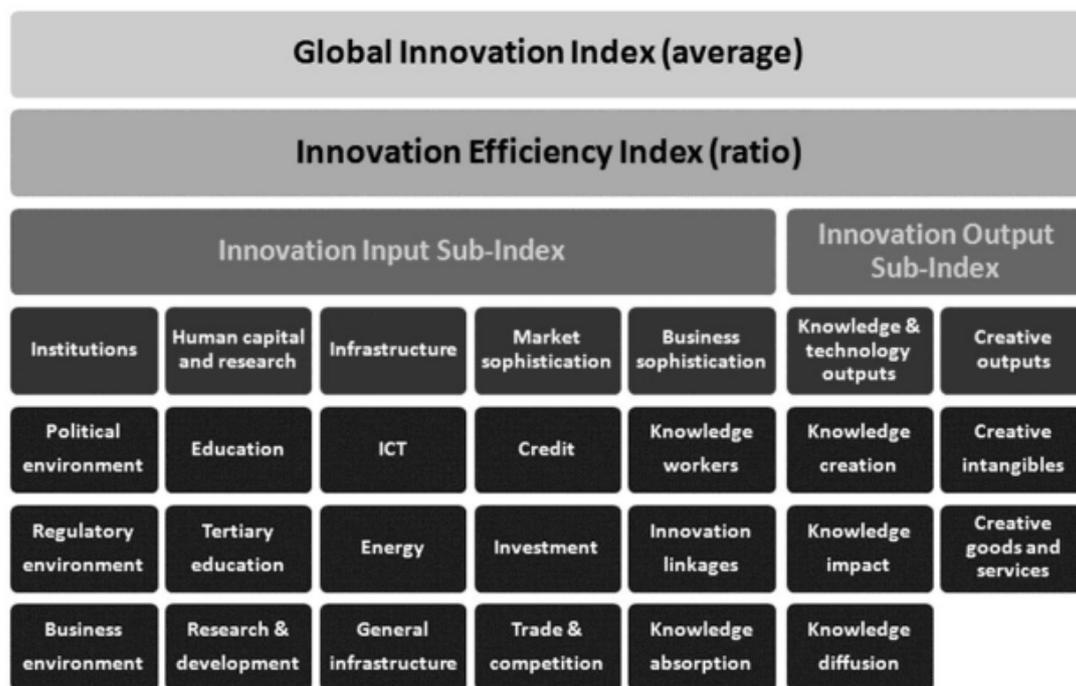


Figure 2: The Global Innovation Index (GII) – sub-indices, pillars and subpillars

Source: Cvetanović, Despotović & Nedić, 2012

When we talk about competitiveness, Serbia is in an unenviable position. Frustrating circumstances that stand in the way of inclusion of local enterprises in the global economy trends are primarily related to their long absence from the global market as a result of the international isolation of country. In such circumstances, an inadequate treatment of foreign markets in the strategy of growth and development of company occurred (Stanisavljev, Djordjevic & Cockalo, 2012).

Competitiveness Report of the World Economic Forum for 2013/2014 (Schwab, K. & Xavier, S.M., 2013) has noted some very distressing information on the innovative capacity of Serbian companies. A key indicator of technology adoption by one company puts Serbia at 137 out of 148 places. Indicator that reflects how much resources companies spend on research and development, ranked Serbian companies to 127 out of 148 places. These numbers clearly show that the Serbian economy is not innovative.

According to one survey conducted in 600 companies and 50 institutions in Serbia, European analysts as some of the key findings cited the relatively small number of companies exporting to the Europe (24%), on the global market (6%), and an extremely low level of patent applications and grants, especially at small companies, where the percentage is around five percent. Also, a very significant problem is the inflow of venture capital and attraction of “target” investors, which will invest in research intensive economic sectors that produce high added value, not

only in activities which predominantly require cheap labor. More than 65 percent of surveyed companies indicated a lack of financial resources as a key problem in the development of innovations, and then the lack of services such as market research and analysis, marketing support, information about new technologies, staff training, quality management, technology transfer, etc... (Zarkovic, 2013).

In one report of the European Agency for Reconstruction, is urged that a dominant problem in this area is the lack of viable systematic connections or fundamental need to facilitate the connection between research and development, universities, intellectual property protection, government procurement mechanisms and infrastructure support to companies. According to European experts, the links between companies and scientific institutions must be strengthened in order to provide a continuous transfer of knowledge, innovation and skills in the economy. Therefore, it is very important to compensate the lack of "broker" technology - organizations dealing with transfer of knowledge and technology from research institutions to industry as soon as possible and also to encourage cooperation with international institutions and markets (Zarkovic, 2013).

CONCLUSION

The Serbian economy is not based on knowledge because it does not rely on a well-educated population open to creativity and new ideas. The connection between education, research institutes and commercial sector is very weak. So there is a necessity for investment in the development of innovation policy through the provision of systematic measures for the creation, development and application of innovations, and other necessary measures for the promotion of overall innovation capacity in the Serbia.

Although companies are aware that they should innovate their business, they lack resources for innovation and human resources needed to spend their time thinking about innovation. One solution is to connect scientific institutions with the companies in order to jointly, with available capacities, contribute and increase the innovativeness of Serbian economy.

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BIOGRAPHIES

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ANALYSIS OF SIGNIFICANT AREAS FOR DEVELOPMENT OF SYSTEM FOR PROMOTING INNOVATION APPLYING MULTICRITERIA DECISION-MAKING AND BENCHMARKING

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Abstract

This paper represents the results of research realized on the sample of ISO 9001 certified organizations in Montenegro. The research is focused toward analysis of the most important elements of business processes in certified organizations in relation to the winners of awards for business excellence "Oskar of quality" in the Republic of Serbia in the category of middle and small enterprises in 2009, 2010 and 2011 year. This focus is oriented to activity in organization which is important for improvement innovation systems. In order to perform the analysis, there were applied benchmarking method and multicriteria decision making method. In that way a model which serves as a decision support tool for improving business process performance in certified organizations was created. Based on the literature research as well as on the basis of practical experience it has been concluded that this approach is not used either in our country or in the neighboring ones and represents original scientific paper.

Key words: innovation systems, benchmarking, ISO 9001

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INTRODUCTION

The choice of the paper's subject arises from observing the need to improve business processes in organizations, as well as the continuous improvement of the overall quality, which is underrepresented in the Montenegrin organizations. Based on the research of referencing publications and based on the analysis of systems in organizations, the authors of the paper concluded that the approach developed in the paper is not used or studied giving it the epithet of a unique scientific research. Also, the database upon which the development of a model for improvement of the performance of business processes is unique and the data are significant, and thus the result obtained is authentic and provides competitive advantage to organizations that are going to apply the model.

Determination for researching small and medium enterprises lies in the fact that these companies are going to represent the holders of the strategy of development and production in Montenegro, in time to come. In addition, small and medium enterprises SME (small and medium enterprises) play a major role in the world economy. In the EU countries (European Union) SMEs account for over 95% of all EU enterprises whereas in Montenegro the percentage is about the same. In all the economies in transition SMEs represent the backbone of the development of national economies and therefore any research on such a sample represents a specific contribution to the development of economy and science.

This paper examines the certified enterprises in Montenegro and their commitment to modern business and the pursuit of business excellence. Certified organizations in Montenegro operate according to international standards such as ISO 9001:2008; ISO 14001:2004; HACCP, OHSAS18001. These organizations in Montenegro adapted their way of conducting business to international standards and procedures to and represent the future of economic growth and development of modern business. Research results of Montenegrin organizations were compared with surveyed SMEs in Serbia, winners of the award for business excellence "Oskar of quality" in the category of small and medium-sized enterprises, for the last three years (2009, 2010, and the 2011). For this purpose, the use of benchmarking approach and the approach of multicriteria decision-making is used and methods of expert evaluation and methods of transits for gaining knowledge from certified organizations. The aim is to provide guidance to the investigated, as well as other organizations towards achieving business excellence and particularly towards improving organizational performance to the level of operational excellence and achievement of financial stability and system sustainability. The essence of the paper is to identify areas of certified systems and propose activities to improve the system for the development of innovation and ensuring sustainable development and operations of the organization.

METHODOLOGY AND CASE STUDIES

The basis for the paper's research is 125 certified small and medium-sized organizations in Montenegro. In further research a sample of 60 certified organizations is surveyed. For this part of the study a questionnaire is used containing 52 questions [1]. For purposes of comparison to another data level, a survey based on a questionnaire for seven 7 small and medium-sized organizations in Serbia, being awarded the prize for business excellence "Oskar of quality" in the category of small and medium-sized organizations, for the last three years (2009, 2010 and 2011). The data are unique and are the property of the organizations, namely are business secret and were obtained in coded form. Under the certified organization we imply those that have introduced ISO 9001:2008, HACCP, ISO 14001:2004 or OHSAS 18001. Determination to research in the field of certified organizations is dominant and determinant since organizations on the way to obtaining the

certificate have had to order the way of conducting business through clear and optimized organization, processes and procedures, which is a guarantee to consider them the most advanced and best organized. This is confirmed by the dominant attitudes in our and world references dealing with certified systems and the impact on business, sustainable development, efficacy and effectiveness [2]. The results obtained as a result of research of these organizations can be considered as a benchmark for other organizations. Also, since certified management systems are generalized at levels of ISO international standards, thus the results obtained can partly be implemented on a larger scale.

Oskar of quality from the aspect of this paper is totally complementary with the European Quality Award (EFQM). Data obtained both on the first (certified organizations in Montenegro) and the second level (the organizations winners of the award for Business Excellence) are unique and as such contribute to the elevation of the level of quality and significance of the results. For the purposes of this research ratings were obtained from four experts (experts from Montenegro and neighboring countries) who possess expert knowledge, competencies and experience in the field of quality management and business excellence, and their ratings can be taken as a benchmark of the research final results. After the ratings obtained by experts, using the Pareto method and methodology of AHP model weighting coefficients and coefficients of significance in achieving the requirements of business excellence are obtained.

For the purposes of this paper, as previously noted, considered are the winners of the business excellence award "Oscar of quality" for 2009, 2010 and 2011. The reason for this lies in the fact that this model for the area of Montenegro is the most suitable since the organizations from Montenegro mainly apply for the competition. In this paper, we will not specifically deal with the elaboration of different models of operational excellence that have already been largely developed in numerous referenced publications. One can simply state that in different models different changes are observed both in terms of rating and in terms of the name of award criteria in the category of large and the category of small to medium sized enterprises. If one looks at the ratio of the EFQM model and model of Oscar of quality and takes into account the observation that the two models coincide in 90 - percentage amount [3], then certainly a coincidence of the model (for 2010) of Oscar of quality is greater and quite reasonable from the point of need of this paper it can be taken for consideration.

On the similarities and differences of these models a lot can be said and often it is the topic of some research papers dealing with the elaboration of various types of models for assessing business excellence. Also, in numerous developing countries special awards for specific areas are developed and each of them has its own specific features. At the EU level the dominant form is EFQM model for assessing and most European countries have adopted this model. Further, in other countries that have not adopted it, there is a tendency that national models get closer to the model and fully accept it. These are the reasons that this paper adopts and discusses the criteria of the award Oscar of quality as almost completely matching award with the European model for award of business excellence, thereby achieving results, that is recommendations and the model that can be applied for organizations at European level as well.

The main objective of this paper is [4] to contribute to the development of modern science-based approaches and their application in specific business environments. In this way, we want to influence on improving business process performance particularly in terms of encouraging the development of innovation and entrepreneurship in certified and other systems. The specific objectives of the paper can be defined as follows:

- creation of a unified database of certified Montenegrin organizations in terms of the analysis of innovation and finding room for improving organizational performance to those of financial nature,

- separation of recertified organizations that have a permanent commitment towards achieving business excellence,
- development of a questionnaire for the study of these organizations and collecting data that will be subject to further analysis,
- data collection from the level of organizations that have received an award for business excellence and generating a unified database that will serve as a benchmark for comparison,
- development of a model based on the approach for multi-criteria expert decision making for establishing a connection between basic level and the level of operational excellence,
- analysis of data from the database, evaluation on the basis of the model, the comparison and defining conclusions,
- defining areas that are of particular interest in terms of improvement in order to improve overall organizational skills,
- defining measures to improve and uplift the level of organizations' performance.

Scientific research methods applied in the paper are the following:

- Method of analysis as the procedure of scientific research by parsing the complex concepts, opinions and conclusions on the simpler component parts and elements. The method of analysis has been used in research for the purpose of decomposing complex concepts and opinion, to simpler segments and factors.
- The method of synthesis as an approach of merging the individual and simple conclusions into the general ones. Based on this method more abstract concepts and the knowledge of those organizations on which this method is applied are obtained. It is a way of systematizing knowledge from the particular to the general knowledge in order to obtain general applicable knowledge. In solving problems in this paper the synthesis of priorities will be the criteria, sub-criteria that will provide overall priorities of alternatives.

APPROACH AND RESEARCH RESULTS

For collecting the necessary data in the study the selected and applied was the method of surveying and interviews. Using surveying data were collected given by a survey and using interview additional information from the survey field were obtained. In order to cover all the areas needed to prove the initial hypotheses, the results and making conclusions, a questionnaire was compiled of 52 questions covering two areas:

1. general questions - information about the organization and the respondent,
2. questions related to the criteria of business excellence.

In preparing the questionnaire the main questionnaire was used of 91 questions [5], whose research has found that there are certified 125 organizations in Montenegro, and that was the basis for all further activities on the development of this work.

Survey included a total of seven organizations in the region winners of the award for Business Excellence. Then the results of this survey were compared with the results of those surveyed on a sample of 60 certified Montenegrin organizations. Before sending the questionnaire to the address of the selected sample of respondents, a pilot study was conducted. According to the prepared initial questionnaire interviews were conducted with the most responsible persons in the field of research. Their responses and comments have caused certain corrections to the questionnaire: the number of questions was decreased from 91 to 53; minor changes were carried out in the questionnaire so that it became more understandable to respondents and the like.

The survey was conducted in the fourth quarter of 2012 via e-mail. In addition to the questionnaire, the respondents through interviews during direct visits to the organizations provided additional explanation for a segment of the survey questions, which significantly increased the level of significance of the data processing.

In the experiment segment also came to connecting the primary or first-level data, with other level of the data- the level of business excellent organizations. This connection was made on the basis of expert evaluations, that is linking the questions with the criteria of award for Business Excellence. Thus allocation was made on only those issues (and associated data) that can provide adequate and meaningful answers or results.

For the paper's purposes the evaluation were obtained from four experts (experts from Montenegro and neighboring countries). In the paper, the evaluation was performed in two following levels:

LEVEL I - Evaluating the relationship of selected questions (which are in fact the areas of a system) and criteria of the award for Business Excellence

LEVEL II - Evaluation of the level of significance of certain alternatives in relation to a goal set, which is achieving business excellence.

In terms of implementation of the AHP methodology, as well as the ratio of award criteria in relation to the goal which is achievement of business excellence weights were used that have already been assigned to each criterion.

In the area of evaluation at the level II the results were obtained taken into account when defining the significance of alternatives that are given in particular questions. This level of evaluation is useful in the evaluation of the analysis of the results.

In order to determine the level of significance (weight ratio) of certain questions that in fact represent the areas of priority of importance to achieving business excellence according to the model of Oskar of quality award, the methodology applied was AHP (Analytic Hierarchy Process) (Figure 1)

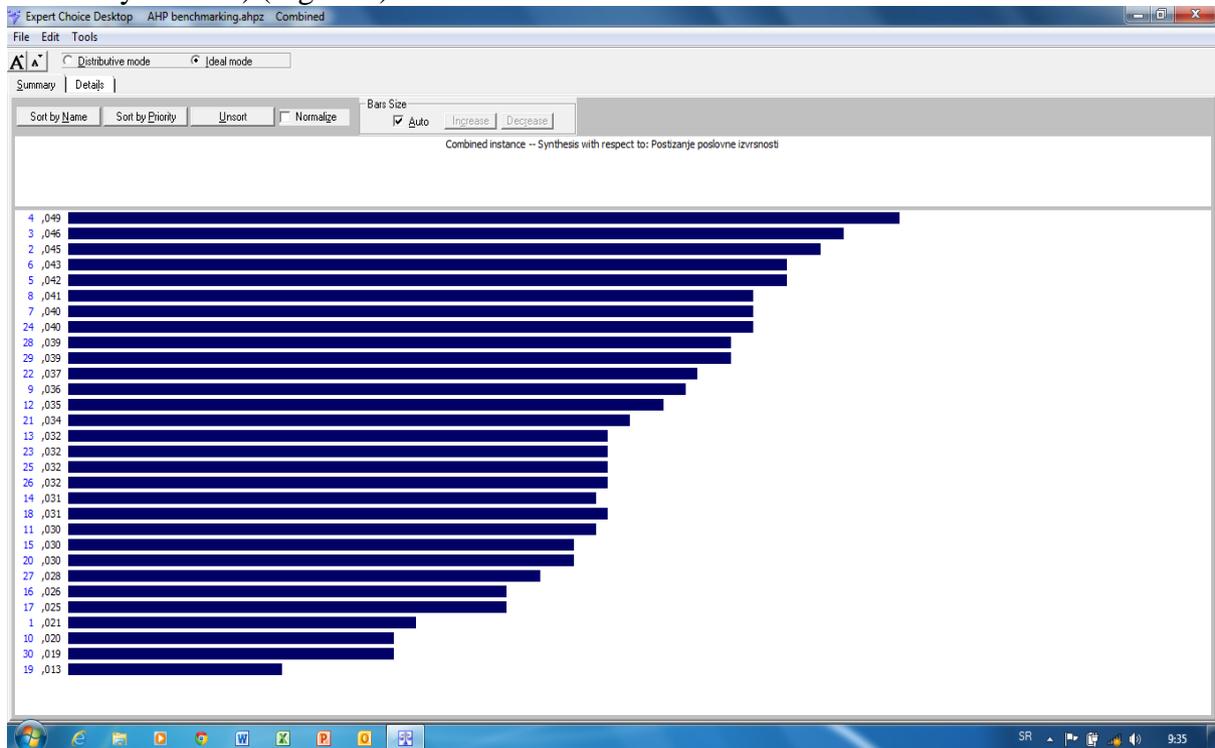


Figure 1: The weight coefficients that determine the priority areas in order to achieve business excellence

For purposes of evaluation, in accordance with the application of multi-criteria decision making of AHP method an expert team was formed of 4 experts and the assessment was carried out in accordance with the previously explained approach. After the implementation of the methodology obtained results are presented in Figure 29. By applying Pareto ABC diagrams and rules 70% / 30% as the most important requirements for achieving business excellence, distinguished were the areas defined by questions number: (4, 3, 2, 5, 24, 28, 29, 22, 12, 21, 23, 25, 26,14 and 11). For the purposes of this study in further text the emphasis will only be put on the first three areas.

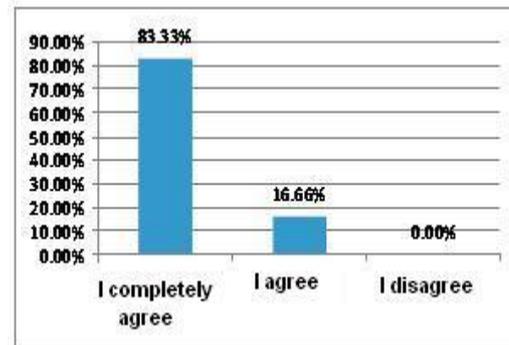
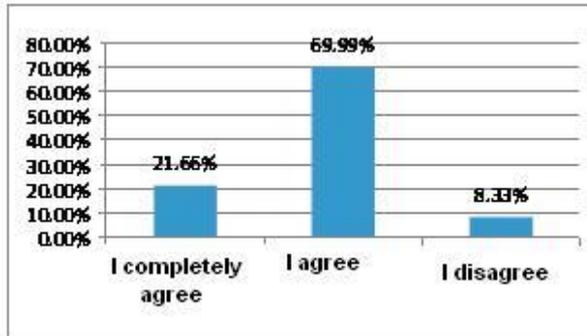
Based on the obtained results from those surveyed certified organizations in Montenegro and of the surveyed organizations in the region winners of the award for Business Excellence, diagrams that follow are presented. On the left side are certified organizations from Montenegro, and on the right experience of organizations' in the region for business excellence. In terms of paper's objectives and essence, further described are only those areas in which we come to the conclusions that should indicate guidelines to improve the innovative capacity of a certified organization.

Area: 5

MUTUAL COMMUNICATION AMONG THE EMPLOYEES OF DIFFERENT SPECIALTIES IS ENCOURAGED AND ENABLED IN THE COMPANY IN ORDER TO DEVELOP INNOVATIVE IDEAS AND THEIR ELABORATION:

- a. I completely agree
- b. I agree
- c. I disagree

The coefficient of significance: 0,042



When observing this area a great difference is noticeable in the sense that organizations from the surrounding countries recognize and fully utilize the employees' potentials and that they use different specificities of employees for the development of new ideas and their elaboration to improve the organizations' operations. In this regard, the organizations of Montenegro should recognize the benefit and involve all employees (individuals-teams) in continuous improvement activities. Possible factors for strengthening this area are the following:

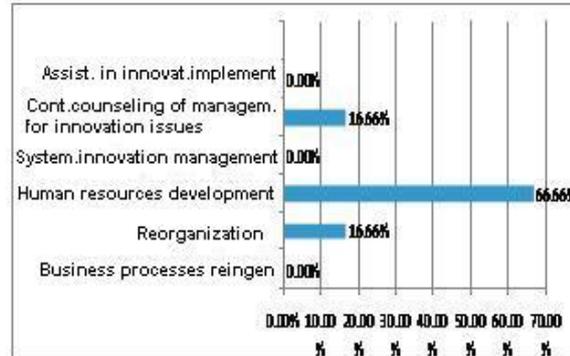
- encouraging employees to take initiatives for the development of innovative ideas,
- recognize the hard work and engagement of individuals, teams working on successful projects,
- providing guidance to employees through internal strategies with clearly defined aims to develop innovative ideas, plans and projects for the next period using their quality potential.

Area: 28

WHICH ACTIVITIES DO YOU THINK WOULD HELP IN CREATING A MORE FAVOURABLE ATMOSPHERE FOR INNOVATION DEVELOPMENT IN YOUR COMPANY?

- a. Business process reengineering
- b. Reorganization
- c. Development of human resources
- d. Systemic Innovation Management
- e. Continuous counseling of management for innovation issues
- f. Assistance in the innovation implementation

The coefficient of significance: 0,039



In this area we can see that the surrounding organizations, their leadership and leaders fully support and promote the development of human capacities and have a clear concept of organizations' development to improve the business and thus in that direction and progressing towards business excellence organizations from Montenegro should adapt certain activities and influential factors to the development of human resources and have established priorities to those of human resources development activities leading to the improvement and advancement of the organization. A possible suggestion for improvement of these activities is:

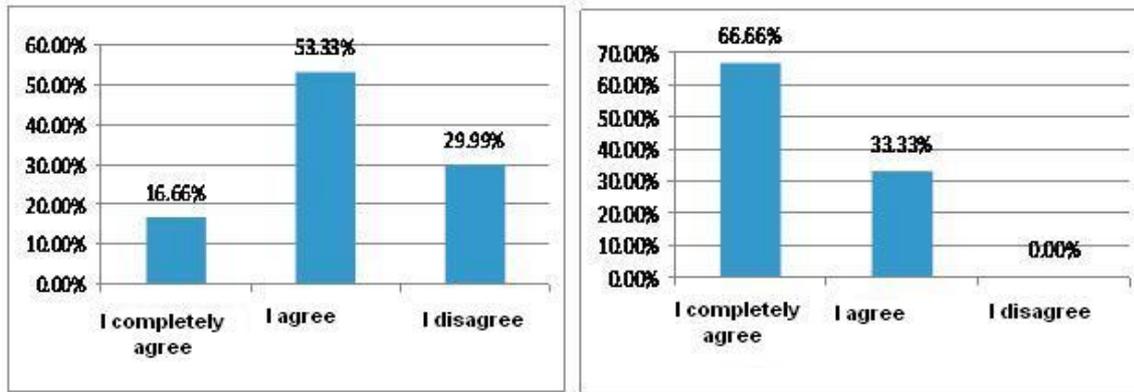
- continuous training of employees and tracking of modern knowledge in the areas of the activities,
- defining and establishing priorities for the development of human resources within an organization.

Area: 23

INDIVIDUALS WITH SUCCESSFUL INNOVATIVE PROJECTS RECEIVE ADDITIONAL AWARDS FOR THEIR IDEAS AND MERITS BEYOND THE STANDARD REWARD SYSTEM:

- a. I completely agree
- b. I agree
- c. I disagree

The coefficient of significance: 0,032



Observing the area, we see that in the organizations in the region as well as organizations from Montenegro for the organization improvement the successful individuals receive additional rewards. The criteria of business excellence foresee rewarding, praising, recognition of contributions to the development of the organization, employee involvement in continuous improvement activities give encouragement to individuals-teams with successful innovative projects for their ideas and merit receive additional awards. From the perspective of the area the possible factors of strengthening are the following:

- leadership and leaders should promote and support innovative projects of the employees,
- identify and evaluate the innovation of its employees,
- bind the fees for knowledge dissemination to the profit of organization

CONCLUSIONS

Development of a model to improve organizational performance is the aspiration of many scholars and practitioners in order to determine the guidelines and priorities for improvement in terms of achieving stability of the system to those of financial nature. These models need to be directed towards strengthening innovation systems in the organization thus pursuing competitive advantage and sustainable development and operations. The research presented in this paper move in that direction. In order to get significant and unique results and thereby achieve competitive advantage, an approach was developed combining multicriteria decision-making through the corresponding AHP methodology and benchmarking approach. Through the analysis of reference publications and the knowledge in practice, it can be concluded that this is a unique approach. In order to obtain unique conclusions, and as noted earlier, to gain competitive advantage, unique databases were made at the first level (certified organizations in Montenegro) and at the second level (the organizations that won the awards for business excellence). By applying these techniques with respect to the methods and techniques of scientific research priority areas have been identified in terms of achieving business excellence and achievement of the system that is focused on innovation and financial sustainability and stability. In this sense, a number of areas is allocated of which three are presented in the paper having a particular focus towards strengthening the innovative capacity of organizations or rather the areas where the priority is to seek guidance to improve the innovative capacity of a certified system. Further analysis and expert evaluation certain conclusions or guidelines were defined in order to achieve the previously defined goals of which is herein the following priority ones are mentioned, as follows:

- leadership and leaders should promote and support innovative projects of the employees,
- identify and evaluate the innovation of their employees and create an atmosphere of development and dissemination of knowledge related to the profit of the organization,
- defining and establishing priorities for the development of human resources within an organization towards the innovative activity,
- encourage employees to take the initiative to develop innovative ideas and recognize the hard work of individuals, teams working on successful projects,
- provide guidance to employees using internal strategies with clearly defined innovative ideas development goals, plans and projects for the next period using their high-quality resources.

Certainly, in order to rise the level of significance of this approach and its results, potential directions are defined for future research that can move in the direction of expanding the research to a greater number of organizations in the region, to the analysis and comparison with uncertified organizations as well as to the development of knowledge-oriented systems in the field of artificial intelligence.

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**CONCEPTUAL MODEL OF HR PRACTICES AND INNOVATION PERFORMANCE
FROM THE ORGANIZATIONAL
LEARNING PERSPECTIVE**

Zabijakin Chatleska Vesna¹

Abstract

There is growing evidence that economic growth, competitiveness and long-term success of the firms are determined by their innovative capacities. Also, a significant number of research studies suggest that HR practices are an important predictor of organizational and innovative performance. Drawing upon Resource-based view of the firm, we argue that Human Resource Management has a key role in the innovation process. In fact, this refers to the development of "core competencies" and "dynamic capability" of the firm. Knowledge, skills and abilities are considered critical resource in improving existing knowledge (improvement of existing products and processes) or for generating new knowledge (innovation in products and processes). Although there are a significant number of empirical findings confirm the positive relationship of HR practices and innovation performance, nature of this relationship remains poorly understood. If we accept that knowledge (individual, group and organizational) is of paramount importance for the development of creative and innovative organizational capacity, it is necessary to examine how to improve the organization's ability to learn, through strategic formulation and implementation of appropriate HRM policies and practices. Despite growing academic interest in the issue, there are an insufficient number of studies that explore in depth the role of HRM in order to increase organizational learning capability (OLC), which leads to innovation. The purpose of this paper is to make a theoretical contribution to the debate about the relationship of HR practices and innovation performance by extending this relationship with the organizational learning perspective. Based on previous theoretical and empirical findings, the paper proposes an analytical, conceptual model which introduces a behavioral component (variable) in exploring the link HRM - Innovation. It is assumed mediation effect of OLC in the relationship between HR practices and innovation performance.

Keywords: HR practices; organizational learning capability (OLC), innovation performance.

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INTRODUCTION

In today's turbulent business environment, there is an increase in the competition as well as the "fight" to acquire the limited resources. The technological changes are fast and intensive and, as a result, firms are struggling to maintain their positions on the markets. In such conditions, the question of development of SMEs, especially in the countries from south-east Europe is of great importance. Because of the old political and economic systems inherited in these countries, firms have to make additional efforts and employ enormous resources in their struggle for competitiveness, compared with the firms from the developed market economies that have long standing tradition and know-how for doing business. Today, more than ever, there is a consensus among management theorist and practitioners that the organization's ability to innovate is one of the key success factors. Contrary to traditional (short-term) financial indicators, nowadays innovation can offer more accurate predictions for long-term competitive advantage. Drawing upon Resource-Based View of the Firm (RBW) for competitiveness through internal resources, we argue that Human Resource Management (HRM) has a key role in the innovation process. Some empirical findings suggest that HRM is in direct positive relationship with the organizational performance (as well as innovation performance), (Delany and Huselid, 1996, Combs et al., 2006). Also, there are a considerable number of studies that go deep in exploring this link, by introducing intermediate variable to get a better understanding of the interconnection of the processes and relations. (Boxall and Purcell, 2000, Oltra and Alegre, 2011, Camps and Luna-Arocas, 2012, Shipton et al., 2005). Based on organizational learning theory and organization's capability to learn, in this paper, we propose that HRM promotes innovation to the extent that people and the networks to which they belong are enabled to generate and generalize new ideas. Accordingly, following research questions are placed: 1) which HR practices can yield in greater innovative performances; 2) what is their influence on the innovative outcomes; and 3) which are the main processes and variables that define the interrelation among HR practices and innovative performance.

This article is conceptualized as follows: after the introduction, the relationship between HRM and innovative performances are taken as a starting base, after which the construct of OLC will be explained as well as its connections with the HR practices and with the innovation, in order to show the justification of the OLC as a mediating variable. In a separate section will be elaborated an integrated framework that constitutes of: HR dimensions and HR practices, mediating processes of OLC and the resulting innovative performance. The paper ends with a conclusion highlighting the contribution and future research issues.

HUMAN RESOURCE PRACTICES AND INNOVATION

The study of the relationship between HRM and the performance is focused on the employees' behavior and capability and as a starting point takes RBW of the firm (Barney, Wright, and Ketchen, 2001). RBW suggests that organizational core competences are embedded in the human resources and the employees' knowledge, skills and the abilities (KSA) are considered as the key resources for improving the existing products and services as well as generating new ones. The individual and organizational knowledge are consisted of accumulated experience and expertise, it is unique and authentic and with that it is hard to be copied by the competition. From a strategic point of view, this uniqueness mean greater added value, yields advantages and, at the same time, it is kind of a protection of the firm from the competition.

According to Altman and his colleagues, the capacity for creating and implementing innovations is conditioned by the internal resources, more precisely the employee's specific behavior and knowledge that have the potential to support, develop and implement new ideas (Altman, Rundquist, and Floren, 2014).

Within the framework of SHRM contingent perspective, Schuler and Jackson (1987) argue that the chosen strategy has significant implications on the creation of HR systems. Starting from the Porter's competitive strategies, they developed three archetypes: "cost, "quality" and "innovation" based HR system and needed role behavior. According to these authors, if a firm chooses to implement innovative strategy, than the HR system has to enable the employees to work in a different environment in comparison to the more traditional ones. They are suggesting HR practices that enables: 1) job design that will result in closer interaction of groups and individuals, 2) performance appraisals that are more likely to reflect longer-term and group-based achievements, exchange of ideas and risk taking, 3) work assignments that allow employees to develop skills that can be used in other positions in the firm, 4) compensation system that emphasize internal equity rather than market-based equity, 5) flexible pay package, and 6) broad career paths.

If innovation performance is the result of the employees' KSA, then it would be expected that the way they are managed would have an impact on the innovative outcomes. In this regards, theoretically and empirically, it can be assumed positive connection between the HR practices and the organization innovative performance. A significant number of research studies suggest that HR practices are an important predictor of innovative performance and innovation capability (Michie and Sheehan-Quinn, 2001; Beugelsdijk, 2012; Wei, Liu, and Herndon, 2011; Laursen and Foss, 2012, Jimenez-Jimenez and Sanz-Valle, 2008). Those are: recruiting and selecting of talented people that are open to new knowledge and possess entrepreneurial spirit, training and knowledge improvements, teamwork, internal carrier opportunities/promotions, employee participation in decision making and empowerment, information sharing, performance related pay (incentive-based remuneration schemes etc.). Empirical findings from the 36 SMEs in Republic of Macedonia have shown statistically significant positive correlation of the variable new product/process/service development with three variables of HR practices: 1) quality management training in the last three years; 2) participation in decision making, and 3) upward communication through attitude survey and job satisfaction survey (Zabijakin-Chatleska, 2014).

ORGANIZATIONAL LEARNING CAPABILITY (OLC)

Organizational learning (OL) as a theoretical approach has experienced noticeable advancement in the past view decades. Chris Argyris and Donald Schon (1978) (in Yeung et al., 1999) are the first scholars who elaborated the concept of OL and it was further expanded and popularized by Peter Senge (1990) и James March (1991). The interest for OL by the academics and the companies comes from the need for quick responses to the changes in the fast moving markets, clients demand and need for staying competitive. Today, with great deal of certainty, it is know that firms must learn in order to survive and the knowledge is considered as a source of enduring competitiveness. Also, the need for OL is owed to the changed conditions such as: a) ageing workforce (which is difficult to train and difficult to adapt to new technologies and new work design); b) permanent decrease in the number of new employees and c) declining of the real competent workforce on the external labor market (which is becoming ever more rare due to the pour education).

OL means process of change of the organizational models and performance improvements through learning (Campsand Luna-Arocas, 2012). Learning occurs at the individual level, but that doesn't mean that OL is only a cumulative result from the learning of the organization members. OL is a cognitive system through which, on a long run, an organizational memory can be built that can keep certain behaviors and mental maps, norms and values (Yeung et al, 1999). In the knowledge-based economy, a successful firm is the one in which the organizational system and culture have a capacity for continuous creation, transfer and implementation of knowledge (new technology and product) faster than the competition.

Yeung and his colleagues, define OLC as: "an organization's fundamental learning capability represents its capacity to generate and generalize ideas with impact (*change*) across multiple organizational boundaries (*learning*) through specific management initiatives and practices (*capability*)." (1999: 11). This definition emphasizes that: a) change means creation and implementation of knowledge (ideas) through exact activities and outcomes; b) learning means transfer of knowledge (ideas) outside the individual to other persons, departments and functions; c) capability means exact management activities for supporting business innovations and adaptation. OLC has three dimensions that are related to the ability for: 1) generating ideas with impact, 2) generalization of those ideas; and 3) identifying learning disabilities (Yeung et al, 1999). In short, *generating* is referred to gaining, uncovering, inventing and finding ideas. *Generalization* means dispersion of ideas (knowledge) and their codification that result with changes of the work behavior. Generalizing does not occur only when one idea will be transferred, but also when whole process of transferring will be institutionalized through focused set of management activities for creating a learning architecture (Kang, Morris, and Snell, 2007). OLC is valuable organizational capital that increases over time and the productivity of this capital depends on how effective the employees will share their competency with the ones that can use it. Third dimension of OLC is *identification of learning disabilities*. It is an important task for managers to identify and deal with the barriers to generate and generalize ideas that lead to failures and performance gaps. In order to spark up the process for learning, it is necessary to emerge, as P. Senge name it "creative tension", i.e. the gap between current state (reality) and the desired state has to be clearly seen. According to Yeung and his colleagues (1999), there are seven most common learning obstacles. The first four - blindness, simplemindedness, homogeneity and tight coupling are limiting the abilities for generation of ideas and the other three - paralysis, superstitious learning and diffusion deficiency are stopping the generalization of ideas.

OLC enables core internal organizational change that has positive effect on organizational performance and innovation, which in real business terms means adding value to the stakeholders on the long run.

HR PRACTICES AS ANTECEDENTS OF OLC

HRM, as a system of policies and practices, can stimulate the creative and innovative behavior of the employees through influencing individual attitudes and behaviors (actions). HRM system, strategically oriented towards OL, has to create policies that have a function of OLC development through specific HR practices in the domain of selection, training and development, appraisal and compensation. The importance of HR practices in the development of OLC is well known in the literature (Combs et al., 2006, Guest et al., 2003). HR strategy should emphasize interdependent jobs, participative decision making and problem solving, team-

based work, individual appraisal, specific compensation package, and broader career paths. Effective HRM should balance between organizational systems which, on one hand, are open and flexible enough for creativity and innovation, but on the other hand, have enough formal rules and work discipline that creativity produce tangible outcomes.

The empirical finding of Camps and Luna-Arocas (2012) are confirming the HR practices – OLC relationship. They have studied the following dimension (developed from Pfeffer in 1998): employment security; selective hiring of new personnel; self-managed teams and decentralization; high compensation contingent on organizational performance; extensive training; reduced status distinctions; and extensive sharing of information. Likewise, the research results of Chiang and Shih (2011) suggest that the knowledge based HR configurations is positively and significantly related to the new product development learning process. Cabrera and Cabrera (2005) identify several people management practices that fostering knowledge sharing, which are: work design; staffing; training and development; performance appraisal and compensation and rewards. OLC is embedded in a human resource system. The greater is the OLC, the greater will be the possibility that organization can maintain sustainable development and competitive position. Kang, Morris and Snell (2007) consider that human resource contribute to OLC through maximizing the value embodied in social relations between core employees and both internal and external partners. They assume two types of HR configurations - entrepreneurship and cooperative – and for both of them have determined structural, affective and cognitive HR practices.

OLC AND INNOVATION

OLC is inevitably related with innovation, which as a complex interaction among multiplied (individual and collective) learning processes is aimed towards finding new ways of problem solving. The innovation is dependent on the company's ability (dynamic capability) to learn, or to create and internalize new knowledge. In that sense, I. Nonaka says: "Innovation can be better understood as a process in which the organization creates and defines problems and then actively develops new knowledge to solve them." (1994:14).

Research findings place OL as predictor of innovative performance. Empirical research of Chiang and Shih (2011) shows that new product development learning process is positively and significantly related to perceived new product performance. Several studies suggest that the relation among OL and innovation can be dependent on organizational context – technology, industry, strategy (Yeung, Lai, and Yee, 2007), while other ones give strong support to the premise that diverse aspects of the organizational intellectual capital influence the capabilities for incremental and radical innovations (Subramaniam and Youndt, 2005). Firms that have chosen to be competitive through adoption of innovative strategy should develop organizational features that have a clear orientation towards learning (learning culture and appropriate HR practices).

OL is key element in the innovative process that enables continuous improvements within the existing paradigm as well as the breakthrough innovations, i.e. paradigm shift (Yeung, Lai, and Yee, 2007). OLC implies effectively manage the individual knowledge, the organization's know-how and the OL processes. The innovation is the result of such capability. This can be achieved through proper combination of management initiatives and the adaptation of appropriate technology. The buildup of OLC increases the firm's chance for innovation and at the same time enables promotion of learning, knowledge sharing and collaboration. Organization's capabilities to generate and generalize new ideas as well as the capability for removing the barriers that are

blocking these processes are important determinants of performance differences between firms (Yeung et al., 1999).

INTEGRATING HR PRACTICES, OLC AND INNOVATION: CONCEPTUAL MODEL

HRM and innovation are strongly connected with the learning and accruing knowledge. The way that HR are managed has a key role in promoting individual and organizational learning. In organizations that are orientated towards learning and innovations, the goal of HRM is development and implementation of such practices that will create context for motivation and dedication to learning as well as articulating and sharing knowledge. But, this is not enough because the end result should be implementation of the knowledge in the processes of creating new products, process or service or at least considerable improvements of the existing ones. The capability of OL as a relevant predictor of innovative performance, covers important values and process mechanisms that mediate between HRM and innovation. For these reasons it is important to determine how firms can develop OLC through specific HR practices.

This paper proposes a conceptual model that is based on previous theoretical and empirical findings. First, there are multiple studies that examined the relationship between HRM and innovation by introducing a mediator variable such as: organizational learning (Shipton et al., 2005), knowledge management capability (Ozbag, Esen, and Esen, 2013), organizational learning processes (Oltra and Alegre, 2011), organizational learning capability (Camps and Luna-Arocas, 2012), new product development learning process (Chiang and Shih, 2011). All these studies confirm the positive effect of the mediating variable. Second, the model applies the idea of clusters of HR practices that Kang, Morris, and Snell (2007) named as *cognitive, affective and structural dimensions of HR practices*, which are connected with the premise that performance is a function of three general dimensions - ability, motivation and opportunity (Huselid, 1995). Third, the model is developed according to the research work of Yeung and his colleagues (1999). They define three main processes (building blocks) of OLC - generating ideas, generalizing ideas and learning disabilities (that were already elaborated in this paper). They also suggest three basic dimensions of HR practices relating to OLC: 1) *competency development* (HR practices which provide the employees' capability), 2) *performance management system* (HR practices which provide motivation for learning), and 3) *job design* (organizational design and structure) and *communication processes* (HR practices which provide opportunity to participate).

In the proposed model, the three building blocks of OLC are integrated with the HR practices and innovative performance. Figure 2 shows the logic and causality of the relationship between the variables.

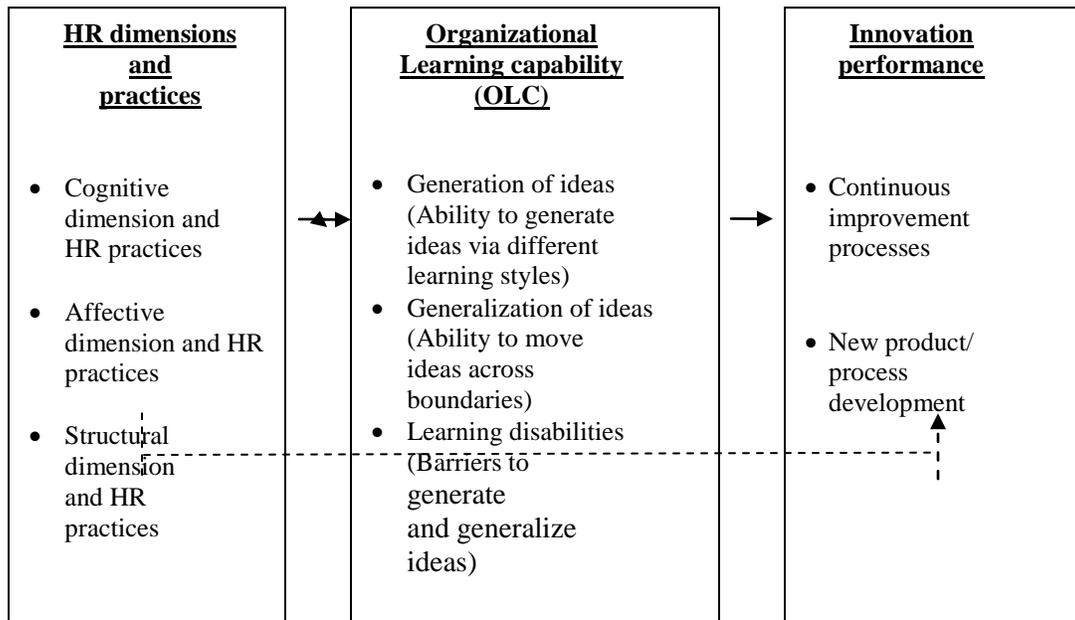


Figure 1. Conceptual model of HR practices, OLC and innovation

As primary relationships are assumed: 1) HR practices as a predictor of OLC and 2) positive impact of OLC on innovative performance. Such positioning suggests that the connection between the HR practices and the innovative performance is indirect, that is going through the mediation effect of OLC. At the same time, the direct connection between HR practices and the innovative performances is being treated as a secondary. The first, predicting variable in the model contains HR practices that are grouped in three basic HR dimensions. The second, mediating variable, OLC, has a behavioral nature and contains elements of one system that allows learning capability. Finally, the third, criteria variable, innovation performance, includes two dimensions: new product/process development (radical innovation) and continuous improvement processes (incremental innovation).

This model suggests that the innovative performance are the result of the HR practices that manage the three dimensions of OLC – generating new ideas, generalizing of those ideas and dealing with the barriers to generate and generalize. HR practices enable the process of creating and internalizing valuable and firm-specific knowledge and have a positive effect on the employee’s value-creating potential. Based on a review of relevant literature (mentioned in the previous sections), and particularly research findings of Yeung and his colleagues (1999), as well as the work of Kang, Morris, and Snell (2007), the following dimensions and HR practices, that facilitate the processes of OLC, and also have a positive effect on the innovative performance, can be proposed:

1) *Cognitive dimension* – it’s refers to the competency development (individual, team and organizational KSA). The competitions must be developed in order to build up the capabilities

for generating and generalizing ideas and to encourage learning. This can be achieved through the following HR practices:

- Recruiting from the external labor market – employment of individuals that have new ideas on key management positions and competence to overcome the identified gap. This competences include: inquiry, reflection, system thinking, mental modeling, conflict management, networking, risk taking, creativity, and tolerance for ambiguity.
- Recruiting from the internal labor market – promotion of those employees that have the capacity for learning and that are constantly learning.
- Extensive orientation and socialization programs for sharing values, goals and knowledge.
- Individuals who do not want to learn to be moved from key positions.
- Training programs and employee development programs (competency building) through:
a) training in which the employees will go through new and different experiences that will trigger the reexamination of the current ways of working, and b) training for sharing of the best practices. Employees will be obligated to participate in the ongoing experience education through classroom training and ongoing opportunities to participate in project teams to improve processes. With this approach, employees can learn and share knowledge and at the same time, helps in integrating of mental models.
- Practices for involvement of the clients in all the stages of the trainings.
- Share ownership of training with line and HR managers.
- Extensive use of teams, cross-functional teams and process-based work arrangement which can result in movement of the employees across the organization and enables the generalization of ideas from one unit to another.
- Professional and carrier development opportunities.
- Institutionalization of job rotation with assignments and responsibilities in different divisions.

2) *Affective dimension* – it refers to motivation for learning and clan-fostering initiatives. Motivation practices should encourage learning through performance management system that includes performance appraisal mechanism, distribution of benefits and rewards, which are associated with the application of knowledge in the everyday business practices. First, it should be determinant which behavior will be preferred and is a consequence of learning, (such as generating new ideas, sharing of those ideas with others, effective collaboration in a team). The consequences must be installed through the performance management system. The system sets standards (for individuals and teams) and is realized through performance appraisals. When the individual or the team reaches these standards, the reward system provides a positive financial and psychological outcome that strengthens the value of the standard. But, if the desired standards are not met, the system corrects and disciplines the employees. To build learning capability, it is important to establish a clear link between the reward system and the specific requested behavior in terms of learning. The following HR practices can enhance motivation for learning, generating and generalizing of ideas:

- Clan-fostering initiatives – employee selection based on organizational fit and alignment with organizational values.
- Performance management system that emphasize collective/group achievements, changes in the performance appraisal in terms of evaluating the activities related with the learning and results, team- based appraisal system.
- Using multiple stakeholders for appraisal (such as peers, subordinates, or customers), multirater (360-degree).

- Participative goal setting.
- Formal grievance procedures.
- Collective reward system (gain sharing, profit sharing, stock ownership plan).
- Rewarding and encouraging people for experimentation, sharing ideas and best practices with others.
- Result-based incentives for cooperation and joint contribution of the team members.
- Tying the bonus/incentive system to learning.

3) *Structural dimension* – it is referred to opportunity to participate. The way that the organization is structured, the decision making processes and the way the information is shared, all have influence on the generation and generalization of ideas, but most of all, they strongly affect learning disabilities. Namely, the organizational design, organizational structure and job design, all should support OLC. Bureaucratic and highly hierarchically structured organizations create a barriers for generating and generalizing of ideas. On the other hand, the organizations with interdependent and flexible work structure among core employees and internal/external partners, support and sustain the generating and generalizing of ideas. Specific HR practices are:

- Creating fluid, flexible organization with the weak boundaries, with not so strong barriers between divisions through team-based working (project teams, cross-functional teams, ad hoc teams) that help in the enforcement of diverse and transitory connections that act as conduits of knowledge exchange.
- Encourage team learning through dialogue not discussion.
- Broadly defined jobs.
- Employee involvement, empowerment, participation and decentralization of the decision making processes, information sharing.
- Focus less on chain of command and more on learning.
- Establishing centers of excellence.
- Working with subcontractors, suppliers, and other outsiders in informal fashion.
- Encourage external benchmarking and communication.

It is important to point out that, although the HR practices are more strongly connected with one particular HR dimension, in fact they are mutually reinforcing and have a multiplying effect. Also, it is important to note that a particular practice can simultaneously affect two or three dimensions of OLC. Structural, cognitive and affective dimensions of HR through mutual interaction create complementarity that maintains and builds OLC, which in turn positively affect innovation performance.

CONCLUSION

This paper represents further theoretical development about the relationship between HRM and performance from the OL perspective. Dynamic and behavioral nature of OLC, represented in the model through generating ideas, generalizing ideas and dealing with the obstacles for generating and generalizing, is connected to a set of appropriate HR practices. With this, a clear differentiation is being made from the formal management practices (HR practices) and their behavioral outcomes, which are mostly in the domain of employee's discretionary rights over which the management doesn't have direct and full control (Oltra and Alegre , 2011). The main contribution of the paper is thorough analysis of the correlation between HR practices, OLC and innovative performance. A preliminary attempt is being made to integrate three different

concepts in to one analytical model. This model is may be helpful for academics, for the further empirical and theoretical studies, as well as for the management practitioners, in their efforts for adoption of proposed HR practices that enhance OLC.

From a methodological point of view, the suggested conceptual model can be used as a starting point for further research. Future empirical testing should be based on clear methodological approaches (which are beyond the scope of this paper), and address issues related to the operationalization of the variables, scales construction, sampling procedures (countries, industries, firm size), methods and techniques of gathering data, methods of analysis and so on.

The development of OLC and building a learning organization is still an open question for academics and difficult and challenging task for practitioners.

Managers need practical, prescribed methods (such as models and corresponding practices/tools) to encourage OLC. The practical goal of the paper can be seen in the effort to offer a model and a set of HR practices that are integrated in the model and can be successfully implemented in the companies.

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ACCOUNTING MANAGEMENT AND BUSINESS EVALUATION

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Abstract

Theoretical review and learning of innovations and effects of accounting management, among other, are preoccupied with the problems of assessment of modern business relations.

In fact, thus, the functional and the informative role of management are being designed, indispensable to assess the quantity and quality of the work of companies, internationally. International development of companies practically involves introducing of innovation and business cooperation in respect of democratic principles and cultures.

Specifically, the assessment of business in its quantification of results today is increasingly internationalized globally. Therefore, further development of the accounting and business management will be based on democracy and innovative knowledge of the world economy in the interest of overall development of the national and international economies. These are democratic and revolutionary changes and needs.

Keywords: management, evaluation of business, internationalization, information, innovation.

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INTRODUCTION

In the era of the information society, one of the most current issues, but also a necessity is the management and development of business of enterprises, as well as evaluation of business results.

These businesses are not based on individual activities, but they are present in all areas of activities of enterprises.

First let's point out that businesses depend on their category, size, and number of employees that generally ranges from 50 to 250; and this determines the type of small and medium enterprises.

Namely, the assessment of this type of business enterprise can be seen through their conception and innovation, in their adaptability, dynamism and specialization, as well as their mobility and flexibility in operation. SMEs and their businesses in western developed market economies certainly have an important place and role.

Specifically, they employ over 70% of total employees and cover over 90% of the total number of establishments and about 75% of technological innovation; the data shows the development of entrepreneurship and the need to evaluate the business.

This happens especially in the period of transition in our country the Republic of Macedonia, as well as in countries which following the reforms of the post-socialist period start from so called zero, from the beginning, with little or borrowed capital.

ICT - A CONDITION AND FACTOR FOR SUCCESSFUL BUSINESS

In conducting of businesses and the evaluation of enterprises, today as a major prerequisite appears information-communication technology (ICT) based primarily on knowledge and innovation.

Hence, today, in all walks of life and practice computers and information technology are widely used.

In fact, in practice ICT firstly services requirements and obligations for the purposes of accounting management, as well as for the competition in the areas in which the companies operate.

In this way, actually conditions and opportunities are created for a more effective way out of the difficulties faced by SMEs in our country and beyond.

Therefore, the internationalization of business and the results are largely accomplished and followed through ICT. Simply put, it is learned to compete, plan and create strategic goals that managers provided with fast and intelligent information conduct in practice.

Here's why I stress that only by application of ICT, accounting management through accounting information system (AIS), will provide a better insight into the economic growth and development, as well as into achieving a realistic evaluation of the work, the competitiveness of the capital market on a national and global level.

PROBLEM ANALYSIS AND IMPROVEMENT OF BUSINESS CONDITIONS OF SMES

Business and results of operations of small and medium enterprises are influenced by many factors. They first are conditioned by the growth and development of the national economy, and also by the growth of the economy in the region and beyond. Of course, the concept of

successful business management and results still depend on the modernization of information technology in particular segments of determining policy in hiring of labor and resources.

In fact, depending on the democratic approach and the level of development of the market economy at both the national and international level, a better climate and preconditions are being created for successful running a modern business and the evaluation of the utilities of enterprises.

Hence, knowledge and experience of accounting management in the management of tasks and organizational structure of the company would be a factor number one, and the implementation of the business challenges of the developed world depends on it.

Guided by these findings for contemporary business, the accounting management as an integral part is firstly responsible for creating objective budget plans that will be fully realized adequately adaptable to new technologies and knowledge.

As on a national level, where the Government prepares and adopts a plan and strategy for the development of this type of businesses in the long period given goals and priorities that need to be achieved in the field of entrepreneurship.

In fact, accounting management has a plan and strategic objectives that will enable the small enterprise with measures and mechanisms to improve the performance and the overall process of development. Here, should be emphasized the plan for anticipated and incidental expenses that may arise and which largely condition the successful operation of SMEs.

**LEGISLATION IN THE REPUBLIC OF MACEDONIA TO IMPROVE BUSINESS AND ITS RESULTS
- JUST A REMINDER**

Given the importance of SMEs in the economic development of a country and running of successful businesses, the Republic of Macedonia in 2002 adopted through the government a National Strategy for small and medium enterprises and their conditions of action.

In this direction was also brought the Program of measures and activities to support the development of entrepreneurship, competitiveness and evaluation of businesses nationally and internationally.

Therefore, the Republic of Macedonia adopted a legislation that legalized the method and way of creating and developing new businesses based on efficiency, knowledge and rationality in action.

By becoming a candidate country for accession to the European Union, the Republic of Macedonia gained additional responsibilities and opportunities in the implementation of small businesses under the European Charter.

It is worth recalling that there are new initiatives such as the EU's Program for Competitiveness and Innovation and the other instruments, that pose new challenges in science, technology and innovation, as well as information and communication technology (ICT) to increase the competitiveness of SMEs.

In this program, the Macedonian Government stressed the development of modern businesses.

Thus, in 2003, there was an increase in the legal entities such as SMEs by 25%, which reflects the increased employment compared to the year 2002 (110,000) to (145,000) employees in 2005.

Therefore, at the time, was founded the Agency for Promotion of Entrepreneurship of the Republic of Macedonia (APERM), tasked to support projects related to business and results of enterprises.

In fact, in practice were established regional centers for development and support of entrepreneurship in the interior of our country, for which the Observatory for SMEs was founded.

ACCOUNTING MANAGEMENT KEEPER OF THE BUSINESS

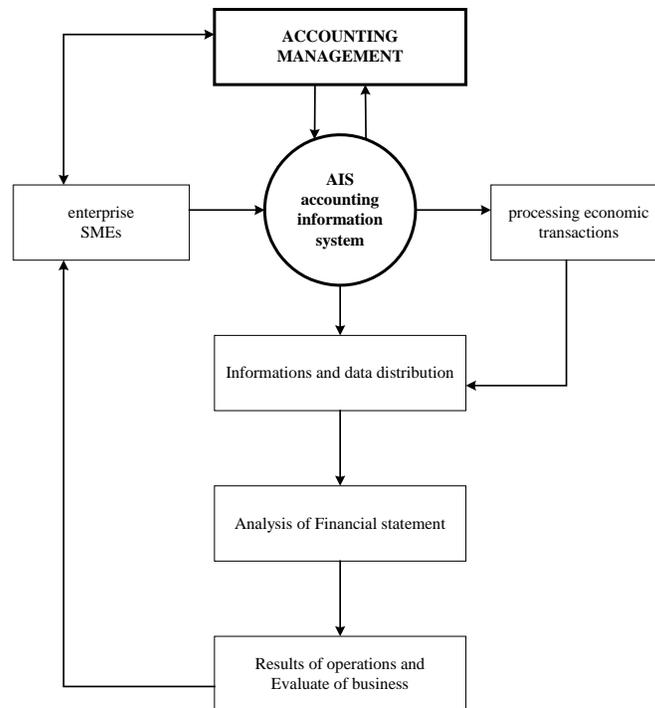
Of the subject matter elaborated so far in the paper can be easily seen that the accounting management and business are related and interdependent in achieving results.

Considering these relations it is important to underline that despite accounting management acting as the main development tool, it still acts as a warning, enabled with data and information to assess business activities of enterprises particularly in the open market economy at the national and global level .

Starting from this I think of the many rules of the game in the economy it is necessary to mention the following steps in conducting a successful business, such as:

- Availability of data and information that are considered the best at doing business,
- Do not rush immediately to a decision without having to provide accurate, precise and complete data and information about the competition, including:
 - a) Data and information about the competition on the domestic market,
 - b) Data and information about competitiveness in the regional market,
 - c) Data and information for the international competitiveness and global market.

Guided by these opinions in contemporary theory and practice, hence it can be concluded, and that rightfully that accounting management appears as a keeper in the business and decision-making in the modern business world.



Picture 1. Interactive relationship of certain functions to implement the activities of the accounting management and assessment of the business.

CONCLUSION

The article presents the theoretical findings how to improve the performance and results of the companies in a competitive market economy. Hence, the focus is on an accounting management and business as key culprit of the market development. Practically speaking, the accounting management and assessment of the business of SMEs, creates a framework of changes and challenges, in the way that the policies and operations, result in terms of modern governance.

Therefore, the accounting policies and business evaluation of the results are particularly important to create an initial circumstances of a developed competitive economies at nationally and globally level.

Exercising their businesses in such conditions can contribute to a more objective assessment of newly created value and innovation in decision-making.

At the end, the evidence is twofold. Developed accounting management, among the other factors can contribute to an application of a successful business practices in the companies on one hand, and to help to develop a competitive business environment on the other.

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**QUALITATIVE RESEARCHING OF SMALL AND MEDIUM ENTERPRISES
AS A STRATEGIC TOOL FOR MORE SUCCESSFUL DEVELOPMENT**

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Abstract

In most of developed countries scientific researching is standard tool for making the strategic development. Unfortunately, in some SEE countries it is always not the case.

Using researching of SME, in general, could be of help for building more successful development. It is related to all kind of researching (quantitative, qualitative and mixed researching).

In this work we are paying attention on qualitative research methods, and especially on using of the ethnography, observation, interview, content analysis, and focus-group method as a tool for better planning and improving development of the SME.

A separate attention is paying to possibility on using of e-research (Internet research methods) for helping SME development.

Through many examples of case studies, will be adapted the experiences, for helping the more successful development of the SME.

Keywords: SME, researching, qualitative method

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INSTEAD OF AN INTRODUCTION

To be able to understand the deep nature of the SME is necessary to have a general idea for the environment where they exist and act. The label “enterprise society” is commonly applied to “those countries in which the state makes a conscious attempt to promote the qualities of self-reliance, innovation, and individual achievement” (Marshall, 1998:195). SME are a part of the total economy in a larger society. As a part of their development strategy many societies and associations invest a lot of money in the field of innovation and researching and development. SME have a very big part (more than indicators for all enterprises sizes classes) in so called Information Society development (Johansson&Strandell: 108-109).

The research and development expenditures in EU in the period 2000-2010 is almost double time lower (from 1.83% in 2005 to 2.00% of GDP in 2010), comparing with those in Japan (3.45%) and in USA (279%) in 2008. The only few countries (Finland – 3.87%, Sweden - 3.42% and Denmark – 3.06%) were competitive with Japan and USA in 2010., from this point of view (Johansson&Strandell:172).

In 2008 only to Member States of the EU (Germany – 79.9%, and Luxembourg – 64.7%) have had more than 60% innovative enterprises (Johansson&Strandell:176). It is very important to note that the large enterprises (with 250 or more employees) had more innovations than either medium-sized enterprises (50-249 employees) or small enterprises (10 to 49 employees) in 2008 (Johansson &Strandell: 177). The situation in South Eastern European countries is similar or even worse than in above mentioned. For these reasons is very important to include the scientific researches in building a successful development strategy for the SME in South Eastern Europe.

In this work we pay attention and are giving recommendations (with many examples and case studies) for that, how is possible to use some qualitative research method as a strategic tool for better development of SME.

THEORETICAL BACKGROUND OF THE QUALITATIVE RESEARCH

1. Discussions about the features of qualitative research

There are a lot of discussion about the nature and the features of the qualitative research such as: which are the main steps in qualitative research, what are the relations between theory and research, which are the main concepts in qualitative research, and especially the questions about reliability and validity of the data from qualitative research, problem of generalization and the lack of transparency (Bryman: 379-406; Silverman: 5-16; 61-76;101-116; 138-139; 275-290).

2. The main preoccupation of qualitative researchers are mainly the followings:

- Seeing through the eyes of the people being studied
- Description and the emphasis on context
- Emphasis on process
- Flexibility and limited structure
- Concepts and theory grounded in data (Bryman: 399-404; Saunders et al.: 221-230; 246-260; Silverman: 101-136).

3. The critique of qualitative research usually pay attention of these facts:

- Qualitative research is too subjective
- It is difficult to replicate
- There is problem of generalization
- In this kind of research, there is lack of transparency, too (Bryman: 405-406; Silverman: 292-298).

4. The nature of business and management research

Some authors (Esterby-Smith et al./2002/) emphasize that at least three things have influence to make business and management a distinctive focus for research:

- The way in which managers (and researchers, too) draw on knowledge developed by other disciplines;
- The fact that the managers tend to be powerful and busy (and very frequently = over busy) people. Therefore, they are unlikely to allow research access unless they can see personal or commercial advantages;
- The requirement for the research to have some practical consequence. This means it either needs to contain for taking some form of action or needs to take account of the practical consequences of the findings (Saunders at al: 3)

Having in mind all this features as a basic theoretical background of the qualitative research we will try to show the possibilities of using the qualitative research in researching the SME and their development.

ETHNOGRAPHY AND PARTICIPANT OBSERVATION

In his famous work *An ethnography of girls' friendships* (1997), Valery Hey have payee the special attention on girls' friendships and their communications in everyday lives. The learned lessons from the Hey's study in relation with researching of SME are:

The first learned lesson is that the researchers should make efforts "to see the social world through the eyes of these actors" (employees within the SME and especially the relations among young people within it), to provide a rich and detailed description of their shared environment, and to gain an understanding of the micro-level social processes that are involved in making, keeping and losing friends in the SME, for it is one very important cohesive force.

The second learned lesson from the Hey's study is that she used ethnographic methods to investigate the above-mentioned issues. She conducted participant observation in the classroom, and talked to a small sample of friendship groups in the playground, cafeteria and on shopping trips. Similarly, we should observe small friendship groups in the SME environment (offices, hall, smoking area, internal buffet and so on).

The third learned lesson from the Hey's study is that she generated some sensitizing concepts that helped her to focus on certain aspects of the social setting, instead to have a set of definitive hypotheses to test. It could help to the researchers to have still enough flexibility in the research design. If we research this issues in the SME maybe we should refined some general concepts as a 'friendship' and 'identity'. For example, we could understand that those concepts (identity and friendship) in relation with theirs class origin (it means they have not the same meaning for the representative of the middle class and working class).

Of course, this kind of study of the SME could be criticised that it has not the adequate reliability. But, anyway the researchers of the SME could use the alternative criteria, for example such proposed by Guba & Lincoln (1994). In that manner the research could become trustworthy and authentic.

INTERVIEWING IN QUALITATIVE RESEARCH

As one very important case study, which could be used in research of SME, especially some findings, we will present the research of Clarke (2002): *Budgetary management in Russian households*:

Simon Clarke and his colleagues were keen to explore the patterns of household budgeting and decision-making about family expenditure in Russian households. Most of the existing research in this area of sociology had focused on Western societies (see for example Pahl [1983; 1989]), and so Clarke wanted to know to what extent these findings were

generalizable. He chose to collect data on Russian households because this society had undergone some significant social changes in recent years: rising levels of unemployment and poverty were posing a threat to dual-earner families and women were increasingly faced with a conflict between their duties as wage earners and as housewives. Clarke's team conducted structured interviews in 4023 households in four Russian cities, by administering three interview schedules: one to the main 'breadwinner' (male or female), one to all those aged over 14 who were currently working, and one to all those over 14 who were non-workers. The data were then subjected to descriptive and inferential statistical tests. The interviewing process took approximately three hours per household, and took place in the respondents' own homes. We are not told who conducted the interviews and whether or not they spoke Russian, but this is an important factor that would have affected the interaction dynamics of the interview and the researchers' ability to build rapport with the respondents, particularly within the already limited constraints of the structured interview.

Clarke's team found that in 80% households, the budget was said, to be controlled collectively through joint decision-making. It was also reported that all household members contributed to a common pot of money that was then distributed according to perceived need; this contrasted with studies of Western households, whose budgets were more likely to be controlled by one person. Furthermore, decisions about expenditure seemed to focus less on what to buy than on what to cut out; women felt this pressure particularly keenly and seemed to view the role of independent breadwinner in terms of its implications for the household as a whole (www.oxfordtextbooks.co.uk/orc/brymansrm4e/).

As a learned lesson from this Clarke research, we could accept that we should be very attentive when we will make interview in SME, because the validity of answers is open to question always when there are more than one interviewee present during the interview and the respondents might have felt an additional pressure to give socially desirable responses. Nevertheless, the Clarke's study is one very interesting study that provides an important comparative dimension to an established area of social research. Especially we could use the experiences from this study in researching the process of decision-making in the SME budget. For example, maybe worth to think about possibility of decision-making and managing with the SME budget, to accept to have collective decision-making and managing, instead to do it only by one person. It could reduce the mistakes in the process of distribution, or spending, of the SME budget for different needs.

CONTENT ANALYSIS

One of the very interesting qualitative research is that of Greg Philo (1990): *Seeing and believing*. In following we are presenting some parts given by Bryman (2012).

In his book about the influence of television as a source of mass communication, Philo sets out to explore the strength of the relationship between media content and public beliefs. He begins with the example of media coverage of HIV and AIDS in the 1980s, as reported by the Glasgow University Media Group (GUMG, 1987: reported in Miller et al [1998]).

They had studied the frequency and types of messages found in a sample of media texts from national newspapers and television programmes over a sample of dates in March and April 1986. The GUMG wanted to measure the frequency with which references were made to people catching the HIV virus in various different ways, such as through sexual contact, blood, saliva/kissing and injections/injecting drugs.

They therefore devised a coding schedule and coding manual, in which these categories were listed with their corresponding codes, and this was used to quantify the contents of the sample of media texts.

This study seemed to show that media messages have a direct effect upon public beliefs and attitudes, a theory that has been called the ‘hypodermic syringe model’. However, Philo criticises this idea of audiences passively accepting whatever they are told, and points to some alternative theories.

The ‘uses and gratifications model’ (McQuail, 1977) focuses on the way in which media messages are selectively received and used by individuals according to their biographical experiences, values and interests, while Philo’s reference to ‘interpretive frameworks’ suggests that audiences make sense of media messages in terms of their social groups, class membership and other cultural biases. However, at this level of analysis, we can only speculate on these subjective meanings and it is difficult to make assertions about the latent content of these texts without talking to their audiences directly ([www.oxfordtextbooks.co.uk /orc/ brymansrm4e/](http://www.oxfordtextbooks.co.uk/orc/brymansrm4e/)).

Except of direct methodological experience of this qualitative research and testing the old theory of “hypodermic syringe model”, that audiences only passively accepting whatever they are told, we could use the findings out in relation with Philo’s “interpretive frameworks”, which is related to way of making sense of media messages by the audiences, in terms of their social origin, cultural biases and so on. In fact this could be a good idea to test the influence of the educational level, ethnic and religious belonging for the processes of making sense of some information from the media. Having in mind the above-mentioned finding, it could be very important for making the better strategy for development of the SME.

THE SME AS AN OPERA COMPANY: ETHNOGRAPHY AND PARTICIPANT OBSERVATION

One of the remarkable features of contemporary sociology, Paul Atkinson (2004) argues, is that whereas dramaturgical metaphors have been used widely to shape our understanding of everyday life (see Goffman, 1959), there has been little research on the theatre itself as a social setting. In an attempt to redress this balance, Atkinson spent a period of four years immersed in the company of the Welsh National Opera (WNO), observing and recording how this social world was organised.

He adopted an overt ethnographic role as participant observer, for having carefully negotiated access to the WNO, he was granted ‘virtually unlimited access’ to the rehearsal studio, frontstage auditorium and backstage in the wings. Taking the role of the complete observer, Atkinson did not participate in the activities of the opera company but rather remained on the margins, watching, listening and taking copious field notes. The value of such methods is evident in his rich, detailed descriptions of the WNO as a social setting, for this ethnographer paints a vivid picture of the routine, everyday interactions that unfold between various members of the group. For example, Atkinson talks about the operatic rehearsal as a long, protracted and repetitious process through which singers, producers and musical directors negotiate decisions about how to enact every moment of the performance.

Finally, Atkinson points to the symmetry between certain key figures in the opera company and the fieldwork roles of the ethnographer. The repetiteur, for example, provides the musical accompaniment to studio rehearsals and like the ethnographer, tries to be unobtrusive in the performance that they are observing - although unlike the ethnographer, the repetiteur is an indispensable team member. Meanwhile the producer of the opera comes to the performance with certain ideas about how the action might unfold, and must supervise the rehearsals with a roving and critical eye to ensure that his or her goals are realised. While the ethnographer should not try to ‘direct’ the social world they are studying in this way, they do engage in similar processes of observing and interpreting the motives behind every action and gesture, and they too will represent dramaturgical ‘characters’ in the final account that they produce ([www.oxfordtextbooks.co.uk /orc/ brymansrm4e/](http://www.oxfordtextbooks.co.uk/orc/brymansrm4e/)).

From methodological point of view the research of Atkinson is important for this article in terms of using the following possibilities in qualitative researching of the SME planning and development:

First, to understand better the role of so called “complete observer”, instead of a “participant observer” in researching of an organisation (in this case company);

Second, to make field notes, which should be very detailed, and could be of help to understand the everyday interactions between different members and groups within the SME;

Third, as Atkinson have payee attention, “to the symmetry between certain key figures in the opera company and the fieldwork roles of the ethnographer”, in researching the SME we should pay attention of relations between one qualitative researcher and some key figures in the SME. Of particular interest in researching of SME is to observe and interpret the motives behind the every action (i.e. decision-making) of the key figures in the SME. But, the most important for this kind of research is to provide permission for do it, which could not be easy in some cases. If we understand that the SME are usually very closed organisation for every, but particularly for this kind of research, it seems that the main problem will be to provide adequate permission for making the research. It is in strong connection with the process of negotiation with responsible individuals (top managers, and other decision-makers) within the SME.

FOCUS GROUPS

The case study conducted by the Callaghan (1998): *The Influence of gender, class and place on women’s experiences* is very important for restructuring of SME, if there is need for that. Because in almost all SME are employed women, this study is important to understand better the role gender and that could help us to improve the contribution of the women in the SME development. These are the main reasons why we will present this case study here.

While there has been a great deal of research into the relationship between gender and social class, these are not the only structural factors that affect women’s lived experiences. Gill Callaghan wanted to explore the relevance of ‘place’ or locality as a further factor that interacted with class and gender to shape women’s domestic and working lives. She therefore decided to conduct a series of eight focus groups with new mothers in Sunderland, a city that had recently undergone a process of economic restructuring. She recruited her participants from ‘mother and toddler’ groups in three different areas of Sunderland: a relatively affluent area, an intermediate section and a working class part of the city. These stratifying criteria reflected the researcher’s hunch that social class was a significant factor that would affect the women’s opinions and the way they expressed them. She also chose to use natural groups of women who already knew each other through the mother and toddler groups in each area, because she thought that this would make them feel more at ease in the interview situation. Indeed, Callaghan reports that many of the women became anxious when they saw her tape recorder, and their self-conscious inhibition threatened to limit the amount of information they would disclose. Nevertheless, as the sessions progressed, the participants began to relax and were quite forthcoming in recounting their experiences; this resulted in a wealth of rich, detailed qualitative data that Callaghan went on to analyse. Furthermore, the interaction between the participants allowed her to see how these women formed their opinions in a social context of friends and acquaintances, as for example the women discussed their shared experiences of motherhood. Callaghan took the role of the moderator during the focus groups, keeping the discussion on track and making sure that ‘splinter groups’ did not form within the main group. She also referred to a relatively unstructured interview guide of topics to be covered, which allowed her to ask open-ended questions and then let the women take an active role in directing the course of the discussions; this reflects some of the main principles of feminist research. Consequently, her findings centre on the themes of personal freedom, time, money, employment and the domestic division of

labour as aspects of women's lives that are affected by the interaction of class, gender and place ([www.oxfordtextbooks.co.uk /orc/ brymansrm4e/](http://www.oxfordtextbooks.co.uk/orc/brymansrm4e/)).

Even this research was emphasizing the role of place or locality for women contribution to the development (in this case restructuration) of their work, it is also important from the feminist research perspective, and could help us to understand better the other aspects of women's lives. Some above-mentioned experiences in the case of Sunderland could be used, more or less successfully in eventual restructuration of some SME, and to use optimally the potentials of the women in strategic development of the SME.

E-RESEARCH: INTERNET RESEARCH METHODS

Even it seems that the shyness is not a big problem, some researches have shown that it could be a big problem for some people, and consequently (if they are on leading positions) for an enterprises. We could suppose that a lot of individuals with more or less quantum of shy, work in SME. But, the modern ICT technology and cyberspace could help to overcome this problem. The research of Scott (2004) *Researching shyness in cyberspace* is very indicative in this sense.

One of the main aims of qualitative research is to encourage participants to 'open up' and talk in depth about their experiences; we tend to think of the ideal respondent as someone who is outspoken, opinionated and articulate. But what happens when we want to study people who, by definition, are the complete opposite of this? Susie Scott (2004) faced this potential problem when she began to conduct research on the sociological aspects of shyness: "How will you find people to interview?", her colleagues joked, and "Won't they all be too shy to turn up?". However, what Scott found was that, given the right conditions of interaction – namely a research setting in which they could relax, take their time and feel listened to – these normally shy people would actually become very talkative and forthcoming.

Scott recruited a sample of forty self-defined 'shy' people, sixteen of whom took part in face-to-face interviews; the remainder shared their stories via an email distribution list (or mailing list).

This researcher decided to look for prospective participants in cyberspace because it has been argued that shy people find it easier to communicate and express themselves online than face-to-face (Roberts et al, 2000). This may be because of the lack of non-verbal cues in cyberspace, a factor that in other cases would be a disadvantage. That is, if shyness emerges when people feel that they are under scrutiny and will be laughed at for saying or doing the 'wrong' thing in front of others, then the relatively anonymous, faceless character of online interaction may present something of a safe haven for them.

Furthermore, email exchanges are asynchronous, with a delay between one person sending a message and the other reading and replying. This too can help shy people to feel more confident about speaking up, because they have more time to compose a carefully scripted answer that says exactly what they want to say, and they can check through and edit their messages before posting to the group (Markham, 1998).

Scott recruited her participants from a selection of existing online support groups about shyness and social anxiety: she sent an email around to 350 people who had posted to these forums and invited them to visit her website to learn more about the research. Her response rate was not high, at around 10%, but this sample was almost certainly larger than any she could have recruited from a postal survey. The email distribution list operated like an asynchronous virtual focus group, in that the researcher would ask an open-ended question and then allow the participants to post their responses and talk directly to each other.

The atmosphere in the group was very warm and supportive, as Scott worked to establish rapport with her participants by sharing experiences, reassuring people that their views were

worth listening to, and encouraging them to keep posting. This resulted in a wealth of rich, detailed, qualitative data, as the informants began to pour out their personal stories and express views that they had always kept silent about before. The participants also supported and encouraged each other by comparing their experiences and finding that they held many views in common: many people said that they found it a great relief to be listened to and feel able to talk openly without fear of being ridiculed. As one of the informants, Etta, put it, “We can ‘open our hearts’ here where we are anonymous. I’ve written things I’d never dare say.” One of the unexpected consequences of this was that the discussions in the group became more and more vocal and animated, as these normally shy individuals found that their opinions were endorsed by others: the conversation shifted in tone and volume as the participants began to express feelings of anger and frustration at the way in which non-shy people had treated them. With a rhetoric not unlike that of the disability rights movement, the shy claimed that there was nothing inherently wrong with their minds; it was society that defined their behaviour as problematic and labelled them as outsiders. This counter-discourse of ‘shy pride’ was extremely interesting and valuable to Scott, who was able to use these emerging ideas from the data to develop a grounded theory of shyness as social deviance. It is of course deeply ironic and paradoxical that, having gathered a group of normally ‘shy’ people online to discuss their experiences of shyness, this researcher found that they stepped out of role and became non-shy, vocal and opinionated. However, Scott argues that this simply lends more support to her theory that shyness is a socially shaped and dynamic role, contingent upon the way in which people negotiate interaction ([www.oxfordtextbooks.co.uk /orc/ brymansrm4e/](http://www.oxfordtextbooks.co.uk/orc/brymansrm4e/)).

Scott’s experiences could help us to understand that, if was given the right conditions of interaction, than so called “normally shy people” (not extremely shy people) could actually overcome their shyness and become very communicative.

From methodological point of view, this case study shown that the email distribution list could operated like an asynchronous virtual focus group, and can improve their communication abilities, or in fact, could help them to improve their verbal and written expression.

Methodologically this research helped to Gill Scott to use these emerging ideas from the data, and to develop a grounded theory of shyness as social deviance.

INSTEAD OF AN EPILOGUE: TECHNOLOGICAL INNOVATION IN THE 21ST CENTURY AND SME DEVELOPMENT

In the whole text above, we have given a lot of examples through many study cases, for that how is possible to use the qualitative research in researching SME. There are a lot of data that could be used for strategic planning to help improving the SME development.

But, one of the most important think for providing good existence and development of SME are innovations. It means that innovations are *conditio sine qua non* for existence of the SME. To provide sure and “stable” presence of the SME is necessary to have continuous development. It is possible only through innovations.

In this context we would like to mention that for so called normal and sure development of the SME is more than necessary “to run”, in the meaning of constant development of all people employed in SME. As a very adequate for the end of this paper, we are presenting the part of one poem attributed to Richard Hodgetts:

*Every morning in Africa a gazelle wakes up.
It knows it must outrun the fastest lion or it
Will be killed.
Every morning in Africa a lion wakes up.
It knows it must outrun the slowest gazelle*

Or it will starve.

It doesn't matter whether you are a lion or a

Gazelle – when the sun comes up, you'd

Better be running.

(Quoted according to Charles M. Vest in: Weber & Duderstadt /editors/, 2010:51).

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MANAGING INNOVATION AS A FACTOR OF COMPETITIVE ADVANTAGE

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Abstract

This paper will analyze the degree of innovativeness of SMEs in the Republic of Srpska (Bosnia and Herzegovina) and examine its impact on the competitiveness of the economy. In order to achieve and retain a competitive advantage in the market, the company must discover and direct the innovation potential in all structures of their employees and companies with which it cooperates. So, to any company competitive and efficient, the head must have an efficient and well- trained management. Management of the enterprise must be oriented to investment in knowledge to increase productivity and the effects of knowledge. In the knowledge based economy the most important economic resource for achieving competitive advantage is the intellectual capital that enables a new way of creating value. For the modern corporation has a greater value employees' ability to create value than physical assets. Therefore, the most important task of manager is to facilitate the conversion of knowledge into intellectual capital, as well as encouraging creativity and innovation with the help of all other resources.

Keywords: innovation, intellectual capital, competitiveness

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INTRODUCTION

The competitive potential of the company is the principal regulator of market functioning. Some theorists viewed competitiveness as a measure of social wealth. The competitiveness of the company contributes to innovation enterprises, creating a more favorable business environment and economic prosperity of the entire economy. It is important to observe economic competitiveness in the international market. Due to low level global competitiveness arise protectionism, nontransparent government grants and creating barriers to entry. The basic concept on which to be based economic country policy are productivity growth and strengthening national competitiveness. Comprehensive policies competitiveness improving will ensure the country's development and result in overall social welfare.

There are many factors that directly and indirectly affect the country's competitiveness. However, the competitiveness of enterprises is the main carrier of industrial development of the country which is supported by the view that "the company, not the economy, is trade carrier in international trade" (Porter, 1990). The competitiveness of enterprises is significantly determined by the corporate world, but also factors such as high operating costs, a large tax burden, large public debt, lack of competition in the local market which does not encourage companies to innovation and competitiveness, unregulated system of environmental protection and waste management, quality or low quality transport infrastructure, problems with the liquidation of the company, non-harmonized legislation, shortcomings in public administration and etc.

Local authorities and economic operators may create unfavorable conditions for strengthening competitiveness, which can be eliminated well-timed intervention of the government. The conditions that can adversely affect the company's competitiveness company are: horizontal restraints, vertical restraints and misuse of state domination. Horizontal restraints may be in the form of fixing purchase or sale prices, market sharing resources and goods, restricting or controlling research and development, production and marketing. Long-term exclusive contracts represent a form of vertical restrictions. From the standpoint of competitiveness of the economy, the particular effects can have short-term interests of the state, price controls, legalization of monopoly, lack of transparency of state aid policy, unjustified protectionism and market competition itself between institutions.

When talking about the national competitiveness of the country, more attention must be devoted to their innovation capability. Investing in the development and sustainability of economy's innovation capacity and highlighting the important role of human resources, primarily intellectual resources, create employment opportunities with higher added value. Furthermore, it leads to the growth of productivity and economic growth of the country.

In this paper we consider the degree of innovativeness of SMEs in Bosnia and Herzegovina, from the standpoint of their impact on its national competitiveness. In order to achieve and maintain competitive advantage, a company must be focused on finding innovative potential in all its structural parts as well as cooperative relationships with other companies. Consequently, the management company must be oriented towards investing in the growth and development of intellectual resources in order to increase productivity. Investing in innovative and creative abilities of intellectual resources is the way to create superior value on the market that provides a permanent and sustainable competitive advantage of enterprises.

It starts from the assumption that Bosnia and Herzegovina as a transition economy, characterized by a low level of national competitiveness caused by significant influence of the

undevelopment innovation system, particularly in the field of entrepreneurship sector and small and medium enterprises.

Analyses of the available data will show that spending on research and development in Bosnia and Herzegovina is among the lowest in the Western Balkans, the business sophistication is low and universities do not have sufficient capacity or physical and intellectual resources for implementation of the research.

Through this research it will be examined priority tasks and measures that government should take to improve the condition of innovative systems.

INNOVATION AND MODELS OF INNOVATION

Innovation is the "application of new or significantly improved product or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD, 2002) Thus, we can consider the four types of effect of innovative activities depends on framework conditions, the involvement of institutions for science and technology, transfer mechanisms and company's characteristic innovative capacity. (OECD, 2005) Framework conditions that include the development of the fiscal system, macroeconomic environment and access to the financial resources significantly define and shape the innovation ability of enterprises. Institutions of Science and Technology provide an accumulation of knowledge, while the mechanisms of transmission enable circulation of information among parties in innovation system and bear the responsibility to commercialize innovative ideas and contribute to the economic prosperity. Enterprises have a key role in conducting continuous monitoring, identification and development of innovation potential.

Management of innovation in terms of ensuring the flow of information among stakeholders is a key factor in the success and effectiveness of innovation systems. According to the linear model, the knowledge generated within the scientific and research institutions, starting with the original scientific research and then creating a pragmatic research that is protected in the form of patents or are published in the form of publications. Enterprises obtained and commercialize this knowledge (Gomory, 1989). The main drawback of this "push" model is in a small number of ideas that hit the market while at the same time keeping in mind the time-consuming process of transition from the initial idea to its commercialization. Some studies demonstrate that a large part of innovation can be achieved without the contribution given by scientific research, that does not support this linear model. (Mansfield, 1991)

Model "informed pushing" implies a good connection and familiarity of companies with customer needs and market and extremely important aspect of the transfer of advanced innovation that is based on original scientific research. Innovation should have positive impact on all segments of the economy, and all interested parties, such as small and medium enterprises, scientific and research centers, universities and policy makers need to take part in innovative processes.

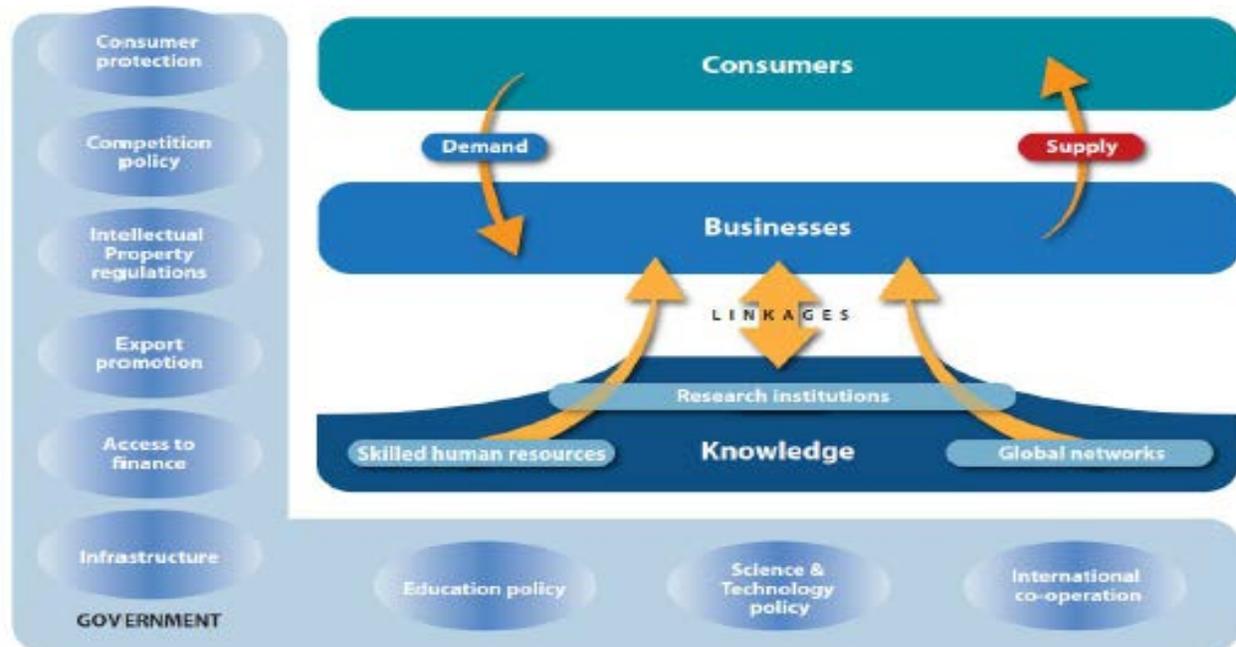


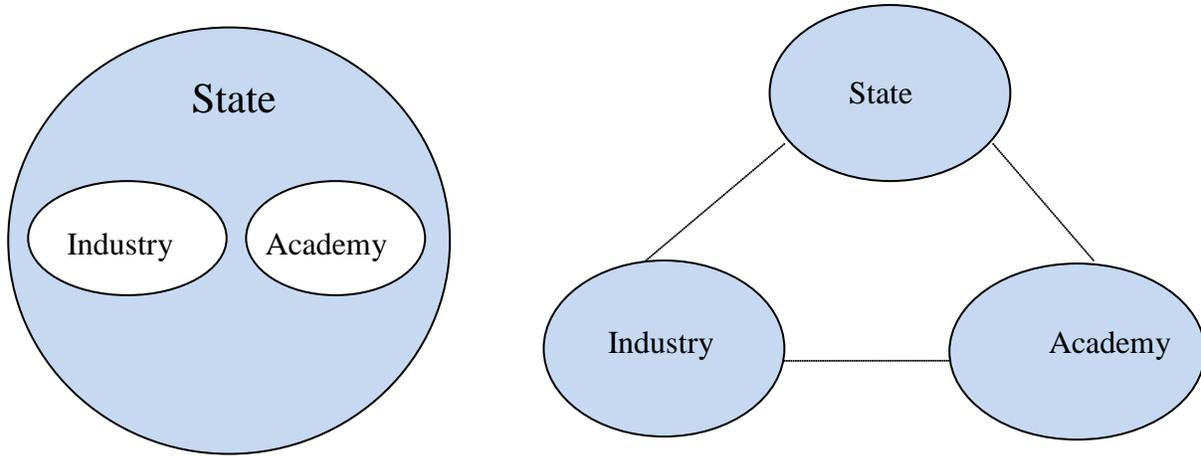
Figure 1: Depiction of a market-based innovation system (OECD, 2012)

In a market-based innovation system, the government defines the long-term vision of policy on cooperation in developing and nurturing innovation processes. Public research institutions and universities have intellectual resources that possess an enviable level of skills as an important item in the innovation system. Private businesses have the resources to invest in certain surveys which are relevant according to enterprise's market orientation. In the Western Balkans, which is still evolving, policy innovation support a significant contribution in identifying segments of the economy that are important for the design of successful innovation policy will ensure the establishment of links between stakeholders and provide access to various sources of funding. In favor of this, were made innovation strategies of the Organization for Economic Cooperation and Development, which listed the following priorities which should be guided by the activities of government: empowering people to innovate, unleashing innovation, creation and application of knowledge, innovation in solving global and social challenges and improve the measurement and management policies for innovation.

Mutual interaction between the business community, academia and government is crucial in the knowledge economy. Each of these participants realizes the impact on individual elements of the economy. The business community and enterprises create wealth, universities are responsible for generating ideas and contribute to placing the newness and the government provides the synergy of all stakeholders by establishing clear social norms and rules (Leydesdorff, 2006)

Most mentioned two models of innovation management (Etzkowitz, 2000) are the statist and laissez-faire model. According to the statist model, a government has a dominant role. It establishes and controls partnerships with academic and business community. This model of innovation was particularly present in the former Soviet Union, France and some countries of South America during most of the last century. In contrast to this model, the laissez-faire model assumes limited state (government) action. There is a clear demarcation and independence between the observed market participants. The state is authorized to correct market failures, the academic community for the production of knowledge and the business community to absorb

knowledge. Any communication between institutional participants is accompanied by the presence of agents that determine research that could be patented and made connections with the relevant members of the business community. This aspect of innovation management was represented in the countries the United States during the last century.

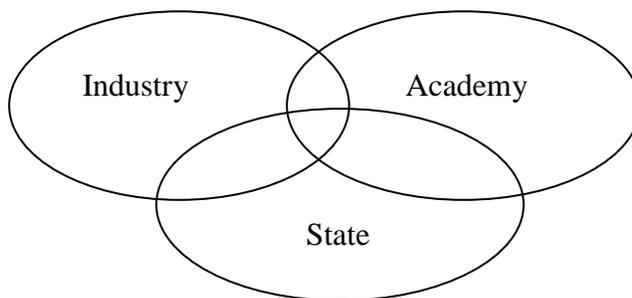


a) Etatistic innnovation model

b) Laisezz-fare innovation model

Figure 2: Models of innovation management

However, in the proposed models, it can be notices the trend towards increasing the autonomy of universities and the business community and also increase of their mutual dependence. Since the relationship between the defining policy measures and other participants is characterized by dynamic it is proposed an interactive model of innovation. (Etzkowitz, 2007) In this model, all participants have equal importance in the process of capitalization of knowledge. The academic community has focused on encouraging entrepreneurship facilitating the creation of spin-offs, companies are included more in research projects and thus approaching the academic community. Also, government actively participates in the creation and absorption of knowledge through financing scientific research projects.



c) Interactive innovation model

Figure 3: Models of innovation management

LEVEL OF COMPETITIVENESS AND STAGE OF DEVELOPMENT OF BOSNIA AND HERZEGOVINA

The competitiveness analysis has been usually performed by applying the Global Competitiveness Index (GCI-Global Competitiveness Index), defined according to the World Economic Forum (WEF) since 2005. This index is a comprehensive indicator constructed out of microeconomic and macroeconomic indicators of national competitiveness. Competitiveness is a set of institutions, policies and factors that determine the level of country's productivity, as defined by the WEF. There are many factors that determine the competitiveness of the country. In determining the factors that determine the wealth of the country point of you with accent on investment in infrastructure and physical capital has spread to mechanisms such as professional training and education, technological readiness, macroeconomic stability, rule of law, good governance, transparency and the proper functioning of institutions, business sophistication, market size, conditions of demand. It is believed that each of these mechanisms is based on a stable theoretical grounds.

While observing the movement of the GCI it can noticed that dominate are European countries, including Switzerland, Finland, Germany, Sweden, the Netherlands and the United Kingdom, which makes them the most competitive economies. Among the top ten most competitive economies Singapore occupies 2nd place, Hong Kong SAR 7th and 9th place Japan.

According to The Global Competitiveness 2014 Report, Switzerland is at the top of the ranking list. The biggest advantages of this country are reflected in innovation, technological readiness and efficiency of the workforce. Their academic institutions are considered the best in the world and have active cooperation between the academic and business communities. Companies are willing to invest a significant sum of money in research and development.

Competitiveness of Bosnia and Herzegovina (B&H) was evaluated with 4.0 points (total of 7), and took 87th place as competitive economy, which is one place better than in the previous year. Observing a rank of B&H in the period from 2004 to 2014 show a gradual improvement in the competitive position of the country (Figure 4.).

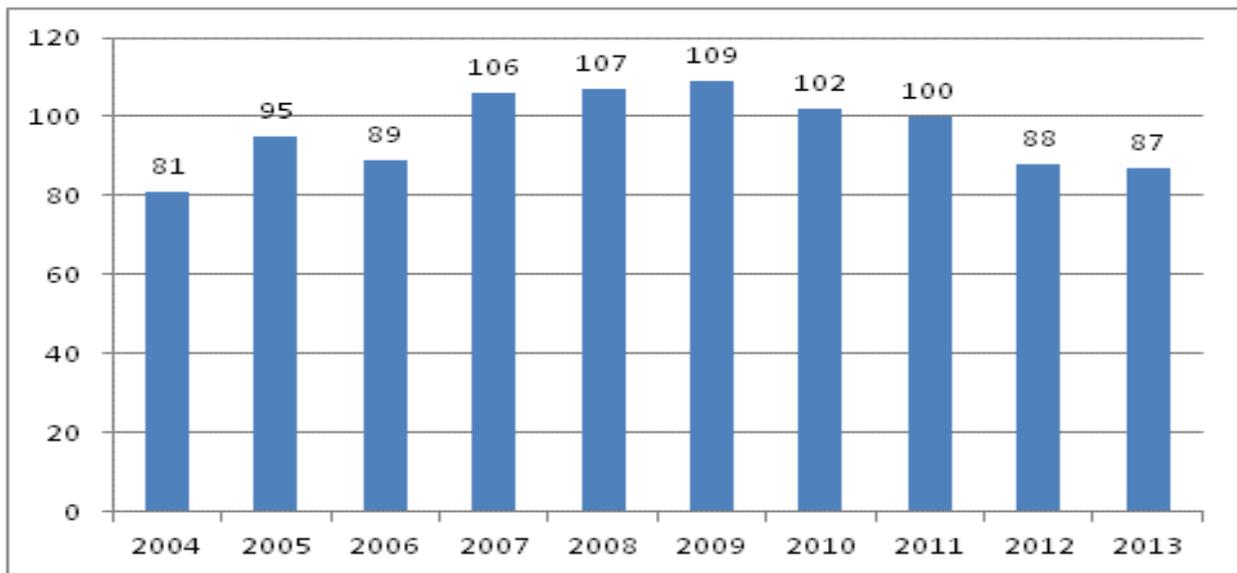


Figure 4: Trend in ranking of B&H

If it is compared competitive position of B&H to position of five best and five worst ranked countries, it can be seen that her position is closer to the worst-performing countries (Table 1).

Table 1: Competitive position of B&H among five best and worst ranked countries

Country/Economy	GCI 2013-2014		GCI 2012-2013		
	Rank	Score	Rank	Change	
Switzerland	1	5.67	1	0	Five best ranked countries
Singapore	2	5.61	2	0	
Finland	3	5.54	3	0	
Germany	4	5.51	6	2	
United States	5	5.48	7	2	
Bosnia and Herzegovina	87	4.02	88	1	
Sierra Leone	144	3.01	143	-1	Five worst ranked countries
Yemen	145	2.98	140	-5	
Burundi	146	2.92	144	-2	
Guinea	147	2.91	141	-6	
Chad	148	2.85	139	-9	

If it is considered the detailed structure of the GCI for B&H (Table 2), it would be noticed that in this year the B&H had posted the highest growth in innovation (with 80th place in 2013. on 63rd place this year), institutions (with 85th on 71st place), infrastructure (with 94th place on 83rd place) and the efficiency of the labor market (with 99th place on 88th place). The largest decline was recorded in the area of macroeconomic stability (with 97th on 104th place). The worst marks this country continues to have on the development of the financial market (113rd place), business sophistication (110th place) and the efficiency of market goods (104th place). Poor rankings in the field of development of financial markets is caused primarily due to the position with regard to the availability of financial services (131st place), funds for lending to entrepreneurs (125th place) and approved funding (110th place).

Pillar business sophistication is poorly assessed for the development of clusters (148th place) and the level of benefits competitive advantage (146th place). Poor ratings from the standpoint of the indicator goods market efficiency is caused by the intensity of local competition (143rd place), sophistication of customers (139th place), the number of procedures for starting business (126th place), the number of days required to start a business (120th place) the prevalence of trade barriers (107th place), the degree of the effects of taxation (119th place), the degree of market dominance (111st place) and the cost of agricultural policy (76th place).

Table 2: Competitiveness pillars for Bosnia and Herzegovina

	Rank 2010- 2011 (139)	Score 2010- 2011 (1-7)	Rank 2011- 2012 (142)	Score 2011- 2012 (1-7)	Rank 2012- 2013 (144)	Score 2012- 2013 (1-7)	Rank 2013- 2014 (144)	Score 2013- 2014 (1-7)	Change in rank
Indeks globalne konkurentnosti	102	3,7	100	3,8	88	3,9	87	4,0	1
Basic requirements	98	4.1	92	4,2	81	4,3	81	4,4	0
I Institutions	126	3,1	109	3,3	85	3,6	71	3,9	14
II Infrastructure	98	3,2	99	3,2	94	3,4	83	3,7	11
III Macroeconomic environment	81	4,5	78	4,6	97	4,3	104	4,2	-7
IV Health and primary education	89	5,4	58	5,8	48	5,9	46	6,0	2
Efficiency enhancers	100	3.6	102	3,6	97	3,7	89	3,8	8
V Higher education and training	88	3,8	86	3,9	72	4,2	63	4,3	9
VI Goods market efficiency	127	3,6	115	3,8	109	3,9	104	4,0	5
VII Labor market efficiency	94	4,2	85	4,2	99	4,1	88	4,2	11
VIII Financial market development	113	3,5	124	3,3	119	3,4	113	3,5	6
IX Technological readiness	85	3,4	73	3,6	68	3,8	73	3,7	-5
X Market size	93	3,1	97	3,0	93	3,1	98	3,1	-5
Innovation and sophistication factors	120	2,9	108	3,1	99	3,3	89	3,4	10
XI Business sophistication	115	3,3	108	3,4	109	3,5	110	3,5	-1
XII Innovation	120	2,6	104	2,8	80	3,1	63	3,3	17

Each country can be placed in one of three stages of economic development, according to the methodology defined by the WEF. Stages of development of the economy, which also determine the critical factors of productivity growth and competitiveness of the countries under consideration are: the economy driven by the basic requirements, the economy driven by efficiency and economy driven by innovation. (Figure 2)

The criterion for classifying economies into one of the stages of development is the value of GDP per capita, expressed in U.S. \$.In first phase of development, the main competitiveness factors that have the greatest impact on productivity growth are: well-functioning public and private institutions (pillar I), well-developed infrastructure (pillar II), a stable macroeconomic environment (pillar III) and a good, healthy and literate workforce (pillar IV).

In the second phase of development, the economy guided by efficiency, the country achieves more efficient business processes and increase product quality. At this stage the greatest impact on the competitiveness of the economy have higher education and professional training (pillar V), efficient goods markets (pillar VI), well-functioning labor markets (pillar VII), the sophistication of the financial market (pillar VIII), large domestic and foreign markets (pillar X) and the ability to use existing technology (pillar IX). At the stage of economic development driven by innovation, productivity growth and strengthening competitiveness factors are caused by high business sophistication (pillar XI) and innovation (pillar XII).

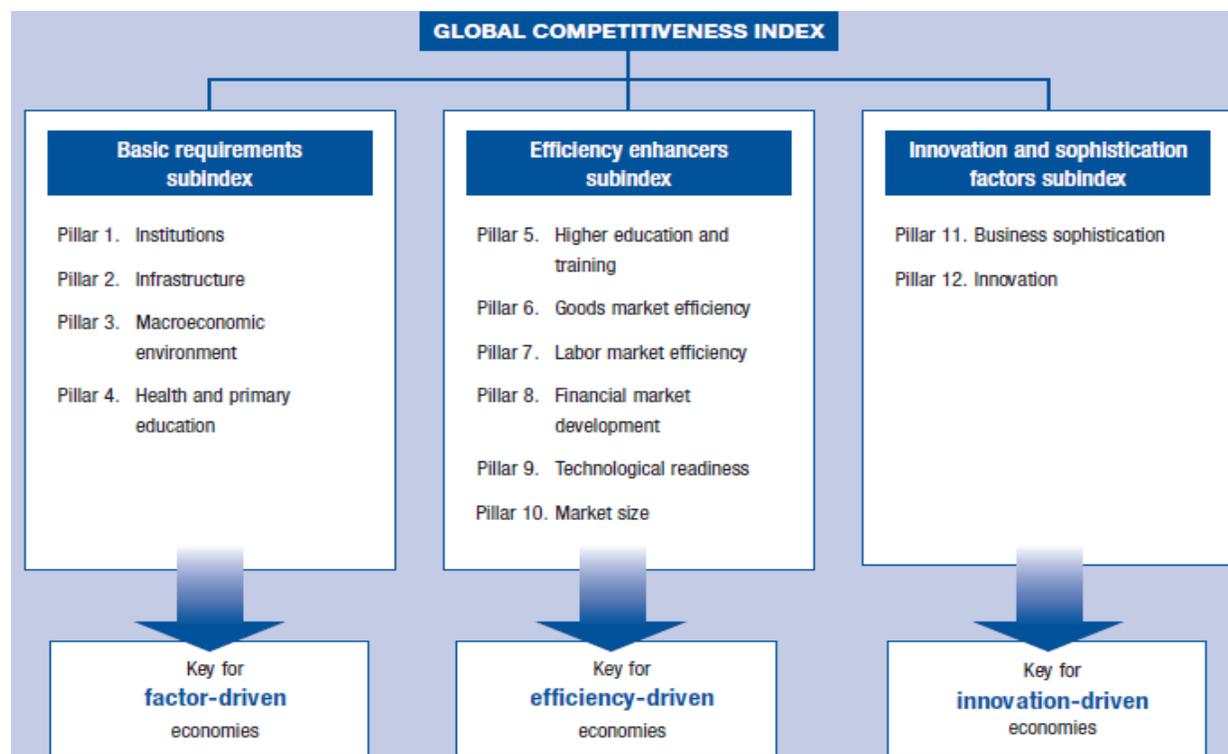


Figure 5: GCI’s pillars and stages of development (WEF, 2014)

Defining which stage of economic development economy belongs is determined by the value of the realized GDP per capita. For each stage of economic development is defined a corresponding subindex weights of GCI. (Table 3)

Table 3: Sub-Index weights of GCI and income thresholds for stages of development (WEF, 2014)

	STAGES OF DEVELOPMENT				
	Stage 1: Factor-driven	Transition from stage 1 to stage 2	Stage 2: Efficiency-driven	Transition from stage 2 to stage 3	Stage 3: Innovation-driven
GDP per capita (US\$) thresholds*	<2,000	2,000–2,999	3,000–8,999	9,000–17,000	>17,000
Weight for basic requirements subindex	60%	40–60%	40%	20–40%	20%
Weight for efficiency enhancers subindex	35%	35–50%	50%	50%	50%
Weight for innovation and sophistication factors	5%	5–10%	10%	10–30%	30%

Given that B&H has the value of GDP per capita of U.S. \$ 4,461 it can be concluded stage of development in which the country is in a phase of the economy driven by efficiency. (Table 3)

According to subindexes basic requirements, efficiency factors and factors of innovation and business sophistication, B&H occupies 81st and 89th place or the ratings 4.4, 3.8 and 3.4, respectively. (Figure 4)

Table 4: Key indicators, 2012, B&H (WEF, 2014)

Population (millions)	3,8
GDP (US\$ billions)	17,3
GDP per capita (US\$)	4.461
GDP (PPP) as share (%) of world total	0,04

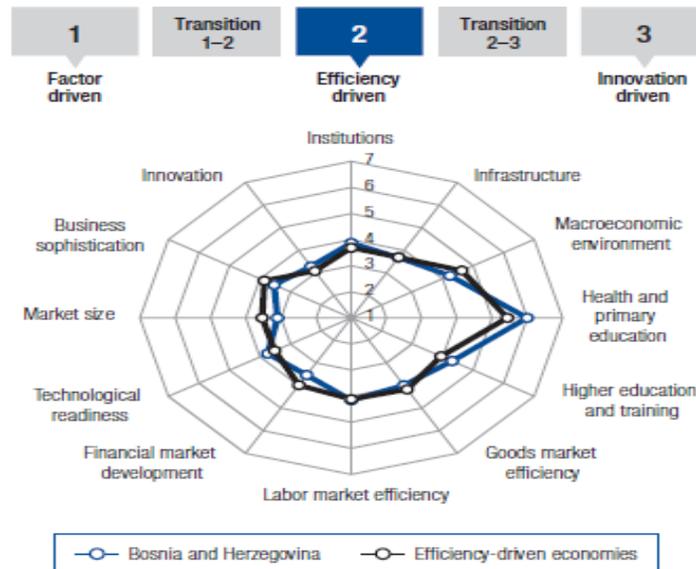


Figure 6: Stage of development for B&H (WEF, 2014)

BUSINESS ENVIRONMENT INNOVATION PROFILE OF BOSNIA AND HERZEGOVINA

Improving the business climate is of great importance for all economic entities, especially for the small and medium enterprises. This implies reduction to as low as possible administrative barriers with appropriate legislation, the availability of professional and skilled workforce and favorable financing sources.

In Bosnia and Herzegovina, which consists of two entities and one district, a major obstacle to creating a favorable business climate, as a precondition for domestic and foreign investment, is the absence of a unique economic space. There are still numerous barriers to inter-entity trade. Private sector growth is limited by many administrative barriers relating to the establishment and operation of businesses. These obstacles include the cost of registration and starting companies, heavy tax burden, the impact of corruption and the gray economy and others. (Figure) Poor business climate and low levels of foreign investment is affected by the inefficiency of the judicial system in resolving commercial disputes and a weak legal framework for the protection of creditors, as well as factors affecting competitiveness.

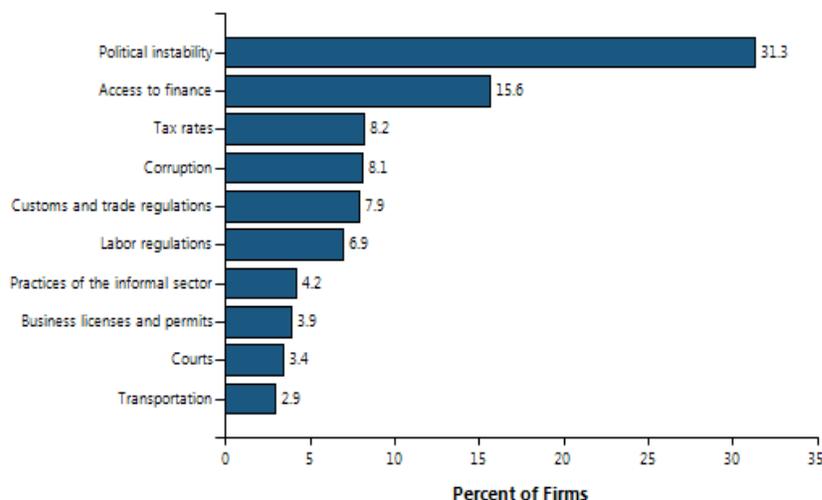


Figure 7: Top 10 Business Environment Constraints (*World Bank, 2014*)

Administrative procedures and regulatory barriers much more burden SMEs than large companies. When introducing obligatory penalties state does not take into account the economic power of the enterprise, its employment opportunities for competent labor and investment opportunities in advanced technology.

Analysis of the business environment has special significance for the development of small and medium enterprises, which is being implemented by many foreign and domestic institutions.

According to the results published by the World Bank for the year 2013, within Doing Business report, Bosnia and Herzegovina is the 131st in the world, out of 189 ranked countries, while still lags significantly behind other countries in the region in terms of quality business environment. There has been some progress in the registration of ownership, and simplification of the registration system, control and collection of contributions.

Table 5: Comparative overview of the elements of the business environment of B&H (*World Bank, 2014*)

Economy	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits	Getting Electricity	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
Singapore	1	3	3	6	28	3	2	5	1	12	4
Hong Kong SAR, China	2	5	1	5	89	3	3	4	2	9	19
New Zealand	3	1	12	45	2	3	1	23	21	18	12
United States	4	20	34	13	25	3	6	64	22	11	17
Denmark	5	40	8	18	7	28	34	12	8	32	10
Bosnia and Herzegovina	131	174	175	164	96	73	115	135	107	115	77
Congo, Rep.	185	182	142	175	164	109	157	183	180	164	142
South Sudan	186	140	171	184	183	180	182	92	187	87	189
Libya	187	171	189	68	189	186	187	116	143	150	189
Central African Republic	188	177	156	177	141	109	138	188	185	180	189
Chad	189	183	139	149	146	130	157	189	183	171	189

Illustrative of the quality of the business environment of Bosnia and Herzegovina, compared with the five best and five worst-ranked countries in the world, is shown in the following figure. It may be noted regarding certain elements of the business environment Bosnia and Herzegovina, as well as Starting Business, Dealing with Construction and Getting Electricity, is on a similar level as in the worst-ranked countries in the world.

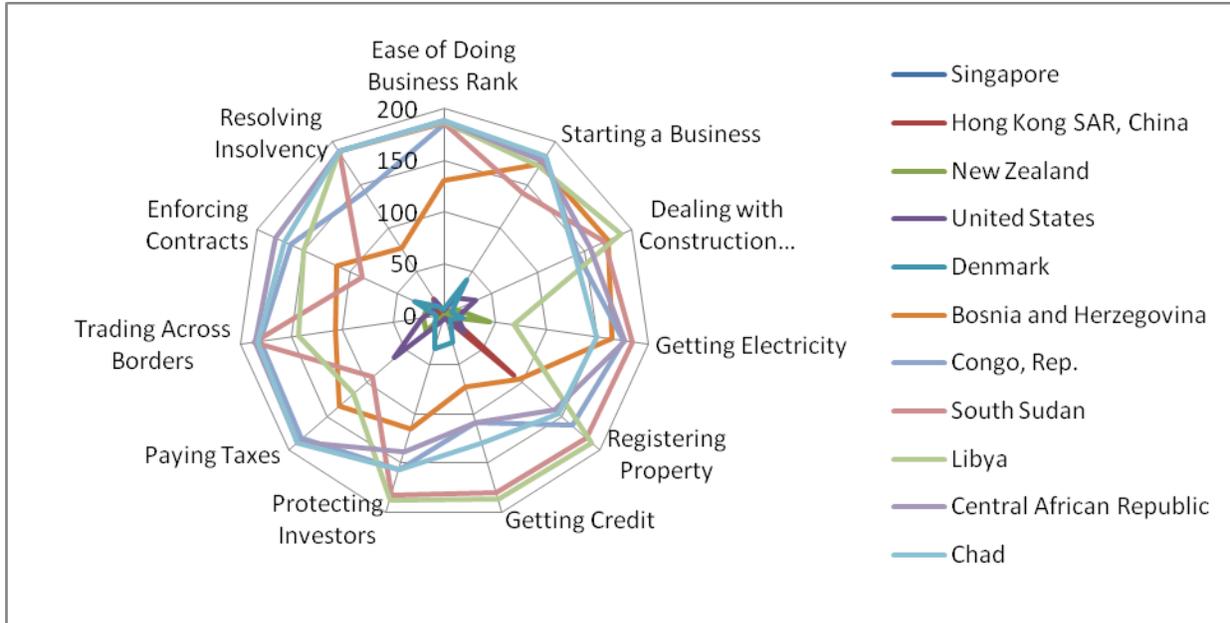


Figure 8: Comparative overview of the elements of the business environment of B&H (World Bank, 2014)

Through the Lisbon Declaration of 2000, the EU has given priority to the development of entrepreneurship, and the development of small and medium-sized enterprises, together with innovation, and encourages the formation of policies for their support. Within these policies emerged the European Charter for Small and Medium Enterprises. This memorandum was signed by the countries of the Western Balkans, including Bosnia and Herzegovina. Based on her, Bosnia and Herzegovina has an obligation to strengthen entrepreneurial capacity.

Laws and institutions at the level of each entity regulate the issue of small and medium enterprises. Institutional support for the development of this sector is based on improving competitiveness, innovation and cohesion of small and medium enterprises in the functional development infrastructure, and creating a supportive business environment.

The competitiveness of small and medium enterprises more and more depends on their ability to be innovative. Strengthening innovation capacity and the development towards a knowledge-based economy provides employment opportunities with higher added value, as well as better productivity and economic growth. Success is achieved by supporting scientists and research institutions.

Figures below show the index policy for SMEs in South Eastern Europe and Bosnia and Herzegovina.

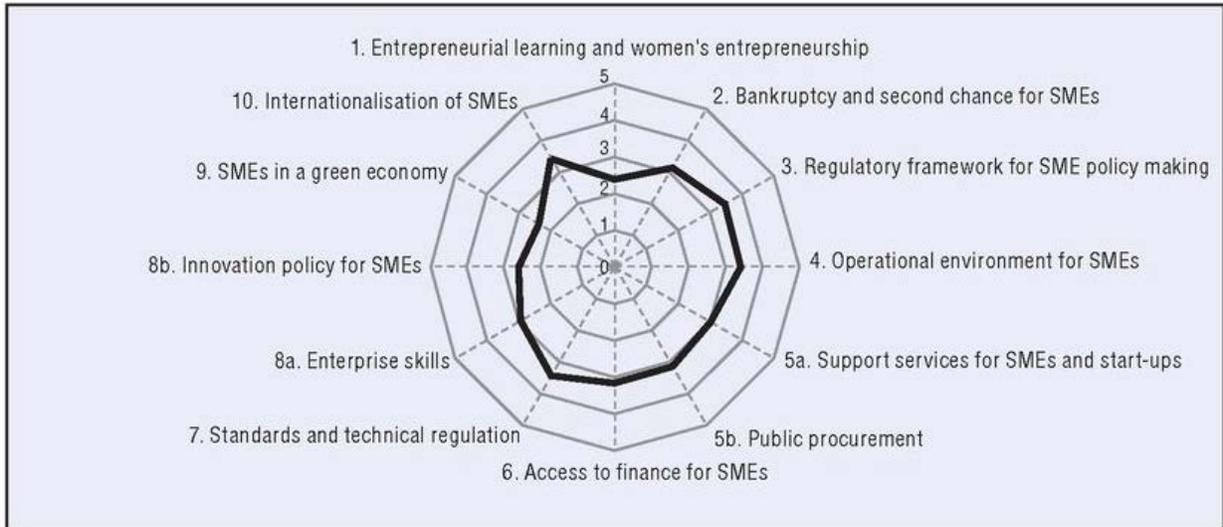


Figure 9: Index policies for small and medium enterprises, the average for the countries of Southeastern Europe (OECD, 2012)

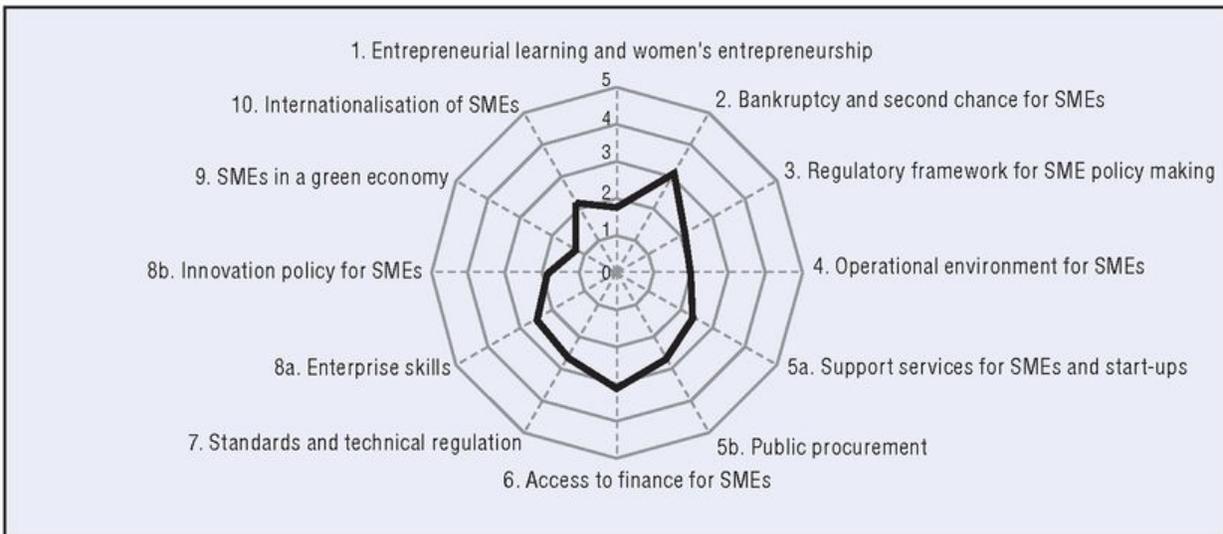


Figure 10: Index policies for small and medium enterprises, the average for Bosnia and Herzegovina (OECD, 2012)

GLOBAL INNOVATION INDEX

Given that innovation is the key factor of growth and development in the Confederation of Indian industry (Confederation of Indian Industry) in cooperation with INSEAD (Business School for the World) and Canon India has designed the Global Innovation Index (GII). Based on the values of the movement of this Index, it can be evaluated the existing level of innovativeness of the economy and identified all existing and potential barriers that limit the full enjoyment of the benefits that bring innovations to enterprises, population and the government. GII structure is composed of two main sub-indices: (Innovation Input Sub-Index and Innovation Output Sub-Index (Figure 11)).

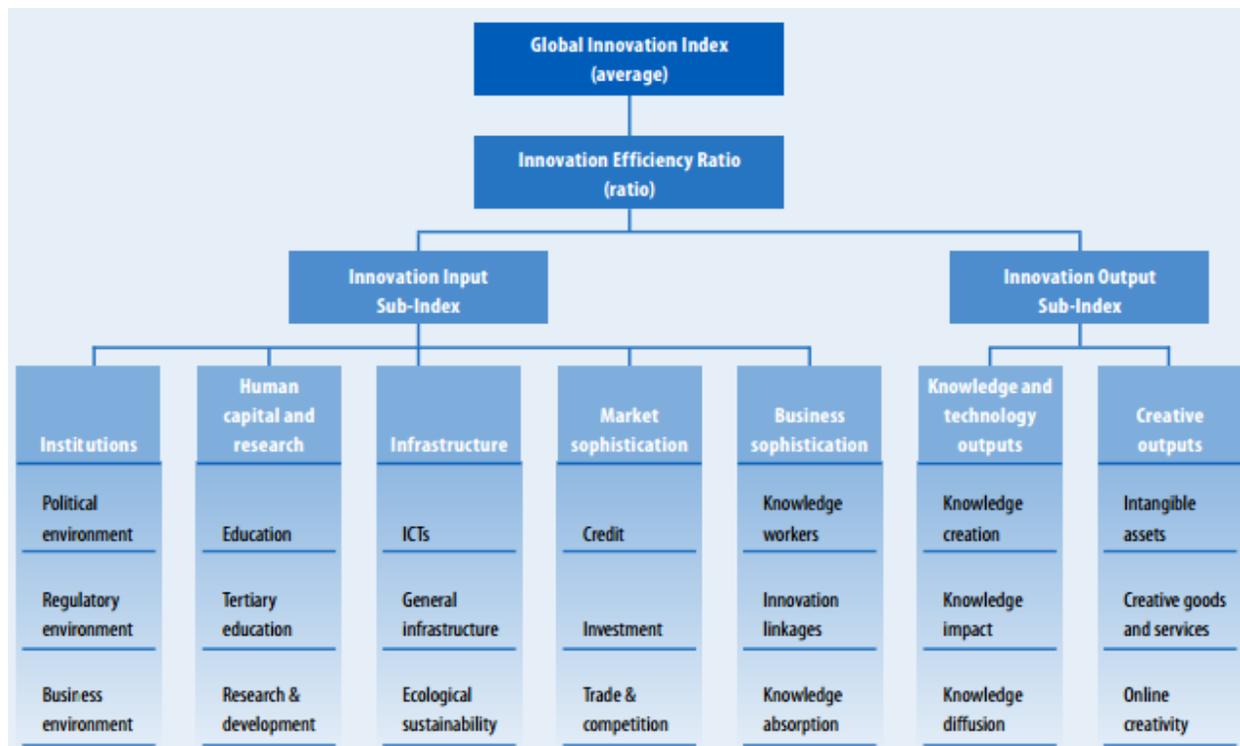


Figure 11: Global Innovation Index framework (INSEAD, 2014)

Innovation Input Sub-Index carries ranking countries according to the elements of the economy that allow the implementation of innovative activities, such as: institutions, human capital and research, infrastructure, market sophistication and business sophistication. Innovation Output Sub-Index measures results of innovation classifying them into two separate groups such as scientific results and creative results. Overall innovation index GII is calculated as the average of these two sub-indices. GII was established in 2007 and according to the GII 2014 Report was carried out among 143 countries using 81 indicators from the viewpoint of different aspects of innovation. Using GII it got valuable insight into the overall innovation capacity and performance of a country. According to the GII report it could be determined the leader in innovation, income group and region. The basic principles underlying the GII are that there is a difference between inputs and outcomes in measuring innovation in the economy, GII observes five input factors, GII shows the two output factors that make the results of innovation economy based on the development of competences, knowledge and wealth creation, The GII for 2014 shows that in the top ten dominate European economies (7 countries) with two Asian countries (Singapore on 7th place and Hong Kong (China) on 10th place) and the United States on the 6th place. At the top of the ranking list of countries by level of innovation are Switzerland (1st place) and the UK (2nd place), followed by Sweden, Finland, Netherlands and Luxembourg (9th place) (Figure 12).

Table 6: Global Innovation Index ranks, 2014. (INSEAD, 2014)

Country/Economy	Score (0–100)	Rank	Income	Rank	Region	Rank	Efficiency Ratio	Rank
Switzerland	64.78	1	HI	1	EUR	1	0.95	6
United Kingdom	62.37	2	HI	2	EUR	2	0.83	29
Sweden	62.29	3	HI	3	EUR	3	0.85	22
Finland	60.67	4	HI	4	EUR	4	0.80	41
Netherlands	60.59	5	HI	5	EUR	5	0.91	12
United States of America	60.09	6	HI	6	NAC	1	0.77	57
Singapore	59.24	7	HI	7	SEAO	1	0.61	110
Denmark	57.52	8	HI	8	EUR	6	0.76	61
Luxembourg	56.86	9	HI	9	EUR	7	0.93	9
Hong Kong (China)	56.82	10	HI	10	SEAO	2	0.66	99

According to the GII 2014 Report, Switzerland has maintained a leading position in relation to the previous two years. Second place is occupied by the United Kingdom with 62.37 points in relation to the previous two years when the second place was occupied by Sweden. In 4th place is Finland, whose position is shifted one place up from last year's results.

B&H is ranked on 81st place with 32.4 points, or the value of efficiency innovations ratio is 0.44 in 2014. It occupied 65th place occupied by a total of 142 analyzed countries in the previous year. GII rank decreased this year. It is behind other countries in its direct environment. Behind the B&H is only Albania (94th place), while countries in the region are far more innovative. Leading them Slovenia (28th place) earning 47.2 points, or 0.81 ratio efficiency innovation, followed by Croatia (42nd place), Montenegro and Serbia (Table 7 and Figure 12)

Table 7: Global Innovation Index for Western Balkan (INSEAD, 2014)

Rank	Country	Score	Value	Percentage Rank
28	Slovenia	47.2	-	0.81
42	Croatia	40.7	-	0.71
59	Montenegro	37.0	-	0.59
67	Serbia	35.9	-	0.54
81	Bosnia and Herzegovina	32.4	-	0.44
94	Albania	30.5	-	0.35

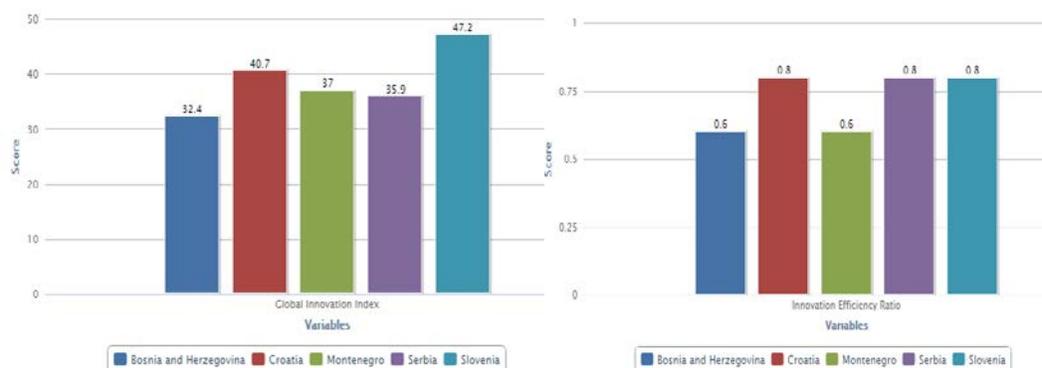


Figure 12: Global Innovation Index and Innovation Efficiency Ratio for Western Balkan

Figure 13 shows the decomposition of GII structure on its sub-indexes of innovation inputs and innovation outputs and values of these sub-indices for the countries of the Western Balkans,

in 2014. Value subindices innovation input and innovation results are the lowest in B&H and (39.4) or 25.5 points. Above B&H is Serbia with value subindex innovation inputs of 40.1 points, but a higher value subindexes innovation results (31.7 points) in relation to Montenegro (28.4 points). Slovenia ranks first in the environment from the point of values of both subindices innovation input and innovation results (53.1 and 41.4 points, respectively).

The biggest disadvantages of B&H are low gross expenditure on research and development area, low ranking universities, low weight of electronic communication in export, low effects on the environment, lack of supply of venture capital, and weak intensity of local trade and competition. At low global ranking B&H is also affected by the low share of high-tech imports, the level of intangible assets such as registration of trade marks in the country's GDP measured in purchasing power parity (PPP).

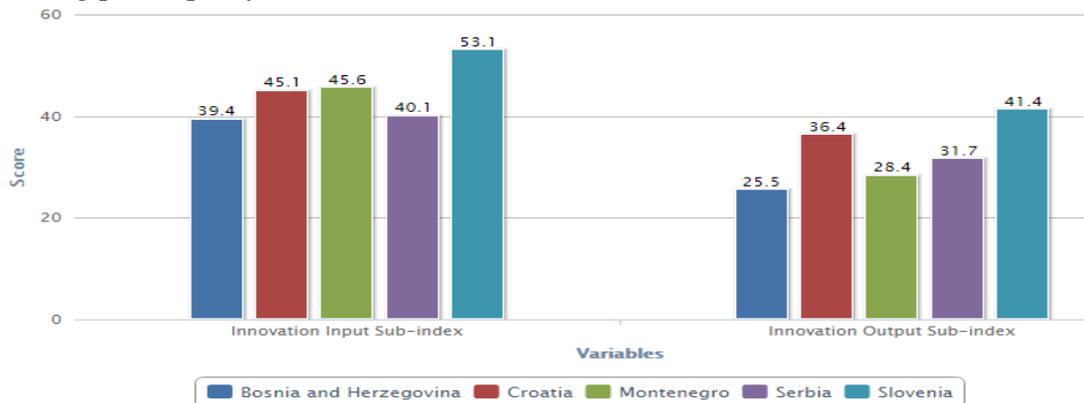


Figure 13: Comparison of Scores – GII 2014 for Western Balkan

CONCLUSION

Small and medium enterprises play a crucial role in the economic development of Bosnia and Herzegovina. As for their competitive capabilities, they are highly affected by the lack of innovation activities such as product development and technology development work and staff, which is caused by a lack of resources. So, as research has shown competitive potential of SMEs is at a low level, at which affects the poor business environment.

The entire economy of Bosnia and Herzegovina, including small and medium enterprises are characterized by low activity and lack of innovation, volatile innovative networks and research capacity, lack of support in financial terms, poor infrastructure and weak cooperation with other companies in terms of innovation support.

To improve this situation, it is necessary cooperation of state institutions with the sector of small and medium enterprises and financial support in designing projects that would lead to improved innovation environment. Companies must cooperate among themselves but also with large systems and scientific institutions. A precondition for their survival and maintain its market position in terms of a very dynamic business environment and increasing competition is constantly innovating products and processes.

Only joint action of state bodies and institutions, especially the scientific and education, and entrepreneurs themselves, business owners, can lead to improvement and long-term results, and the development and growth of small and medium enterprises and thus to economic growth in the country.

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FOREIGN DIRECT INVESTMENT AND THE IMPACT ON ECONOMIC GROWTH IN THE REPUBLIC OF MACEDONIA

Zuka Jeton PhD student¹

Abstract:

In times of globalization, characterized by increasing connectivity between countries, borders and physical remoteness, loose their meaning, and the development of information technology and more and more developed communications technologies, makes the former barriers to disappear. Movement of capital from one place to another enables economic growth in the host country, but also in the country of origin of the investor and thus providing a better standard of living for the citizens of the host country.

How to create a favorable climate for a large company to decide to invest in a country, and what are the decisive factors in the decision to invest in one country?

Macedonia as a small economy with limited resources develops policies to attract foreign direct investments as an opportunity to develop the economy and improve the living standards of citizens. In the past two decades since the independence of the Republic of Macedonia, foreign direct investments are not at the desired level, which is why it is necessary to improve macroeconomic policy and create a better environment for attracting foreign investments. In order to create favorable climate for attracting foreign direct investment in the country, it is necessary to take some measures of legal and economic aspects, such as the implementation of appropriate monetary and fiscal policy as well as foreign - trade policy, in order to allow foreign investors favorable and secure investment environment. As a small underdeveloped country with limited opportunities Macedonia depends on foreign investments. Foreign direct investments were supposed to contribute to faster passage of a period of transition and increasing economic efficiency and the transition to sustainable growth, revitalization of existing factories, increasing the quality of products and services, increasing the technical level of technological processes of production and increase the efficiency of the services.

Key words: foreign direct investment, changes, efficiency, economic growth, resources

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INTRODUCTION

In times of globalization, characterized by increasing connectivity between countries, borders and physical remoteness, lose their meaning, and the development of information technology and more and more developed communications technologies, makes the former barriers to disappear. Movement of capital from one place to another enables economic growth in the host country, but also in the country of origin of the investor and thus providing a better standard of living for the citizens of the host country. The process of globalization and its role in the development of the world caused change in the attitude and overcoming of the barriers to foreign direct investment and created an opinion that they can be viewed as an opportunity for development of various countries. Creating conditions for attracting foreign direct investments today is one of the biggest priorities of each country.

How to create a favorable climate for a large company to decide to invest in a country, and what are the decisive factors in the decision to invest in one country? For the foreign investors the profit and risk are the main determining factors in the decision to invest in a country. There are also other essential factors, such as:

- the stability of the country,
- economic and legal security,
- political security,
- market size,
- geographical position of the country,
- human and natural resources and other.

Macedonia as a small economy with limited resources develops policies to attract foreign direct investments as an opportunity to develop the economy and improve the living standards of citizens. In the past two decades since the independence of the Republic of Macedonia, foreign direct investments are not at the desired level, which is why it is necessary to improve macroeconomic policy and create a better environment for attracting foreign investments. In order to create a favorable climate for attracting foreign direct investment in the country, it is necessary to take some measures of legal and economic aspects, such as the implementation of appropriate monetary and fiscal policy as well as foreign - trade policy, in order to allow foreign investors a favorable and secure investment environment.

As a small underdeveloped country with limited opportunities Macedonia depends on foreign investments. Foreign direct investments were supposed to contribute to faster passage of a period of transition and increasing economic efficiency and the transition to sustainable growth, revitalization of existing factories, increasing the quality of products and services, increasing the technical level of technological processes of production and increase the efficiency of the services.

THE ADVANTAGES AND DISADVANTAGES IN ATTRACTING OF FDI IN REPUBLIC OF MACEDONIA

After the independence in 1991, the Republic of Macedonia is passing a difficult time of transition. As a small country of only 25,713 square kilometers, situated in the Balkan Peninsula, Macedonia has a low level of development, limited resources and opportunities necessary for achieving economic growth. The country is very dependent on foreign investments. The country has 2,071,210 residents which can be stated as a small country with a small market, with relatively low purchasing power, which negatively affects investment decisions in the country. Also, other weaknesses and limiting factors for attracting foreign must be highlighted, such as:

- insufficiently stable internal political security situation,
- located in a relatively unstable security region
- landlocked,
- underdeveloped infrastructure (road and rail),
- limited natural resources,
- small market with low purchasing power, etc.

Republic of Macedonia, in general, has invested small amounts in road and rail infrastructure which has negative impact at foreign investors. Limited natural resources, underdeveloped technology, lack of staff are just another set of restrictions and obstacles, when it comes to attracting foreign direct investment, which can be seen in Macedonia.

After the independence the Republic of Macedonia began the privatization process, the model of internal privatization, under which the companies were sold to the management teams, was implemented. The control over the enterprises gained by the management teams was the major barrier to foreign direct investment, and foreign investors were often discouraged to invest in the country.

As a small country with a small market, the Republic of Macedonia must cooperate with the countries in the region, in order to be interesting for foreign investors, such as with conclusion of bilateral, regional and multilateral free trade agreements, thus achieving increase of market volume, and making Macedonia much interesting for foreign investors.

In 2003, Macedonia became 143rd member of the WTO (World Trade Organization) which implied reform and harmonization of legislation to the international rules. In December 2005, the Republic of Macedonia became a candidate for EU membership, which meant greater stability and a positive impact on foreign direct investments. The integration of the Republic of Macedonia in CEFTA (The Central European Free Trade Agreement) in 2006, further increased the opportunities of the country to access larger market, and thus enabled the investors to have access to CEFTA countries through Macedonia. Along with Macedonia, CEFTA members are also Albania, Bosnia and Herzegovina, Serbia, Kosovo, Montenegro, Croatia and Moldova.

Intensification of the government policies to attract foreign investments contributed to the increasing of the trend of foreign investments to come to its maximum in 2006 and 2007, yet not so long due to the world economic crisis in 2008 and 2009. In 2011, there was again, as can be said repeated increase in foreign direct investment, which represents an indicator of the efforts of the Government in attracting foreign direct investments. Positive rating from the IMF (International Monetary Fund) for the macroeconomic environment and the support of the World Bank that points out the Republic of Macedonia as a leader in the region's business climate and conditions for doing business, contributed Macedonia to be ranked 23rd place in 2012 in Doing Business.

The Republic of Macedonia has to work intensively on attracting foreign direct investments and improve the business climate through institutional measures, strengthening the judiciary, especially the policies that will bring closer the country towards EU and NATO as destinations that will positively affect the increased foreign direct investments.

For the Republic of Macedonia as a developing country attracting of foreign direct investments is of crucial importance, which will secure a healthy and sustainable growth and economic development. Foreign direct investments enable to:

- the transfer of technologies,
- use of domestic resources in production,
- greater inflows into the state treasury,
- additional incentives and competition between companies,
- entry of foreign capital which will open working positions.

Besides opening new working positions foreign direct investments enable wage growth and thus directly affect the improvement of the lives of workers and employees may acquire new experiences in working with new advanced technologies.

**THE IMPACT OF FOREIGN DIRECT INVESTMENTS ON THE ECONOMY
OF THE REPUBLIC OF MACEDONIA**

The Republic of Macedonia had very hard and inadequate privatization, by implementing the model of internal privatization under which the privatized companies were controlled and left to the existing management teams, and the foreign investments were very low. Many companies after the independence had a lot of difficulties in the business and had to be sold or closed. "Loss-making" companies such as Okta, Jugohrom, Feni, Bitola brewery, Zelezara, these former giants of economics had to be sold or closed. The sale of these "loss-making" companies enables restructuring, capacity modernization and increase of production and thus succeeded to become profitable and retained some of the employees. With the advent of foreign direct investments the mentality of management has changed, i.e. an improved management was introduced in companies working, of marketing, the quality of the product has increased and production technology.

The biggest foreign direct investment in the country is the sale of 51% of Macedonian telecommunications in 2001, and it announced the investments in the telecommunications sector. With the change of ownership in three Macedonian banks: Stopanska Bank AD Skopje, Tutunska Bank AD Skopje and Kreditna Bank AD Skopje the reforms in the banking sector and the introduction of new services and technologies in operation have started. This had a positive impact on the reduction of interest rates and increase of the confidence of the citizens in the banks operating. In the Republic of Macedonia dominate investments that result in taking over and privatization of enterprises with state capital versus greenfield investments with very low percent of presence. This was typical for the time of privatization, but the post privatization period in the country, an increasing percentage of foreign direct investment can be seen in new capacities and greenfield investments that directly influence on the economic growth. By 2008 foreign direct investments in the country amounted to 2 and 958 thousand billion euro, but if the money from the privatization of Macedonian Telecommunications and EVN Power Company - Distribution are excluded then Macedonia has the lowest inflow of foreign direct investment per capita compared to other Balkan countries.

In the Republic of Macedonia the foreign direct investment have created the conditions for application of new methods of operation, technical - technological progress in the economy and replacement of old traditional technologies with contemporary information technologies.

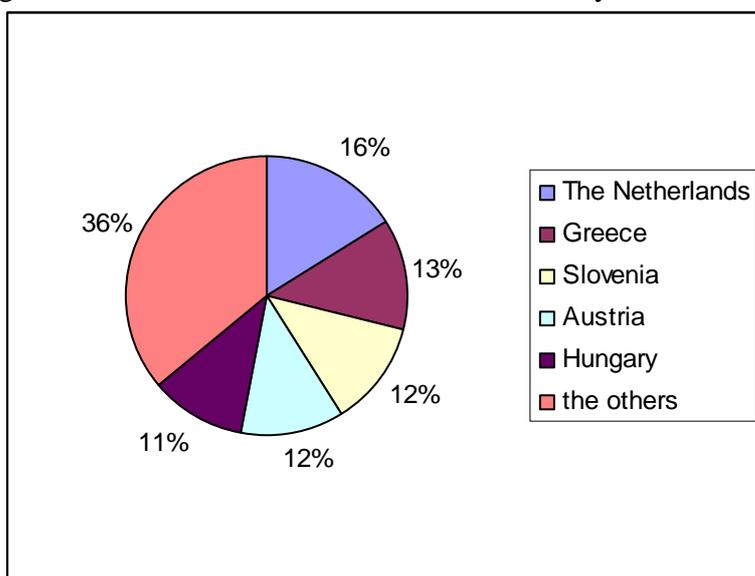
THE VOLUME OF FOREIGN DIRECT INVESTMENTS IN THE REPUBLIC OF MACEDONIA

Earlier immediately after the period of independence the Republic of Macedonia had to adapt the new policy in order to improve the climate for attracting foreign direct investments. A series of legal and economic aspect of improving the business climate were taken for improvement of the business climate, following new macroeconomic policies and reforms to improve the legislative, executive and judicial authority, increase of efficiency of the public administration and reforms in the tax system.

The beginning was very difficult. In the period from 1990 to 1996, the Republic of Macedonia has managed to attract only 64 million dollars (USD) foreign direct investments, half derived from the process of privatization or \$ 30 million dollars. In 1998, a growth of

foreign direct investments can be seen, that amounted 150 million dollars and the next year a decline to 88 million dollars. The next two years 2000 and 2001 we note growth of foreign direct investments as a result of the sale of several public companies (Bitola Brewery - Bitola, Feni – Kavadarci, Stopanska Bank - Skopje, etc.), but most of the foreign direct investments were in 2001 when that number reaches the record 447 million dollars and provided the highest percentage of GDP (Gross domestic Product) of 13%. This number was a result of the sales of Macedonian Telecommunications, and several other public Company such as EMO Ohrid, Skopje Fair - Skopje, Zito Luks - Skopje etc.. But this trend of increasing of the foreign direct investments stopped following 2002, when the amount of foreign direct investment amounted to 105 million dollars, while the share of 13% in GDP decreased to just 2.8%. In 2003 we've had 117 million dollars, an increase of foreign direct investments we have in 2004 to 323 million and in 2005 we have only 97 million dollars in foreign direct investments.

Favorable climate for attracting foreign direct investment influenced have increased by 424.2 million or 6.5% of GDP in 2006, and next year in 2007 the amount was 699.1 million dollars as a maximum that the Republic Macedonia has achieved in attracting foreign direct investments. We can say that, 2008 was also a good year for Macedonia, when foreign direct investments reached 587 million dollars, but already in 2009 due to the global economic crisis, the trend of growth of the foreign direct investments started decreasing. In 2009 we have a decrease in foreign direct investment of 197 million dollars which meant the share in GDP of just 2.1%. There was a small increase in 2010, when the foreign direct investments have reached 211 million dollars and already in 2011 the Republic of Macedonia has a growth of foreign direct investments in the amount of 463.3 million dollars. In 2012 a decline in foreign direct investment is noted and there are only 89.8 million dollars.



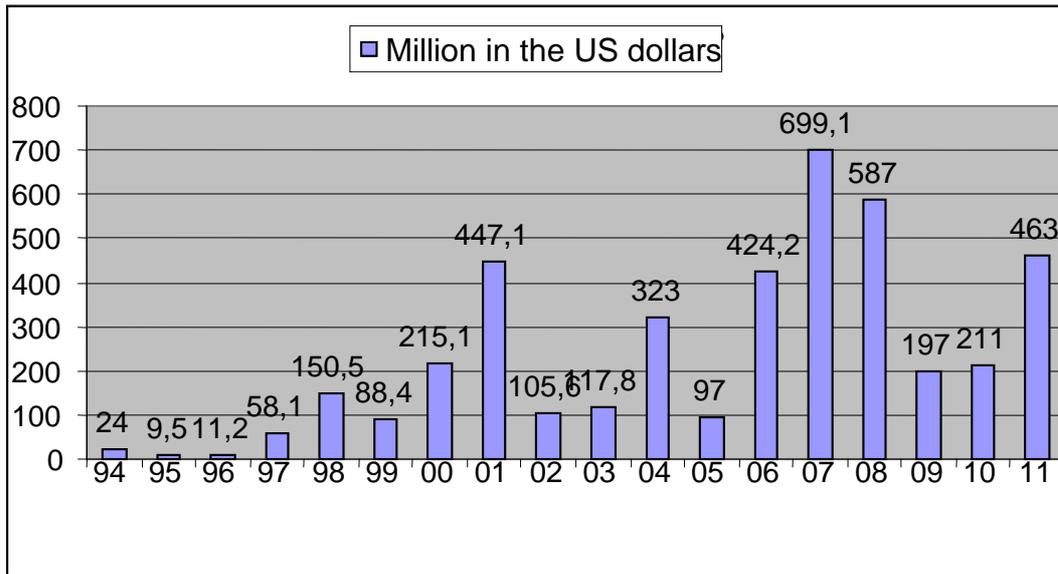
Graph 1 - Foreign direct investment by country of origin 2010 -2012 year.²

According to the investors in 2012 key obstacles to investment in the country are:

- heavy recovery of debts,
- slow administration,
- poor infrastructure and
- inadequate enforcement of legislation.

² Source: National Bank of the Republic of Macedonia <http://www.nbrm.mk/>

Table 1: Inflow of foreign direct investment - FDI in the country from 1994 - 2011.



The year 2012, according to statistics will be labeled as the worst investment year with only 89.9 million dollars in direct foreign investments. According to the statistics of the Central Bank (Central Bank of the Republic of Macedonia) in 2012 the biggest investments are made by the investors from Austria, while the investors from Slovenia committed largest transfer of money to their home companies.

Table 2 - Structural share of foreign direct investment - FDI in GDP of the Republic of Macedonia for the period from 1994 - 2011.

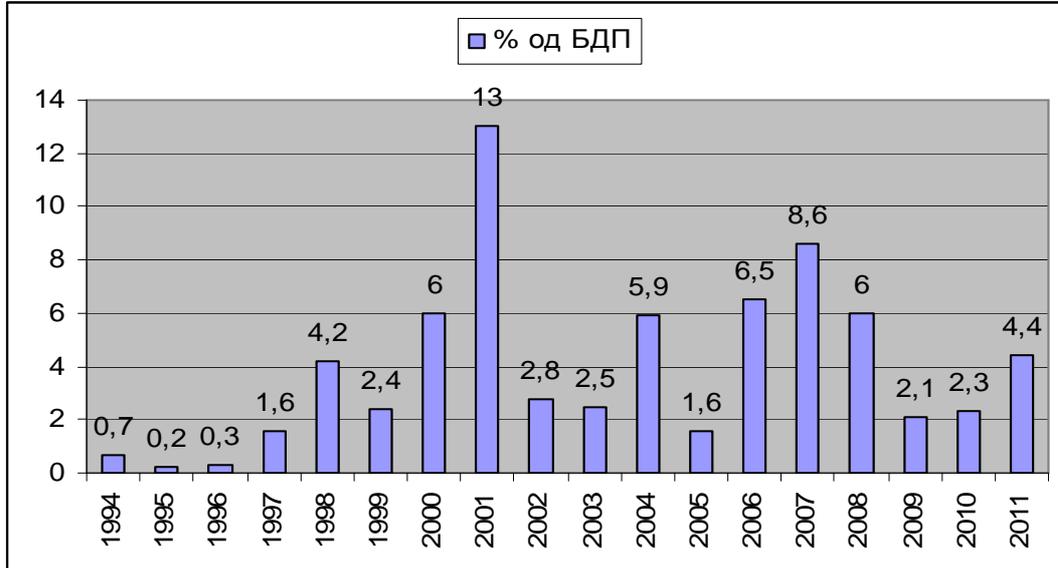


Table 3- The share of FDI in GDP in countries in transition between 2000 - 2010 (the countries of the region).³

	2005	2006	2007	2008	2009	2010	Процек
Albania	3,24	3,62	6,14	7,62	8,07	9,24	6,09
Bosnia	5,63	6,21	13,7	5,04	1,44	0,38	5,6
Macedonia	1,65	6,6	8,49	5,96	2,11	3,13	4,85
Serbia	-	-	-	5,42	4,17	3	4,20
Croatia	4,11	7,08	8,6	8,91	4,62	0,96	5,3
Montenegro	-	-	-	21,3	37,4	19,3	25,96

From the table 3, we conclude that the share of foreign direct investments to GDP in the Republic of Macedonia is lower compared with other countries in the region. Behind is only Serbia.

In the countries of Southeast Europe and the Republic of Macedonia, foreign direct investments are directed towards the service sector, financial mediation, while sectors oriented in export are with small volume. Also to be noted is that there is a small amount of investments in the mining sector and extraction of ore. In the Republic of Macedonia, we can say that during the 90s the direct foreign investments targeted the manufacturing and construction sectors, and later the service sector and the financial services, insurance industry and telecommunications.

Republic of Macedonia in the past four years has open Free Technological Industrial Development Zones, two in Skopje and one in Tetovo and Stip, we have also TIDZs in Bitola, Kavadarci, Prilep, Gevgelija, Veles, Radovish, Strumica and Kicevo. The objective is to attract more foreign investment by offering favorable conditions for doing business for the investors. There are already investments in the free technological-industrial development zones from different countries, as Kemet Electronics, Johnson Matthey Company, TeknoHose, Protek Group, Van Hool, also present with it investments we have Johnson Controls in Macedonia, a multinational corporation, the global leader in the manufacture of automotive components and control systems.

Since the Republic of Macedonia's independence till now there are a total of 4.4 billion dollars of foreign investment that have entered in the country, of which 1.95 billion with merger and takeover of companies and 1.24 billion are greenfield investments.

According to the field of activity from 1997 to 2011 the foreign direct investments are the most common in manufacturing and services, the largest share of 61.70% is achieved in 1999 in the production activity and the lowest in 2008 with only 29.58%, while in the services sector the lowest share is in 1999 with 34.71% and the highest in 2008 with 53.95%. Other activities range below 10% throughout the analyzed period.

According to the country of origin from 1997 to 2011 most of the foreign direct investments come from Austria, Greece, Switzerland, Slovenia, Netherlands, Germany, Hungary and others. In 2012 we have seen large outflows of capital from the Republic of Macedonia to the home country, as a result of the global downturn. The largest outflow of capital was made by the Slovenian investors as stated before, then investors from Greece, St. Vincent and Grenaldini, Netherlands and Great Britain. Just for example the Greek companies for eight months in 2012 have retreated an amount of about 70 million euro.

³ Source: UnctadStat (2011)

Table 4 – FDI in Republic of Macedonia (in US dollars)⁴

FDI in Republic of Macedonia	
1997	58.1
1998	150.5
1999	88.4
2000	215.1
2001	447.1
2002	105.6
2003	117.8
2004	323
2005	97
2006	424
2007	699.1
2008	587
2009	197
2010	211
2011	463.3
2012	89.9
2013	334.2

SWOT analysis of the Republic of Macedonia in attracting FDI

Strengths	Weaknesses
<ul style="list-style-type: none"> • Macroeconomic stability • Geographical position • Proximity to the port of Thessaloniki and Durres (Adriatic and Aegean Sea) • Cheap labor force • Low taxes • CEFTA membership • Candidate status for EU membership • Access to the European market • Potential for increased energy efficiency 	<ul style="list-style-type: none"> • Small market • Low purchasing power • Limited natural resources • Low economic growth • Corruption • Poorly developed road and rail infrastructure • Landlocked • Administrative barriers (long procedures) • Underdeveloped level of Know-how
Opportunities	Threats
<ul style="list-style-type: none"> • Young population • The possibility in the near future for Macedonia to join NATO and the EU • Corridor 8 and 10 • TIRZ • IPA funds • The Government of RM 	<ul style="list-style-type: none"> • The name dispute • Delay in the implementation of public administration reform • Inefficient Judiciary • Outflow of highly educated work force • High outflow of young overseas • Competition from other countries in the region • Not enough qualified staff • Failure to build railway infrastructure to Bulgaria and Albania • Energy dependence of one resource

⁴ Source: National Bank of the Republic of Macedonia

FOREIGN DIRECT INVESTMENT IN SOUTHEAST EUROPE COUNTRIES

Unlike the Republic of Macedonia in the other countries of Southeast Europe, the amount and the percentage of the foreign direct investments are in constant growth (excluding Slovenia in 2009 and 2012.). If we divide the region into two groups, Member States of the European Union and countries outside the European Union, we will notice a big difference in the size of foreign direct investments. The security and stability that the Union gives is an indicator for continuing growth of the foreign direct investment in these countries. In countries such as Greece, Bulgaria, Romania and Slovenia, foreign direct investments are in constant growth in the last decade. These same countries are also members of NATO. In the 2007 Bulgaria and Romania joined the EU, and the same year the foreign direct investments reached almost \$ 14 billion in Bulgaria, while in Romania over 10 billion dollars.

Table 3 – Foreign direct investment in the Balkan Peninsula, at the EU member states 2000-2012 (in US dollars).⁵

	Slovenia	Bulgaria	Romania	Greece
2012	-9	2,046	-	2,868
2011	817	2,096	2,557	1,091
2010	633	1,866	3,204	533
2009	-349	3,896	4,926	2,762
2008	1,822	10,296	13,849	5,733
2007	1,884	13,875	10,290	1,957
2006	689	7,874	11,45	5,409
2005	970	4,098	6,866	689
2004	831	2,662	6,443	2,104
2003	301	2,096	1,844	1,331
2002	1,659	904	1,144	53
2001	503	812	1,157	1,585
2000	135	1,001	1,037	1,083

The second group of countries which are not members of the European Union (Albania, Bosnia, Macedonia, Kosovo, Serbia, Montenegro and Croatia⁶) also have growth of foreign direct investment, but not with the desired intensity. According to the volume of inflow of foreign direct investments, Croatia, Serbia and Albania in recent years stand out. Basic feature of these countries from the second group is that they continuously have high outflow of personnel, high unemployment and grey economy.

Lately, the Balkan countries are becoming interesting for the investors. In Serbia dominating are Arab investment and Chinese, while Turkish investors have more in countries like Macedonia, Kosovo and Serbia. In Albania dominate investors from Greece and Italy, and in Montenegro the investors form Russia. Cheap labor, low taxes, well-educated people are part of the highlights of the region. The sectors of banking, finance, construction, tourism, health and telecommunications are the one where the most of the investments are made.

⁵ http://data.un.org/Data.aspx?d=WDI&f=Indicator_Code%3ABX.KLT.DINV.CD.WD#WDI

⁶ Croatia is 28 EU member since 01.07.2013

Table 4 - Foreign direct investment in the Balkan Peninsula in non-EU countries, 2000 - 2012 (in US dollars).⁷

	Albania	Bosnia	Croatia	Kosovo	Serbia	Monte negro
2012	1,265	633	1,274	293	-	-
2011	1,368	378	1,260	546	2.700	558
2010	1,089	329	789	486	1.340	760
2009	1,343	138	3,400	408	1.935	1,527
2008	1,240	1,004	6,057	536	2.996	960
2007	652	1,804	5,057	603	3.431	934
2006	325	845	3,457	369	4.968	-
2005	262	623	1,777	133	2.050	-
2004	341	709	1,078	53	1.028	-
2003	178	381	2,048	-	1.405	-
2002	135	267	1,099	-	567	-
2001	207	118	1,582	-	177	-
2000	143	146	1,109	-	51	

CONCLUSION

At a time when all countries in the region and beyond, are doing everything in their power to attract as many foreign direct investments as a way to economic growth, new jobs, better living standards, and thus more satisfied citizens, the Republic of Macedonia should not be a passive observer. In this ruthless business competition, each country tries to offer investors better terms. Safest for the investor to invest their money in a country where they are familiar with the laws, economic movements and trends, business market and peoples' mentality.

What does the Republic of Macedonia get from foreign direct investments?

Transfer of knowledge and modern technology, create new jobs that for a country as the Republic of Macedonia which has 30% unemployment has a great significance, increases the quality of services and products and thus competitiveness, enabling economic growth and poverty reduction. According to Eurostat, the Republic of Macedonia is the third poorest country in Europe.

For the Republic of Macedonia of crucial importance is the membership in EU and NATO. When compared with the countries in the region, the Republic of Macedonia has a low growth of foreign direct investment. If we analyze foreign direct investments in Croatia, Bulgaria and Romania as countries in the region that are part of the European Union, we can observe that these countries after the accession to the EU have increased foreign direct investments, due to the confidence that investors have towards this community.

With a well-organized strategy Macedonia can achieve more in favor to become more competitive compared to the other countries. Macedonia individually is not interesting for the foreign investors. If we want a great strategic investment we have to cooperate with the countries of the region and wide in the creation of the stability, to compete with them in the placement of most favorable investment conditions, open borders, free trade and have a well-developed transport infrastructure.

The development of infrastructure especially in the railway traffic, i.e. Corridor 8 as an opportunity to increase the transport of goods to and from the Bulgarian port of Burgas, but

⁷ http://data.un.org/Data.aspx?d=WDI&f=Indicator_Code%3ABX.KLT.DINV.CD.WD#WDI

also to and from the Albanian port of Durres as an alternative to the port of Thessaloniki, will have positive impact in attracting foreign direct investments and increasing the importance of the Republic of Macedonia as the key country in connecting of the countries in the region especially of Albania and Kosovo with Bulgaria and Turkey. On this way a bigger market will be created that potentially will attract and increase the interest of the foreign investors.

The biggest obstacle for investing in the Republic of Macedonia and the region is the level of corruption. According to Transparency International in 2013, the Republic of Macedonia with the index of corruption perception is ranked the 67th place out of 177 countries. Only with a lot of effort and work, with further improvement of business climate, low taxes, political stability, favorable credit policy, simplification or on-line registration of companies in order to save time and money and other benefits, the Republic of Macedonia can attract more foreign direct investments.

Macedonia must follow the "golden rule of competitiveness": production, diversification, export, investment in infrastructure, investment in education, fiscal discipline and above all maintaining the social cohesion, as an opportunity for internal stability and security and benefits for the investors. In particular, much attention should be paid to the training of personnel, their education and the quality in education as an opportunity to develop new technologies and products that will; increase competition in attracting foreign direct investments.

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THE IMPACT OF DISTRIBUTORS IN INNOVATION PROCESS IN SUPPLY CHAIN

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Abstract

As organizations seek to develop partnerships and more effective information links with trading partners, internal processes become interlinked and span the traditional boundaries of firms.

In the past, the mission of companies was simply to make profit and generate return on shareholders' investments. Nowadays, when the business environment is uncertain and competition is very high, innovation is very important for organizations. This applies in iron industry as well and companies which operating in this industry. Therefore, the focus of the research is to see how innovation is applied in ŞAHINLER FERFORGE COMPANY (it is located in Bursa-Turkey, www.sahinler-forge.com), and the impact of distributors in innovation process in this company.

This research is written from positivism scientific perspective with use of a deductive approach. A case study was applied by using qualitative method. To collect data the authors used a questionnaire.

From the results, activities regarding innovation in ŞAHINLER FERFORGE COMPANY are positively related with success of the company and the tendency is to increase activities, especially with its distributors and build a long relationship. Also, the highest degree of involvement of the distributors in the innovation process by ŞAHINLER FERFORGE COMPANY take place in four stages: scoping, defining the project, commercialization and evaluation. Even, in some of these stages they involve only some distributors which are bigger distributors and have long relationship with them.

The results of the study show that the management of ŞAHINLER FERFORGE COMPANY are willing to involve distributors more in innovation process, since they think that distributors are very important source for the company.

Key words: supply chain management, distributors, innovation, supply chain integration.

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INTRODUCTION

“Customer is a king” is a well known saying and customers are of prime importance in the modern era in every business. This has triggered a growing interest on value-based/value-focused strategies in recent years, (Khalifa, 2004) as organizations now focus in satisfying customers’ needs while gaining competitive advantage in the industry, by delivering excellent tangible and/or intangible values by their distributors/retailers and maintain good quality of products. Competition, as Stonebraker & Liao (2004) assert, is not between companies or activities, but between supply chains. Stated more succinctly, in the long run, the best supply chain wins increasing global competition forces the extraction of supply chain efficiencies; and greater specialization or focused products and processes generates an inefficient or disintegrating effect, which must be counterbalanced by greater system integration (Stonebraker & Liao, 2004). One of the imperative things of supply chains is innovation. Nowadays in uncertain environments and economic downturn, innovation is very important for companies. In these circumstances innovation is the single most important condition transforming the crises into an opportunity (Mahroum, 2008). Amongst many definitions, Bruce and Bessant, (2002, p. 32) defined innovation as: “The successful application of new ideas in practice in the form of new or improved products, services or processes”. The best way for companies to achieve a competitive advantage is through innovation (Ramadani and Gërguri, 2011). So, innovation-driven firms like Google, 3M, BMW and others have also shown profits, managing to satisfactorily weather the 2008–2009 global economic crises (Dervitsiotis, 2010).

Certainly, some companies realized that in today’s global competition, it is not enough to use innovative ideas generated internally but they must move to external oriented. Procter & Gamble, for example, went from “Research & Develop” to a revised development strategy called “Connect & Develop” aimed at profiting from the use of ideas from millions of external inventors worldwide. This allowed the company to increase R&D productivity by about 60%, while simultaneously approaching the goal of finding half of its innovations outside the company (Huston and Sakkab, 2006). So, one of the external source of innovation is distributor as well. The importance of using distributors as external source has a lot of benefits, starts with the fact that distributors are dealing every day with the market processes, some of them sell to wholesaler and retailer, but many of them sell the products directly to the costumers. Therefore, they are in contact with final costumers, can see and hear their reaction, makes the product available by providing the necessary supporting services (such as delivery, credit, technical advice, repair service and sometimes assembly or light manufacturing) and participates in promoting the product can hear their positive and negative opinions for the certain products. In this way the distributor could be used as a source of innovation in supply chain (Yoon and Lilien, 1988). Moreover, the industrial distributor may become an efficient participant not only in generating and screening ideas, but also in designing products and testing them in the market (Yoon and Lilien, 1988).

The innovation process can be described as different stages. The authors employed innovation stages from three different authors: Cooper (2001), Dervitsiotis (2010) and Ulrich and Eppinger (2000), starting from 1) Scoping; 2) Defining the project; 3) Development; 4) Validation; 5) Commercialization 6) Evaluation.

In pursuing innovation, a firm seeks to optimise the search and design of new value propositions, in the form of new products, improve products, new processes or novel ways of doing business, i.e. new business models (Dervitsiotis, 2010).

Nokia's cell phones have quality but Apple's innovative iPhone has something special with unique features that get customers excited all over the world (Dervitsiotis, 2010). Also, David MacNair, chief science and technology officer of Schweppes, assert that: "It's innovation that is giving us the step up to higher growth" (Collins, 2007, p.14).

For most firms that compete in the global economy innovation ranks among the top three priorities in their corporate agenda Dervitsiotis (2010). Since the supply chain consists of all steps until the product reaches the end-user, innovations within the SC have become especially vital in order to acquire a competitive advantage (Bhatnagar and Sohal, 2003; Chapman and Corso, 2005).

A Boston Consulting Group annual survey has found that less than half of the executives surveyed are satisfied with the return they realize from innovation investments and this percentage has declined from 52% in 2006 to 46% in 2007 and 43% in 2008 (Boston Consulting Group, 2008, 2009). Probably this is the wrong way of these companies on approaching in innovation. Chesbrough (2003), said that "Not all the smart people work for us. We need to work with smart people inside and outside of the company". He refers to open innovation approach which claims that companies need to adopt external sources in order to be successful in innovation plans.

Systematic innovation begins with analysis of sources of new opportunities for innovation. Drucker, (1985) argues that there are many sources of innovation, internal and external innovation. Although the SC is not a discernible object in its own rights but a struggle over (Mouritsen et al. 2003), there is definitely a need for integration of business operations in the SC that goes beyond logistics (Cooper et al. 1997).

It was also emphasized by Cooper *et al.* (1997) who argued that to improve the performance of the SC and organizations within the SC, the coordination between actors is needed.

Integration with consumers and suppliers during the innovation process helps to provide better products and services and create higher customer value (Stenmark *et al.*, 2011).

In the light of the above problem discussion the dilemmas that this paper seeks to address are as follows:

RQ 1: What are the activities of innovation in Şahinler Ferforge Company and involvement of distributors in innovation activities?

RQ 2: In which stage (stages) are distributors involved and advantages and disadvantages of involving distributors in the process of innovation in Şahinler Ferforge Company?

METHODOLOGY

This paper adopts the positivism perspective because the authors used various existing theories in the field of SC and innovation in order to build the framework for the questions of questionnaire, complete the findings and make analysis and discussion, then answers the research questions based on both literature and empirical information collected from the case study.

The paper used a deductive approach. It starts with the study of the literature and relevant theory to the research area, answer the research questions, then testing the theory with empirical findings to drive to specific conclusions. Qualitative method has been used in the paper, where information on practices and policies of case companies has been collected using questionnaire which has been realized in this process. Generally, the qualitative method is more appropriate for the research area because the research questions are more related to practices and are more specific rather than quantitative.

The authors used descriptive type of case study, because the author analyze and describe the current situation of the SFC and its relation with its distributors, both in business activities overall and innovation specifically. The validity and reliability of the paper are achieved by establishing mutual understanding between the authors of the paper and the case company. To insure internal validity, the authors was objective in his approach with no personal preference towards a possible answer to the research question. On the other hand external validity of the paper cannot be generalized since the research is done by case study. The reliability of the paper is achieved by interviewing and participants of the questionnaire of the respondent people of the company, in this case CEO of the ŞFC, export manager and employees from design department, who all these are the main actors responsible for the company.

LITERATURE REVIEW THE ROLE OF DISTRIBUTORS IN SC

Manufacturer role is always identified in a center of the SC network, mostly named as focal company. Distributor is one of the roles in the SC network.

Generally, there is no certain SCM theory or approach especially for guiding distributor work in SC network. According to Mudambi and Aggarwal (2003), manufacturers have utilized distributors in order to improve their operational efficiency, under the assumption that distributors could perform tasks at a lower per unit cost than the manufacturer could. Anderson and Narus (1984), defined an industrial distributor as “a firm that resells products and provides attendant services to other firms for use in the production of those firms’ goods and/or services.” After the literature review, the relationship between actors in supply chain has been discoursed several times. All the scholars who have analyzed these issues have realized that distributor is an important role in the SC. According to Mudambi and Aggarwal, (2003) the distributor functioned as the manufactures’ arm for products sale. Nevertheless, they continue to claim that there are some opinions believed that distributor role has shifted, and the core business has shrunk.

A typical view of the distributor features a linear relationship between one manufacturer, one distributor, and one customer is shown in fig.1. On the other hand, in fig. 2 is shown the complexity of relationship management for the distributor in the new economy. The distributor needs to maintain interpersonal and electronic links with the manufacturer, the customer, other third party or intermediary partners, and each of their web sites. The distributor’s web site must be accessible to the manufacturer, the customer, other intermediary partners, and must be linked to their web sites.

Researchers have studied manufacturer–distributor relationships. The focus of these studies was to find out what distributors expect from manufacturers and what manufacturers from

distributors. This includes quality products, discounts for distributors, and support services such as expedited delivery, sales training, and technical assistance. Distributors seek reasonable manufacturer policies on inventory return, credit, and the number of franchised distributors in a trade area, and expect manufacturers to communicate with them regarding unanticipated changes in price, product, or delivery (Anderson and Narus, 1984). Also, the imperative issues in business relationships is trust and communication. (Mudambi and Aggarwal, 2003).

Fig. 1. Traditional view of distributor relationship

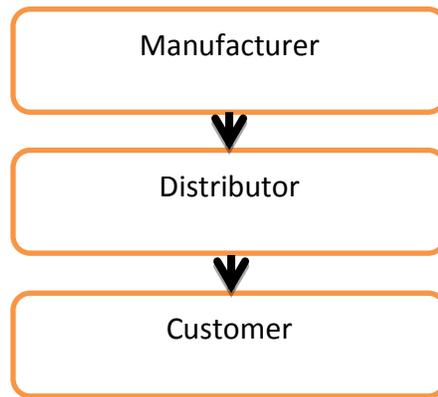
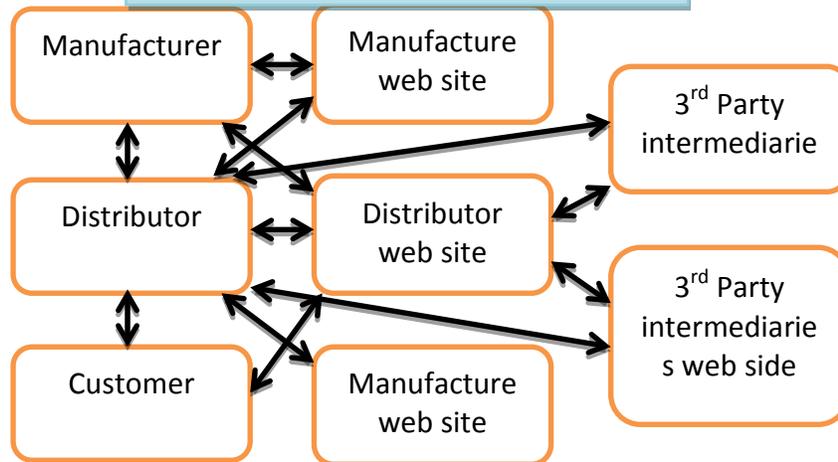


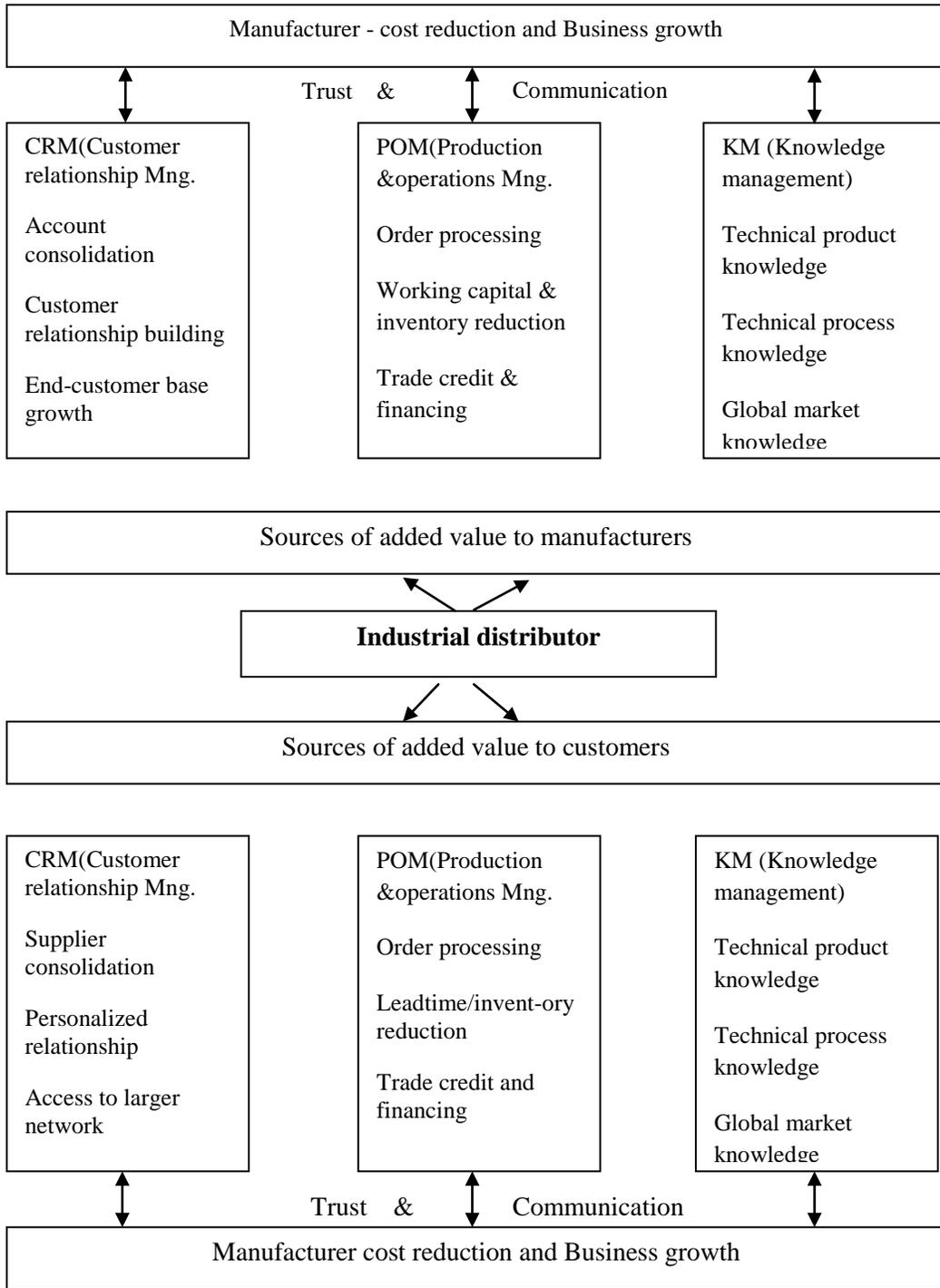
Fig. 2. Distributor relationships in the new economy



Source: Mudambi dhe Aggarwal, 2003

According to Mudambi and Aggarwal (2003), if distributors are to survive in the new economy, they need to add value for their suppliers (the manufacturers), and also for their customers. They show this in fig.3, in which these added values need to reflect their role as a source of cost reduction and as an impetus for business growth. Both manufacturers and customers expect the distributor to play a role to help them grow their business.

Figure 3: Model of distributor and viability



Source: Mudambi and Aggarwal, 2003

INNOVATION AND DISTRIBUTORS ROLE IN INNOVATION

Until recently, a company could stay competitive by optimizing performances relative to costs, delays and quality criteria (Tomala and Senechal, 2004). Today, however, maintaining competitiveness appears to depend more on developing and managing a company's capacity for innovation (Crawford, 1996).

Drucker in his book "Innovation and Entrepreneurship" assert that: "innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced (Drucker, 1985, p. 17)".

Innovation is a process of transforming the new ideas, new knowledge into new products and services (Ramadani and Gërguri 2011; Gërguri et al. 2013).

Schumpeter, referred to as the "father of innovation", identifies innovation as the critical dimension of economic change throughout history (Schumpeter, 1934). This brings about the concept of supply chain innovation, which covers all the innovative activities that increase the effectiveness of a company's supply chain and bring competitive advantage to the company (Roy et al., 2004).

So, innovation is the first germination of an idea for a new product (or improve it) or a process while invention is the first attempt to make or improve it.

Design departments must innovate constantly if a company is to stay competitive, although many of the resulting innovations will be relatively small, "incremental" innovations – slight modifications of existing services or product characteristics, such as a new injection technique in a car engine, for example – rather than the radical innovations mentioned above (Tomala and Senechal, 2004).

Acs and Audretsch (1990) investigate innovation in the small firms versus the big firms: they compare the concentration of innovation with the characteristics of industries by the scale of the size of the firms. They analyze innovation output in both small and large firms operating within highly competitive industries, and they conclude that small and large scaled firms respond differently to the change of market conditions.

Crawford (1983), suggests that the industrial distributor could be a suitable channel member for a product that has a large potential customer base, is a stockable item, is sold in small quantities, is a low-involvement item for the customer or requires rapid delivery. This is supported from Yoon and Lilien, (1988) who claim that the industrial distributor is more customer-oriented than supplier-oriented, it can develop market-driven innovation more effectively.

According to Yoon and Lilien, (1988), there are three potential roles of the distributor in product innovation:

1. One way to involve the distributor more fully is to have it act as an active member of the manufacturer's new product project team.
2. A second possible role is for the industrial distributor and manufacturer to combine into a single corporate system.
3. A third role is for the industrial distributor to be a partner or a team member in product innovation for the end-user firms.

SOURCES OF INNOVATION

Von Hippel, (1988), in his book “Sources for innovation”, claims that in the past organization was seen as the only source of innovation. This approach refers to closed innovation. In the “Open Innovation” part of the thesis, it is shown that open innovation is the other concept which says that companies have to include external resources in innovation in order to be competitive (Chesbrough, 2003). Many authors, think that the use of external and internal sources in innovation are complementary.

Broustail (2003) has proposed sources for innovation, such as suppliers and customers, technology transfer from one industry to another or between different industries, market demands. Should not be ignored other sources and methods of collecting information and innovative ideas, such as competitors, the company's current staff, business partners.

Barano et al. (2005), identified ten sources of innovation: suppliers, customers (include distributors and retailers), coworkers, competitors, internal R&D, manufacturing, top management, university and research institutions and professional journals. IBM made a study with 750 CEO's about the potential sources of innovations, and they found out that 76% of CEO's ranked business partners and customer collaboration as top sources for new ideas (Ramadani and Gërguri 2011; Gërguri et al. 2013).

STAGES OF INNOVATION

The issue about how to execute a NPD project in each stage of the product life cycle, including product concept, design/development, prototype, process plan, production and market requirement, with innovation and efficiency, is important (Kainuma and Tawara 2006).

In addition, for the purpose of improving both innovation and efficiency in the NPD process, a suitable product development process management based on knowledge creation mode and maturity of NPD needs to be adopted at each product life cycle stage, (Lee at al., 2007).

The authors employed innovation stages from three different authors: Cooper (2001), Dervitsiotis (2010) and Ulrich and Eppinger (2000). These authors presented their models for innovation stages, which will be used during the interview and questionnaire. After analyzing these models, the author defined six stages which are important in the process of innovation: scoping, project selection, development, validation, commercialization and evaluation.

Scoping-According to Cooper (2001), this stage is a preliminary market assessment with inexpensive activities, such internet search, contact with key users and partners, focus group etc. Also, Dervitsiotis (2010), asserts that this model is idea generation in order to find acceptable ideas for the successful future.

Project selection-is the second stage in the process of innovation, which is verifying the attractiveness of the project, and is the stage where the project must obviously defined (Cooper, 2001). Also, Dervitsiotis (2010) stated that this stage is when the project should be defined if it is going to become a project in the process of innovation and or not going to be implemented.

Development-Is the phase when initial idea will happen. According to Cooper (2001), this stage is the stage which involves the development of the product and its detailed test, marketing and operations plans. Dervitsiotis (2010), described this stage as the stage where should be working on the project and adjusting the project chosen before.

Validation- According to Cooper (2001), this is stage is between development stage and product launch. He continues to say that this stage is the stage where the new product is being launch. According to him, this can be happen through product tests inside the company, tests with some users, through pilot production etc. In the model of Dervitsiotis (2010) this stage is not involved. But, the author thinks that it is important stage which has its advantages.

Commercialization- According to Cooper (2001) and Dervitsiotis (2010) this is the final stage, when the product is bringing to the market. So, this stage is the realization of marketing launch activities and operations plan (Cooper 2001).

Evaluation-is the stage where the company after launch new product ask their partners (distributors, final customers) about their opinions and ask the for evaluating the new product. This stage is compiled from the model of Ulrich and Eppinger (2010).

EMPIRICAL FINDINGS

INNOVATION IN SAHINLER FERFORGE COMPANY AND INVOLVEMENT OF DISTRIBUTORS IN INNOVATION ACTIVITIES

As any company which has conditions to become their distributors, also, ŞFC has some conditions in order to become one of its distributor:

1. The company suppose to be in the iron industry
2. The company should has a warehouse and a showroom to expose the wrought iron elements
3. Sales and order performance is very important for ŞFC toward their possible distributors.

The other important issue to ŞFC and its distributors is what distributors expect from them, and the management of ŞFC answer that distributors expect from them to get discounts, support during and after buying products, technical assistance, quality products etc. These were three main conditions toward potential distributors, but there are others small conditions which are less important. So, the management of ŞFC make sure that they fulfill all these expectations of their distributors and try to increase the benefits for its distributors in order to remain satisfaction. On the other hand, after the company become a distributor, they face some expectations from ŞFC toward them, as: to give orders periodically, they should give order in advance enable us to produce on time, transfer payment on time, they should purchase sufficient materials for their stock.

In the question what innovation help them to their business activities, they answer it, that the innovation help them to meet consumer needs, increase the quality of their products, increase the number of the product which help them to be competitive in the global market, increase flexibility of the production.

From the questionnaire with CEO and general export manager, we asked them to rank (in order of importance) motives of new/improved products, and based on the answer from the management of ŞFC the most important motive for new/improved products is meeting changes

of customer needs, after this they should be aware of availability of their technology in order producing that need. And the less important motive based on the management of SFC are changes of raw material costs and forces of government legislation. Here are all motives by importance for new/improved products (1-most important and 8-less important): 1) To meet changes of customer needs, 2) Availability of technology, 3) To match competitors' innovations, 4) To meet financial goals, 5) Slow growth of current products, 6) motivated by government, 7) Changes of raw material costs, 8) Forced by government legislation.

The other question toward management of the SFC was to rank success factors of products launched in the past two years (in order of importance) and they said that two main factors for their success were product quality was satisfactory and accepted to the buyer, which is the most important factor for the stable success, and the other important factor was targeting and pricing of new/improved products launched. On the other hand they think that two less important factors of their success were sales effort allocation and market competitiveness. So, here are factors by importance for the success of new/improved products launched in the past two years (1-most important and 12-less important): 1) Product quality was quite satisfactory, 2) Targeting and pricing were appropriate, 3) Market was correctly predicted, 4) Product offered big benefits to users, 5) Technical/production capability, 6) Internal research was sufficient, 7) Distribution channels were appropriate, 8) External research was sufficient, 9) Adequate promotion was allocated, 10) Stock availability was adequate, 11) Adequate sales effort was allocated, 12) Market was not very competitive.

STAGES OF INVOLVING DISTRIBUTORS IN INNOVATION PROCESS AND ADVANTAGES AND DISADVANTAGES OF INVOLVING DISTRIBUTORS IN INNOVATION PROCESS

Development-According to the management of the company they don't have any specific procedure for new/improved products in developing the selected/defined products. They do it internally, specifically the design department in accordance with top management and production managers. So, they consult distributors in selecting the products, but they implement it internally.

Validation-The management of the company think that it is not necessary to test the products before they launch it, because they believe that production sector in accordance with other departments do the proper job in testing it and producing it without any problem.

Commercialization-In the question to the management of SFC if they use any business enterprise (as EDI-Electronic Data Interchange, ERP-Enterprise Resource Planning etc.), they answer that they don't use any professional business enterprise. Normally, they communicate with their partners, in this case with distributors through Email, Fax, Skype. But, in the future they are planning to invest in business enterprises, because they realized that they need to have one of them, in order to avoid problems in communication.

On the other hand, based on the management of the company, they give enough information regarding launching or improving products. They do it in the form of guideline and details information for the products.

Also, the company mostly share marketing information with its distributors, but they don't share information for inventory level and technological issues. Moreover, distributors don't get

any training for using products, because the industry they operate it is not necessary every time to get specific information regarding new/improved products.

Evaluation-In the final stage of process innovation, the management of the company said that they evaluate the new/improved products based on perception of their business partners, especially with its distributors, because the company does not have any contact with the final costumers, and the only source of getting perception from them is by distributors. Also, during the year when they meet distributors they analyze the evolution stage in deep, starting from perception distributors have, any problem faced during usage of these products and so on., So, they do this analysis when they meet distributors in person, whether in their factory or they visit them in their countries, because they thing that this is the key point to see if their products are fully accepted and successful.

The final issues for this paper was to see opinions of the management of ŞFC regarding advantages and disadvantages of involving distributors in the process of innovation. The main advantage of involving distributors in innovation process is information about final customers, market where they operate, including culture of the people, habits and other circumstances, what are very important to know, since ŞFC want to be a leader in market where they have distributors. So, the involvement of the distributors in innovation process will prevent and decrease possible mistakes in different processes and stages of innovation.

Nevertheless, the management of ŞFC think that they consult some distributors which they think are more reliable and come from different countries and regions in order to get all information needed for the new or improved products. So, the advantage of involving distributors in innovation process, but not all of them, is planning and design the best possible opportunities and transform them into new or improved products.

On the other hand, according to the management of ŞFC there are some disadvantages of involving distributors in innovation process: the process will take more time and decisions will be more difficult for the company.

ANALYSIS AND DISCUSSION

Answer to the RQ 1: From the empirical data, we can get three main conditions to become a distributor of ŞFC, which are: the company should be in the iron industry, has a warehouse and a showroom in order to expose its products and to have solid sales and order performance. According to these conditions, ŞFC set some acceptable conditions because these are very important to any company which wants to become a distributor.

The next important issue of ŞFC was expectations of distributors toward ŞFC. According to the management of ŞFC some important expectations what distributors expect from them are: getting discounts, support during and after buying, quality products etc, which are normal for every distributors, which has the positive relation with what Mudambi and Aggarwal (2003). stated.

The management of the ŞFC think that trust and communication are very important for a long relationship with their distributors, which is in line with Mudambi and Aggarwal (2003).

Based on the management of ŞFC the most important motive for new/improved products is meeting changes of customer needs, and less important motive is forcing by government legislation, which means that Turkey is country with liberal economy.

According to the management of ŞFC the most important success factor of products launched is product quality, which means that ŞFC is aware of quality, since ŞFC wants to increase sales and become even bigger supplier in the world.

Following important issue was to see what innovation help them, they answer it, that the innovation help them to meet consumer needs, increase the quality of their products, increase the number of the product which help them to be competitive in the global market, increase flexibility of the production, reach economies of scale etc, which positively related with what Tomala and Senechal (2004) stated about what innovation makes possible to the companies.

The role of the design department as the department which deal with innovation, is to innovate constantly new models and remain competitive in the global market, whether it is incremental innovation or radical innovation, what prove what Tomala and Senechal (2004) stated.

In the question to the management of the company why they do not sell their products directly but through distributors, their answer was, they prefer selling their products through distributors because they don't want to sell small quantities what distributors can sell in small quantities, since they are present in most than 30 countries, they think that distributors can deliver their products to the final customers faster than they can do it through direct sales. So, this is in line with what Crawford (1983) said for the distributors which can be suitable channel for the manufacturer.

Answer to the RQ 2: From the empirical findings, we can conclude that the highest degree of involvement of the distributors in the innovation process by ŞAHINLER FERFORGE COMPANY take place in four stages: scoping, defining the project, commercialization and evaluation. Moreover, in some of these stages they do not involve all distributors but some of them which are bigger distributors and have long relationship with them.

On the other hand, based on empirical findings, there are a lot of advantages from involvement the distributors in innovation process, some of them are as follows:

1. Help them in generating more ideas,
2. Have contacts with the final customers and transmit to them feedback from the customers what is very important to them,

On the other hand they think that are also some disadvantages regarding involvement of the distributors in the innovation process as:

1. They can use knowledge of the company to start producing by their self,
2. They can take any of their employees and later use it as competitor.

CONCLUSIONS

During this paper we realized the importance of the innovation in global economy. According to many scholars and facts given by successful managers, innovation is the only tool to defeat crises.

Also, in the company in which we did the case study, innovation is important, this is one of the reason why they are successful in the global market and one of the leading company in wrought iron industry.

Nevertheless, activities regarding innovation are in the medium level. They have a good internal capacities but they use external capacities not enough. The weak point of the company is

communication. They don't have any business enterprise system, which could help them and its distributors in business activities. On the other hand, the positive issue of ŞFC is a good politic toward its distributors in giving them the exclusive right to the market and advantages in discount and payment.

The other important issue to the ŞFC was involvement of distributors in innovation process. Based on the questionnaire, ŞFC involve distributors in four stages in innovation process. Although, they do not involve all of distributors in innovation process, but only them which are bigger buyer and have long relationship to them and those who come from different regions in order to see the differences in culture and perceptions. This approach can be dangerous, since bigger buyers, in any time can change the supplier and can start producing by itself. So, the suggestion to the company could be involvement not only big buyers but also other buyers in order to not rely only in specific buyers. Also, in the future ŞFC should do more to involve their distributors in the innovation process by increasing trust and communication. At the end, they agree that involvement of distributors has more advantages than disadvantages.

CONTRIBUTION

This paper have both theoretical and practical contribution. From the researches of authors on previous studies, there are a lot of studies in innovation, but few of them in the aspect how distributor can impact the innovation of SC.

The main purposes of the paper was to describe and explore the activities of focal company (in this case ŞFC) and involvement of its distributors in innovation activities, and the second purpose was to explore the involvement of distributors in innovation process and advantages and disadvantages of involving distributors in innovation process. So, our research contributes in several ways to the body of literature.

Firstly, there is a gap in existing theory regarding involvement of distributors in innovation activities, because those are more oriented in supplier involvement in innovation activities and less in distributors.

Secondly, it contributes in the impact what distributors may have in innovation process and advantages and disadvantages of involving distributors in innovation process.

On the other hand this paper has practical contribution as well. It will be useful for SC members and especially for focal companies and their management which is configurator and the main member of SC in innovation process. Furthermore, this paper can also give the consciousness of how distributors can be the important source of innovation, because they can improve the innovation process, and at the same time their position in the SC.

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