

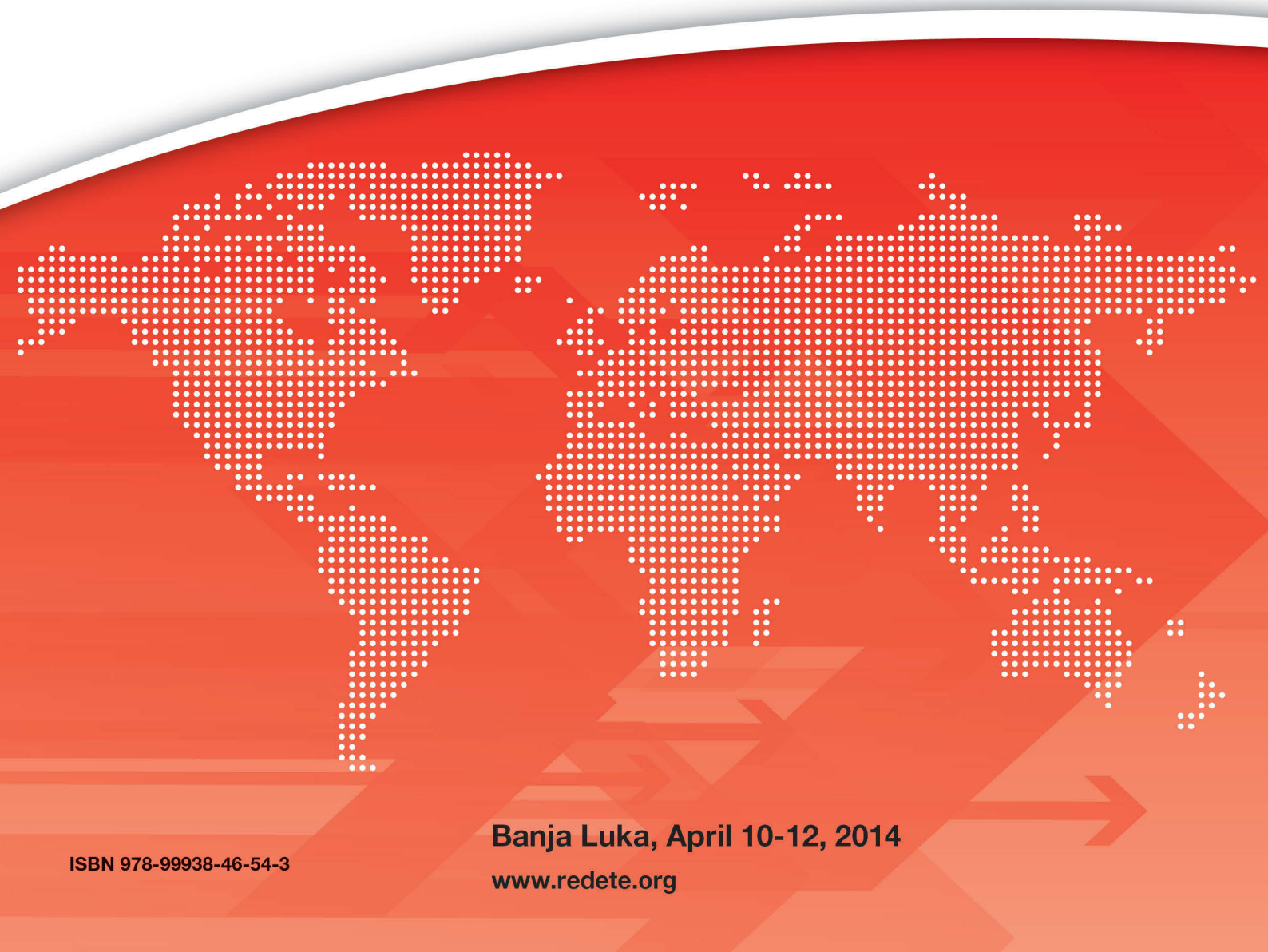


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ЕКОНОМСКИ ФАКУЛТЕТ  
FACULTY OF ECONOMICS  
UNIVERSITY of BANJA LUKA

# **3<sup>rd</sup> REDETE 2014 Conference**

## **International Scientific Conference**

**Economic Development and  
Entrepreneurship in Transition Economies:  
Challenges in the Business Environment,  
Barriers and Challenges for Economic  
and Business Development**



**Third REDETE Conference**

**ECONOMIC DEVELOPMENT AND ENTREPRENEURSHIP  
IN TRANSITION ECONOMIES:**  
*Challenges in the Business Environment, Barriers and Challenges  
for Economic and Business Development*

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**Third REDETE Conference**

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## FORWARD

REDETE conference continues to be one of the major forums for entrepreneurship and economic development in transition countries. This time the conference attracted over 200 participants from 25 countries. We had opportunity to hear over 70 presentations and listen to 7 prominent key notes from leading European universities. The main focus of the 3<sup>rd</sup> REDETE conference was on local/regional economic development and business development connected with the following three themes: Challenges in the business environment, Barriers and challenges for business development, and Institutions (institutional infrastructure). Research papers presented in this proceedings ranged from economic macro environment; international business, FDI; government role in the economy; business strategy and corporate governance; business innovation ICT and technology transfer, academic spin-offs; SMEs management, financing, business risk; new business model; entrepreneurial capacities - human capital, and other related topics addressing an increasing number problems transition economies face.

Continuing effects of the financial crisis and the subsequent economic decline in many developed countries seems to be one of the key risk factors that should be taken into account when viewing the developments across transition economies, regardless of their geopolitical position. In European transition countries political tensions fuelled by decreasing living standards, declining real wages and the dark prospect of large-scale unemployment is tending to bring in elements of volatility into the socio-political as well as the socio-economic environment. Clearly the effects of such risk and instability provide a general distinction between two groups of countries - Central Europe & the Baltic (CEB - all members of the EU) and South East Europe (SEE - a mix of EU and non-EU members). As we travel from the Baltic to the Adriatic, we see that Estonia, Latvia, Lithuania, Poland, Hungary, Slovakia, Slovenia and Croatia tend to have levels of risk and volatility which are closer to their Western European neighbours - with whom they frequently share a common cultural and historical heritage. In general the average country risk (a blend of political, social and economic factors) is around two-thirds of that found in the Nordic countries, for example. Moving westwards from the Black Sea, and the picture is somewhat different; in Romania, Bulgaria, Serbia, Bosnia & Herzegovina, Macedonia, Albania and Montenegro, the average country risk is probably half that of the CEB countries and therefore around one-third of that found in the Nordic countries.

A further marker, in terms of per capita wealth, is found by measuring GDP per capita (using purchasing parity methodology) as a proportion of the average GDP per capita of the 28 member states of the EU (Eurostat, 2014). Economic development measured by GDP per capita is more favourable in CEB countries, than in SEE countries. For example, the distinction between what can be described as the Habsburg successor states (Croatia, Hungary, Slovakia, Slovenia) and the Ottoman successor states (Albania, B&H, Bulgaria, Macedonia, Montenegro, Romania, Serbia) is also unaffected by the date of EU membership. Bulgaria entered the EU in 2007, Croatia only in 2013, yet remains a distinction gap between them. The major problems remain poor domestic demand as a result of a) pressures on credit availability and b) low levels of Foreign Direct Investment, the main casualty of the global financial crisis. In addition, many observers see serious structural issues arising from the complex consumption-demand-investment situation. Primarily low levels of growth are resulting in shortfalls in tax gathering whilst at the same time structural failure in budget systems ensure expanding government deficits as well as higher public debt through borrowing to meet the fiscal gap.

The availability of credit is also continue to remain low in most transition countries in Europe, particularly in the South-East. Some of these countries suffered from severe credit rationing, as both had foreign-owned banking systems which had lent heavily into their commercial and consumer credit markets during the pre-2007 boom period. Interestingly, the Swedish and Finnish parent banks engaged in the Baltic region were able to recover their positions far more swiftly



than the Austria, Italian and German banks which took such large credit exposures across central and South-East Europe.

Furthermore, researching economic development and entrepreneurship in transition countries is increasingly challenging; methodologically and contextually as a result of differences between countries. REDETE forum provides space for upcoming researchers committed to these challenges, applying methodologies that better fit conditions in different settings. The Forum therefore provide more room for new ideas while addressing economic problems, in transition countries where mainstream methodological approaches are often not suitable. It was encouraging to see innovation in that context, in a number of the papers presented. This is important in a broader sense as economy or economics is an exceptionally powerful tool for understanding society.

One of the important features of the REDETE conference is participation of a growing number of younger researchers. We do our best to make their research visible by helping them to find right venue for publishing. Some of the 3<sup>rd</sup> REDETE conference spin offs are upcoming book (edited volume – Springer publishing), and the International Review of Entrepreneurship (IRE) special issue.

As we are very much devoted to fully establish the REDETE conference, and use this opportunity to invite you to the 4<sup>th</sup> REDETE conference, which will be held in October 2015, this time in Austria (Vienna or Graz).

Banja Luka, Stirling, October, 2014

Jovo Ateljevic & Jelena Trivic

## PART ONE:

*Economic Development/Entrepreneurship,  
Macro Environment And Transition*

## THE PURCHASING POWER AND CONSUMER AWARENESS AS A FACTOR OF DEVELOPMENT THE DOMESTIC MARKETS

Arnela NANIĆ<sup>1</sup>

### Abstract

*There are numerous factors that are crucial for the development of the domestic market and the local economy in general. In this paper, emphasis is placed on the purchasing power of the population as well as the attitude of consumers that are generally negative towards local entrepreneurs, as well as to their products and services. Some of the biggest barriers that hinder the development of SMEs in Bosnia and Herzegovina are: excessive involvement of policies, high levels of corruption, legal and regulatory barriers, lack of financial resources, lack of entrepreneurial knowledge (...). Also, this paper presents and analyzes the consumer's attitude to the domestic companies (consumer ethnocentrism) which is directly related to demographic characteristics, such as age, education structure and level of income. The paper will interpret the results of a study conducted in the Una-Sana Canton using a questionnaire. The results of research have confirmed that the majority of consumers give preference to local products when shopping, however only if they are of highest quality and cost competitive with imported products. In addition, studies have shown that in patients with different demographic characteristics, there are different degrees of ethnocentric tendencies. All this has a major influence to the development of domestic enterprises, and consequently the development of the whole economy.*

*The research was conducted using the survey because it is the best way to gather qualitative and quantitative data on attitudes, preferences and behavior in purchasing. I have also used a structured questionnaire with a formal list of questions. The method of contacting respondents was done through personal interviews (face to face method). The questionnaire consisted of a total of 22 questions open and closed type. Random sampling method has been used. The sample size is 200 ( $n = 200$ ) subjects. Population covered by this study was related to the population of the Una-Sana Canton older than eighteen (18) years. Sampling frame is made on the basis of estimates of the population by data from Federal Institute of Statistics, and the Statistical Institute of Una-Sana Canton.*

**Keywords:** development factors, purchasing power, consumer attitudes, country of origin

### 1. Introduction

In order to pave the way for domestic product on the market one has to know the needs and desires of consumers, factors that are affecting the buying behavior, invest in quality, adapt to EU requirements, and proper investment in marketing. A number of reform processes in the manufacturing sector have already begun, but it is a very long process. Bosnia and Herzegovina certainly has the potential to develop production and create strong brands, which, for sure, will take place at the domestic, as well as foreign markets. Many doors are just opening, and that means new opportunities for development.

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Consumer awareness and consumer behavior are one of the key factors for the development of enterprises and their successful business. The key problem of every successful entrepreneur is precisely to discover what it is in the head of consumers, what are their needs, specific requirements and desires that he must meet in order to win them over? Schiffman defines (Schiffman, 2004, p8.) consumer behavior as behavior that consumers have shown in the search, purchase, use, and evaluation of available products and services that they expect will satisfy their needs. Thus, the behavior of consumers, he means the overall behavior of consumers of the knowledge problem, is the need for a product or service through the purchase of the same, and the consumption and satisfy the needs of non- or in the event that the selected product failed to meet expectations. The American Marketing Association defines consumer behavior as a dynamic interaction affects the thinking, behavior and environment that human beings manage aspects of the exchange in their lives (J Paul Peter – Jerra C. Olson, 2005, p.5-9).

In this definition, there are three key determinants of consumer behavior, such as: the behavior is dynamic in time and space, which means that there is no universal marketing strategy that would be valid at any time for any products and services. Also from this definition it follows that behavior is conditioned by the interaction of affect and perception, behavior and environmental factors. One of the most concise definitions of consumer behavior is that proposed by Howard according to which the consumer behavior is the research of how and why consumers buy and consume (Howard, 1989, p2.). This definition in a simple and comprehensive way explains the concept of consumer behavior, as well as the process of research that how consumers buy and consume products or services that meet their needs. Consumer behavior is a research of buying unit and exchange process involved in the search, consumption and disposal of products, services, experiences and ideas (John C. Mowen – Michael C. Minor, 2001, p.3).

It is not correct that the majority of consumer behavior implies purchases. Consumer behavior includes sightseeing, influencing others, the use of the product and appeal in the case of a complaint, the disposal of the product, consumer tracking and reading magazines, watching television and many other activities (Wells, D.W - Prensky, D., 1996., p.5). Thus, the concept of consumer behavior not only applies to the process of purchasing a product or service, but also to all the activities that are related to the process of purchasing, consuming products, as well as post-buying behavior of consumers.

Accordingly, all of the above definitions, in fact, infer that the behavior of the consumer process is their final decision on the purchase, as well as the study of all the factors that have an impact on the final decision. In fact we can say that the behavior of consumers provides answers to the following questions: what is that what people are buying, why they are buying, how and where they are buying and how often are they buying products or services.

## **2. Key factors for the development of domestic market**

Entrepreneurship is the process of creating something new under the assumption of risk and reward (Hisrich, Peters, Shepherd, 2011, p.8). Entrepreneurship and economic development are closely related. The main goals of economic development are (Todaro, Smith, 2006., p.16-22):

To increase the availability and widen the distribution of basic goods for local livelihoods, especially when it comes to food, health, housing and protection;

To increase the level of quality of life - which means more revenue, more jobs, a broader and more complete education, and greater attention to cultural and human values;

To broaden the economic and social resources available to individuals and countries.

Entrepreneurship in Bosnia and Herzegovina is still underdeveloped. There are many risks, but also many advantages to joining the world of entrepreneurship. All the activities undertaken by entrepreneurs are directed towards consumers, and all that is futile unless there is a need for their products, and if they fail to convince their potential buyers that they can satisfy their needs better than existing competitors. Consumer awareness is the component to which the entrepreneur can

strongly influence through different promotional activities. The promoting activity can convince the consumers that our product or service is the best, and that is the way to create loyal consumers of which depends the success of the business in the end. In addition to consumer awareness, purchasing power is also an essential factor for the development of business, or, in our case, a significant obstacle to the success of local businesses. There are two key factors that are crucial when it comes to the development of the domestic market, namely:

- consumer awareness and
- social status (purchasing power).

Consumer awareness plays a major role in the development of the domestic market. Here is the crucial importance of the right level of consumer ethnocentrism under which implies a preference for domestic over imported. Ethnocentrism affect the behavior of consumers in the purchase and consumption of domestic goods relative to foreign. The severity of this impact varies by areas, as well as the many factors that affect it, and it is a consequence of the different history and culture of the people, the economy and level of development, openness to the world and other factors. It is very important that the consumers understand the importance of buying local products in order to be moved in the direction of development of the domestic market.

This concept actually provides support to the domestic production, by favoring the products from their own country at the expense of imported products. The presence of consumer ethnocentrism in the population of a country is in fact contributing to its economic development. Increased consumer ethnocentrism usually occurs when a country is in a difficult situation (the post-war period, the crisis), and a desire to contribute to the economic development of the country is expressed. Thus, consumers that are ethnocentric are deeply convinced that it is wrong to buy products manufactured abroad, if they are available to us at the same level as products from domestic production.

Although one cannot speak in general, it is believed that there is a high degree of agreement about some attitudes (Balabanis, G., et. al., 2001., p. 157-175):

- Older exhibit a higher degree of ethnocentricity as more conservative people
- People with lower levels of education showed a higher degree of ethnocentricity
- People who are traveling less show a higher degree of ethnocentricity
- Economic policies and actions of the authorities and organizations can influence the level of ethnocentricity
- Significant estimates and political change in the status of the country may also affect the level of ethnocentrism.

A long time ago Shimp and Sharma (Shimp, Sharma, 1987) highlighted several key dimensions of ethnocentrism, which are:

**1st Animosity** (animosity - hostile sentiment towards what or whom; aversion, anger, hatred), which indicates that ethnocentrism contains elements called xenophobia, fear of foreigners everything that is imported.

**2nd Economic rationalization** - which consists in the fact that the purchase of foreign products is hurting the domestic economy, which results in an increased rate of unemployment.

**3rd Morality** - consumer ethnocentrism is a kind "of" a moral obligation". Those who buy foreign products are not patriots; therefore, they do not love their country.

Given the amount of resources small and developing countries, such as Bosnia and Herzegovina have, they are often dependent on imported products. This is about those products which are not in domestic production, and are essential for life. In these situations, consumers in small countries tend to create a subconscious aversion and hostile attitude towards the larger ones, since they are forced to import products.

Consumers with a high level of ethnocentrism are evaluating negatively imported products, consider them products with poor quality when compared with domestic and rarely buy them. Ethnocentric consumers prefer the domestic products, and it is not only because of economic or moral beliefs, but

because they truly believe that the products manufactured in their country are the best. Consumer ethnocentrism is particularly pronounced when consumers are assured that their personal well-being, as well as the benefit of the economy in their country, is threatened by imports.

The attitude of consumers towards imported products is certainly influenced by the supply of domestic production. Whether such products are a good quality? Are their prices in accordance with the purchasing power of the population of that country? These are just some of the questions that plague consumers. For small countries, the market is usually not big enough to support domestic industries. Often, it is not rare even here in Bosnia and Herzegovina, that there is no domestic product as an alternative to the imported product (cars, machines, etc.). In such a situation, consumers are forced to buy imported products.

Doing business with end consumers is very complex and dynamic as the consumers are often rapidly changing their tastes and preferences. This creates a dynamic and such a market situation in which the entrepreneurial subjects are forced continually to examine and verify consumer needs and desires. However, it is not enough just to know the needs and desires and create a product / service with which those needs and desires can be met, it is essential that such a product / service appears at the market before the competition, and to be better than its competitors. Today it is crucial that your business receives a competitive advantage, in the long term. The above is a prerequisite for the achievement of success and implementation largely depends on the knowledge one has about the final consumer (Grbac B., Meler, M., 2007, p.12).

The social component is also very important for the development of the domestic market, due to the low standard of living and high unemployment. Specifically in Bosnia and Herzegovina where the standard of living is disturbingly low, as indicated by the low average wages, as well as an extremely high unemployment rate of the population. Also, based on the results of the research, we have come to the conclusion that the price, in addition to the quality is one of the most important elements in making purchasing decisions.

Furthermore the awareness and importance of the country of origin, the product selection is largely affected by the economic situation in which the consumer is located. Producing a product that meets the needs of the consumer may be of little use if consumers cannot afford it. The purchasing power is the economic situation of an individual, and that affects the quality and quantity of demand for certain products and services. The purchasing power of the consumer depends on the financial resources that allow individuals to purchase. Greater purchasing power means greater demand or consumption. When economic indicators point to the crisis, or recession, then marketers need to reshape products, and re-set the price that would be acceptable in these critical circumstances. The table below provides an overview of basic macroeconomic indicators in Bosnia and Herzegovina.

*Table 1. The main economic indicators in Bosnia and Herzegovina - annual data*

	2008	2009	2010	2011	2012	2013(p)
<b>Nominal GDP of BiH (in millions of BAM)</b>	26.091	25.809	25.929	26.777	27.199	28.325
<b>Population (thousands)</b>	3.842	3.842	3.842	3.842	3.842	3.842
<b>Number of unemployed in Bosnia and Herzegovina (in thousands)</b>	493	498	517	530	543	553
<b>Average net salary in BiH (BAM)</b>	752	790	798	816	826	827
<b>CPI</b>	7,4%	0,4%	2,1%	3,7%	2,1%	0,3%
<b>Exports of goods and services (in millions of BAM)</b>	6.557,3	6.006,5	7.237,6	8.040,3	7.942,7	8.395
<b>Import of goods and services (in millions of BAM)</b>	14.837,2	11.891,9	12.708,4	14.290,9	14.263,1	14.078

*Source: adapted from Bosna i Hercegovina, Ekonomski trendovi, Direkcija za ekonomsko planiranje, januar 2014., p.5.*



### 3. The research methodology and interpretation of the results

The field research for this study was conducted by the author. This survey sought to explore how consumers pay attention to the origin of products, and to determine consumer preferences toward domestic and imported products. This research was conducted in the Una-Sana Canton, and it included all eight municipalities of the Canton: Bihac, Bosanska Krupa, Buzim, Bosanski Petrovac, Cazin, Sanski Most and Velika Kladusa. The research used random sampling, and the sample size was 200 subjects (n=200). Population covered by this study included the population of the Una-Sana Canton older than eighteen (18) years. Sampling frame was made on the basis of estimates of the population using data of the Institute of Statistics and the Statistical Institute of USC. Number of respondents was allocated according to the population in each municipality.

The research was conducted using the survey as the best way of gathering qualitative and quantitative data on attitudes, preferences and behavior in purchasing. Structured questionnaire was used with a formal list of questions that are formulated for all respondents in the same way. The method of contacting respondents was done through personal interviews (face to face method). The questionnaire consisted of two parts:

1. First part of the questionnaire consisted of open and closed questions; in this section, respondents were asked a total of 22 questions. Those 22 questions focused mainly on familiarity with local products, as well as the impact of purchasing power, animosities and social status on the final decision; also on differences in the degree of preference for domestic products in consumers with different demographic characteristics.
2. The second part of the questionnaire consisted of CETSCALE, used for measuring the degree of ethnocentric tendencies of consumers in the Una-Sana Canton. CETSCALE was initially developed and tested in late 80s of 21<sup>st</sup> century by U.S. scientists Shimp and Sharma. Name of scale – CETSCALE comes from the first letters of English words (*Consumer Ethnocentric Tendency Scale*). Respondents were given 17 statements and offered an appropriate level of agreement for each statement individually (ranging from 1-completely disagree to 7-completely agree).

In this questionnaire, special attention is paid to the following demographic characteristics of consumers: age structure, educational structure, employment and gender breakdown of respondents. With these results we will support some auxiliary hypotheses put forward in the introductory part of the article: Consumer ethnocentrism was significantly correlated with the age structure of the population, as well as education and purchasing power of consumers; degree of ethnocentric tendency varies widely among consumers who have different socio-economic and demographic characteristics; Consumer ethnocentrism is negatively correlated with education and level of income of the respondents.

When it comes to the age of respondents it should be noted that there were three age groups. In this questionnaire, the largest number of participants belongs to middle age, 31-50 years, then 18-30, and the lowest number of respondents seem to be older population 50 years and over. When it comes to the age structure of the surveyed consumers, based on the results obtained through their answers, we come to the conclusion that the greatest advantage of domestic products over imported is given by older population. The results showed that in the age group 50 – the largest percentage of respondents, 87% of them preferred local products, for middle-age (30-50 years) this percentage is slightly lower. However, it is noticeable that for the younger consumers (18-30 category) country of origin is less important factor when they are making purchasing decisions. Officially approved in this manner is another auxiliary hypothesis of the paper: consumer ethnocentrism was significantly correlated with the age structure of the population, as well as education and purchasing power of the consumers.

When asked if they would buy more domestic products, if there was a shop in the city selling only domestic products, majority of respondents from third age group responded positively, given



that this group of consumers has difficulty finding and recognizing domestic product on the shelves in the stores. When it comes to the importance of the purchase price, it turned out that younger consumers attach the greatest importance to price, 67 % of them, while in older subjects this percentage is only 58 %.

In case of labeling of domestic products, the largest number of the older respondents did not know what is the look of unique sign that indicates that the product is originally from Bosnia and Herzegovina, only 52% of the younger age group of consumers answered that they knew this label, and for middle age this percentage is slightly higher when compared to younger subjects. Results for the educational structure of the respondents are as follows: When it comes to the educational structure of the sample it can be concluded that the majority of respondents make highly educated consumers with a university degree, followed by respondents with completed secondary education, and other levels of education.

Giving the educational structure of subjects, we come to the conclusion that the highest level of consumer ethnocentrism is prevalent in subjects with low levels of education. According to the results of this research, the highest priorities to domestic products provide consumers with a high school degree, even 86% of them.

Looking at the structure of the employed and unemployed respondents, we come to the conclusion that there is a higher degree of consumer ethnocentrism among the respondents who are not employed. The results showed that 66% of unemployed respondents favor domestic products over imported. When asked about the importance of price when making purchasing decisions, 76 % of unemployed respondents said yes, which is logical given that this group of respondents had no monthly income. This supports the auxiliary hypothesis: Consumer ethnocentrism is negatively correlated with education and level of income of the respondents. The largest proportion of respondents who participated in this study were employed (69% of respondents, while 31% of the respondent were unemployed) and most of them have a monthly household income of 500-1000 BAM. According to the number of household members, most of them had three or four members in the household. When we talk about gender structure of respondents, we can say that in this questionnaire there were almost an equal number of male and female subjects. Giving the results, a slight preference to domestic products was provided by male respondents when compared to women.

Therefore, based on the results of the questionnaire, we came to the following conclusions: older consumers, consumers with lower incomes, those who are retired or unemployed, more care about their household budget, due to limited resources, and the desire to make the right decision when making a purchase. They perceive domestic products as better, believe in them, and try to buy the domestic products whenever they are able. Thus, we can conclude that they are more ethnocentric, so they do care more for their country. The same applies to consumers who have a lower level of education. On the other hand, when we talk about consumers that have a low level of consumer ethnocentrism we come to the following conclusions:

- In most cases these are consumers who are younger, with higher level of education, and higher monthly income;
- They are more likely employed;
- Non-ethnocentric consumers in relation to the clearly ethnocentric often travel around the world and have more positive attitudes towards certain nations;
- They rate majority of foreign products with higher scores and give low scores to products from BiH;
- In their households domestic products will dominate only when it comes to food and when drinks are somewhat concerned, for all other product categories they absolutely prefer imported products.

The purchasing power of the citizens of Bosnia and Herzegovina is at an extremely low level, and it shows years of long-standing negative trend. EU statistics show that the purchasing power of Bosnians is three times less than the average EU citizens, and 70% lower than the average

purchasing power of the EU. These statistic data have placed Bosnia and Herzegovina to the bottom of the sale in purchasing power of countries in the region, so we can conclude that BH citizens represent the poorest category in Europe. Taking into account the above, it is clear that the price is one of the most important features when purchasing a product, which was confirmed by the results of this research. In order to change the current opinion of local products it is necessary to change the mindset of local consumers. Campaigns used for these purposes, one of which is the “buy local” campaign, have effect on consumers; however, in order for this effect to be complete these campaigns have to be constant. That is the only way to successfully promote the consumption of local product. When it comes to foreign trade estimates, the data indicates a trend toward reduction of deficit or export increase and import reduction. It is completely unnecessary to import even those products that can be produced in Bosnia and Herzegovina and in sufficient quantities to meet the needs of the domestic market. Most citizens of Bosnia and Herzegovina believe that we should indeed buy local products, but in reality they are not following their own advice. A possible reason for this situation is the fact that BH consumers do not know enough about the local products or what they are.

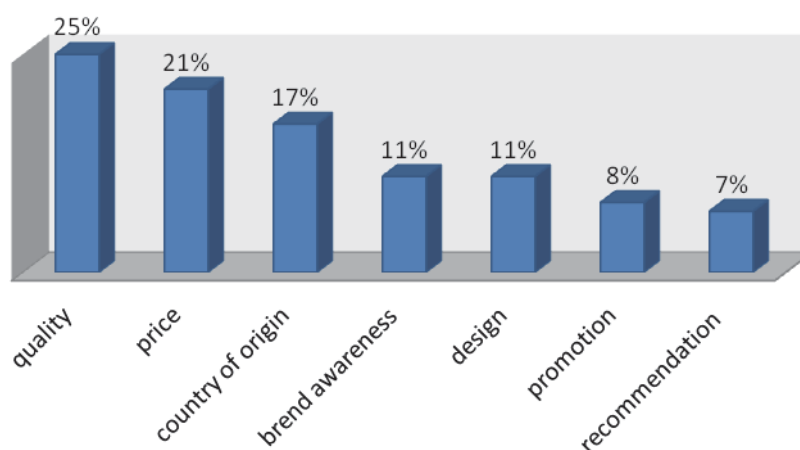
The results of this research have shown that there is a high level of respondents who agreed with the statement according to which the purchasing power and consumer awareness are the crucial factors for the development of the domestic market (Table 3). This confirmed the hypothesis identified in the introductory part of the article: There are two key factors crucial for the development of the domestic market - consumer awareness and social factors.

**Table 2.** *Purchase power and consumer awareness as a factor of development of the domestic market*

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	No answer	1	0.5	0.5	0.5
	I disagree	17	8.5	8.5	9.0
	Neither agree nor disagree	16	8.0	8.0	17.0
	I agree	97	48.5	48.5	65.5
	Strongly agree	69	34.5	34.5	100.0
	<b>Total</b>	<b>200</b>	<b>100.0</b>	<b>100.0</b>	

The largest part of respondents agreed with the statement (as many as 83 % of respondents), which indicates that respondents were aware of the role and importance of purchasing power and consumer awareness for the development of the domestic market. On the other hand, there is a very small number of those who disagreed with the same statement (8.5 %).

On the other hand, Bosnia and Herzegovina is still in the period of crisis, which is characterized, among other things, with high unemployment and negative growth trend. As a consequence, there is certainly increase in the level of poverty of citizens - consumers. For this reason, the price, together with the quality of the product, has become the most important feature of the final selection of a product. Studies have shown that out of the total number of respondents the most were those who put the product quality in the first place (25 %) , and right behind the quality, the second most important feature is the price of the product (21 %), and in third place is the country of origin, then brand awareness product design, advertising and other features.

**Graph 1.** *The most important characteristics when consumers choosing products*

In the course of the study participants were also asked about the reasons that led them to buy more local products. The majority has confirmed that reasons are, above all, better quality products, favorable price compared to imported products, greater representation of local products on sale, a prominent label on the packaging that emphasizes that this is a “domestic” product, better promotion of products and more. Therefore, if domestic producers want the consumers to buy their products they need to improve product quality. What would also increase the consumption of local products is if domestic products were priced competitively so they have a chance to compete with imported products. Most citizens believe that the prices of domestic products are too high when compared to imported products.

Proposed measures to be implemented to improve the development:

- It is necessary to increase the quality of the product to the product line with the requirements of ISO standards and receive a certificate of quality, because it turned out to be just the certificate of quality most influenced the increase in the consumption of local products
- Establish a team of design experts, who will set specific criteria for product design. The team will evaluate the design and authorize it if the requirements have been met.
- It is necessary to invest more in product marketing, because investment in marketing is usually very low, and when it is done then it is done in an erroneous way
- More investing in promotion at the point of sale, to remind consumers of the origin of the product at the time while buying
- It is necessary to pay more attention to the packaging of the product, because it has recently become an important element of marketing
- To carry out various activities to promote local products, continuously
- To organize fairs to represent domestic producers
- Networking domestic enterprises
- Construction of infrastructure and creation of favorable entrepreneurial environment

## 4. Conclusion

Thus, for developing countries like Bosnia and Herzegovina, consumer awareness and social status are crucial. In a country that was struggling for years with the crisis, in which: the standard of living is very low, and level of poverty is high, high unemployment level, low average wages, expensive consumer basket, which is one of the least competitive countries in the region, in which politics is involved in every area of life, country with a high degree of corruption, but also the

country that is rich with many natural resources, rich with smart and capable people, and certainly rich in spirit. Social status and consumer awareness are of great importance, awareness of the importance of buying products of domestic origin. For consumer awareness can significantly move the market, but it is necessary to continuously conduct various campaigns that promote the importance, consequences and morality of buying products of domestic origin.

The largest number of domestic enterprises in BiH are small, the micro business with only few employees. Domestic enterprises need support from the citizens in order to stay afloat, and this support will be shown through confidence in domestic products, which will result in the selection of local products when shopping. Research results have confirmed that the purchasing power is crucial, so citizens will in most cases choose the product that is cost-favorable regardless of the country of origin. Only in the case when imported and domestic products have approximately similar price, then the consumer will check the country of origin and maybe give preference to the domestic producer.

It is essential that action is taken by government, financial institutions, educational institutions, employment services, business sector, the financial sector as well as non-governmental institutions to develop trend that will change this situation from negative to positive. Domestic producers, representing the main drivers of the development and main source of new jobs, need not only better support from the state, but also support from citizens-consumers. Support from consumers is indispensable for local producers. Therefore, if the consumer ethnocentrism is higher, and they have more confidence in domestic products, higher consumer purchasing power, stronger support from the state, purchase of local products, the development of SMEs ultimately leads to the development of the entire economy of Bosnia and Herzegovina.

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## MEGASTATE, GLOBAL CAPITALISM AND MACROECONOMIC MANAGEMENT OF STABILITY AND GROWTH

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### Abstract

*The nation-state was conceived as a custodian and guardian of civil society, to whom, later, Megastate became a master. The nation-state was designed to protect the life of its citizens and their freedom. Mega-state, by Schumpeter, believes that a citizen is entitled only to what the country, openly or tacitly, allows him to possess, keep, maintain and use. Bodin's nation-state had, as its primary function, the maintenance of civil society and the preservation of peace. Bismarck made the government into a "social" service for achieving well-being (health insurance, accident insurance, old age pensions, unemployment insurance), and in this case, in Britain, the the state soon became the guarantor of security, and often operated as a budget agency in practice. In the era of global capitalism, the recession and the collapse of monetarism, the state must review its role in macroeconomic management of development. The paper suggests a new role for the state in the light of economic stabilization and growth.*

**Keywords:** *Mega-state, fiscal state, liberal capitalism, stabilization, growth and development.*

### 1. Introduction

Up until the 1960s, the government was a suitable agent for all social problems and all social requirements. Non-governmental and private activity in the social sphere was something to be feared. Two decades before the end of the 19th century, the nation-state was already converted into an agency with economic responsibilities - it regulated businesses, commercial enterprises and property. In fact, it was a new rule of regulations, as most original political invention of the 19<sup>th</sup> century, which, from the beginning, was seen as a "third" way between "pure" capitalism and "unrestrained" socialism. Somewhat later, the takeover of the companies in government ownership began in the United States, and it has already been observed primarily as a means to mitigate the escalation of class conflict between labor and capital. But nevertheless, few people believed that the government should manage the economy in the year of 1929. Most economists believed that the market economy had the ability of "self-regulation"; even the socialists believed that the economy could regulate itself as soon as private property was abolished. Gradually, however, it became apparent that the work of the national state and the government is contained in maintaining a climate for economic prosperity by maintaining low taxes, stability of money, and through increasing savings. The Great Depression (1929-1933) gave a powerful impetus to the belief of economists that governments are able to manage the economic climate. That, however, is spearheaded by Keynes, as a real star of "the climate era" in which the government is the controlling agent

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The period between two world wars transformed the nation-state into the "budget state" and revealed the fact that there is practically no limit on what the government can squeeze out of the population. After Second World War, almost all developed countries have become "fiscal states", as they came to believe that there were no economic restrictions on what the government can tax or borrow, even in what it may consume (Drucker, 1995).

"What Schumpeter pointed out was that as long as there are governments, the budgeting process begins by assessing the public revenue that can be obtained. The following step was to fit the consumption into the income. Since the available selection of "good intentions" and "valuable purposes" is inexhaustible, and, therefore, the demand for consumption is infinite, the budgeting process mainly consisted in deciding to which item it should be said "no." As long as it was known that public revenues were limited, the governments operated under strong constraints. These limitations prevented the governments to act as social or economic agencies" (Drucker, 1995). Since World War II, the process of budgeting, in essence, means that "yes" is said to everybody. According to the new mode of administration, which assumes that there are no economic boundaries of public revenue, which it is able to obtain, the government becomes the master of civil society, someone who is able to mold and shape it. First of all, the use of taxes and spending enables the government to perform redistribution of their society's income. Through the power of "money bag", it can shape society according to their political ideas (Drucker, 1995). In this mode, it could be observed in advance that national income is something that belongs to the government. The individual was entitled only to what the government allows. However, the "holes" for the avoidance of taxes were not even discussed, let alone practiced. The term tax evasion, however, means that everything belongs to the government, except if specifically indicated as something that the taxpayer keeps, and whatever the taxpayers do keep, it is what the government in its wisdom and generosity allows them to keep. (Drucker, 1995).

Thus, the welfare state made it to the master of the economy, and that was enough to create a so-called Mega-state in the developed world, as a social agency, as the master of economy, as a fiscal state, as the Cold War state. Moving towards Mega-state has become universal throughout the industrialized world, and was rapidly followed by the developing world. Mega-state immediately made efforts to exercise control over the society, to use tax mechanisms with a goal for income redistribution and to confirm its intention of becoming a manager and owner of the economy. However, in practice, the Mega-state has shown weakness at being the budget state. "There's no recorded success in establishing a meaningful redistribution of income. In fact, in the last forty years, the Pareto's law is generously confirmed, according to which the distribution of income between the most important classes in society is determined by two factors, and two factors only: the culture of a given society and the level of productivity within a given industry. The more productive the economy is, the more income equality exists, the less productivity there is, the more distinct income inequality becomes. Taxes, according to Pareto's law, cannot make a change here. The advocates of budget state largely based their defense on the claim that taxation can effectively and permanently alter the distribution of income. (Drucker, 1995).

In almost all countries of the modern world, governments have become such major consumers, that they are not able to increase their costs when the recession occurs. Governments have, therefore, reached the limits of their ability to tax and their power to borrow. The budget state spent itself and slumped into powerlessness. In fiscal state, it has shown that what is taxed is as important as how it is taxed. And, worst of all, the state budget has remained the "manger", since the creation of the budget begins with costs without fiscal control and since government spending becomes a means by which politicians buy votes. In fiscal state, therefore, the "robbery" is performed by politicians to secure their own election. Keynes welcomed the fiscal policy, but with certain limitations in the consumption, so as the government would effectively manage the economy. Even despite that, the government cannot manage the economic climate nor can it prevent short-term economic fluctuations, but it must be able to operate with a balanced budget in the "good times" and to effectively redistribute income by using tax and subsidies. The govern-

ments must learn to keep deficits as a weapon which is the last resort only to finance permanent improvements of the economy to produce wealth.

Drucker is, however, committed to the complete abandonment of the theory of the budget state in which Mega-state operates in the economic sphere, as well as to the rotation of the Social Policy Taxation back to the economic policy of taxation, in order to respect the principles of equality and justice. At the heart of tax policy, socially neutral policy should be found (since the state-nanny achieved relatively poor results). "Creating the right climate is not the same as maintaining low taxes. The contention of economists who advocate stimulating the offer economy that low taxes in themselves guarantee economic health and growth has not been proven. Their claim that high taxes necessarily mean economic stagnation was decisively disproved. Japan constantly has very high tax rates. Tax reach is, as already mentioned, more important than tax rates. The real goal of budget policy must be reflected in the encouragement of investment in knowledge and human resources, production facilities in commercial enterprises and infrastructure. This is the secret of the whole economic success of the last half century witnessed in Japan, Germany and the "four Asian tigers" of South Korea, Hong Kong, Singapore and Taiwan. All of these countries have had success as long as they maintained politics that focused on creating economic climate, and while they largely ignored the economic "climate". (Drucker, 1995).

## **2. Literature review**

### **- selection of capitalism: liberal or national?**

A debate opened recently in Italy, about the future of national capitalism with family crests, with the question of whether the large, family-capitalism is dying and whether it would be sacrificed on the altar of modernization of the national economy. The polemical analysis was followed by a counter-question - "who will succeed it": the lone economic nuclei that roam the fields of relentless competition or public companies with thousands of small shareholders? Sharp questions were asked at a time when Italy was trying to re-design their economy and society. Italy is, therefore, completely stunned to answer the question of who should take the place vacated by the withdrawal of family capitalism, since two models wander in the air: the Rhenish and Anglo-Saxon. The former brings along agreements and negotiations with unions, a strong influence of state shareholders that intersects with private interests; the latter represents the open market, glorifies the role of public companies, globalizes economy, "deregulates and liberalizes" economy and finance. In its transition, Italy does not know which model will be pursued: Is it possible to preserve a strong welfare state that is crucified on the cross of rigorous financial discipline and social peace, or bow to the winds of the Anglo-American influence combined with Rhenish economic culture, which develops the formula of "stable nuclei" of economic control and financial flows and is the initiator of the reforms that strengthen the markets in which public companies are a fashionable slogan. Is the impending privatization an opportunity for necessary reforms, for breaking the centers of power embodied in the family capital and a torpedo attack on the Italian elite capitalism, or there is a doubt in the command of the Rhenish capitalism sponsor, as the sixth-seventh world economy is still immature for diffuse variants of slow movement towards the American model (Markovic, Ristic, 2012.)

In Italy, it is believed, there came an end to the era of family economy whose influences are cleverly transported into the world of politics in order to manipulate the state. This archaic feature of capitalism is unthinkable in other European economies, as the locomotive of the Italian state pulls the public debt of two million billion (which is a train composition of 15 zeroes). However, such a state is always welcome in saving their own business interests of family capitalism, as an ally in absorbing the cost of unemployment through government stall. This gave rise to a "fake" relationship between politics and economics, between market and state, economy of openness and competition, between labor and capital, between pre-financed and highly indebted firms. The limited free market with oligarchies is a consequence of the abnormal presence of the state.



Invasion and insatiability state of appetites, which always seek and devour money, are the inhibitor of developmental potentials. However, even in such circumstances Italy did not resolve the key issue of behavior of its capitalists, who still had to worry about the majority who suffered due to this transition. Even the Hungarian nouveau capitalists found out that in a society where there is a massive impoverishment of citizens, there is a simultaneous decline of lucrative business. A smart capitalist needs to know that he should buy a productive work force in order to create the purchasing power of the people and should not trust too much in the fact that only magic of export can lead the country to prosperity. Every capitalist, if not an adventurer, if conducting fair business and invests in the long run, should also be prepared for certain sacrifice in the social consensus. Therefore, businessmen, entrepreneurs and managers need to be aware that they need to take over the responsibility for the losers in the transition process and capitalization, if they tend to build capitalism which will be acceptable for everyone (well, capitalists do not know exactly how, yet).

For now, the Rhenish capitalism stands against the "predatory" American capitalism, as a very competitive and slightly social capitalism. It stems from the American attitudes, in turn, that the German model is more at force, as well as the entire Western European model, which is unable to solve the problem of unemployment and which is increasingly less able to finance the welfare state. This is added a claim that the fewer people disposes of the available income, the greater the number of people on welfare, and thus, due to the lower inflow of tax revenues public deficit grows, with no hope to long-term battle unemployment by resorting to spending based on the deficit. That is why Europe needs a new therapy, not the American model of capitalism. (Ristic, 2012).

The hitherto unknown globalization of the economy should first reduce contributions and earnings (such as Asian competitors), suppress unemployment, find new products and services, option for a single currency; then, a good dose of deregulation, liberalization and privatization should be chosen, and, finally, the difference between the lowest wages and unemployment compensation should increase, the social safety net should be rationalized (by slowing down the growth in its cost) and the social security system should be consolidated, such as the common agricultural policy, regional development policy and currency policy. However, the American view of the world capitalism has a different aim - especially the highly praised German economic and social model, whose fans, due to the money, have trouble to understand that the time has come to say goodbye to it. It is painful to know that Germany as a protective, consensus-based welfare state, is an ill-fitting creation that is unable to meet the challenges of the global economy. Expensive and rigid labor market suppresses the entrepreneurial spirit and the creation of new jobs, while the legendary social contract with the unions had become an obstacle to change. No one thinks that one can learn from Germany, whose model used to serve as an exemplar for industrial countries.

Yet, the German model came to the end of its journey, because labor costs are the highest in the world. The Germans, of course, recognize that change is necessary, although the unions defend the welfare state at all costs and even insist on a wage increase. Now Germany must cut the cord of "painful changes" and recognize that something can be learned from the success of the United States. Plans to reduce the welfare state and reduce public expenditure are a bold step in the right direction.

The only danger is, probably, in that it will not go far enough when after the increase of retirement age for women, the valve for a further reduction of welfare state is opened, as a mechanical system. This "uncertainty" is supported by managers and entrepreneurs who are too slow to globalize their production. Directors were more reliant on exports than on investing abroad. Private aversion to taking risks severely slowed the movement toward change. It is important for German companies to become more Anglo-Saxon: to invest more outside of the national economy, to direct the German state towards a modern, service-based economy, and to pay more attention to the interests of the shareholders, not the employees. That is why the Germans are about to mumble goodbye to their old economic model, without turning towards the Swedish-Swiss model. Recently, the Coalition, which comprises of the largest German and

international private companies in the banking, insurance, telecommunications, computer technology, maritime transport, tourism and other financial services, sought to formulate new regulations to liberalize the financial services market, since it was anticipated that the global service market should liberalize. That is where, of course, the American Anglo-Saxon model first failed and assessed the offers of countries for opening markets for financial services, telecommunications and maritime transport as inadequate (Ristic, 2013).

The United States, however, prefer the "development" of debt economy, as the worst and the most devastating form of colonialism, which, as noted by Edward Goldomir is applied by the IMF, the World Bank and multinational companies. And, indeed, in the heart of the new international order (and the U.S.), the "development" and "colonialism" are two expressions of the same phenomenon that gravitates towards the same goal. To lend a lot of money to the accomplice elite of some (any) non-industrialized country is by far the best means of gaining access to its markets and its natural resources. The government was forced to take a loan, pay interest, to invest into what the lender determines and to implement recipes of stabilization and development policies dictated by the IMF. Thus, a country that takes a lot of loans quickly becomes over-indebted and quickly falls under the control of creditor-states. Such countries usually become so-called informal colonies. The development era has perfected the technique of informal colonialism and the technique of loans as a means of control. This, of course, is deliberately concealed by the euphemism of "helping" the poor countries, which they get as a cure. For the implementation of such techniques, capital and experience in technology were needed, provided by multinational companies. Scenario develops according to the logic of John Galbraith: Since we produce the vaccine, we invented the chicken pox. It is the same here: the capital is created; now the markets need to be invented. And, it turned out, in fact, that help is an extraordinary tool for opening markets, because a good portion of aid is tied to the purchase of goods and services exported by a donor country, as well as equipment, new technology, dams, highways, fertilizers, hybrid seeds and "green revolution" pesticides, which are of interest only to the global economy, which destroys the environment, divides communities and purchases resources (water, forests, land, work, materials and human resources). The World Trade Organization is now making up the obligation for heavily indebted countries to accept all foreign investments, to treat each foreign company as its national company, to abolish all tariff barriers, import quotas and non-tariff barriers to trade, as well as everything that would increase production costs. No government is now able to control the multinational companies, which have already chosen the cheapest labor force, the environment that the law does not protect, the most favorable tax regime, the most generous subsidies. This is how a small number of companies got hold of the world market with dwindling competition in their interest and increasing control of the governments of those countries. (Nedovic, 1995). The world's transactions take place more or less between multinational companies and their subsidiaries. This, however, means that it is not a legal trade, but a centralized private planning on a global level, which should result in the entire world trade taking place within "the boundaries of the organization." A new era of central planning on a global level should lead to a global colonization of firms which are not responsible for their actions, and with only obligation towards their shareholders. These new colonial powers are the new machines for the increase of profits, and for powerful pressure on the government to protect their interests rather than their own people who had elected them, no matter the fact that this marginalizes the people, destroys crops, causes an environmental disaster, paupers national wealth and robs the future of the nation. But, fortunately for us, the economy which "produces misery" cannot survive in the global recession on a long term basis.

### **3. Analysis and discussion: Macroeconomic and financial policy of stabilization and growth**

There is always controversy regarding the granting of discretionary rights to the state and its commitment to the rules of conduct. Controversy, as a rule, is conditioned and determined by monetarist-Keynesian debate about the acceptability or unacceptability of activism and interventionism. Monetarists strictly abide by their rules, which reveal causality between the following: exaggerated role (function) of the state, budget expansion, public budget deficit, escalation of the money supply and inflation. The increase of (non-economic) program of the welfare state is a first-rate cause for inflation, since it involves the growth of the money supply. The expansion of the welfare state caused the rapid growth of budget income. The inclusion of an increasing number of social programs, which are fed from the budget, was the most powerful generator of public sector costs, which have hindered the competitive situation on the labor market, which is opened by the process of cost inflation. The newly formed budgetary situation attacked the monetary policy, which cannot provide long-term stable rate of monetary growth. Excessive public spending has caused the growth of the money supply above the programmed level. (Lafay, 1992)

Monetarist explanation of unemployment had its starting point in the inevitable rise in unemployment, not because of monetary restrictions but because of the excessive role of the state and oversized growth of public expenditure. This, in turn, jeopardized the competitive structure of the economy, which, along with the monetary tightening, as an inevitable step, had to lead to growing unemployment, as an undesirable side effect. Ultimately, inefficient welfare state, which derived from the Keynesian policy of effective demand, is interpreted as a major culprit for unemployment, which records the general and sudden fluctuations, but with a pronounced rising long-term trend. And that is exactly a valid proof of monetarists that it is an inherently inefficient Keynesian intervention in the process of restraining the surge of unemployment. Inefficiency of the effective demand policy inclines to chronic inflation, which legally grows in almost the entire modern world of market economy (which, in turn, explains the two-year lag of price growth behind money supply growth). Thus, monetarists obstinately assume that the market economy is essentially a self-regulating one and that control over the money supply typically leads to reduced prices. (Jimenez, Pavoiné, 1991)

In essence, the monetarist-Keynesian controversy comes down to the following: 1) the monetarists want nominal effects in the field of prices and 2) Keynesians want real effects in the field of employment and production. Keynesians really believe that, in the long term, real changes can occur in the sphere of employment and production with nominal scopes of money, primarily using the interest rate, which affects the demand size, when after a relatively short-term "intoxication by money illusion", as a rule, they return to the previous level, although with the inflation-contaminated higher nominal level. Therefore, the monetarists advocate for controlling the money supply with indirect effect on the interest rate determined by the market. Reducing the money supply, as a rule, decreases the wage growth, and thus the cost inflation.

The Keynesians insist that it is possible make real aggregates more dynamic in the long run. Monetarists, however, confute the Keynesians by pointing a finger at the money illusion effect. For monetarists, wages need to be funded as they are a source of demand. At Keynesians, employment is in line with the so-called desired effective demand, which is determined by the required level of income.

Today, unemployment is growing rapidly in rich countries with market economies. If the 34 million of unemployed, which is the number of the unemployed persons in developed OECD economies, would stand next to each other, they would form a line from New York to Sydney and back. High unemployment rate, it seems, has become a faithful companion to economies in which production produces fewer jobs due to the slow recovery and adjustment, changes in technology and organization of industry, increased competition and weakening investment efforts. Subsidizing outdated economic capacities and protectionist attitude towards the manufacturing segments are an additional burden for the long-term disabled employment policy. New jobs of tomorrow

will again depend on new technology and global competition. Future jobs will require more education and more skills than previous jobs which they will replace. The future needs professionals and experts, not operators and officials. Workers will less and less be steadily employed and full-time jobs. Part-time and contract work have a future, because companies seek to avoid the costs of labor and protectionist labor laws. Companies find flexible workforce and work engagement when needed more convenient. Re-compensating effects come from increased productivity. (Morishima, 1992).

Western governments in OECD countries are counting on economic recovery to solve the unemployment problem. For now, governments successfully transfer the social burden of unemployment on the companies, which pay lower contributions and retain the surplus staff. OECD experts recommend, however, that the Western governments allow reorientation of production structures, abandoning professions with lower qualifications and weak earnings.

This is because of the fact that a well-educated workforce, capable of adapting, can be a tool for snobbing the necessary structural changes. Excessive rotation of workforce risks creating more problems, and early retirement does not lead to job creation. Unemployed people should not be paid fees that are too high, which already have a demotivational effect in finding a new job. (Maillet, 1992).

Part-time working hours enable workers to adjust their work responsibilities to their family responsibilities more easily. Employers are thus offered lower labor costs and greater flexibility, especially in economies with low rates of growth in which tough competition is present. However, workers with part-time jobs, as a rule, do not have health insurance, retirement, paid leave, paid sick leave and other benefits that full time workers have. In order to prevent greater quakes in the labor market, the governments already allocate relatively significant resources to finance special measures to help workers without permanent employment and job creation, as well as the promotion of employment. As a new rescue instance, there is the need of giving a green light to work on loan -the temporary assignment of labor force to a company through specialized agencies. There is also the possibility of re-introduction of pay grades in the form of contracts which would tie the increase of wages to the capacity growth of the company. (Kuenne, 1992). Yet, until this is institutionalized, both blue-collars and white-collars are shivering in fear in almost all recessive economies. The crisis is already prominent, on the principle of leopard skin, and it lacks adequate policy development, fundamental transformation of the labor market structure and flexible intervention of the state and enterprises. Otherwise, there is a danger of explosion of the unemployed labor force, such as the economies of Central and Eastern Europe, which have adopted the practice of administrative holidays and guaranteed payment of salaries.

OECD countries are, therefore, faced with a choice between: 1) expansionary fiscal policy, and 2) coordinated action of fiscal contraction. However, expansionary fiscal policy can create conditions for the reduction of unemployment, but also to increase the already significant state budget deficits. Not taking action would again lead to a further increase in unemployment along with the derived increase of state debt in order to provide assistance to the unemployed.

In Western Europe, the maneuvering space for bringing down the level of interest rates (such as the U.S. and Japan) is limited, due to the behavior of Germany and the primacy of maintaining unchanged exchange rates of Western European currencies. Keeping the high interest rates leads to an increase in public debt in Western Europe, which is a constraint on growth (due to the high cost of money). The try of western governments to implement coordinated action of fiscal contraction in the conditions of high interest rates and a recession is again threatening to push the EU into a depression. Therefore, almost all developed countries are turning to the option of export growth in order to reduce unemployment. Productivity increases, but competitiveness does not. (Arrows, 1991). The tide of protectionist sentiments is rising, and a collective increase in global demand wears thin. The new twist in the global economy is inevitable, because the motto of the 90s "leave it to the market" did not provide satisfactory results. The ideology of free market, which requested the disappearance of state intervention and the old system of property, did not pass its announced and advocated exam, since the market economy does not consist only of the



prevailing private property and minimal government control. Even the process of privatization, which included 8,500 state-owned companies and 80 countries in the past 15 years, has not contributed anything other than improving the efficiency of the company and resolving the financial crisis of the state. However, privatization without additional anchors cannot be successful if it is not inextricably linked to the activation of the competition, functioning of the capital and securities market, social welfare policy and economic restructuring. (Fels, Sutija, 1991). The developed countries are suffering the situation of economic frustration. For five years in a row, in their economies are pressured by severe recession under the influence of accumulated changes in the global political and economic pattern between production and consumption, and tax structural adjustments. The current economic depression is already clearly visible in the plane of rising unemployment, rising budget deficits and growing public debt. In its own time, Bush's term ended with a 25 times higher level of debt than the annual gross domestic product. This is proof that there is no more space for creating new debt, because the consumption hit the ceiling. But, it is not just the state that is indebted. Individual debts, private debts and consumer loans of citizens have reached a sum equal to their annual salaries.

Unemployment has now become an international problem with various national parties. Unemployment leads to a dangerous loss of well-being, especially in Central and Eastern Europe after the fall of the Iron Curtain. Cheap work force, which was once considered a bargain to obtain in the Far East as a bargain workforce, can now be obtained in the former socialist countries. German Association for foreign trade has calculated that the cost of a German employee could cover the employment of 80 Russians, 38 Bulgarians, 18 Poles, 17 Czechs and 10 Hungarians. Lowering and degradation of wages becomes, therefore, a factor of employment of people from the East, since in the West there is very little difference between wages and unemployment benefits. However, this cannot last forever, because a person is too costly for employers to play with (especially when it comes to highly skilled and young staff). Ultimately, opinions must change under the impact of unemployment banks, as the economic, social, tax and tariff policies cannot be exclusively oriented towards the interests of employees. If capital becomes more expensive, then the people must be ready to repeatedly change their professions in their future working life. That is exactly what is called willingness to labor force mobility and the desire for further learning. And, instead of the fact that the unemployed are paid for not working, people should simply be transferred to flexible workplaces, cheaper labor market, loaned work engagement, and so-called self-employment.

In developing countries (and heavily indebted Third World countries), macroeconomic equilibrium is achieved in the same way as in developed countries with market economies, only with more restrictive conditions (balance of payment difficulties, inability to service external debts, reduced inflow of fresh capital, reduction of access to international capital markets, etc.). In these countries, the complexity of macroeconomic policy stems from the basic conflict between the goals of achieving and maintaining macroeconomic stability and accelerated economic growth: removing inflation and imbalance of payment, structural adjustment and increase of productivity require a restrictive policy that impedes economic growth (Cook, Kirkpatrick, 1990). The promised investment cycles are therefore economically unfounded, especially in conditions of stagnation that burdened by the facts about the lack of convertibility of the national currency and market regulatory institutions. Modern anti-inflation stabilization strategy, as a rule, simultaneously implies a reduction in aggregate demand and increase in aggregate supply (Meandlles, 1991). However, even in the textbook conditions (which is the case with industrially developed economies) it is difficult to keep a successful macroeconomic politics, especially when it comes to various additions on the slope and responsiveness of aggregate supply curve. In this competition, Keynesians argue that the aggregate supply curve is completely horizontal and that the acceleration of demand without increasing the price increases production, while monetarists argue that such a policy only increases the cost, without the increase of production.

## 4. Conclusion

Proven that governmental expenditures which are financed from borrowings affect earnings in the same way as investments. During recession, a greater government indebtedness for investments would not only decrease unemployment, but would lead to higher incomes and savings of the corporate sector, to the amount as high as the budget deficit. In this case, the budget deficit inclines towards self-financing. This is, essentially, a powerful blow to orthodoxy which believes that there are no healthy state finances without a balanced budget.

Limiting the demand in all possible ways is recommended, primarily by extreme policy of expensive money, cuts in state spending and restricting salaries and wages. This, in turn, cannot be endured by economies with fragile democracy in the long run, without a massive influx of foreign aid and foreign investments, as well as without transitory import controls and capital outflows. Therefore, in developing countries, the role of the modern state which leads an efficient and flexible policy is particularly important. In this context, one side of the state activity is the tax policy, which reduces the disposable income through taxes (and vice versa: through transfers, as negative taxes, increases the disposable income). The other side of state activities are public expenditures, which are fed by taxes, issuance of securities and money. In addition, the effects of changes in government spending are always greater than the effects of tax changes.

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## THE LOSS OF MONETARY SOVEREIGNTY AS A RESULT OF ALTERNATIVE EXCHANGE RATE REGIME

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### Abstract

*There are a number of alternative exchange rate regimes, which can be classified into euroization, the currency board and monetary union. Appropriate cost-benefit analysis of alternative exchange rate regime, is one of the most important issues in the states which are entering in the appropriate currency arrangements, in order to choose the most appropriate exchange rate regime. The biggest disadvantage of accepting any of the alternative exchange rate regimes is the loss of monetary sovereignty.*

*National central bank or ceases to exist or loses its real power to influence the price of currencies, that determines the amount of money in circulation or changing short-term interest rates, which leads to the question of choosing alternative exchange rate regimes. Accordingly, the aim of this paper is to analyze the advantages and disadvantages of the loss of monetary sovereignty and possibilities that the central bank manages the national monetary policy.*

**Keywords:** monetary sovereignty, monetary policy, exchange rate, EMU

### 1. Characteristics and classification of different exchange rate regime

In the early literature on exchange rate regimes, the discussion focused on the question of choice of fixed or flexible exchange rates. Modes mentioned above represent two extreme forms of exchange rates between which there are a number of modalities with limited flexibility.

Until the late nineties, most empirical studies on exchange rate regimes were classified regimes on the basis of the annual report on exchange arrangements and exchange restrictions of the International Monetary Fund (AREAER), in which there were three exchange rate regimens: fixed regimes, regimes with limited flexibility (usually within a defined framework or cooperative arrangements) and more flexible regimes (with administered, ie. managed or free float), which had 15 subcategories. This classification had a lot of flaws. In practice, defined fixed rates are frequently devalued, while many fluctuating moved in a narrow range. Empirical studies have shown that the correlation between the choice of the regime and the expected economic performance leads to wrong conclusions. Therefore, we should distinguish between de jure official classification and de facto classification of exchange rate, published by the International Monetary Fund at the end of the nineties.

Today, there are more modified and alternative exchange rate regimes. Alternative regime of pegged exchange rate means that the exchange rate is firmly fixed, and its possibilities to change the parity and leaving the exchange rate are extremely difficult and are related with significant costs, ie. are minimized and can be classified as follows (Gosh, Guld and Wolf, 2002, pp.39-42):

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- *Euroization (dollarization)* – represents an alternative monetary regime in which the domestic currency is withdrawing and the euro (dollar) officially becomes the only instrument of payment. It's mostly used in hyperinflationary conditions, where doesn't exist a credible monetary authority, and where the costs of introducing the euro are reduced to a minimum, because the domestic currency is devaluated. Monetary policy is delegated to a country whose currency is used. Seigniorage belongs to the state issuer of currency.
- *Currency Board* - means strictly fixed exchange rate, which is related to the reserve target currency by the law with a precisely defined term. Monetary policy has a limited influence because the banknotes and coins are emitted only in the amount of inflow of foreign currency. There are many differences between euroization and currency board. Seigniorage belongs to the domestic state.
- *Monetary Union* - a group of countries loses their monetary sovereignty and accepts common currency emitted by a unique central bank. Monetary policy is implemented at the regional level and seigniorage belongs to the region. Monetary officials of the unique central bank define and implement exchange rate policy.

## 2. The loss of monetary sovereignty in different exchange rate regimes

### 2.1. The loss of monetary sovereignty in euroisation

The loss of monetary sovereignty represents the biggest problem for the dollarized (euroized) economy, considering that was suspended the right to increase or decrease the money supply and to lead independently exchange rate policy. The restriction which implies an increase in the money supply only to the level of the inflow of foreign exchange may have a negative effect on economic growth. Also, the acceptance of monetary policy, led by the central bank of the country whose currency is used, can have serious negative consequences if there is no overlap in the phases of the economic cycle and, accordingly, with the primary goals of economic policy. For example, in the country issuer of currency there is a fear of inflation and the central bank opts for a restrictive monetary policy. At the same time, in a dollarized economy, there is a high unemployment and low economic growth rate, therefore, to overcome these problems, it should be implemented expansionary monetary policy but in dollarized country this possibility is denied.

In impossibility to independently lead monetary policy, with the fixed exchange rate, the elimination of shocks in the economy requires changes in wages and prices to prevent a recession. Dollarized economy due to lack of monetary policy instruments, remain available measures of fiscal policy that are also limited considering the need to maintain budget discipline.

The loss of seigniorage, is a consequence of the loss of sovereignty in conducting monetary policy and the suspension of the rights of emission of primary money for the dollarized country. In some cases it happens that the income from emissions is divided between the country that emits a hard currency and dollarized (euroized) country. This situation is foreseen by the Maastricht Treaty in which revenues from seigniorage are shared between member states, but not with countries that have adopted the euro on a unilateral basis.

Loss of function of the central bank as a lender of last resort, can significantly worsen the position of banks when faced with the problem of illiquidity. In economic terminology, the function of the central bank as a lender of last resort involves granting liquidity loans to banks in case of illiquidity, with a high degree of urgency. The impossibility of lending banks can seriously compromise the entire banking system, if some of the big banks get into illiquidity. In the absence of possibilities of illiquid banks to obtain liquidity loans from the central bank, the solution might

be to encourage domestic banks to integrate with foreign banks, that withdrawing funds from their headquarters, in case of illiquidity, because of concern for own equity.

Another possibility is the establishment of special funds whose assets would be dedicated to solving crises in the banking system.

Loss of income of banks from currency conversion is the result of the suspension of the domestic currency, so the banks are losing significant revenue from fees based on a conversion. It may not be a loss to the bank, if efforts are made in finding new forms of banking products, which can reduce or completely compensate for the loss of income from currency conversion.

The loss of foreign exchange reserves is not the same in all countries that have accepted dollarization (euroization). The introduction of dollarization is a process that involves the loss of most of the foreign currency reserves, considering the need to cover the total money supply in the dollarized country with foreign currency. This loss is lower in those countries that have experienced hyperinflation, directly before accepting dollarization, in the recent past, so there was a devaluation of the domestic currency in relation to the foreign currency which was accepted as a legitimate instrument of payment.

## *2.2. The loss of monetary sovereignty in the currency board*

The currency board is a situation when monetary institution, the central bank or the government, establishes a fixed exchange rate in relation to another currency, such as the dollar or the euro, "anchor" currency, and is ready at any moment to convert the domestic currency into the side of the fixed exchange rate whenever it's requested by the public. The domestic currency is 100% covered by foreign currency. Acceptance of a currency board excludes any sovereignty of the monetary authorities in conducting monetary policy. This means that the monetary authorities can not print money in accordance with the goals and necessities of the domestic economy, and therefore can not affect the level of interest rates. The currency board emits (withdraws) national currency only to the extent that corresponding to the inflow (outflow) of foreign currency in the reserve currency. Since the emission of the primary money is limited with the inflow of foreign currency, the only possibility of providing funds to increase the rate of economic growth in the domestic economy is taking measures to encourage the iflow of foreign direct investment. This system works automatically, which means one hundred percent foreign currency coverage of domestic primary money. A country with a currency board, instead of its monetary policy accepts the monetary policy of the country's reserve currency. This fact may not be a problem if the phase of the economic cycle of the country with a currency board matches the cyclical position of the country's reserve currency - the anchor country. However, if this is not the case, it may have negative effects in the country with a currency board. For example, if the rate of economic growth and employment rate in the country with a currency board is at a low level, and in the country's reserve currency there is a problem of inflation, the monetary policy of the country's reserve currency will have restrictive character that will not correspond to the conditions of the economy and the successful overcoming of the problems in the country with a currency board, which would behoove the expansive monetary policy course. Since the introduction of the currency board involves the loss of monetary sovereignty, it may have more negative consequences:

- 1) Greater exposure of the domestic economy to the shocks that hit the country "anchor". If there is a speculative attack, especially in times of financial crisis in the country's reserve currency and the wider global financial crisis, it will cause major destabilizing effects on the economy of the currency board. In inability of a currency board to eliminate the induced negative effects, large outflow of capital will cause a reduction of the monetary base (primary money), the increase in interest rates, a decrease in the real sector borrowing and stagnation of production.

- 2) The central bank loses its function of lender of last resort, which can be a serious problem for the liquidity of the banking system and thus for the ability of lending the economy, which could threaten the economic growth and employment. The solution to this problem can be found

in encouraging banks to integrate with foreign banks. In the absence of central bank and liquidity loans, in conditions of the increasing integration of domestic and foreign banks, it is possible to overcome the problem with help of foreign banks' care for own fund invested in the bank of the country with a currency board, which would also save the domestic bank's fund from illiquidity. In the case of pressure on bank liquidity, internationalized banks can easily and quickly get the foreign currency exchange from its headquarters and ensure both their and the bank's liquidity of the country with a currency board. One way of solving the illiquidity problem is to establish an institution that would have the function of lender of last resort, whose assets would exceed one hundred percent the amount of base money.

3) What can also be present as a problem in a country with a currency board is the fact that countries that inducted it, as a rule, have a problem with the budget deficit which can not be financed from the primary emission without exchange coverage. Due to the inability to monetary policy measures solve the problem of covering the budget deficit, the only acceptable solution is insisting on a strong fiscal discipline. In the currency board, monetary stability is, among the rest, a result of the lack of ability of devaluation or inflation initiation, in order to perform the demonetization of public debt.

4) In the absence of a central bank in a country with a currency board, there is a problem in central banking supervision. To ensure strict prudential regulation and supervision of banks, in order to ensure the stability of the financial sector, it is necessary to establish supervisory agencies. Due to the risk of collapse of the entire banking sector, which can be caused by sudden outflow or loss of deposits in a bank, especially if it is large, it is necessary to enact laws to protect the deposits.

### **3. Alternative exchange rate regimes: pro and contra**

When creating a monetary union costs are arising from the fact that the state abandoning its national currency also loses monetary sovereignty, ie. ability to manage the national monetary policy. In the alternative exchange rate regimes national central bank or ceases to exist or loses its real power to influence on the price of currencies, to determine the amount of money in circulation or to change short-term interest rates.

Accepting external monetary policy represents a first cost that may lead to adverse political and psychological consequences. The most sensitive issue is related to the contradictory goals of monetary policy. Basic and certainly the most important function of the central bank is to conduct monetary policy. Jobs related to this function refer to the process of emission and control of the money supply. In defining the scope of the money supply, the central bank is guided by the need to achieve the most common primary goal of monetary policy and that is price stability. Other goals such as economic growth, a desirable level of employment and balance of payments deficit are second-class goals and their achievement is possible provided that the primary goal, the price stability, is not compromised. The necessity of determination for the primary goal stems from the fact that these goals are mutually conflicting. For example, if the central bank opts for price stability, it can, in certain circumstances, especially in the short term negatively impact on economic growth and employment. Starting from the axiom that for development of any economy the basic condition is monetary stability, it is unambiguously clear that the central bank will most often as the main, priority goal, choose price stability. This can be achieved with strict and independent control of the amount of money in circulation, taking care that its quantity, as much as possible, approaches to the nominal GDP. Only in stable economic conditions it is possible to expect growth of all forms of savings without fear of real impairment, which in turn represents a material requirement of increasing interest in investments and increasing exports (Markovic and Furtula, 2012, p. 240). The problem may be the loss of the right to self-changing exchange rates. Loss of autonomy in determining the exchange rate is not important as long as economic cycles show symmetrical movement.

Since all alternative modes besides the lack are having certain advantages, it is necessary to make a comparative analysis feasibility of the key goals of monetary policy of the states at the same level of development, but which have adopted different exchange rate regimes. Therefore, we will analyze the effects of monetary policy in Serbia, with the National Bank of Serbia that conducts its own monetary policy, in Montenegro, that is in the euroization regime and in Bosnia and Herzegovina, that is in the currency board regime. Price stability is the main goal of monetary policy. Price stability in an economy is desirable because their growth (inflation) affects the uncertainty that may adversely affect the economic growth and employment. For example, if the total price level changes that complicate the decision-making of consumers, investors and government. Inflation makes it difficult to plan for the future and is characterized as the largest economic disease of the twentieth century. The main advantage of euroization and the currency board is accepting external stable monetary policy, as in the case of Montenegro and BiH means accepting monetary policy of the ECB, which is oriented to price stability. In the following tables the analysis included a six-year period (from 2006 to 2012). The difference between the inflation rate in Serbia, Montenegro and BiH is shown in Table 1:

*Table 1. Inflation rate in Serbia, Montenegro and Bosnia and Herzegovina, percental*

	2006	2007	2008	2009	2010	2011	2012
<b>Serbia</b>	6,6	11	8,6	6,6	10,3	7	12,2
<b>Montenegro</b>	2	7,7	6,9	1,5	0,7	2,8	5,1
<b>BiH</b>	6,1	1,5	7,4	-0,4	2,1	3,7	2,1

Source: NBS, CBM, CBBH

From the table it can be concluded that the practice confirmed theory that Montenegro and BiH adopting the euro as an instrument of payment and binding its currency to the euro reached a satisfactory price stability as a result of the monetary policy of the European Central Bank. The data show that although there are some fluctuations from year to year, it is evident that the highest inflation rates are recorded in Serbia.

Price stability is relatively achieved both in euroization and in the currency board regime and it is usually defined as the primary goal of monetary policy of the central banks of the developed countries of the world. However, it is interesting to see whether and what independence exists between price stability and unemployment rate in the observed countries with different exchange rate regimes. In addition, our attention will be focused on the second goal of economic policy, economic growth rate, which is in direct interactive relation with the unemployment rate, and both of these goals of economic policy are conflicting in the short term in order to achieve price stability. In Table 2 and Table 3 has shown the movement of the unemployment rate and real GDP in the observed countries in the period since 2006 by 2012.

*Table 2. The unemployment rate in Serbia, Montenegro and BIH, percental*

	2006	2007	2008	2009	2010	2011	2012
<b>Serbia</b>	20,9	18,1	13,6	16,1	19,2	23	23,9
<b>Montenegro</b>	14,7	11,9	10,9	10,10	12,16	11,57	13,43
<b>BiH</b>	31,1	29,0	23,4	24,1	27,2	27,6	28

Source: NBS, CBM, CBBH

From the data given in Table 2 it is notable that the unemployment rate in BiH is very high which corresponds to economic theory and the conflict of goals between stable prices and full employment. However, Montenegro, which also had a relatively low prices, had almost twice lower unemployment than BiH. The reason for this is the highly developed tertiary sector in the tourism industry and a very small number of working-age population in Montenegro. The total number of unemployed persons in Montenegro is about 35,000 and in BiH is about 350,000. On the other hand, Serbia's independent monetary policy managed to relatively stabilize unemployment until

2010, but the consequences of the global financial crisis and the privatization process, that was in most companies incorrectly implemented, resulted in a large number of unemployed persons (about 750,000). Thus, the unemployment rate in 2012 even reached 23.9%.

**Table 3.** Real GDP growth rate in Serbia, Montenegro and BiH, percental

	2006	2007	2008	2009	2010	2011	2012
<b>Serbia</b>	3,6	5,4	3,8	-3,5	1,0	1,6	-1,5
<b>Montenegro</b>	8,6	10,7	6,9	-5,7	2,5	3,2	-2,5
<b>BiH</b>	6,0	6,1	5,6	-2,9	1,4	1,0	-0,5

Source: NBS, CBM, CBBH

Real GDP growth rate in the observed countries shows large deviations from year to year, and deviations from the economic rule of conflict of monetary policy goals of stable prices and reducing the production of goods and services. Despite stable prices Montenegro has achieved relatively high growth rates, all by 2012, in which was recorded significant fall, which ranks her at first place based on this criterion, than follows BiH and Serbia at the end. The data indicate that in countries that have a history of high inflation expectations, prerequisite for successful recovery is price stability or accepting external monetary policy of stable prices.

Fiscal discipline is a prerequisite for the acceptance of alternative exchange rate regimes, considering the fact that the Central Bank is no longer able to, creating a new quantity of money, compensate negative trends in the budget, so it is necessary to analyze the budget deficits in the observed countries.

**Table 4.** Budget deficit/surplus in Serbia, Montenegro and BiH, percental

	2007	2008	2009	2010	2011	2012
<b>Serbia</b>	-1,1	-1,9	-3,3	-3,5	-4,1	-5,7
<b>Montenegro</b>	6,6	0,5	-4,4	-3,6	-5,9	-4,9
<b>BiH</b>	1,2	-2,2	-4,4	-2,5	-1,3	-2,1

Source: NBS, CBM, CBBH

According to this criterion BiH is in the first place, considering that almost all the observed years had a budget deficit that fulfills Maastricht criterion below 3%. The only difference is in the year 2009 as a result of the global financial crisis. Montenegro, in the period since the year 2009 by 2012, had not complied the level of budget deficit with the Maastricht convergence criteria, but in year 2007 and 2008 had achieved a budget surplus. Serbia has consistently had a budget deficit, and since the year 2009 higher than 3%, ie. outside of the convergence criteria.

In addition to the loss of monetary sovereignty and exchange rate policy as a lack of introduction of a stable currency in function of instrument of payment or tying currency to the reference currency of the world, there are numerous benefits that can not be measured precisely, but which have great importance. Basic benefits are greater transparency in prices and a reduction in transaction costs of exchange currencies. In determining the transaction costs of exchange currencies it is necessary to observe the exchange rate of the domestic currency against the euro and exchange gains buying and selling rate, or the amount of bank charges, in the observed countries.

**Table 5.** The exchange rate of the domestic currency against the euro in Serbia, Montenegro and BiH

	2006	2007	2008	2009	2010	2011	2012
<b>Serbia</b>	84,11	79,96	81,44	93,55	103,04	101,95	113,13
<b>Montenegro</b>	1	1	1	1	1	1	1
<b>BiH</b>	1,9583	1,9583	1,9583	1,9583	1,9583	1,9583	1,9583

Source: NBS, CBM, CBBH



From the table it can be concluded that in Montenegro due to unilateral euroization, there are no costs of exchange domestic currency for the euro, in BiH fictitiously, there are no costs of exchange convertible mark for the euro, considering that selling, middle and buying exchange rate is identical and amounts to 1.9583 convertible mark for 1 euro. In contrast to them, in Serbia banks generate additional revenues due to the depreciation of the dinar against the euro and in the difference between the buying and selling middle exchange rate, which is shown in Table 6. In BiH commercial banks charge a commission in amount from 0.7-0.8%, and in most banks 0.75%. The fee is usually the same both for buying and selling euros, but for example in a bank Intesa Sanpaolo fee for buying euros is 0.5% and for the sale of euro banking service is charged in the amount of even 1% of sold euros. How many banks annually earn only in exchange of KM for euro can be seen from data given in Table 6.

**Table 6. Buying and selling of KM in BiH, in thousands of KM**

	2006	2007	2008	2009	2010	2011	2012
<b>Selling</b>	3.316.017	3.878.146	4.933.211	4.197.642	5.273.777	5.088.041	5.511.162
<b>Buying</b>	2.181.712	2.822.867	5.564.318	4.234.491	5.014.550	5.162.710	5.491.896
<b>Total</b>	5.497.729	6.701.013	10.497.529	8.432.133	10.288.327	10.250.751	11.003.058

Source: CBBH

From Table 6 it can be concluded that the income from the conversion of KM in 2012, if we observe the average fee for the conversion of KM in the amount of 0.75%, amounted to 77,021,406 convertible marks.

Serbia does not charge fees but banks earn on the difference between the selling and buying rates. The bank determines a large difference between selling and buying exchange rate which reflects on the increase in the demand for euros and the depreciation of dinar. The differences between buying and selling exchange rate can be seen in Table 7, which shows the selling and buying foreign exchange rates of the dinar for the euro as of 03/05/2014. when the official middle exchange rate of the National Bank of Serbia amounted to 115.96 dinars for one euro.

**Table 7. Selling and buying middle exchange rate of the dinar for the euro in commercial banks in Serbia**

Ordinal Number	Commercial Bank	Selling Rate	Buying Rate	Difference
	AIK Bank	112,31	118,19	5,88
	Alpha Bank	113,99	117,93	3,94
	Banca Intesa	113,06	118,28	5,22
	Postal savings Bank	115,61	116,48	0,87
	Cacak Bank	113,06	118,86	5,8
	Credit Agricole Bank	113,64	118,28	4,64
	Danube Bank	114,22	117,35	3,13
	Erste Bank	113,64	118,28	4,64
	Eurobank	113,06	118,86	5,8
	Findomestic Bank	113,64	118,28	4,64
	Hypo Alpe-Adria-Bank	114,22	117,70	3,48
	JUBMES Bank	113,87	118,05	4,18
	Yugobank	114,40	117,53	3,13
	KBC Bank	113,76	118,23	4,47
	KBM Bank	114,57	117,12	2,55
	Commercial Bank	113,64	118,64	5
	Marfin Bank	113,64	118,87	5,23
	NLB Bank	113,29	118,63	5,34
	Opportunity Bank	113,87	118,05	4,18
	OTP Bank	113,64	118,05	4,41



Ordinal Number	Commercial Bank	Selling Rate	Buying Rate	Difference
	Piraeus Bank	113,06	119,44	6,38
	ProCredit Bank	113,99	118,28	4,29
	Raiffeisen Bank	113,64	118,17	4,53
	Sberbank	113,64	119,46	5,82
	Societe Generale Bank	113,64	118,63	4,99
	Serbian Bank	113,64	118,28	4,64
	Unicredit Bank	113,25	118,82	5,57
	Vojvodina Bank	113,06	118,86	5,8
	VTB Bank	113,75	118,16	4,41

Source: NBS

The difference is evident with a huge deviation that between the Postal Savings Bank and Piraeus Bank moves even to 5.51 dinar. If the subject would have bought and sold 1,000,000 euros, this transaction in the Piraeus Bank would have cost 5.5 million dinars (50,000 euros) more than in the Postal Savings Bank. When selling the subject would have lost 3.42 million dinars (30,000 euros), and when buying euros 2.96 million dinars (25,000 euros) if the transaction would have carried out in Piraeus Bank and not in the Postal Savings Bank. Interesting is the fact that in spite of slight deviations selling and buying exchange rate of NBS, some banks form a negotiated exchange rate with huge variations. For example, Credit Agricole, Erste, Findomestic and Serbian bank have identical exchange rate that substantially deviates from the middle rate of the dinar to the euro of NBS.

#### 4. Conclusion

Implementation of the strategy of targeting the exchange rate means loss of monetary sovereignty for a country that applies this strategy. In other words, this means that the central bank can not, changing the course of monetary policy in the situation when there is a fear of the upcoming inflation, move to a restrictive monetary policy or expansionary policy when the economy is facing with a recession and a decline in employment. However, although this situation indicates a significant handicap caused by the loss of monetary sovereignty, it does not necessarily represent a big problem in a situation where the central bank is not consistent in conducting monetary policy in the long run, especially at a time when the central bank "anchor-state" achieves better effects in achieving stability.

Price of implementation of exchange rate targeting strategy is almost negligible in countries where monetary institutions do not have sufficient strength to ensure the independence of monetary policy from the influence of political structures, like economies in transition, so the constantly facing with hyperinflation shows a much greater handicap for national economy than the loss of monetary sovereignty. Exchange rate stability is much more important for countries in transition and countries with emerging markets than in developed countries. This is because these countries, as a rule, are faced with the problem of the high rate of inflation, so with the acceptance of exchange rate targeting strategy, soon comes to the decline in inflation, especially inflation expectations.

In addition to all the advantages and disadvantages of the exchange rate targeting strategy in economic theory, it is particularly important to analyze the strategy of targeting in the countries at the same level of development with different exchange rate regimes. The study was conducted in three countries at the same level of development that once were part of one entity. The paper points out that the price stability is a primary goal for the central banks of most developed countries with reason, which is particularly evident in countries that are burdened by the phenomenon of expected inflation which had in the past, and in some countries still have a big impact on the price level. Once again, the well-known thought of Robert Shiller, the professor of

Yale University in the United States, was confirmed, who said that "stability might not be everything, but without stability everything else becomes nothing".

Based on empirical data presented in the paper it can be concluded that the most appropriate mode of the exchange rate targeting strategy is euroisation. In addition to all the advantages of the countries that use the currency board, euroisation provides transparency in pricing and the elimination of transaction costs of exchange of domestic currency for the euro, which reaches record levels. The advantage of a currency board is certainly seigniorage, which is obtained by the difference of the nominal value of the currency and the costs of printing and distribution of the currency, but the countries that are part of the EMU also receive part of the seigniorage percentage. Montenegro has no income from seigniorage as accepted the regime of euroization without the consent of the Council of Ministers of the ECOFIN that brought the conclusion, in November of 2000 that the introduction of unilateral euroization is contrary to the idea of the European Monetary Union as defined in the Maastricht Treaty, which requires that the introduction of the euro is preceded by convergence compliance of future member states.

Regard to the high and different transaction costs of exchange currency in Serbia and BiH, it is necessary that the National Bank of Serbia adopts active measures in limiting differences in buying and selling exchange rate relative to the middle exchange rate of dinar for the euro of NBS, and that the Central Bank of BiH limits the amount of commissions that are not transparent and are not within the tariff fee in some banks, and to eliminate deviations of commission fee at commercial banks.

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## PREDICTION OF COMPANIES' OPERATING DIFFICULTIES IN WOOD INDUSTRY OF REPUBLIC OF SRPSKA

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### Abstract

*In a world of constant technological and market changes in the global financial crisis, as a condition of growth and development and above all, the survival of the company there is a need of business forecasting. The main task of management becomes actively responding to change, and quickly finding and implementing new business possibilities and opportunities, having as a ultimate goal business risks mitigation. Altman's model (Z-score) is widely applied in planning and business operations, as a mean of recognizing the causes and symptoms of business problems. This paper presents an analysis of business problems in companies from the Republic of Srpska wood processing industry, in the period from 2009 to 2011. Altman multivariate approach includes the ratio and the categorical values which are combined to obtain a measure that at best distinguishes enterprises which are operating without difficulties from those which are performing unsuccessfully. The analysis includes nine wood processing companies in the Republic of Srpska whose net profit presents over 68 % of the net profit generated in 2012 in the wood industry of the Republic of Srpska. The scientific objective of this paper is to, trough an econometric analysis and using financial values, anticipate difficulties in wood industry enterprises of the Republic of Srpska.*

**Keywords:** business forecasting, entrepreneurial activity, the timber industry of the Republic of Srpska, Altman's Z score;

### 1. Introduction

In the analysis of the functioning of an economy, particularly in order to mitigate crises or to introduce measures to overcome the first signs of a crisis the „business model forecast" is widely applied. It is named the Altman's model or Z - score after its author Edward Altman. This model is used to evaluate the health of a business enterprise, the financial strength, creditworthiness and performance of the company. In addition, as a model of aggregate indicators, the Altman Z - score can predict whether the company will, in the short term, go into bankruptcy. We conclude that the Z – score is one of the most effective summary (synthetic) indicators that can be extrapolated from the financial statement data. Altman uses a statistical technique known as “discriminant analysis”. The model belongs to the group of accounting techniques used to predict failure and is based on the analysis of rational numbers. Primarily it measures the solvency and anticipates failure of the organization. Altman's model is driven by five ratios, each with its own weight, so

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that the sum of all the weighted ratios and the product of their individual weight results in the Z score.

The Z score is essentially a weighted average calculated from discrimination functions. This model is often used by auditors in the control of business operations. The ZETA score known as a "Model of financial ratios" has already been in use for several decades as a tool that successfully helps to identify the causes and symptoms of imminent collapse. Using the Altman Z score, it is possible to identify potential financial problems in the coming period. If the obtained Z score indicates a value below 1.8 (with the great possibility of prediction accuracy, up to 75% of accuracy), it is necessary that the management initiate urgent changes aimed at increasing the efficiency of operations in the enterprise. In case no restructuring happens, there is a chance that such a company will experience a bankruptcy in the next two to three years. For the purpose of analysis and prediction of difficulty, using the given model, we analyzed nine wood sector enterprises in Republic of Srpska in the period from 2009 to 2011. The actives, which were undertaken by managers in companies that were, according to their Z score on the verge of bankruptcy, in many of the companies helped saving them from bankruptcy or failure.

The main research questions that are addressed through the paper, and for which we look for the answer in this paper is: "What are the advantages and disadvantages of the proposed methods of business forecasting; which variables are important for the analysis and implementation of business processes forecasting; what are the target values of the indicators for the wood sector in Republic of Srpska; what problems should wood processing companies anticipate". Scientific research subject belongs to the field of business forecasting and early detection business problems. In that regard, it follows the basic research hypothesis  $H_0$ : "In the wood industry of Republic of Srpska there are companies which are continuously found to be in the risk zone of bankruptcy". The analysis used the annual reports of wood processing companies in Republic of Srpska in 2009, 2010 and 2011, as well as other publicly available information on the Internet. During the research and data analysis, we used the statistical software MS Excel. In the course of this research we used secondary data sources for the calculation of the applicability of the model in the wood sector of Republic of Srpska, as well as primary sources on the basis of research and calculations performed by the authors. Deduction and induction as scientific methods were used in the paper.

## 2. Review of the literature and previous research

In the modern, challenging market conditions with strong competition in the form of large multinational companies that operate with very high efficiency and with an incredibly high level of profitability, small and underdeveloped manufacturing enterprises that produce and operate in adverse market conditions and the economic slump BH, management must use more reliable tools for early recognition of potential financial or business collapse. Any mistake or miscalculation of the situation can lead the company into bankruptcy and liquidation. Oskar Morgenstern, an American economist of German origin, was one of the first scientists interested in Economic Forecasting. His work culminated in the book "Theory of Games and Economic Behavior", written in collaboration with Von Neumann (Clements, 1998, p. 6). Entrepreneurial intelligence is a tool to identify creative entrepreneurial process, which is the way to a transformation of the model under control, or implement an entrepreneurial venture to a new, different way. Here intelligence serves means direct assistance to carry out entrepreneurial ventures. Such models are designed to integrate the information flows in the company and in certain industries, "to observe and evaluate" previously identified problem areas and provide business solutions based on business forecasts.

Business difficulties, involves a situation in which a company has problems with servicing obligations, no possibility of realization of the production process, no possibility of making the sale, incompetent management, etc (Arnold, 2001, p. 822). Business forecasting is the process of studying the activity of internal and external factors that affect the future operations of the

company, with the use of different instruments prediction (Vukmirović, 2012, p. 413). Widely known method Z - Score, developed by Edward Altman (1968) is the simplest system of analysis using weighted indicators. Z-Score method compares different financial indicators to predict when the company needs a change. Composition of the model is simple, and the results give a fairly accurate diagnosis of the financial health of the company. The model allows the owner of the company rapid assessment (decision) on the need to undertake certain micro organizational changes. It also measures the creditworthiness of the company's financial health (for the purposes of business reorganization, the purchase or sale of shares, the restructuring of existing obligations, emergency cost reduction or often a combination of afore mentioned). It is used as one of the most important financial analysis tools, and it uses five different weighted indicators. The value of Z-Score for most companies ranges from -4 to +8. According to Altman's research an enterprise can obtain the following values (Altman, 1968, p. 9):

- Companies in which the index is less than 1.81 indicate the likelihood that they will not be able to meet the requirements for continuing operations, and may suffer large losses. They have an increased probability of bankruptcy within two years.
- Companies that have an index between 1.81 and 3 are in the gray zone and meet requirements for business continuity and can go in either direction - towards a successful business or bankruptcy
- Financially powerful companies, for which there is little likelihood of bankruptcy, have a Z value greater than 3. These are companies that have stable profitable business.
- Analysis is a reliable mean of:
- Bankruptcy forecasting for manufacturing companies up to two years in advance;
- Reveal financial problems of potential customers, suppliers and other companies that could affect business.
- Calculating the financial condition of the enterprise based on information gathered from balance sheets and income statements.

It is necessary to follow the trends in the Z-scores of suppliers, competitors, clients, customers and other candidates who are of interest to the company. A drop in the Z-score is an indicator that a detailed analysis of the financial condition and business positions of the company is necessary. A periodically repeated Z-score analysis for companies of interest should be displayed on a graph with Z scores on the vertical axis and time on the horizontal axis. A significant downward trend in Z results indicates a potential problem, and if the Z-score falls below 1.81, the source of the problem must be identified and evaluated. It is necessary to look at trends within individual ratios in the formula, in order to see why Z-score declines and to determine whether it is a serious problem. Altman did not follow the Z-scores over time, but for many companies this can be useful for monitoring dozens or even hundreds of companies with whom they have relationships through purchase and distribution, and various companies that they follow in order to analyze their competitiveness or as potential candidates for purchase.

Routine quarterly or annual analysis can be used to calculate and graphically display the Z score with other ratios and statistical data. Before using Altman's model it is necessary to determine what the defined indicator means (the issue is the value of assets, off-balance assets and gross income). Apart from this, Altman's model is useful especially in case the index of Z is calculated for a longer period of time. When assessing the need for macro-organizational structural changes, management needs to assess the ability of the company for continuing operations, and based on the Altman Z score make the calculation of the financial condition of the enterprise using information from balance sheets and income statements. Information about financial position is primarily provided in a balance sheet, and the performance information provided in the income statement. The financial statements are normally prepared on the assumption that the entity operates indefinitely, and will continue to operate for the foreseeable future. As a methodological



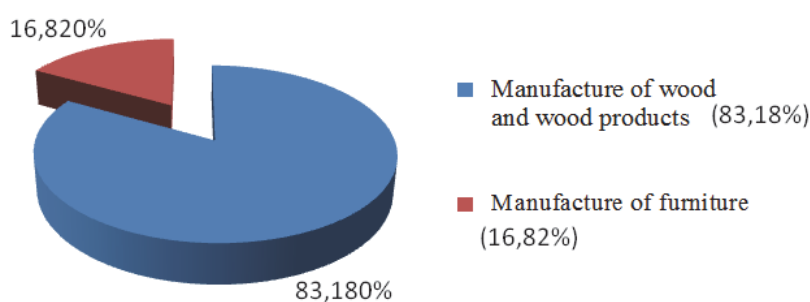
basis for the research the paper uses information presented in financial statements whose characteristics are intelligibility, relevance, reliability and comparability. The formula used to calculate the Z score uses information that is obtained from standard financial statements, so it can be applied to public competition, customer candidates, suppliers, customers and other companies of interest. Z - scores can also be useful for identifying trends in the financial situation of their own companies. Sometimes the Z - score analysis is required to alert the management to the severity of a company's position so that they can take the necessary steps. Altman calculated the probability of accurate predictions by using historical data from the balance statements of 85 companies that have gone bankrupt. He found that 95% of companies that have gone bankrupt in his sample had a Z score below 1.81 in the year before bankruptcy, and 72% of them two years before. However, only 4% had such a score three years before the bankruptcy, which shows that the Z-score is not particularly useful for forecasting for more than two years in advance. Studies that investigated the efficacy of calculating Altman's Z - score showed the reliability of the model to be more than 70% and its results give a fairly accurate diagnosis of the financial health of the company (Altman, 1968, p.4).

### 3. Sector timber industry of the Republic of Srpska

According to data of the State Institute of Statistics the wood industry participated in the overall industry in the Republic of Srpska in 2011 with 6.86% with the manufacture of wood and wood and cork products, straw and plaiting materials taking up 4.18% and the furniture manufacturing industry taking up 2,68% (Republican Institute for statistiku Republic of Srpska). Participation of the timber processing industry in the processing industry of Republic of Srpska in 2011 was 8.66% with the manufacture of wood and of products of wood and cork, straw and plaiting materials taking up 5.28% and furniture manufacturing taking up 3.38% (Republican Institute for statistiku Republic of Srpska).

Of the total number of companies in the timber industry, 15 are joint stock companies or 2.8%, and 526 are limited liability companies, or 97.2% (Republican Institute for statistiku Republic of Srpska). Chart number 1 shows that in the wood sector in 2011, furniture production represented only 16,82% while wood and wood product production represented 83,18% of total production in Republic of Srpska.

**Figure 1.** The structure of sectors per timber areas in 2011



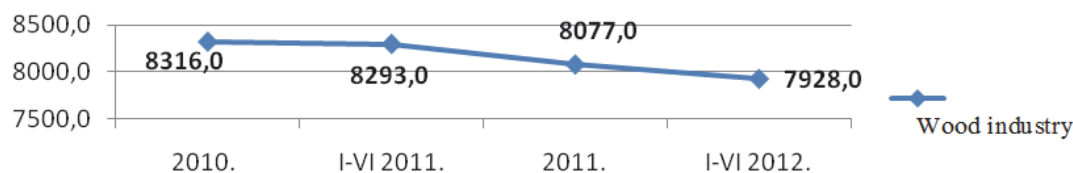
Source: APIF

The diagram shows that the largest number of companies operates in the field of wood and wood products. Manufacture of furniture during 2009-2011 rises, which is very important in terms of changing the structure of the sector in favor of the final products. At the level of the timber industry, according to data of the State Institute of Statistics of the Republic of Srpska, in the first half of 2012, compared to the same period of 2011, the field of processing and products of wood



and cork production recorded a growth of 0.5%. In the same period, the area of production of furniture and related products operated with a decline of 1.3% (Republican Institute for statistiku Republic of Srpska). Following chart will show the trend in employment in the timber industry in the RS period (2010-2012).

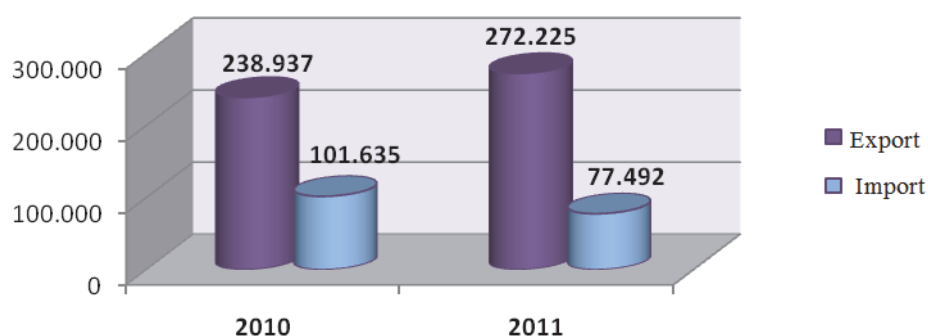
**Figure 2.** The trend of the number of employees in the timber industry RS (2010-2012).



Source: Republic Institute for Statistics of Republic of Srpska

By analyzing the graph it can be seen that the timber industry of the Republic of Srpska in the observed period had significant fluctuations in the number of employees. In the period from January to June of 2012 the timber industry employed 7,928 workers, down by 4.4% compared to the same period of the previous year. The next chart shows coverage of imports by exports in the timber industry in 2010 and 2011.

**Figure 3.** The coverage of imports by exports in the timber industry in the 2010 and 2011



Source: Republic Institute for Statistics of Republic of Srpska

The surplus in foreign trade in 2011 amounted to 194.733 million BAM, and the export-import ratio was 351.29%. Exports of timber in 2011, had an increase of 13.93% compared to 2010, while imports decreased by 23.75%. Foreign trade surplus in timber in 2011, showed an increase of 116% compared to 2010. The participation of timber sector in total exports of Republic of Srpska in 2011 amounted to 10.63%, which is at the level of 2010. In the total exports of the manufacturing industry, the wood industry accounts for 12.88%. Participation of furniture manufacturing in the total exports of the timber industry in 2011 amounted to 37.02% (Republican Institute for statistiku Republic of Srpska). According to data of the State Institute of Statistics, in the first 6 months of 2012 the wood industry realized total exports amounting to 139.549 million BAM and imports amounted to 36,992,000 BAM, so there was a surplus of foreign trade timber, and the achieved export was 3.77 times higher than imports (Republican Institute for statistiku Republic of Srpska). A surplus of foreign trade was achieved in the wood industry, and the export value of the field of wood and wood products increased by 3.3 times, while in the field of production of furniture exports was 4.7 times greater than the value of imports.

#### 4. The research methodology and analysis of the sample – the wood industry sector of the Republic of Srpska

In calculating the Z score in situations where a company has an own capital which is much lower than the total capital, as a result of retained earnings from previous years, we corrected Z score calculation using data on total capital from the previous business year. The reason is that the company by law, and generally in its Statute is not required to increase capital from retained earnings. Nevertheless, these retained earnings are an integral part of the total capital. From the principle of prudence, and to eliminate the influence of the existing profit on total capital in calculating the elements of the Z- score we used data on equity in the previous year. This avoids the possible reduction of capital in case the company authorities decide to allocate the retained earnings for other purposes, apart from the increase of capital. Thus we arrive at realistic indicators to calculate the Z- score, because we eliminate the short-term impact of decisions made by companies. Keeping this in mind, we get a more accurate review of the financial position of the company that serves as a realistic basis for forecasting of the financial condition of the company, and consequently its need for macro-organizational changes.

In cases where the value of equity capital is significantly above the total capital in calculating the elements of the Z- score we take the value of the total capital. The reason for the use of the total capital is the fact that the difference is a result of losses in the enterprise. As it is unlikely that the company can cover the losses from other sources, apart from its own resources, which are usually retained earnings or capital of the company, we calculate the elements of the Z - score using total capital as a realistic indicator of the capital stock of the company. In this way we determine the exact financial condition of the company which serves as a good basis for further calculating and planning. There are cases where the company reported a same value of gross and net profit. This means that these companies were not required to withhold and pay income taxes. Reasons for exemptions, as provided by law, and the most common way to get rid of calculation and payment of income tax is an investment in the purchase of fixed assets used to perform regular activities. There are cases when a company reported a net loss greater than the gross loss. This means that to these companies were not admitted certain expenses as ordinary business expenses for tax purposes, as well as donations to various associations and political parties, representation expenses and certain personal income expenses. Because these costs are not recognized, this increases the tax base for the calculation and payment of income tax, and it results in the company having to calculate the tax on profit, although it has shown a loss. The rule which must be observed is that the Z score will not be useful even a year in advance if a company is misrepresenting the status of the company in its books! To obtain the value of the Z - score, it is necessary to calculate the next 5 ratios (Altman, 1968, p. 4):

**A** – Current Assets / Total Assets (x1.2)

The difference between current assets and current liabilities divided by total book value of assets of the company.

**B** – Retained Earnings / Total Assets (x1.4)

The ratio is lower for younger companies because retained earnings increase during the existence of the company. The penalty for youth reflects the high probability of bankruptcy among young companies.

**C** – Profit before tax / Total assets (x3.3)

Also referred to as return on total assets, this ratio includes all capital employed (own and debt).

**D** – Own Capital / all debts (x0.6)

To calculate this indicator, we use the size of the equity in relation to all debts. The divisor represents the sum of short-term and long-term debt.

**E** – Sales / Total assets (x0.999)

It is a simple measure of capital utilization.

To calculate the Altman Z-score it is necessary to sum the products of each ratio obtained above with its weighted factor, as given in the formula below (Altman, 1968, p. 4):

$$Z = (1.2) A + (1.4) B + (3.3) C + (0.6) D + E$$

Companies are required to submit annual financial reports to the competent authority designated by the Minister of Finance. The obligation of submission of annual financial statements is prescribed by the Law on Accounting and Auditing of the Republic of Srpska (RS Official Gazette No.67/05) and International Accounting Standard No. 1 - Presentation of Financial Statements. According to this act of the Minister of Finance the competent authority for receiving and processing the data from the financial statements is the Agency for Intermediary, IT and financial services (FIPA). Items for calculating each individual ratios, and the overall Z score can be found in balance sheets and income statements, which are an integral and important part of the annual financial statements. Sampling is done on sector enterprises timber Republic of Srpska. The analysis included nine companies of the Republic of Srpska wood industry whose net profit accounts for over 68% of the net profit earned in 2012 in the wood industry of the Republic of Srpska. After the sampling, and the receipt of the financial statements, items necessary for the calculating Altman's Z scores are identified and extracted. As an example we can take the concept of working capital in the calculation of X1 ratios, which is information about the current assets from the balance sheet form (AOP 034). Finally, before calculating the Z score computational and logical control of the collected data was performed. Without ignoring the importance of computational control, during logic control, special attention is paid to the categories of net and gross profit, and net and gross loss.

## 5. Research results and discussion

Analysis of financial indicators from nine enterprises from the wood sector of Republic of Srpska in four consecutive fiscal years has resulted in useful information. The results shown in Table 1, can be basically divided into two main groups of companies, those with a score above 1.8 and those below. For the purpose of detailed analysis, an additional category for companies with a score between 1.81 and 3.0 was introduced. The research results are presented in Table 1.

**Table 1.** Research results for selected enterprises from wood sector of Republic of Srpska (2008-2011)

Company	Year			
	2011	2010	2009	2008
1	4.57	4.83	3.88	4.83
2	1.35	1.41	1.04	1.07
3	4.22	3.65	3.40	3.59
4	1.57	1.51	1.32	1.45
5	1.18	2.11	2.40	4.09
6	5.48	5.45	3.35	3.60
7	1.44	1.38	1.37	1.76
8	2.36	2.79	3.27	3.69
9	2.97	2.20	2.04	1.94

Source: Calculation based on research by authors

The research results, presented in Table 1 show the following:

- The results of the score in 2008 show that three enterprise or 33.33% of the observed subjects had a Z score below 1.80. It can be seen that the results vary widely from 1.07 to 1.76. In the 2009, there are also three companies, i.e. 33.33% of the observed sample with a score of less than 1.80. In 2010 there were also three companies with a score of less than 1.80, i.e. 33.33%. In 2011 the score is under 1.80 for four companies, i.e. 44.44%, which indicates the two possible solutions: a) there is a pronounced difference in business performance among the aforementioned undertakings on the market and b) that financial information does not represent accurate and reliable data. We eliminated option b for the purposes of this study, via a detailed analysis of data from the Financial Statements. Based on the preceding analysis, we can see which companies were in the bankruptcy zone.
- In the results of score for 2008, one company of the observed sample, i.e. 11.11% had a score ranging from 1.80 to 3.0. In 2009, the two companies (22.22%) had a value ranging from 1.80 to 3.0. In 2010 three companies, i.e. 33.33% had scores ranging from 1.80 to 3.0. In 2011 two companies i.e. 22.22% of the companies analyzed in the sample had scores ranging from 1.80 to 3.0.
- In 2008 five companies (55.56%) had a score above 3.0. In 2009 four companies had the score (44.44%). In 2010 three companies (33.33%) had a score above 3.0. The situation in 2011 remained unchanged, i.e. three companies had a score above 3.0. It is evident that the impact of the crisis was reflected in the operations of enterprises in the wood sector of Republic of Srpska.

In table 2. we show the average value score by enterprises in the reporting period. In addition, we present the standard deviation value trends recently observed in the period by the companies.

**Table 2.** *The average value and standard deviation score for enterprises from the observed sample (2008-2011).*

Company	Average	The standard deviation score
1	4.53	0.39
2	1.22	0.16
3	3.72	0.31
4	1.46	0.09
5	2.45	1.05
6	4.47	1.00
7	1.49	0.16
8	3.03	0.50
9	2.29	0.41

*Source: Calculation based on research by authors*

The objective of the analysis in the previous table was the assessment of variability in the z-score by years in the observed companies, which is an indicator of changes in business operations. It is important to emphasize that the highest standard deviation values were found in company five, where the average value of the z-score deviates by period by an average of 1.05%. On the observed sample, in conditions of crisis and complex BH market slump, the decisions made by management based on the Z score can be of crucial importance and of great help in anticipating and mitigating potential problems. Analysis of the observed companies in business for three consecutive years, and a comparison with indicators obtained in the Z -Score, we may conclude with great certainty that this finance tool should be used to identify potential problems in companies in Republic of Srpska. Of course, every legal entity carries its own peculiarities, and

we should not blindly adhere to the specified range of values, keeping in mind that each company works with its specific internal conditions which must be observed and respected. The common conclusion for all the companies in our sample, is that with the semi-annual calculations of the Altman Z - score, and the monitoring of reasons for the fall and/or growth of this indicator, management can with great certainty make a proper decision on the necessary steps in the company. Companies in the Republic of Srpska in terms of decision-making on taking organizational changes are generally not motivated by an effort to conform to the environment (money market, goods and services, legislation, etc.), but mostly in the case of general and financial difficulties.

Further on in this paper we will analyze separately each of the studied companies that are located in the zone of bankruptcy from the viewpoint of changes and innovations that have taken place in the companies. Comparing the results of Altman formula and movement in the financial indicators along with management decisions, leads us to interesting conclusions within certain companies.

**Table 3.** Analysis SCORE company 2.

Company	Year			
	2011	2010	2009	2008
2	1.35	1.41	1.04	1.07

Source: Calculation based on research by authors

In company 2, there is a trend of increase in score value, starting from 2008 to 2010, and after that with adjustments in 2011 to a value score of 1.35. Improving value score in this period was the result of organizational changes and cost savings that the company management conducted. In 2011 the company found itself before another wave of economic crisis, and the decrease of sales has resulted in a decline in scores.

**Table 4.** Analysis SCORE company 4.

Company	Year			
	2011	2010	2009	2008
4	1.57	1.51	1.32	1.45

Source: Calculation based on research by authors

In company four, with a value score of 1:45 in 2008, there has been a fall in score value in 2009. After that comes a rise in the score value, which was a result of the introduction of innovations in the sales department.

**Table 5.** Analysis SCORE company 5.

Company	Year			
	2011	2010	2009	2008
5	1.18	2.11	2.40	4.09

Source: Calculation based on research by authors

Company 5 of the observed sample, also has an interesting result. The value of the score decreases over the years as a result of the impact of the global economic crisis, which affected the sales revenue and profitability of the company. This resulted in company 5 having a score value in the bankruptcy zone in 2011. This indicates to management the need for vigilance in terms of future operations and activities of the enterprise.

**Table 6.** Analysis SCORE company 7.

Company	Year			
	2011	2010	2009	2008
7	1.44	1.38	1.37	1.76

Source: Calculation based on research by authors

The preceding table shows the values for company 7 whose parameters were in the zone of bankruptcy. Company 7 of the sample showed evident problems in all four monitored years. Management of the company will have to do the analysis and assess what steps to take as soon as possible. The excessive debt must be restructured and adjusted with available cash flow. In addition, part of the fixed assets is inadequately utilized and part of it should be sold or used in a larger capacity. An option that is available is adequate factoring, which would fix the company's liquidity in the short term, and increase the level of sales and profitability of assets.

To achieve positive change and prevent potential problems or even bankruptcy of the company, it is necessary to set up an experienced, capable management which will, on the basis of financial indicators and market trends make timely and correct decisions that ensure the growth and prosperity of the company. Based on the preceding analysis and research, we can confirm the proposed research hypothesis  $H_0$  from the beginning of the paper: "In the wood industry of Republic of Srpska there are companies which are continuously found to be in the risk zone of bankruptcy", because we identified which companies are in the zone of bankruptcy, and which companies recorded a recent fall in their score values.

## 6. Concluding Remarks

The main problems in foreign trade in the timber industry are: a small number of companies able to export, poor knowledge of foreign markets, low value added of existing export products, low level of knowledge and skills of the labor force, slow technology transfer, inadequate research and development, a small number of companies which meet the standards required for export to the European Union. Organizations in today's era must have the ability to innovate and change, not only to achieve prosperity, but also to survive in a world of increasing competition. International economic integration, the maturation of the domestic market, the transition to capitalism in former communist regions, and globalization influences every area of business and creates challenges, opportunities and possibilities. In order to recognize and mitigate risks and take advantage of existing opportunities, today's companies must undertake dramatic changes in all spheres of activity. Organizations that invest most of their time and resources in maintaining the status quo, should not expect to achieve prosperity in today's world of constant change and uncertainty.

Altman's Z score provides the basis for a qualitative risk assessment and initiation of organizational changes in companies. Z score is reliable because it uses a large number of financial and accounting indicators of the company. It is more reliable in countries with stable financial systems and tradition in terms of financial reporting, than in countries that are in the process of transition and on the way to global integration. Bearing in mind that the Republic of Srpska and Bosnia and Herzegovina are on this road to integration, the use of Z score that relies on the current system of financial reporting can be considered as visible progress. As the application of international accounting standards is legally regulated in the Republic of Srpska, we can expect better financial reporting, which is a good basis for the future implementation of these models. Implementation of Z scores in the Republic of Srpska shows that (1) there is a trend of enterprise moving from zones of risky business into zones going concern, which could be partly attributed to the influence of the effects of the economic crisis in the country (2) a large number of companies doing practically nothing to undertake, nor changed their macro-organizational structure in the last 5 years (regardless of the results of operations) and (3) a willingness to implement organizational changes mani-



fedest primarily in the case of financial and rarely due to organizational difficulties in the company.

Directions for further research are conditioned by a number of factors. First of all, it is expected that as a result of the application of International Accounting Standards, and the applicability of the results of Z score, in the future companies will react on time, rather than after the emergence of financial and organizational difficulties and commit to organizational changes and serious financial restructuring. In addition further research will stimulate and improve the quality of database research (all enterprises will implement International Financial Reporting Standards and International Accounting Standards, which will increase the quality of financial reports). This will allow for a much better, more reliable and broader base of data needed to research Z scores.

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## THE SEPA DIRECT DEBIT IN THE PAYMENT SYSTEM OF SERBIA<sup>11</sup>

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### Abstract

*This paper deals with the implementation of the SEPA Direct Debit (SDD) Scheme in the payment system in Serbia, which was the first Southeastern European country to obtain the SEPA license. The paper analyses the key challenges of the implementation of the SEPA operating activities and its potential effects on the payment system in Serbia. The implementation of the SEPA concept should remove the remaining elements of inconsistency between the concept and operative functioning of the payment system in Serbia. Irrespective of the legal possibilities, this segment of the payment system still operatively functions as the system of enforced collection of claims which is incompatible with the SDD concept. The Association of Banks of Serbia (ASB), as the Processor, implements the SDD Payment Scheme, and the system is now in the testing phase.*

*The subject matter of the analysis is important because it offers a number of possibilities for further improvement in the payment system of Serbia. It is also expected that the improved payment system will have positive effects on the economy, either directly or indirectly through the influence of banking institutions and authorities.*

**Keywords:** Payment System, SEPA, Direct Debit, Paymatic

### 1. Introduction

After social changes in the 2000th, the payment system in Serbia was crucially reformed, which proved to be the important prerequisite for the implementation of a number of other reforms in the economic and financial sector. The reforms were conducted in accordance with global, that is, European trends in the payment system, in order to efficiently adapt Serbia's payment system to the EU's, by the time Serbia joined the EU. Owing to the conducted reforms of the system, Serbia nowadays has the modern and efficient payment system, that is largely based on international standards and best practices of the EU members.

Nowadays, the payment system in Serbia is largely adapted to the world's, especially European trends in technological, legal and organizational terms. Payment instruments contain data defined by the SEPA (Single Euro Payments Area) rules. Functioning of credit transfers and payment cards is adapted by these rules. The important step forward was the establishment of a simple and efficient clearing system of international payments (in foreign currency) through the National Bank of Serbia. Currently, a new law on payment services is being adopted that will lead to increased compatibility with the latest trends in the EU's payment system. At this point, there is a

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significant incompatibility with the principles of the SEPA concept regarding operative functioning of the enforced collection of claims.

In the payment system of Serbia, enforced collection of claims means that the National Bank of Serbia is obliged and authorized to perform enforced collection of claims by debiting any of the debtor's accounts (dinar or foreign currency accounts), without the holder's prior consent, based on executive order (from the tax, customs, court or other authorities), and payment orders (with regard to securities, bills and authorizations), in line with the prescribed order of priorities or the timing of receipt within the same order of priorities.

Regarding determination of priority of enforced collection of claims, there are three orders of priorities. The whole system of enforced collection of claims is created in such a way that the state and national authorities have priority (first and second order of priorities) over the corporation and private creditors, who have the third order of priorities. The timing of receipt has relevance only within the same order of priorities.

In the first and second order of priorities of enforced collection of claims, the participants are the Applicant – the Enforced Collection Service; while in the third order of priorities participants are the Applicant – the Bank – the Enforced Collection Service. It is considered that banks do not have significant control for the first and second order of priorities of enforced collection, because banks do not have insight into the basis of collection. Besides, the third order of priorities is criticized, as it limits possibilities of banks. Banks are unable to completely provide services to their clients because creditors cannot initiate the collection via creditor banks, but via debtor bank. (Vuksanović, 2009 p. 221). To remove these shortcomings, the National Bank of Serbia and the Association of Banks of Serbia (ASB) have begun to implement the Direct Debit System based on SEPA (SDD).

## 2. The Direct Debit and the SEPA Direct Debit

Generally speaking, a direct debit (DD) or direct withdrawal is a financial transaction initiated by a creditor (the payee / the biller), who upon receiving the authorization, automatically withdraws funds from the bank account of a debtor (payer). Its key advantage is that it makes recurring payments automatic, and brings certain benefits, therefore it is descriptively defined as “a smart way to collect regular payment”. However, the system itself, doesn't guarantee that the payment will be carried out. This service is typically used for: paying monthly utility bills such as phone, electrical energy; monthly insurance; loans; credit cards etc.

The Direct Debit System is different from standing order, which also implies that payer authorizes their bank to transfer money on their behalf. Standing orders are more expensive payment instruments. They are carried out as individual payment orders, which as a consequence have a number of concluded bilateral contracts with each individual bank in the market – provision of services in not a standardized process and depends on the organizational, technical and technological potential of each individual bank.

The Direct Debit System is one of the three key pillars of the Single Euro Payments Area (SEPA), and it operates as the unique scheme that provides a set of rules and procedures for payments, initiated by a creditor upon previously obtained authorization from a debtor (payer). The SEPA Direct Debit (SDD) Scheme was launched in November 2009, and it had two models. The first model is *the SEPA Core Direct Debit Scheme* (SEPA Core) and the other is *the SEPA Business-to-Business Direct Debit Scheme* (SEPA B2B). The rules (SDD mechanism) define the level of service and the shortest time period during which financial institutions have to be able to function as the executor of direct debit payment order (Vuksanović, 2011, p.60-65).

Both schemes include the same procedural steps, however there are differences regarding the entitlement to a refund, obligation for authentication and responsibility for keeping mandate. First, in the basic scheme the debtor may request a refund, while in the B2B scheme they may not. Second, according to the general rules in the basic scheme, the bank has to automatically debit the

debtor's account for each due order, while in the B2B scheme the bank has to obtain authorization from a debtor before conducting a mandate of each order (due to the amount of funds and the lack of a refund option). Third, in the basic scheme mandate is kept both by a debtor and a creditor, and a bank can offer this as an additional service; while in the B2B scheme the bank is obliged to keep the mandate as well as all other additional instructions of its client for processing each individual order.

The purpose of implementation of the Core SDD Scheme is the creation of the mechanism that will enable unique functioning of this payment, in domestic and foreign relations, in the whole European area – simple, reliable, efficient and economical. The procedure is based on the creditor's right to initiate the payment from the specific account of a debtor, based on a mandate (authorization given by a debtor to a creditor to withdraw money from their account). The mandate can be in paper or electronic version, but always in a strictly defined form, according to legal requirements.

The Direct Debit Scheme for Business Transactions (B2B SDD Scheme), is based on the same general characteristics as the Basic Scheme of Direct Debit, however it contains specific features with respect to B2B transactions. It is implemented to fulfill special demands of participants in corporate sector, which are irrelevant for the users of the basic scheme. The transactions are also initiated by a creditor bank based on a mandate, but it is important that a debtor and his bank define the way every, individual transaction will be validated (this is different from the basic scheme), which insures increased security. Setting the exact day of payment increases certainty of planning and managing of cash flow. Since all the payments are processed from one account, and the fact that processing is fast and simple, there is a possibility that the delay in payment will be reduced and thus negative consequences that are the results of such mistakes will be avoided.

Payment processing in the B2B scheme is not crucially different from processing in the Core Scheme. The creditor sends a notice to the debtor, who then signs the mandate (authorization), and upon receiving the mandate the payment is initiated. However, in this case, debtor bank has to receive the transaction authorization by its client, debtor, and only then does the bank debit debtor's account and makes the payment. Client is entitled to refuse the debiting of his account, despite issued mandates, and request the decline of payment before clearing, without notifying his bank about the reasons behind the refusal. The debtor is not entitled to a refund for any authorized transaction, and all questionable and contracting issues regarding direct debit are regulated out of the scheme.

Both models of SDD scheme are designed to evolve and new characteristics may be added, if the business requires. Thus, the e-mandate appears as an optional service, that can be created through the electronic channels, and it enables complete elimination of paper administration, through the introduction of new participants, direction providers, and validation providers. Direction providers give creditor bank access to the validation service provided by debtor bank. Validation provider (on the basis of cooperation with the debtor bank) provides information on debtor's validity, who initiates e-mandate through electronic channels and services offered by the debtor bank.

The basic characteristics of SDD payment mechanism are: 1. application in the whole eurozone (which means that direct payment can be promptly fulfilled for every biller who holds euro account), 2. it can be used for both regular and irregular payments, 3. maximum period for payment is five working days for the first payment, and two days for the following, consecutive payments, 4. the rules for fulfilling orders and payments are separate, and are not determined by infrastructure, equipment for processing and type of institutions, 5. IBAN and BIN are used for identifying the account (Vuksanović, 2011).

The deadline for transition of national direct debit schemes into single SEPA Direct Debit Scheme (SDD) was 1 February 2014 for countries in the euro area, while for non euro countries the deadline will be 30 October 2016. Generally speaking, this transition will lead to efficient and economical collection of payments. It is expected that there will be positive effects on all participants respectively (consumers, merchants, companies, banks). Development of additional services

such as „E-invoicing“ and „E-reconciliation“ would result in more economical and efficient payment system. It is expected that transfer from cash to electronic payment would save around 28 billion euros yearly, while transfer to „e-invoicing“ would additionally save 50 to 100 billion euros.

### 3. Implementation of SEPA Direct debit in Serbia

In the payment system of Serbia, delays in collection of payments on creditor's demand represent a serious problem, which as a domino effect, constantly enlarges insolvency of corporate sector. To solve this matter, in the case of enforced collection of claims, all accounts of debtor companies are blocked, and there is a register of bills and mandates in the National Bank of Serbia. It is estimated that replacement of the enforced collection of claims system (which currently functions on orders of priorities, where the first two are reserved for state and authorities and the third one for claimers made by corporate users), with the Direct Debit System would be a new step in the development of market infrastructure for conducting payment transactions and a key element for Serbia in joining the Single Euro Payments Area.

The need for implementing Direct Debit System was noticed in 2007, when the National Bank of Serbia passed the Decision on Conducting Payment System Operations in Respect of Direct Debit. The passing of the Decision enabled the ASB, as the Processor to conduct these activities. Then the ASB passed on the Operating Rules on Conducting Payment System Operations in Respect of Direct Debit, on which the National Bank of Serbia agreed in 2008. In the meantime, the National Bank of Serbia in cooperation with the relevant state bodies reached the conclusion that the direct debit project needs to be raised to the national level; therefore in February 2009 a Working Group was formed with the task of defining the mandates and Operating Rules for Individuals and in line with the regulations and the SEPA standards.

As a result of these efforts the National Direct Debit Scheme was created, and the National Bank of Serbia passed the Decision on General Rules for Conducting Authorisation-Based Direct Debit (Official Gazette of the RS, No. 6/2010) and the Decision on Conducting Clearing and Settlement of Authorization-Based Direct Debit (Official Gazette of the RS, No. 6/2010) thus annulling the Decision passed in 2007. Since the Operating Rules of the Association of Serbian Banks were compliant with the old decision, they had to be revised and re-adjusted with the new decision. (The basic difference between the old and the new decision was that the register of mandates and passing the instructions for refund was transferred from the basic systems to additional services). After these activities, the Association of Banks of Serbia became the Direct Debit Processor and the only association of banks in Europe to be the bearer of such an operation.

The Association of Banks of Serbia starts to create the Direct Debit Payment Scheme of private individuals that includes all transaction whose individual minus does not exceed one million dinars. The rules of the payment scheme are similar to those of Austria, France or Germany. All big companies are included in the project. The ASB Direct Debit System has been named Paymatic („Platimatik”), and is based on a model in which a debtor – an individual client gives an authorization (mandate) to the creditor – legal entity to withdraw funds from their account. Debtor's account is debited for the amount of money expressed on the bill, given by a creditor. Direct Debit of the Association of Banks of Serbia operates if both the debtor and the creditor have accounts at the Treasury or with banks which are members of the Direct Debit of the Association of Banks of Serbia.

The ASB Direct Debit System, Paymatic, is efficient, automatized system of collecting payments, targeted mostly at the companies which regularly, on a monthly basis, issue a large number of bills (telecommunications companies, electricity distribution companies, public utility companies etc.) and at the financial institutions which place their products on the basis of monthly or periodical payments and current account debits (such as insurance premiums, contributions to voluntary pension funds, loans, credit cards, etc.).



Paymatic is based on electronic processing of transactions, automation of business processes and procedures and implementation of standardized messages defined on the basis of implemented good practice from the EU countries, i.e. technology and rules from the SEPA environment. Direct Debit transactions, as well as refunds, are effected through interbank clearing and settlement, or through internal transfers on a daily basis.

The participants in the Paymatic are a debtor, creditor, debtor bank, creditor bank, and the ABS as the Processor. A debtor (the user of services) is an individual client who gives an authorization (mandate) to the creditor to effect the collection of funds from the debtor's account, pursuant to the terms defined in the mandate. A creditor, a legal entity, who joined Paymatic, effect the collection according to the mandate conditions (Telekom, Telenor, VIP, ESP, JKP). Creditor bank is the bank where the SEPA Direct Debit creditor holds their account, while debtor bank is the bank where the debtor holds their account. The ABS, as the Processor, is legal entity which conduct clearing and enables fulfillment of Direct Debit transaction.

The system for processing Direct Debit transactions consists of two parts: the register of mandates (authorizations) and the system for routing Direct Debit messages and clearing transactions. The ABS is the owner of the rules and the system, and the banks with the largest number of accounts are members of the Work Group. It is estimated that the debtor (private individual) is entitled to a refund in the period of 20 days after the transaction, on the principle "No questions asked". Debtor bank has to verify debtor's mandate and put it in the register of mandates (creditor may take signed mandate and send it to the debtor bank for verifying and registry). Estimated clearing price is 3.5 dinars per payment, and creditor bank has a secured income of 9 dinars per every payment completed from the account of a private individual.

#### **4. Potential benefits and restrictions of the SEPA Direct Debit in Serbia**

When estimating potential benefits and restrictions of the development of the SEPA Direct Debit in Serbia, it is necessary to observe the existing state of the payment system, in which the SEPA Direct Debit is implemented. As it has been stated, private individuals (debtors) are targeted at in the first phase of the project; thus it is estimated how many bills can be transferred to the Direct Debit system; and characteristics of the existing ways of settlements are compared to the SEPA Direct Debit.

According to the ABS's data from 2012, target market of the SEPA Direct Debit in Serbia were 2.5 million households, with average monthly expenditure of 46 thousand dinars; 15% of which received financial help from abroad. Target market includes approximately 1.8 million of employed people, 1.1 million of retired people, users of insurance, leasing and credit cards.

It is estimated that a certain number of issued bills can be transferred to Direct Debit System; that is, 12 million of such bills are issued monthly, for following purposes: Telekom (approximately 5.6 to 6 million bills monthly), energy utilities (3 million a month), other utilities (2 million a month). This category of bills also includes insurance (risk and life), loan and credit card payments between the banks, as well as bills in the local government area – kindergartens, fees in local schools etc. The number of issued bills is relevant for estimating implementation of Direct Debit system; however it is also relevant that 60% of the bills are settled in due time.

Observed from the aspect of existing methods for settling monthly payments, the data shows that the payment is completed in cash in bank's front offices or post offices, which is rather impractical for today's conditions. As the data show: payment in cash in bank's front offices and post offices makes 90% of total payment, standing order makes 2%, e-banking 5-6% and rather insignificant number is payment via ATM, terminals, mBanking (Telekom Serbia – payment, Telenor – PlatiMo)

After the assessment of aforementioned facts, a goal has been set to increase the percentage of payment by individuals by the Direct Debit for 10% in the first year (instead of existing 1.5% by



the standing order). If the goal is reached, the potential number of transaction “per capita” could be 11, which would be similar to Slovakia, and around 50% less than in Slovenia. Comparison with the situation in relevant EU countries is given in the box below:

**Table 1.** Direct debit in the relevant EU countries (source ECB, according to Direct Debit, the ASB Payment Scheme for Individual Person)

Countries	The number of DD transactions (in millions)	The number of DD transactions /per capita
<b>Slovakia</b>	71.60	13.22
<b>Slovenia</b>	46.3	22.68
<b>Greece</b>	12.47	1.11
<b>Portugal</b>	221.00	20.79
<b>Poland</b>	22.53	0.59
<b>Austria</b>	841.00	45.87

The use of SEPA Direct Debit system for monthly payments by an individual debtor would create conditions for “Straight through processing”. The standardization of processes and reduction of manual interventions would produce conditions for reliable, simple, and efficient collection for “billers”. The reduction of a number of payments in cash in bank’s front offices would lead to reduction of expenses for both banks and “billers”, and would enable them to accurately manage their cash flow. Private individuals would have comfortable way for settling their monthly payments which is particularly significant for regular payers (over 60% of total bills are settled in due time). It is significant that this payment method is not competitive to mobile service and internet banking that provide payment flexibility. All this should result in improved efficiency of the payment system and reduction of social expenses of payment system in Serbia, and create conditions for developing new services such as: e-billing and e-invoicing, etc.

Starting from the existing state of the payment system in Serbia, it is expected that implementation of SEPA Direct Debit System would lead to further improvement of the payment system on the basis of following elements:

1. The use of Direct Debit System would reduce payment expenses (in comparison to conventional instruments and methods), thus payment would be more economical;
2. Automatization of payment processes, based on this system, would potentially create possibility for achieving higher level of quality in payment;
3. The reduction of the number of manual activities which is immanent to SEPA Direct Debit System (especially important for deletion of bookkeeping entries of payments) could lead to more economical and efficient payment system and reduction of mistakes in payment system;
4. The sense of trust between participants in the payment system contributes to the sense of general safety;
5. Implementation of the SEPA Direct Debit System of private individuals, creates an opportunity, that the system would be applied (in its next phase) to enforced collection of claims for the first and the second order of priorities, and that it would remove significant incompatibility of the existing payment system with the SEPA concept (which is unadjusted to the EU regulations due to its nontransparency);

Key challenges in the creation of the payment scheme are primarily: 1. Mistrust of the institutions, 2. Extensive use of manual processes by the banks and key billers, 3. High level of payments in gray economy. To overcome mistrust of the institutions, the rules of the payment scheme must assure the users that they are protected in case of possible mistakes made by creditors and banks. Therefore, the “No question asked” entitlement to refund in the period of one month after the transaction is important, as well as educative campaign that would be centrally managed. It is

thought, that it is important to recognize the exact expense of payment in cash in the bank's front offices in order to reduce manual processes of banks and billers. It is also important to educate key creditors about the real expenses of manual interventions in case of deletion of bookkeeping entries of wrongly received payments.

## 5. Conclusion

The development of payment infrastructure, with the application of the SEPA Direct Debit System is the prerequisite for the integration of the payment and banking system of Serbia into the Single Euro Payments Area (SEPA). Although, the mechanism is restricted to regular monthly payments by private individuals, in the first phase of application, it is planned to expand the system to the collection of tax, customs, and judicial claims in the next phase. This would represent the further step in the development of market payment infrastructure and is an important element for Serbia in joining the Single Euro Payments Area.

The SEPA Direct Debit System will crucially change the approach to already designed relations between all participants in the payment system, reduce regulatory role of the state and speed up the development of market payment infrastructure. With the help of methodology and international payment standards, banking institutions would provide necessary prerequisites for enlargement of their offer and service to their clients. It is expected that the introduction of the SEPA Direct Debit System would have significant, positive effects on SME, directly or indirectly, through the influence on banking institutions, state and authorities. Legal entities would have opportunity to differently regulate their relations, and thus achieve greater security and lower prices of financial transactions. Introduction of the single mandate register (register of the basis of collection - authorizations, bills) is the prerequisite for checking financial discipline.

Observed from the point of view of all participants in the payment system respectively, it is underlined that the most important benefits for the creditor are: possibility to complete all transaction via one bank; reduction of operative payment expenses (which leads to reduction of business expenses); improved control of cash flow, increased speed of conversion of receivables into cash, optimisation of cash flow and efficient cash flow management, elimination of mistakes in execution of payment orders, automatic deletion of bookkeeping entries of received payments. For the debtor the most important are following benefits: debtor does not have to initiate the payment himself, and therefore does not have payment expense; debtor has discount approved by a creditor; there is a possibility to maximize the amount of debt; there is an entitlement to a refund. Benefits to the banking institutions are: the process is automatized, thus the expenses are less; processing is clear, transparent and reliable, and if possible quick; simple application; unambiguous identification of SEPA Direct Debit users; uniform legal structure.

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## THE SOCIO - POLITICAL CONDITIONS AND ENTREPRENEURSHIP IN THE REPUBLIC OF MACEDONIA

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### Abstract

*The transformation of the Republic of Macedonia to an open market society, through the years of independence is accompanied by a series events and occurrences that are characterized as social and political problems and processes. Overall, the frequency and intensity of events of general social nature is such that Macedonia has acquired the image of a country that is categorized into social and political incoherent countries.*

*It is not in the favor of the strong will of the Republic of Macedonia and the striving for greater economic liberalization, establishment of macro and micro economic conditions that create favorable business climate, and more. From one perspective, it is the social and political situations that create Macedonian openness on economic participation and entrepreneurship, and on the other hand, such problems and processes are blocking the creation of the “economic oasis” in the region.*

*Concrete terms and occurrences that are classified as social and political developments and difficulties will be explained in the paper, as well as the tendency of the state to establishment the entrepreneurship of highest order.*

**Keywords:** entrepreneurship, society, liberalization, business problems

### 1. Introduction

By abandoning the socialist system analogous to the independence, the Republic of Macedonia as a young sovereign state, set the main goals and objectives, forming the process of transformation of the entire Macedonian society. Such goals and objectives which prefer a change in the entire social system are seen as a difficult task to perform, in circumstances where geographic predisposition along with the state fragility in a geopolitical manner were taken as difficulties in the statehood building.

The foundation of the transformation of the Macedonian society is in the global inertia of the transformation of the socialist societies; changing their social, economic and political adequate background in modern capitalist societies with different social nuances.

Therefore, analogous to the need of introduction of a free and open market, stands the reconstruction of the major economic tenets. In this context, the Macedonian society had begun its transition period which is still seen as a factor of almost the complete socio - economic characteristics of the Republic of Macedonia.

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Because it is a complex, interdisciplinary subject, in the context of research and the development of the were used multiple methods from different aspects, as the analytical, statistical method, method of comparison, and also the method of observation, especially in terms of research in the geographical and geopolitical content of the paper correlated with entrepreneurship. In methodological terms, there is a strict order, in view of the first thematic unit that includes recent Macedonian history and the turning point in terms of social and political activities with the breakup of Yugoslavia. Historical aspects are followed by the social characteristics (demographics) and economic - political (specific geopolitical characteristics) Separate analysis and discussion of contemporary Macedonian society correlates with the characteristics of the entrepreneurship and opportunities for further development of the free economic processes.

In those terms, entrepreneurship as a major feature of the open economy will be discussed from different aspects through different approaches.

## **2. Some characteristics of the Republic of Macedonia as a factor in the social transformation and development after independence**

Accordingly, the only choice that Macedonia has had since its independence from socialist parent Yugoslavia was the western route. In that time, the division of the world in geopolitical spheres of interest was strictly outlined and clear, and with that, further outcome was more prominent, so the choice of rejection of any social and economic version different from the western model was reasonable. Whether the positive examples of successful capitalist model, the situation demanded a thorough social reconstruction.

Geographically overseen, the Republic of Macedonia with the independence initially received the task to survive; to build its sovereignty and integrity, and in such circumstances, the reconstruction of society was one of the processes that can complicate the situation in general.

The small territory, limited natural resources, geographic isolation (landlocked country), and in general, politically unstable region, have been an additional factor that complicated the Macedonian climate for peaceful and successful transformation.

Furthermore, from particular aspect, the possibility of economic and political contacts with the region of the country should be considered, but this time as an independent entity which should further build its network of links with the region and beyond. Overall, though peacefully, Macedonia unlike most of the countries that they launched way of the replacing socialism with capitalism, had a difficult and laborious task, determined with the geographical factors.

The transformation of the big economic structures in smaller companies and the transformation of the state share and influence in the private and mixed economical character is just a sequential feature of transition in society - economic systems.

Today, the transformation of the Macedonian society is viewed as disastrous and arguably the darkest period in recent Macedonian history. The transition, which is thought that produced Macedonian oligarchy, along with the army of unemployed, constitutes the socio - economic momentum in the construction of Macedonian society.

The necessity for creation of favorable climate for the emergence and evolution of small and medium enterprises was imposed by the structure of the state, in terms of the broader state evolution. The independence of the country and highlighting the need for a smaller share of the state in the economy should emphasize the reduction of the market – the demographic element that Macedonia has lost along with obtaining new boundaries and the division from Yugoslavia.

Thus, if the previous large commercial facilities operated for the purpose of the marked of a country with more than 20 million inhabitants, with a strong and sustainable economic system, after the dissolution of that state, the needs for those economic structures in the new born state hardly existed. With that, we come to the conclusion that, whatever the choice of the transformation of social - economic aspects of the newly formed state was, such a transformation should have occurred, mostly due to the new situation and political - geographical feature of Macedonia.

"Side effects" in Macedonian transition (suspicious transactions and bad market dealings) characterized the transition as a process that impedes the path of the independent Republic of Macedonia. By stepping out of country that in the core of the approach had the principle of full employment, it has been a problem to be perceived and faced with the inevitability of the rising unemployment.

One of the factors for entrepreneurship as a postulate of the market economy, which can be considered from several aspects and can be credited with a positive and negative role also is exactly that demographic - economic moment, when the transition creates unemployment, shifting over 40 percent from the working contingent in the state, thereby drastically changing the labor market and its characteristics.

The negative moment that has humanistic, social and economic terms has the function of the change of the society, while the labor market and the fall in the price of labor in a climate of the increasingly worsened economic and political situation in Macedonia was favorable for the occurrence, growth and development of the first structures in the entrepreneurial area.

Complementing on historical background of the Macedonian population, specific socio - cultural approach of the population of the Republic of Macedonia is emphasized. Thus, we can talk and cultural aspect of the collapse of the price of the labor market, which had previously been low due to mass layoffs and declining of the living standards to a drastic level.

Socio - cultural approach of the average Macedonian is seen in the choice of further social inclusion for minimum wage even in burdensome, non-standard working conditions. Strictly speaking, the Macedonian worker during the transition was willing to work for anything, even beneath the natural labor price.

Terms of increased poverty, an unstable society and endless difficult transition were the key factors that affected a large part of the social framework of today's Macedonia. It is the sociological and demographic part of Macedonia. Also functioning as a conjunction, because the difficult situation throughout the nineties that produced "*Macedonian despair*" (Kitevski, 2010), which among other things, creates almost general opinion and perception of the Macedonian citizens, where in some variant, some basic needs and views in the social environment are misaligned, such as: reluctance of the young people to establish a family, and if they decide to marry- they are reluctant for descendants; general existential issues and priorities, maximum determination to find any job, determination to leave the native place and country to working abroad, and other.

### 3. Demographic characteristics as a factor for entrepreneurship

From the vital statistical classifications, to the ethnographic nuances of the population, characteristics of the Republic of Macedonia, at the very least, are complicated. In the shared frames, demographics affect the post-Yugoslav period in the country, and vice versa, transition and the total social and political elements of the transition, affected the demographic category of the state.

According to the last census conducted in 2002, the Republic of Macedonia is populated by 2.022.547 inhabitants<sup>18</sup>. According to the estimates by the *State Statistical Office*, Republic of Macedonia in 2012 had 2.062.249 inhabitants, representing a slight inclination due to the still positive natural growth.

However, demographic indicators are not promising positive demographic projections for the Republic of Macedonia. If the previously elaborated is taken as a factor for the low per mil of the natural increase (1.7 per mil and yet in constant decline), where the most perceptive measure is represented by specific fertility rate which is 1.5 children per woman, and further supplemented

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18 Census of Population, Households and Dwellings in the Republic of Macedonia, 2002 – Book XIII, Skopje, 2005". State Statistical Office of the Republic of Macedonia.



with the immigration from the state, the general framework of the social problems of the Republic of Macedonia as a country today are highlighted.

Following those demographic characteristics that are most correlated with the social and economic problems and processes of the state, in addition to the basic demographic component - a decline of the birth, the age structure of the state is one of the main postulates in the social, economic and political conditions in the country.

From the total population in 2012, the share of the young population (0-14 years) accounts for 17.1%, while the share of the elderly population (65 and over) accounts for 11.9%. It's easy to spot that the population trajectory is moving towards the creation of "pensioner portion" which additionally complicates the organization of society. Increasing of the percentage of senior citizens over the time will increase the mortality of the population, and thus will reduce the country's population, but also, that will modify the social and financial pressure of the state.

In the economic aspects of particular importance is the number of people in the labor contingent in the country. It examines the picture of the labor market in the country. Thus, according to data from the *State Statistical Office*<sup>19</sup>, in 2013, from the total population of Macedonia, 960.704 were active. Of these, 275.255 are unemployed. Although unemployment is constantly in decline in recent years, together with other demographic components, constitutes the main, everlasting social problem of the country. The reduction of the unemployment does not improve the economic condition; the should be followed and analyzed, but only with correlation with employment (declination of unemployment does not mean increase of employment).

Most of the unemployed are in the category of young people from 15 to 24, making 56 percent of the total unemployed contingent. State's favored program for active formal education, which promoted Macedonia at the very top in the world in the number of students who continue their education from high school (the high school is mandatory), greatly affects labor and working relations, opportunities and further conditions in entrepreneurship. After all, the anticipation in the education of a growing number of people affected the reduction (temporary) of unemployment, but on the other hand, the education process will create highly skilled professionals, which later in the labor market will anticipate with different ideas and energy to the formation of high entrepreneurial spirit.

#### **4. Geopolitical characteristics and entrepreneurship in the Republic of Macedonia**

Further classification of the demographic structure of the Republic of Macedonia on ethnographic terms, has smaller role in the economic moment in society, but its impact fits within the political postulate of the Macedonian society.

Macedonia is a unitary sovereign state, but with its demographic symbiosis, we can argue about strong differentiation, making the state practically almost a unique case - a unitary state with complex ethnic and cultural heterogeneity, which function on those principles. However, it should be emphasized that such differentiation at times over the years proved unsustainable, escalating in a military conflict (on the edge of civil war) in 2001.

Meanwhile, social functional characteristics in terms of ethnic structure are gradually changing. From a sociological and geographical aspect, it is worth noting that there is least latent social intolerance between the two leading ethnic communities in Macedonia (Macedonian and Albanian). From a geographical sense, there is visible division, where there are regions populated with a predominantly ethnic Albanian population structure and vice versa. One of the factors that promote Macedonia in the group of countries with "unstable geopolitical tectonics" is precisely the

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<sup>19</sup> Census of Population, Households and Dwellings in the Republic of Macedonia, 2002 – Book XIII, Skopje, 2005.". State Statistical Office of the Republic of Macedonia.

ethnic issue and the possibilities for replay of the geopolitical scenario of 2001. Usually, the major social problems and processes of the Republic are attached on the regional disruptions and developments. Also, in a series of the geopolitical factors in Macedonia, the external influence (for example, the southern neighbor Greece with its constant anti - Macedonian foreign policy) should be underlined.

Those geopolitical characteristics of the Republic of Macedonia are a major factor in its current geopolitical incoherence. Following the idea of *Westernization* accented in the state as a result from the abandoning of the socialist world, there are set positions and principles of Euro - atlantics integrations and convergence with the two entities of geopolitical nature: the European Union and NATO. Towards the achievement of these goals, the Republic of Macedonia with notable success elapses evolutionary stages of transformation and personalization, according to the previously established standards and criteria. However, Macedonia is still not a part of both entities, as long as the problems of the wider character are not resolved. The main and emphasized problem which is positioned as a burden for the Macedonian Euro – Atlantic integration is the name dispute with the EU and NATO member, Greece. However, a secondary, and yet more complex problem, is the tendency and the possibility for further dissolution, in the wake of the strong ethnic diversification

One of the main terms and conditions in entrepreneurship is participating in a larger market. Thus, for successful entrepreneurial project, regionalization and internationalization is necessary. Since Macedonia is a small market with low purchasing power, single option for success is the participation in foreign markets. While Macedonia is completely integrated into the European economic trends, a certain handicap in terms of opportunities for participation in broader commercial processes as a non EU state can be felt. However, the participation of the Republic of Macedonia in the liberal economic spheres like CEFTA is seen as a preliminary stage before integration into the European Union.

## **5. Some aspects of entrepreneurship in contemporary Macedonian society**

On the one side of the coin, there are the social characteristics (issues, process) which on the one hand provide favorable conditions for the emergence of the entrepreneurship; however, on the other hand, they require the urgent need of the same, and political characteristics (problems and processes) that hinder the possibility of progress of the state and evolution of the entrepreneurship from the previously favorable "climate".

Besides the follow up of the systemic transformation, more serious step by the state in terms of entrepreneurship and entrepreneurial climate is taken over in the year of 2002, with the adoption of a *national strategy* for small and medium enterprises.<sup>20</sup> In recent years, great efforts have noted the Macedonian leadership to provide that major conditions and business climate for the development of entrepreneurship. Learning from positive examples of some Western capitalist countries, where the main economic construct is part of the small and medium enterprises (biggest employment, most financial turnover), and in this case, towards greater participation of SMEs in the total structure of the economy of the Republic of Macedonia.

Sector of small and medium enterprises (SMEs) represent 99 % of the total number of existing enterprises. The number of SMEs has seen steady growth, with the exception of 2010, when as a result of the effects of the economic crisis, the number of enterprises decreased from 63,086 in 2009 to 57,832. SMEs to absorbs the bulk of the labor force, with the total number of employees (335,495), in 2010: 63.51 % or 213,077 persons were employed in micro and small enterprises,

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<sup>20</sup> Observatory for SMEs in Macedonia, Report 2002, "Support for the policy of the Ministry of Economy" (Project), European Agency for Reconstruction, 2004

18.81 % or 63,114 people in the middle, while 17.68 % or 59,304 persons were employed in large enterprises.<sup>21</sup>

SMEs in 2010 employed 82.3% of the total labor force, which confirms their importance in the economy as a whole, including the process of creating GDP. The increased participation of the SMEs coincides with the declining unemployment and rising GDP. Moreover, unemployment and poverty are social and public problem of the first order and each state has an interest in it to control and balance.

In the case of the Macedonia, the situation is far more complicated: in the context of the other political problems and social characteristics of the state, unemployment and poverty can contribute to severe turbulence, threatening the political stability of the country and the region. Hence, the special interest of the Macedonian government to ensure more pleasant conditions for incubation of small and medium enterprises.

Hospitable to entrepreneurship, the Macedonian government over the past years has taken many serious projects and implemented a series of reforms such as the introduction of a flat income tax; harmonization of labor legislation with the EU; legislation and string arrangements for administrative work ("silence means approved") and many others. Also, there are projects undertaken by the state which have a financial background, such as the program for self-employment (determined according to criteria of "credit worthiness"). Government continues to work on projects that improve the business environment as part of the strategy to boost the Macedonian economy and fight unemployment.

Entrepreneurship as a flexible economic structure that characterizes innovation potential, depending on conditions, can occur as revitalizing factor of a certain segment of society and social parameters. Thus, it is entrepreneurial principle thought to be founder of the complete Macedonian economy, particularly in terms of unused resources. Therefore, there are economic structures and branches which are forced in the self-employment programs, as well as in the motivating programs for young and creative people to start their business commonly associated with agriculture, tourism and technology.

In the context of motivating people who have an entrepreneurial spirit to start their own business, wider business environment and climate take shape, covering broader areas of society, representing social construction in the context of enhancing entrepreneurship in the country. Some of these approaches include: promotion entrepreneurship idea through seminars and panel discussions; annual awards for best young entrepreneur, basics foundation in the formal education, aimed at promoting the values of entrepreneurship.

Referring to the identity of the average Macedonian, which is heavily modified as a consequence of transition period, it can be pointed that interest in starting own business in Macedonia is pretty high. According to GEM<sup>22</sup>, for example, 70 percent of respondents believe that entrepreneurship is desirable and good career choice, and 28 percent of respondents have already decided to enter into entrepreneurship in the next six months, while 38 percent of respondents think that there are good opportunities for business in the next 6 months. 39 percent of respondents have a fear of failure.

The high numbers claiming interest in the sphere of entrepreneurship may be due to several factors:

- Government incentives that affect the overall perception of the common man;
- Unemployment, or major existential questions that change the attitude of the common man who decides to seek livelihood in individualism, almost at any cost, as opposed to smaller incentive to work for someone else;

<sup>21</sup> National Employment Strategy of the Republic of Macedonia in 2015, Ministry of Labor and Social Policy, Skopje, 2011, p. 16

<sup>22</sup> Entrepreneurship in Macedonia - Global Entrepreneurship Research 2012

- High level of education, perception, creativity and innovation in young and courageous people who prefer to take their ideas;

Fear of failure, or the failure itself, as well as other social and demographic apathy when it comes in the context of the entrepreneurship, is mainly due to a few things (factors):

- Young people do not see prosperity nor chance to capitalize on their ideas and innovations in Macedonia, however, they see their idea better away;
- Problem with the finances or finding resources for starting and maintaining a business. Many of the young creators are not able to capitalize of the investing in the idea, and if they make it, they have a special pessimistic approach that favors failure and inability to return deposit. Macedonia, on the other hand, with its socio - political and general geographic features is far from the list of countries that give determination of the business angels to support a larger project;
- Starting a business from necessity rather than desire;
- As to specific problems in relation to the implementation of the entrepreneurship in Macedonia in full force, mainly the problem has demographic genesis, especially for the growing share of mature and old population in the predominant demographic category. Thus, most people who are in mature or old age group did not even try into business.

## 6. Conclusion

It can be concluded that there are complex factors and characteristics for the development of the entrepreneurship in the country. Transformation of society after independence appears to be one of the main factors that allowed the emergence of the economy with the SMEs postulate. Analogous to the system and economic philosophy transformation, social characteristics of the country changed respectively, and the transformation of large to small and medium enterprises along with the transformation of the state's share to a private and mixed capital, increased unemployment, increased poverty and weakened the economy in general. On the one hand, that was is a positive factor for the emergence of entrepreneurship, due to lower labor cost as a result of the high labor competition. Similar parameters in terms of the social characteristics of the state last during the "endless transition", which is one of the main difficulties for steady growth and development of the state, which in correlation with other demographic factors (demographic aging) and geopolitical classification of Macedonia (relative isolation and instability) occur as aggravating factors in terms of entrepreneurial business climate in the state.

On the other hand, the state has an interest to balance those same issues and with that, the state appears as a factor facilitating the entrepreneurial spirit. It eases the state's business climate, promotes the entrepreneurial idea through its institutions, that resulted in an increased interest in the young population in starting entrepreneurial work.

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## INTERDEPENDENCE AND THE IMPACT OF ORGANIZATIONAL STRUCTURE AND MANAGEMENT COMPETENCE

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### Abstract

*The main theme of this work is mutual dependence and influence of organizational structure and managerial competences in business systems. Precisely for that reason, the main purpose of this paper is to highlight the importance and relevance of the designed organizational structure, as well as the knowledge and skills the managers need in order to efficiently perform their business activities. Classification is also carried out in the work and the importance of specific knowledge and skills is pointed out.*

*Based on the performed analysis and conducted research, the study concluded that the organizational structure, as well as the system of internal relations and communications in the organization, directly affects the level of knowledge and skills the managers need. However, the research has also shown that the managerial competences directly affect the process of designing the organizational structure.*

**Keywords:** organizational structure, managerial competences, managerial knowledge, managerial skills

### 1. Introduction

When considering a business system, it can be seen that there are a large number of individuals who perform different business activities in it. Some of them represent managers, that is the executives who are responsible for the operation of certain parts of the organization they are at the head of. The managers need to possess certain skills and knowledge necessary to them due to the nature of work they do in order to be able to successfully and professionally carry out their business tasks.

Disregarding the various procedures and ways in which managers come to their positions, it is evident in the majority of business systems in the Republic of Srpska, but also around the world that there is a huge gap between those who currently perform their managerial functions and desirable managers who are able to successfully lead the company. The differences are usually related to lack of knowledge and skills the managers should possess in order to be able to successfully carry out their activities.

The question arises what are the knowledge and skills the managers need and whether they are the same for all the managers in one business system. To answer this question a theoretical and empirical research was conducted with the help of which different groups of managers on the basis of the organizational structure and the importance of individual knowledge and skills for their business were identified.

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Based on the above mentioned, the research problem in this study could be most easily defined in the form of a question: Whether and how the organizational structure affects the level of required knowledge and skills of managers in business systems?

In view of the defined research problem, which is economic in nature, the area of economy can be stated as the subject of research, especially the part that is related to the management, with a focus on human resources management and organization of the company, but also the area of sociology, psychology and other sciences examining the man alone, his traits and behaviors.

Based on the previously defined problem and subject of research, the main goal this study is based on can be explained, and that is: to establish and explain the impact of organizational structure on the required level of knowledge and skills of managers in the business systems.

In response to a question that is formulated in the research problem, it has been hypothesized in this study, which reads: organizational structure directly affects the level of required knowledge and skills of managers in business systems.

## **2. Organizational structure and managerial competence**

### ***2.1. Organizational structure***

When it comes to organization, it is impossible to avoid an organizational structure that is its most important part. It occurs as a result of the design process (design) of the organization that is the process of organizing as one of the management function. This process defines the various elements of the organization, the tasks assigned to them and connects them in a unified whole. Thus, the organizational design determines the look and features of the organizational structure, based on the anatomy (number of elements) and physiology (forms of interaction). In that way, the design and shape of the company organization is actually the model of organizational structure that is usually displayed by using images, that is schematic illustration.

What the organizational structure actually is can be seen from the authors Babic and Lukic's attitude: "Each organization has, in embryonic or developed form, its structure, its particular system of internal relations and communications. This is simply because each disposes of certain quantitatively different factors of labor, which as such must harmonize with each other and connect to appropriate, compact unit, in an adequately installed and unified system of work in order to ensure their simultaneous, coordinated action towards the set goal".<sup>26</sup>

Although the authors agree that the organizational structure is the result of the organization process, different definitions of this category can be found in literature and in the practice. The cause of this lies in the fact that the authors emphasized different elements of the structure in the foreground, considering other as less important. Thus, some state that the structure is organization in fact, others that it is just a schematic representation, the third ones that it is a process, while some equate it with the system of relations between the elements of the organization. However, what is common among all theorists is that the organizational structure is the complex creation whose purpose is to enable and facilitate the realization of the goals of the organization. Most of them think that this creation is made of the system layout of available resources (human and material), together with their mutual relations and connections.

According to definitions of prominent authors, the following is considered under the notion of the organizational structure:

1. means for achieving the goals and objectives of the organization<sup>27</sup>,

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<sup>26</sup> Babic, M, Lukic, Z. (2008)., *Organization - Theory, structure, design and behavior*, Banja Luka, Faculty of Economics, page 117.

<sup>27</sup> P. Drucker u: Kuzynski, A., Buchenon, D. (1991). *Organizational Behaviour*, Prentice Hall, New York, page 369.

2. the extent to which and the manner in which the organization submits and controls its members, distributes tasks and responsibilities as well as the organizational procedures and regulations<sup>28</sup>,
3. totality of ways in which the organization distributes the work in a variety of tasks and ensures coordination of carrying out those tasks<sup>29</sup>,
4. cause or system of schedule of departments or tasks that are to be performed<sup>30</sup>,
5. structure schedule of organizational resources by different organizational fundamentals<sup>31</sup>,
6. system or network of relationships between different parts of organization or positions in it and those who are on them<sup>32</sup>,
7. system of relations between people in order to execute a particular operation<sup>33</sup>,
8. system of connections and relationships between elements in the organization of a company that are designed for a relatively long time and formally sanctioned by the acts of the company<sup>34</sup>,
9. formally established system of relations between individuals and groups in which their interconnections are determined by schedule of tasks (grouping), the amount of authority and responsibility<sup>35</sup>.

Although it is visible from stated definitions that organizational structure has its own dynamic and static element, the fact is that it anyway has to be a flexible category which has to be changed, corrected and amended under different influences from the organization and the environment. This also applies to its static element, graphical representation of the scheme of organizational structure, which is static only if viewed at one moment, while in a longer period of time it usually changes its appearance.

What is the importance of structure creating can be seen from the viewpoints of many authors whereby the design of organizational structure represents one of the key factors that influences the business success, and therefore the growth and development of the organization. This is confirmed by Peter Drucker, who believes that "well-designed organizational structure does not create itself good performances. But bad set organizational structure makes it impossible to establish good performances, no matter how good the managers themselves are. Improving organizational structure will therefore always improve the performance of the organization".<sup>36</sup>

Designed organizational structure serves as one of the main criteria on the basis of which the classification of managers within the organization can be performed. It's the best known and most widely used division of managers which classifies all the managers in the organization in the relation to the position that they have in the hierarchical structure of the organization. Thus, the managers of different levels can be distinguished according to the position.<sup>37</sup>

<sup>28</sup> P. Drucker u: Kuzynski, A., Buchenon, D. (1991), *ibid*, page 369.

<sup>29</sup> Mintzberg u: Mitchel, T. R., Larson, J. R. (1987). *People in Organization*, McGraw Hill, Book Co. New York, page 43.

<sup>30</sup> Franklin G. Moore (1964), *Management-Organization and Practice*, Harper and Rouo, New York, page 506.

<sup>31</sup> Ivanko, Š., (1972), *Diagnosing and designing the organizational model of industrial enterprise*, Kamnik, page. 56.

<sup>32</sup> Kast/Rosenzweig (1974): *Organization and Mangement*, McGraw Hill Inc. New York, page 104.

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<sup>35</sup> Petković, M., Janićijević, N., Bogićević, B., (2003)., *Organization - Theory, design, behavior, change*, Faculty of Economics, Belgrade, page 58.

<sup>36</sup> Mullines, L. J. (1993)., *Management and Organizational Behaviour*, Pitman, London, page. 308.

<sup>37</sup> Lončarević, M. (2007)., *Management*, University Singidunum, Belgrade, page 37.

1. top managers,
2. second level managers,
3. lowest level managers

First group of managers - top managers, includes all those managers who are responsible for directing, coordinating, and functioning of the entire organization, as well as for the achievement of results. Top managers are responsible for ensuring the effective and efficient operations, growth, and development of the organization, as well as for realization of the set objectives.

Second level managers are those managers who are in the middle of hierarchical structure between top managers and the lowest level managers. Their responsibility is reflected in the implementation of the decisions of top managers, as well as in the management of organizational units they are at the head of. These managers are also called managers of managers because they perform their tasks in cooperation with the managers of the lowest level.

The third group of managers is the managers of the lowest that is of the first level. They are responsible for directing the work activities of the perpetrator (persons performing nonmanagerial jobs). They are often also referred to as supervisors, bosses, managers, foremen, etc.

## *2.2. Knowledge and skills of managers*

Like any other profession, the management also has a specific set of knowledge with which managers are able to conduct all their business activities in a competent and professional manner. Managers typically acquire this knowledge through the educational process and they are essential for a successful business and achieving positive results of overall business system. We can find different classifications of management knowledge in the literature which on the basis of a variety of criteria define specific skills that are needed for managers who are located in different positions in the organization.

Famous theorist Anry Fayol was the first who performed classification of managerial knowledge who considered that all managers must have knowledge from different functional areas of work (functions) of the company, such as: technical, commercial, financial, security, accounting and administration. It is necessary that all managers in the organization have the knowledge of the functions described above, but their level with individual managers varies depending on the hierarchical level at which manager is positioned in the organization. Fayol believes that top level managers must possess a high level of managerial skills, but the knowledge of the other functions of the company is much less represented. On the other hand, the lowest level managers need more knowledge from other functions, on the contrary to managerial knowledge whose level is much lower. Thus, according to Fayol, with the increase of hierarchical levels grows the percentage of participation that is the level of managerial knowledge in the overall knowledge, while the level of knowledge from other functional areas decreases, and vice versa.

Robert L. Katz also performed the classification of managerial knowledge and that is to: technical, interpersonal and conceptual knowledge. Technical knowledge include knowledge of basic activity, i.e. the ability to use different tools, resources and existing technology. Interpersonal (humanistic) knowledge represent knowledge related to the ability to work with people, on their conduct and coordination, whereas the conceptual knowledge comprise the knowledge group which allow the overview of the organization as a whole, as one whole complex system consisting of multiple subsystems, and which is both connected and dependent on the environment in which it is located. Although each manager must possess the above knowledge, Katz believes that their importance for individual managers also depends on the hierarchical position where the manager is. Thus, the conceptual knowledge is the most important for the top managers, the technical knowledge is the most important for the managers at the lowest level, while participation of the the interpersonal knowledge in the overall knowledge have the same importance for all managers

in the organization. Thus, according to Katz, with the increase of hierarchical levels grows the percentage of participation of conceptual knowledge, the participation of technical knowledge declines, while the participation of interpersonal knowledge in the overall knowledge of managers remains the same.

In addition to the above classification the division of managerial knowledge according to the contemporary theories on: functional, systematic and the situation analysis knowledge is significant. The notion of functional knowledge implies the knowledge to use the basic functions of management, while systematic knowledge is used to analyze and manage business system as a whole which consists of several different components (subsystems). Situation analysis knowledge is knowledge that is used to solve general and specific situations and problems.

In addition to the above knowledge managers need to possess the appropriate skills that are the specific abilities that occur as a result of having knowledge, information, practice and talent in order to be able to successfully perform their tasks. In the literature, there are different classifications of managerial skills whose importance as well as with the knowledge depends on the nature of work and the position the manager in the organization is at. One of the most common classification is the division of skills in: personal, interpersonal, communication and group skills.<sup>38</sup>

Personal skills include time management skills and the art of delegation. Time management skills refer to the ability to organize time well, which allows performing tasks easily, without stress and delay, while the art of delegation presents the ability to transfer the authority and responsibility to associates.

Interpersonal skills are the skills that enable a harmonious and successful work with people and comprise: skills of development of good relations and cooperation, skills to influence the others, skills of counseling and training and networking skills.

Communication skills refer to the ability to send and receive information, thoughts, feelings and attitudes, that is to the ability of clear and concise transmission of thoughts, ideas and messages to the others orally or in writing. This group of skills include: interpersonal communication skills, presentation skills and negotiation skills.

Group skills are skills that enable and facilitate the work with groups and include the following: group management skills, conflict management skills and skills of change management.

### **3. Empirical research**

In order to confirm the established theoretical claims about the importance of individual knowledge and skills for managers at various hierarchical levels of business systems, the empirical research in a business production system of the Republic of Srpska was conducted. Data collection was performed by the method of examination, by the questionnaire technique. The very evaluation of the existing level of knowledge and skills of managers was conducted by using a questionnaire completed by persons performing managerial activities in the reporting business system. Theis questionnaire consisted of a list of different types of knowledge and skills, where for each of them the following options were offered: unacceptable, needs improvement, meets expectations, above expectations and high-average.

With the help of the following tables and graphs the summarizing results obtained from the completed questionnaires will be presented.

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<sup>38</sup> Bahtijarević-Šiber, F., Sikavica, P, Pološki-Vokić, N.(2008). *Modern managment – Skills, systems and challenge*, Školska knjiga, Zagreb, page 1

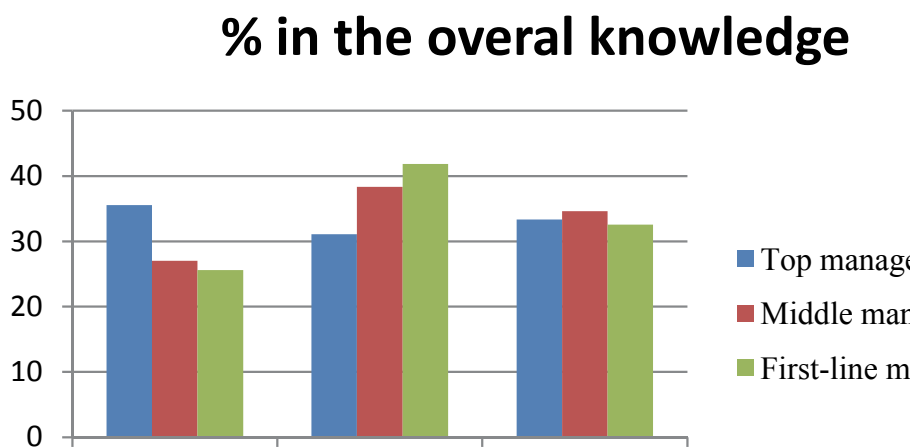
**Table 1.** *Percentage of different types of knowledge in the overall knowledge of managers of different levels*

Types of knowledge	Top management (% in the overall knowledge)	Middle management (% in the overall knowledge)	First-line management (% in the overall knowledge)
Conceptual (system) knowledge	35,56	27,04	25,58
Functional (technical) knowledge	31,11	38,35	41,86
Interpersonal knowledge	33,33	34,61	32,56
TOTAL	100	100	100

*Source: Author*

Based on the results of the percentages of certain knowledge in the overall knowledge of managers at different hierarchical levels, it can be concluded that the most common are conceptual (system) knowledge with the top managers with 35.56% and that the least represented are functional (technical) knowledge with 31.11 %. In contrast to the top level managers, the second level managers have the highest percentage of functional (technical) knowledge with 38.35%, while the least prevalent are conceptual (system) knowledge with 27.04%. The level of functional knowledge is even higher with the lowest level managers with 41.86%, while the level of conceptual knowledge decreases to 25.58%. Interpersonal knowledge are on the second place in importance for all levels of management. They include an average of about 33.5% of the total of managers' knowledge.

In order to make it easier to comprehend the level of stated knowledge depending on the hierarchical level at which the manager is, they are represented by the following chart.

**Chart 1.** *Percentage of different types of knowledge in the overall knowledge of managers of different levels**Source: Author*

When different knowledge of managers from different hierarchical levels are viewed individually, their importance for individual managers in business system can be considered. Thus, the previous chart shows that the conceptual (system) knowledge are the most common with the top managers, and the least important to the managers at the lowest hierarchical level. Based on the presented results of research it can be concluded that with the growth of hierarchical level in the organization grows the percentage of conceptual (systematic) knowledge in the overall knowledge of managers. On the other hand, when it comes to functional (technical) knowledge it is ob-

vious that they are most common with the lowest level managers, while the top management has the lowest level of this knowledge. This proves the claim that with the increase of hierarchical level the percentage of functional (technical) knowledge in the overall knowledge of managers decreases. If the interpersonal knowledge is considered, they have approximately the same level of participation in the overall knowledge of managers at all hierarchical levels, which of course stems from the nature of the work performed by all managers, regardless of their position in the organization.

Besides results that show the level of the existing knowledge of managers in the observed business system, the results of the level of the existing skills of managers in the observed system were obtained through the research.

The following table presents the summarized results of the assessment of level of skills possessed by managers who are at different levels of the hierarchy.

**Table 2.** *Percentage of different managerial skills in the overall developed skills of managers of different levels*

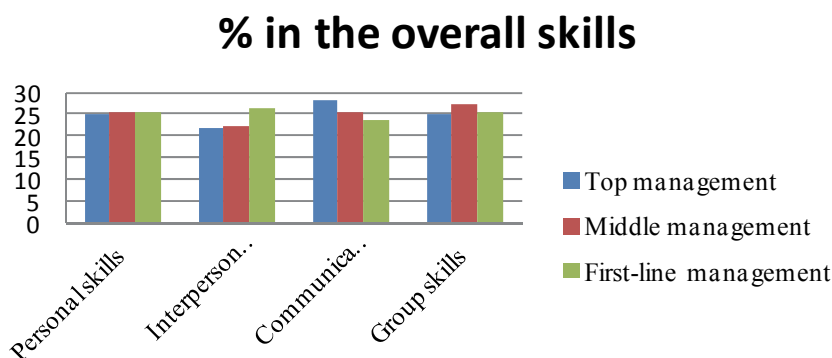
Types of skills	Top management (% in the overall skills)	Middle management (% in the overall skills)	First-line management (% in the overall skills)
Personal skills	25	25,21	25,22
Interpersonal skills	21,7	22,38	26,13
Communication skills	28,3	25,21	23,43
Group skills	25	27,20	25,22
<b>TOTAL</b>	100	100	100

Source: Author

Based on the table above it can be seen that in the overall skills with the top management the communication skills are the most represented with 28.3%, while the least represented are the interpersonal skills with 21.7%. When it comes to the second level management the highest percentage of participation in the overall skills have group skills with 27.20%, while the interpersonal skills have the minimum participation with 22.38%. With the lowest level managers the highest percentage in the overall importance have the interpersonal skills with up 26.13%, while the level of communication skills is 23.43%.

In order to make it easier to inspect the level of stated skills depending on the hierarchical level at which the manager is, they are represented by the following chart.

**Chart 2.** *Percentage of different managerial skills in the overall developed skills of managers of different levels*



Source: Author



When different skills of the managers from different hierarchical levels are viewed individually, their importance for individual managers in the business system can be seen. Thus the previous chart shows that the personal skills are approximately equally important for managers from all hierarchical levels. When it comes to the interpersonal skills, the research results show that the percentage of participation of these skills in total skills of managers decreases with the increase of hierarchical levels. Unlike interpersonal skills, the importance of communication skills increases with hierarchical level. When the group skills are considered, their incidence is highest among the second level managers.

#### 4. Conclusion

On the basis of the research (theoretical and empirical) conducted in order to make this work, several important conclusions can be singled out:

- knowledge and skills possessed by managers in the organization are essential to the business of the entire system,
- it is essential that every manager has a certain level of knowledge and skills, regardless of the position he is at,
- the importance of individual knowledge and skills is not the same for all managers and depends on the hierarchical level at which the manager is,
- the greater involvement of systemic and conceptual knowledge is required from the managers of the higher hierarchical level, while the share of technical and functional knowledge is less. Vice versa is true for managers of lower levels, the possession of technical and functional knowledge is more important for them,
- interpersonal, that is human or social knowledge are also important for all the hierarchical levels, so all the managers in the organization are required to possess them,
- personal skills are almost the same important for managers from all hierarchical levels, percentage of the interpersonal skills in total skills of managers decreases with the increase of hierarchical level, while the importance of communication skills increases with hierarchical level, while the incidence of group skills is the highest among the second level managers.

On the basis of the foregoing it can be concluded that the hypothesis is correct, and that the organizational structure directly affects the level of required knowledge and skills of managers.

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## OPPORTUNITIES FOR INTERNATIONAL PORTFOLIO DIVERSIFICATION ACROSS THE SOUTH EASTERN EUROPEAN REGION

Jasmina OKIĆIĆ<sup>39</sup>

### Abstract

*The main goal of this paper is to examine the opportunities for international portfolio diversification across the selected stock markets in the South Eastern European (SEE) region. In addition, the paper also investigates the possibilities for the realization of excess return on these markets. For the purpose of this research, a two-dimensional approach has been created consisting of (1) a weak-form efficiency testing conducted by autoregressive (AR) model, and (2) examining long and short-run relationships among selected stock markets in the SEE region by using Johansen's cointegration and Granger causality tests. Publicly available data and information were collected from stock traded indices in the SEE region and have been benchmarked against the index of European developed economy. The expected outcome of this paper is to shed light on the way in which investment strategies of potential investors who are striving towards the diversification of their portfolios can be shaped.*

**Keywords:** portfolio diversification; cointegration; causality; weak-form efficiency

**JEL:** G11, C58

### 1. Introduction

Investing in stock market is a risky business. In order to reduce risk, both practitioners and theoreticians recommend holding a well diversified portfolio. Diversifying a portfolio between several different securities allows the total portfolio risk to be reduced, thereby also enabling the general improvement of the portfolio performance. Out of the total portfolio risk, only unsystematic risk can be reduced by diversification. This kind of risk is caused by situations such as: lawsuits, strikes, successful and unsuccessful marketing programs, and other events that are unique to a particular company. Since these events are random, their effects on a portfolio can be eliminated by diversification. This is possible due to the fact that the weaker correlations between these securities are, the greater reduction in total portfolio risk is. The part of the total portfolio risk which is irreducible, despite constructing a well diversified portfolio, is called *systematic* or *market risk*. This kind of risk stems from factors which systematically affect most companies, such as: war, inflation, recession and high interest rates. Since most securities tend to be negatively affected by these factors, systematic risk cannot be simply eliminated by classical *domestic* diversification. Systematic risk can only be reduced by *international* diversification, i.e. by focusing on securities from foreign rather than domestic markets. Furthermore, the usefulness of international diversification is a very controversial subject. In principle, the values of assets in each country are influenced by national economic factors (interest rates, domestic politics, etc.). All of these constitute the specific risk for a certain country. International diversification allows investors to spread their risk

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between the specific levels of risk in each country thereby eliminating part of the risk. For the same level of return, the global risk of the portfolio is diminished. Therefore, portfolio performance can be improved without increasing the risk. However, this is only true to the extent that the financial markets in the different countries are not perfectly correlated (Amenc and Le Sourd, 2003, p. 20-21). The main goal of this paper is to examine the opportunities for international portfolio diversification across the selected stock markets in the South Eastern European (SEE) region. Apart from examining potential total portfolio risk reduction, the paper also investigates the possibilities for the realization of excess return on these markets. For the purpose of this research, a two-dimensional approach has been created consisting of: a weak-form efficiency testing and the examination of long and short-run relationships among selected stock markets in the SEE region. The main purpose of this research is to address the following questions: Is there a significant correlation between stock markets from the SEE region? Is there a possibility for the realization of excess return when investing in these markets? Are stock markets in the SEE region integrated or not? Having into consideration the above mentioned, the central research hypothesis has been defined as follows: *Taking into account that the stock markets from the SEE region are cointegrated and not week-efficient, when investing on these markets investors may face small effects of international portfolio diversification with possibilities for realization of excess return.* The expected outcome of this paper is to shed light on the way in which investment strategies of potential investors striving towards the diversification of their portfolios can be shaped.

The paper is organized as follows. After introduction, the paper gives a brief overview of recent literature that is relevant to the main objective of the paper. In the following section fundamental theoretical background relevant to the research is discussed. The next section briefly describes research methodology, after which follows the main part of the paper dealing with the analysis and the discussion of the original empirical results. The paper ends with a summary of final remarks and conclusions.

## 2. Literature review

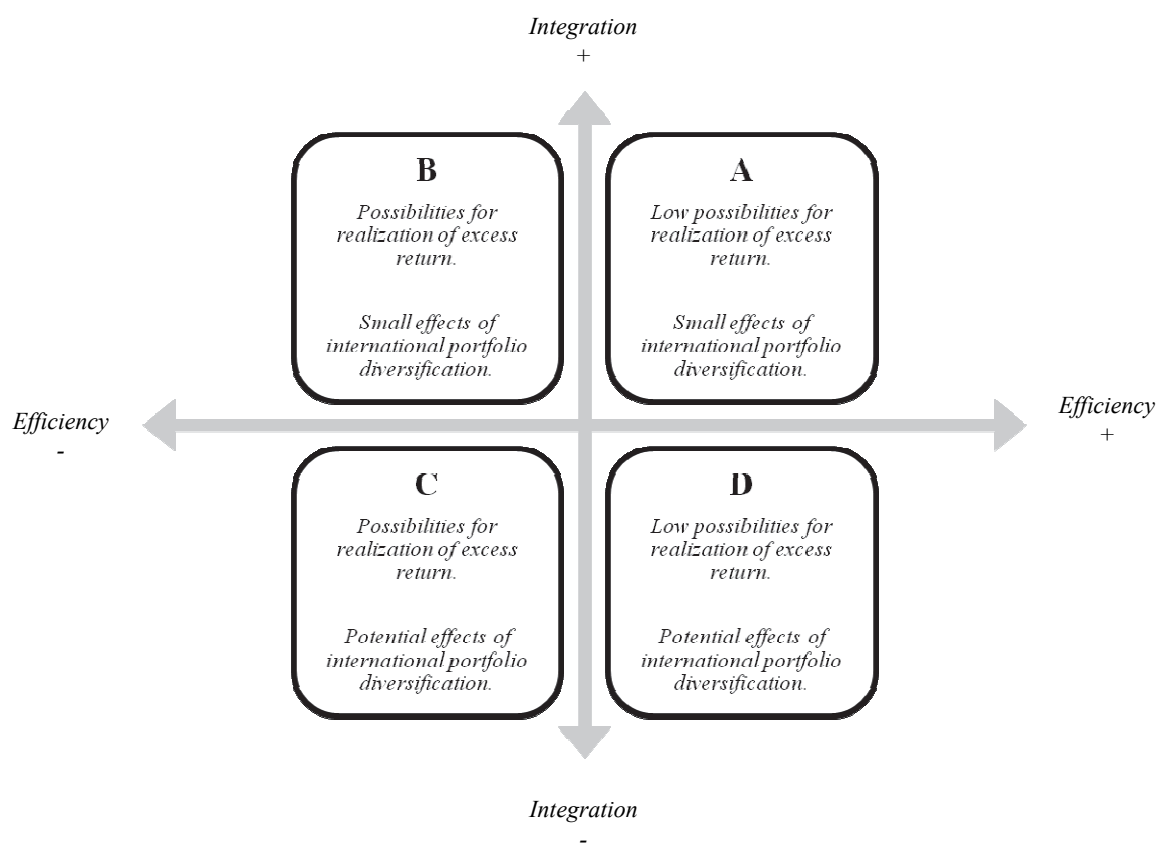
Numerous studies have proved that the opportunities for international portfolio diversification have become a subject of interest to a large number of theoreticians and researchers over the last few years. Engel (1996) argues that the cointegration properties of spot exchange rates are independent of the efficiency or inefficiency of financial markets. In addition, El-Wassal (2005) identified a long-run relationship between stock market liquidity and size and real activity, privatization, and stock returns in India, Korea, Malaysia, the Philippines and Zimbabwe. Wong, Agarwal and Du (2005) conclude that Indian stock market is integrated with mature markets (United States, United Kingdom and Japan) and is also sensitive to the dynamics in these markets in a long run. Maneschiöld (2006) comes to a conclusion that international investors can obtain diversification benefits given a long-term investment horizon due to a low degree of integration between the Baltic and international capital markets. Vizek and Dadić (2006) detected the existence of multilateral integration between equity markets of analyzed CEE economies, as well as between the group of CEE equity markets and German equity market. Furthermore, Middleton, Fifield and Power (2008) suggested that substantial benefits result from investing in CEE stock markets and that they accrue more from the geographical spread than from the industrial mix of the equities included in the portfolio. Erdinc and Milla (2009) assessed cointegration among stock exchange markets of a bloc of major EU countries of France, Germany, and United Kingdom in a period from January 1991 to July 2006. The results revealed a long term relationship between these countries. Subha and Nambi (2010) confirm the absence of cointegration between Indian and American stock markets. Caporale and Spagnolo (2010) examined linkages between the stock markets of three Central and Eastern European countries (CEECs) i.e. the Czech Republic, Hungary, Poland, and the UK and Russia. The empirical findings suggest that there is a significant interdependence of CEEC markets with the Russian and the UK ones. According to Marashdeh

and Shrestha study (2010), at the Gulf Cooperation Council (GCC) stock markets are not fully integrated which means that arbitrage opportunities between some of the markets in the region still exist. On the other hand, the results show no evidence of cointegration between the GCC and the developed stock markets, which implies that international investors can diversify their portfolio and obtain long-run gains by investing in the GCC markets. Kenourgios and Samitas (2011) examined dynamics in the relationship between five major Balkan emerging stock markets (Turkey, Romania, Bulgaria, Croatia and Serbia), European developed stock markets (UK, Germany and Greece) and the stock market of the United States. The results revealed that both domestic and external factors affect the Balkan stock markets thereby shaping their long-run equilibrium. Svilokos (2012) points out a growing trend of integration level between new and old capital markets of the European Union. Furthermore, focusing on underdeveloped capital market efficiency testing, **Dorina and Simina** (2007) conclude that most of examined emerging equity markets (Romania, Hungary, Czech Republic, Lithuania, Poland, Slovakia, Slovenia, Turkey) were not weak-form efficient. Finally, the results obtained by Lomev and Bogdanova (2012) indicate that there is strong evidence for deviation from market efficiency at East-European financial markets.

### 3. Theoretical background

In order to examine potential opportunities for international portfolio diversification across the SEE region, we have created the two-dimensional approach consisting of (1) examining long and short-run relationships and (2) weak-form efficiency testing among selected stock markets. An illustration of the approach is given in Figure 1:

**Figure 1: Theoretical concept**



The two-dimensional approach has been created due to the following theoretical concepts: (1) *International portfolio diversification is less expective across the cointegrated and correlated markets*. Stock market integration refers to moving national market indices over the long run with possibility of short-run divergence (Vizek and Dadić, 2006, p. 632). The fundamental principle underlying stock market integration is the law of one price which indicates that, in case transaction costs and taxes are not taken into account, identical securities are expected to carry the same price across all stock markets where such securities are traded. In other words, if two or more stock markets are integrated, assets with identical cash flows should command the same return within both markets. Moreover, in the absence of barriers generating country risk and exchange rate premium, financial assets of similar risk and liquidity are expected to achieve similar yields, irrespective of nationality or location (Marashdeh and Shrestha, 2010, p. 105). (2) *Stock market efficiency determines possibilities for realization of excess return*. The idea, based on the fact that stocks are continually priced at their fair value, is known as the *efficient market hypothesis* (EMH). Fama (1965), in his landmark empirical analysis of stock market prices, defined an efficient market for the first time, concluding that stock market prices follow a random walk. According to Fama (1970), a market in which prices always *fully reflect* available information is called *efficient*. Depending on the information set involved there are three forms of the EMH, as follows: (1) weak-form efficiency, (2) semi strong-form efficiency and (3) strong-form efficiency. *Weak-form efficiency* assumes that all historical information is incorporated into the market stock price. *Semi strong-form efficiency* assumes that, beside all historical information, stock market price also reflects expectations about a company. *Strong-form efficiency* is based on assumption that market stock prices reflect not only historical and expected but also insider information. In short, an efficient market excess return equals zero even with insider information. To sum up, the degree of integration determines the possibility of portfolio diversification in various stock markets. Therefore, as stock markets integration increases the effect of portfolio diversification decreases. Furthermore, depending on efficiency and integration of the selected stock markets investor should be able to set his/her portfolio in one out of four (A, B, C and D) potential positions presented in Figure 1.

#### 4. Methodology

As previously proposed and explained, the two-dimensional approach consists of: (1) examining long and short-run relationships among selected stock markets in the SEE region, and (2) testing their weak-form efficiency. However, for the purpose of modelling, certain transformations as to the original index value had to be made, as follows. If we denote successive index value observations made at time  $t$  and  $t+1$  as  $P_t$  and  $P_{t+1}$ , respectively, then continuous compounding transforms an index value series  $\{P_t\}$  into an index return series  $\{r_t\}$  as:

$$r_t = \ln \frac{P_t}{P_{t-1}} \quad (3.1)$$

The nature of the relationship between selected variables may be correlational or causal. Correlation between two variables indicates the level to which those variables move together. In case of statistical significance of correlation coefficient ( $\rho$ ), the following hypotheses were tested:  $H_0: \rho = 0$ ,  $H_1: \rho \neq 0$ . Since correlation does not imply causation, to examine long and short-run (causal) relationships we used Johansen's cointegration and Granger causality tests. In addition, since stock markets are completely integrated if assets of equal risk have identical expected returns, irrespective of the location of the stock market, the degree of financial integration of stock markets can be determined by analyzing the movement of market indices (Svilokos, 2006, p. 313). Therefore, we first tested each index series for the presence of unit roots. For the purpose of this study, the augmented Dickey-Fuller (ADF) test, being an extension of the Dickey and Fuller



method was used. The hypotheses of interest (Brooks, 2008, p. 327) have been defined as follows:  $H_0$ : series contains a unit root and  $H_1$ : series does not contain a unit root. The null hypothesis of a unit root was disregarded in favour of the stationary alternative in each case if the test statistic was more negative than the critical value. Phillips and Perron (1988) propose an alternative (nonparametric) control method for serial correlation in a unit root testing (PP test). The hypotheses of interest were the same as those used in the case of ADF test. The next step was to test the presence of long-run equilibrium relationships. For the purpose of this study we used the Johansen testing procedure in order to test the presence of cointegration among the selected stock indices. The first test involved a null hypothesis of no cointegrating vectors ( $r$ ). In case null was not rejected, it would be concluded that there were no cointegrating vectors and the testing would be completed. On the other hand, if  $H_0: r = 0$  was rejected, the null that there is one cointegrating vector (i.e.  $H_0: r = 1$ ) would be tested and so on. Thus the value of  $r$  was continually increasing until the null was no longer rejected (Brooks, 2008, p. 352). We have opted for the cointegration tests since it allows us to determine whether stock prices or indices of different national markets move together over the long run, at the same time providing the possibility of short-run divergence (Vizek and Dadić, 2006, p. 636). In order to examine the existence of short-term causal relationships we used the Granger causality test. The main purpose of the Granger causality test ( $H_0: x$  does not Granger Cause  $y$ ) was to see how much of the current  $y$  can be explained by past values of  $y$  for the purpose of determining whether adding lagged values of  $x$  can improve the explanation of  $y$ . In order to test the two-dimensional concept, we also had to examine a weak-form efficiency of stock markets. In order to do so, we used an autoregressive (AR) model. According to this model, the current value of a variable  $r_t$ , rate of return depends upon the values that the variable took in previous periods plus an error term. Therefore, the autoregressive model of order  $p$ , denoted as  $AR(p)$  can be expressed as:

$$AR(p): r_t = \varphi_1 r_{t-1} + \varphi_2 r_{t-2} + \dots + \varphi_p r_{t-p} + \varepsilon_t, \quad (3.2)$$

where  $\varepsilon_t$  is a white noise disturbance term. If a market is weak-form efficient then the estimated coefficient in  $AR(p)$  model should not be statistically significant.

#### 4.1. Data

According to the SEE 2020 strategy, the working regional definition of ‘South East Europe’ is taken to include Albania, Bosnia and Herzegovina, Croatia, Kosovo, Montenegro, Serbia and The Former Yugoslav Republic of Macedonia. Over the past two decades, the SEE countries, in general, have made great strides in their economic and political transformation, reintegration into the global economy and rapprochement with Europe. During the 2000s the resurgence of economic growth in the SEE region significantly contributed to rising living standards and improving social welfare. During the same period, average annual GDP growth in the SEE region was 3.4%, which resulted in a 40% increase in regional aggregate GDP over the past decade. Robust growth supported an ongoing process of catching up – average per capita GDP in the SEE region increased from 28.5% of the EU-27 average in 2000 to more than 36% in 2010 (The Regional Cooperation Council, 2013, p. 7).

##### 4.1.1. Sample, variables and indicators

For the purpose of this study, the following publicly available data and information were collected from the stock exchange web-sites of the following SEE countries: SASX-10 and BIRS (Bosnia and Herzegovina), CROBEX (Croatia), MONEX20 (Montenegro), BELEX15 (Serbia)

and MBI10 (FYR Macedonia) and were benchmarked against the index of developed European economy, i.e. DAX (Germany). By a *dependent* variable we consider the effects of potential international portfolio diversification, while an *independent* variable has been defined as stock market efficiency and integration. Estimated AR(p) models were used as an *indicator* of stock market efficiency. The results of correlational analysis, Johansen's cointegration and Granger causality tests were used as an indicator of stock market integration. An observation period is from 1 October 2005 to 31 December 2013<sup>40</sup>.

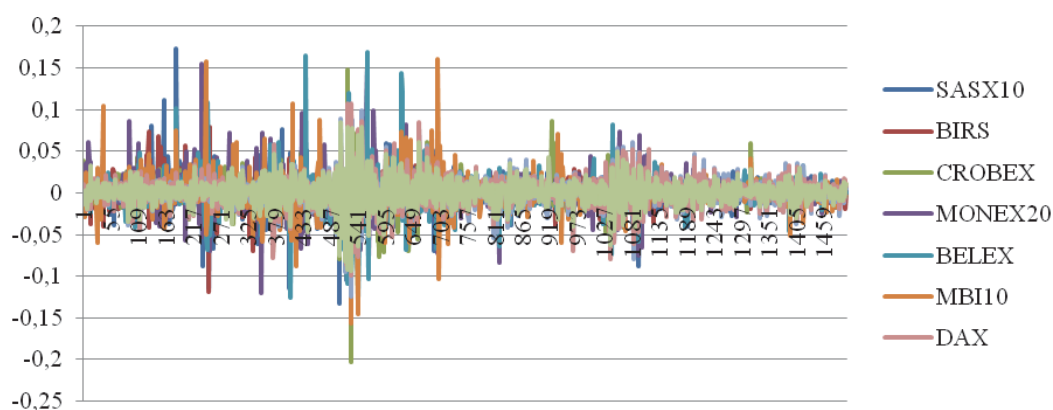
## 4.2. Research design

The research was organised in four phases. In the first phase, each daily return series was tested for the purpose of identifying the presence of unit roots, in order to determine whether the time series was stationary or not. In the second phase, following Johansen procedure, we tested the presence of long-run equilibrium relationships, while the existence of short-term causal relationships was tested by applying Granger causality test. In this phase, we also presented a correlational analysis of the selected variables. In the third phase, a weak-form stock market efficiency was tested by using autoregressive (AR) model. Finally, in the last phase the results obtained are combined and analysed according to a previously defined two-dimensional theoretical concept (see Figure 1 above).

## 5. Results and discussion

Following the above explained methodology, we will first give a comparative illustration of daily index returns, as illustrated in Figure 2:

**Figure 2:** A comparative illustration of daily index returns



In order to get a better insight into a specificity of observed financial time series we analysed some basic parameters of descriptive statistics, as illustrated in Table 1.

<sup>40</sup> In order to keep the data consistency, we used October 2005 as a starting point while the base date for BELEX15 was 1 October 2005.

**Table 1. Descriptive statistics**

	SEE REGION					BENCHMARK	
	BELEX	BIRS	CROBEX	MBI10	MONEX20	SASX10	DAX
<b>Mean</b>	-0.0004	-0.0004	-0.0001	-0.0003	0.0002	-0.0006	0.0004
<b>Median</b>	0.0001	-0.0002	0.0000	-0.0008	-0.0004	-0.0005	0.0011
<b>Maximum</b>	0.1696	0.0796	0.1478	0.1600	0.1584	0.1738	0.1080
<b>Minimum</b>	-0.1259	-0.1184	-0.2023	-0.1564	-0.1193	-0.1332	-0.0987
<b>Std. Dev.</b>	0.0193	0.0120	0.0175	0.0184	0.0204	0.0178	0.0170
<b>Skewness</b>	0.7230	-0.0245	-0.8390	0.2907	0.7628	0.2864	-0.1970
<b>Kurtosis</b>	20.2049	15.8715	26.4662	20.1781	12.7172	17.9542	9.3689
<b>Jarque-Bera</b>	18668.4840	10375.5658	34661.5571	18500.8932	6059.1193	14025.1818	2549.9714
<b>Probability</b>	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Following the Jarque-Bera test, the null hypothesis was rejected ( $H_0$ : the data are from a normal distribution) at the 5% significance level for all selected variables. Negative skewness was evident in the case of BIRS and CROBEX. This indicates that there was a substantial probability of a big negative return. DAX, as a benchmark, also had negative skewness. Excess kurtosis was particularly evident in case of all selected variables, meaning that investors may face higher likelihood of large gains or large losses when investing in these stocks.

Taking into account that the correlation between the returns is important for the process of allocating investments among them, the correlation between selected variables was examined. The procedure is given in Table 2.

**Table 2: Correlation analysis**

		Correlations						
		SASX-10	BIRS	CROBEX	MONEX20	BELEX15	MBI10	DAX
<b>SASX-10</b>	Pearson Correlation	1	0.285**	0.214**	0.198**	0.148**	0.214**	0.092**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000
<b>BIRS</b>	Pearson Correlation		1	0.146**	0.130**	0.094**	0.092**	0.065*
	Sig. (2-tailed)			0.000	0.000	0.000	0.000	0.012
<b>CROBEX</b>	Pearson Correlation			1	0.276**	0.167**	0.367**	0.508**
	Sig. (2-tailed)				0.000	0.000	0.000	0.000
<b>MONEX20</b>	Pearson Correlation				1	0.267**	0.179**	0.118**
	Sig. (2-tailed)					0.000	0.000	0.000
<b>BELEX15</b>	Pearson Correlation					1	0.165**	0.013
	Sig. (2-tailed)						0.000	0.611
<b>MBI10</b>	Pearson Correlation						1	0.213**
	Sig. (2-tailed)							0.000
<b>DAX</b>	Pearson Correlation							1
	Sig. (2-tailed)							

\*\* . Correlation is significant at the 0,01 level (2-tailed); \* . Correlation is significant at the 0,05 level (2-tailed).

As can be seen from Table 2, the weaker the correlations between selected indices are, the greater the reduction in total portfolio risk is. A correlation greater than 0.8 has been defined as strong, whereas a correlation less than 0.5 has been defined as weak. Following the findings of the correlation matrix analysis findings, it can be concluded that there is a significant (except DAX and BELEX15) but still weak correlation in movement of all stock exchange indices.

### 5.1. Unit roots tests

As is well-known, pre-testing for unit roots is often a first step in the cointegration modelling. Therefore, if one time series has unit root, that means that such time series is non-stationary following also random walk. In order to determine whether the daily returns are stationary in levels, first differences or even in higher differences, ADF and PP tests were used. The testing results are presented in Table 3.

**Table 3:** Results of augmented Dickey-Fuller (ADF) and Philips-Perron (PP) tests

Variables		ADF		PP	
		t-value (trend included)	t-value (no trend)	t-value (trend included)	t-value (no trend)
SEE region	BELEX15	-30.417	-30.423	-30.763	-30.776
		0.000	0.000	0.000	0.000
	BIRS	-31.426	-22.652	-35.005	-35.052
		0.000	0.000	0.000	0.000
	CROBEX	-36.408	-36.411	-36.599	-36.608
		0.000	0.000	0.000	0.000
	MONEX20	-29.612	-29.554	-30.709	-30.736
		0.000	0.000	0.000	0.000
	MBI10	-25.570	-25.524	-29.609	-29.725
		0.000	0.000	0.000	0.000
	SASX10	-29.157	-29.146	-29.428	-29.453
		0.000	0.000	0.000	0.000
Benchmark	DAX	-40.335	-40.332	-40.470	-40.457
		0.000	0.000	0.000	0.000

The obtained results have revealed that all daily return time series are stationary at 1% confidence level, meaning that they don't have unit root nor do they follow random walk. This result is partly in line with the results of the study done by Vizek and Dadić (2006).

### 5.2. Cointegration tests

Johansen (1991) defines two different test statistics for cointegration under the trace test and the maximum eigenvalue test. Results<sup>41</sup> are presented in Table 4 and Table 5.

**Table 4:** Unrestricted cointegration rank test (trace)

Hypothesized number of cointegration equations	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.144041	1080.780	125.6154	0.0001
At most 1 *	0.125617	848.4143	95.75366	0.0001
At most 2 *	0.118428	647.8643	69.81889	0.0001
At most 3 *	0.098066	459.5474	47.85613	0.0001
At most 4 *	0.091223	305.3455	29.79707	0.0001
At most 5 *	0.067469	162.4362	15.49471	0.0001
At most 6 *	0.038127	58.07555	3.841466	0.0000
Trace test indicates 7 cointegrating eqn(s) at the 0.05 level; * denotes rejection of the hypothesis at the 0.05 level; **MacKinnon-Haug-Michelis (1999) p-values				

<sup>41</sup> The optimal lag structure is determined by minimization of the Akaike Information Criterion (AIC).

**Table 5: Unrestricted cointegration rank test (maximum eigenvalue)**

Hypothesized number of cointegration equations	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.144041	232.3654	46.23142	0.0000
At most 1 *	0.125617	200.5501	40.07757	0.0001
At most 2 *	0.118428	188.3169	33.87687	0.0001
At most 3 *	0.098066	154.2018	27.58434	0.0001
At most 4 *	0.091223	142.9093	21.13162	0.0001
At most 5 *	0.067469	104.3607	14.26460	0.0001
At most 6 *	0.038127	58.07555	3.841466	0.0000
Max-eigenvalue test indicates 7 cointegrating eqn(s) at the 0.05 level; * denotes rejection of the hypothesis at the 0.05 level; **MacKinnon-Haug-Michelis (1999) p-values				

The trace test is a joint test used for testing the null hypothesis of no cointegration ( $H_0: r = 0$ ) against the alternative hypothesis of cointegration ( $H_1: r > 0$ ).

The maximum eigenvalue test was used to test each eigenvalue separately. The results have revealed that selected indices of different national markets move together over the long run, providing the possibility of short-run divergence.

The Granger causality test was used for testing the existence of short-term causal relationships. The testing results are presented in Table 6.

The results indicate short-term causal relationships particular between capital markets from the SEE region. As for the selected benchmark, short-term causal relationship is evident between DAX – BELEX15, DAX – MBI10, DAX – MONEX20 and DAX – SASX10.

The findings are partly in line with the results of the study done by Wong, Agarwal and Du (2005), Vizek and Dadić (2006), Erdinc and Milla (2009), Caporale and Spagnolo (2010), Marashdeh and Shrestha (2010), Kenourgios and Samitas (2011), Svilokos (2012), etc.

**Table 6: Granger causality test results**

No.	Null Hypothesis	Prob.	No.	Null Hypothesis	Prob.
	BIRS does not Granger Cause BELEX15	6.E-05		BIRS does not Granger Cause SASX10	1.E-05
	BELEX15 does not Granger Cause BIRS	0.0419		DAX does not Granger Cause CROBEX	0.0154
	CROBEX does not Granger Cause BELEX15	1.E-35		CROBEX does not Granger Cause DAX	0.1010
	BELEX15 does not Granger Cause CROBEX	9.E-05		MBI10 does not Granger Cause CROBEX	0.0059
	DAX does not Granger Cause BELEX15	5.E-18		CROBEX does not Granger Cause MBI10	9.E-10
	BELEX15 does not Granger Cause DAX	0.0086		MONEX20 does not Granger Cause CROBEX	0.0054
	MBI10 does not Granger Cause BELEX15	2.E-11		CROBEX does not Granger Cause MONEX20	3.E-10
	BELEX15 does not Granger Cause MBI10	0.0001		SASX10 does not Granger Cause CROBEX	0.0212
	MONEX20 does not Granger Cause BELEX15	5.E-13		CROBEX does not Granger Cause SASX10	5.E-09
	BELEX15 does not Granger Cause MONEX20	0.0011		MBI10 does not Granger Cause DAX	0.3068
	SASX10 does not Granger Cause BELEX15	7.E-13		DAX does not Granger Cause MBI10	0.0085
	BELEX15 does not Granger Cause SASX10	0.0005		MONEX20 does not Granger Cause DAX	0.3757
	CROBEX does not Granger Cause BIRS	0.0101		DAX does not Granger Cause MONEX20	0.0093
	BIRS does not Granger Cause CROBEX	0.1762		SASX10 does not Granger Cause DAX	0.8484
	DAX does not Granger Cause BIRS	0.0222		DAX does not Granger Cause SASX10	0.0003
	BIRS does not Granger Cause DAX	0.6229		MONEX20 does not Granger Cause MBI10	6.E-11
	MBI10 does not Granger Cause BIRS	0.0021		MBI10 does not Granger Cause MONEX20	0.0107
	BIRS does not Granger Cause MBI10	0.0308		SASX10 does not Granger Cause MBI10	0.0047
	MONEX20 does not Granger Cause BIRS	0.0024		MBI10 does not Granger Cause SASX10	0.0606
	BIRS does not Granger Cause MONEX20	0.0003		SASX10 does not Granger Cause MONEX20	0.0836
	SASX10 does not Granger Cause BIRS	0.0056		MONEX20 does not Granger Cause SASX10	0.0052

### ***5.3. Weak-form efficiency testing***

The estimated coefficient of the autoregressive AR(p) models for observed variables and appropriate p-values are shown in Table 7.

In addition, we assumed that the error term is normally distributed with mean zero and constant variance. Furthermore, we estimated the parameters and test their respective significance. Grey colored p-values indicate significant estimation at level 0.05.

If the market was efficient we should not be able to explain any variance. Instead, in the observed period of time we were able to explain up to 8.4% (SASX10) of variability of the current (daily) return.

By a comparative analysis of variability of daily returns on stock exchange indices of capital markets of the SEE region, it can be concluded that, in the observed period of time (see Table 7), CROBEX, with 0.4%, 0.32%, 0.56%, 0.50% and 0.82% (for models AR(1), AR(2), AR(3), AR(4) and AR(5) respectively) variability of daily returns, explained by historical returns and in the context of testing the weak efficiency, is the closest in its value to the previously selected benchmark, i.e. DAX index, with only 0.1%, 0.2%, 0.3%, 0.26% and 0.2% (for models AR(1), AR(2), AR(3), AR(4) and AR(5) respectively) of daily return.

On the other hand, in comparison to the selected benchmark, other capital markets are characterized by much larger impact caused by historical returns effect on variability of daily returns.



**Table 7. Estimated  $AR(p)$  models**

Models		Indices														BENCHMARK			
		SEE REGION														DAX			
		BELEX-15		BIRS		CROBEX		MONEX20		MBI-10		SASX-10							
		Parameter	p-value	Parameter	p-value	Parameter	p-value	Parameter	p-value	Parameter	p-value	Parameter	p-value	Parameter	p-value	Parameter	p-value	Parameter	p-value
AR(1)	$r_{t-1}$	0.2372	0.0000	0.2081	0.0000	0.0636	0.0136	0.2643	0.0000	0.2633	0.0000	0.2772	0.0000	0.2772	0.0000	-0.0402	0.1198		
	Adj. $R^2$	0.0559		0.0422		0.0040		0.0698		0.0691		0.0760		0.0760		0.0010			
AR(2)	$r_{t-1}$	0.2443	0.0000	0.1931	0.0000	0.0635	0.0140	0.2695	0.0000	0.2850	0.0000	0.2955	0.0000	0.2955	0.0000	-0.0418	0.1052		
	$r_{t-2}$	-0.0298	0.2485	0.0723	0.0051	0.0017	0.9496	-0.0196	0.4469	-0.0827	0.0013	-0.0659	0.0107	-0.0659	0.0107	-0.0417	0.1065		
	Adj. $R^2$	0.0567		0.0466		0.0032		0.0695		0.0749		0.0793		0.0793		0.0020			
AR(3)	$r_{t-1}$	0.2455	0.0000	0.1893	0.0000	0.0635	0.0140	0.2688	0.0000	0.2861	0.0000	0.2916	0.0000	0.2916	0.0000	-0.0436	0.0913		
	$r_{t-2}$	-0.0399	0.1335	0.0624	0.0175	-0.0018	0.9443	-0.0102	0.7035	-0.0862	0.0013	-0.0483	0.0722	-0.0483	0.0722	-0.0435	0.0924		
	$r_{t-3}$	0.0413	0.1101	0.0515	0.0464	0.0547	0.0342	-0.0352	0.1735	0.0126	0.6262	-0.0596	0.0210	-0.0596	0.0210	-0.0424	0.1007		
	Adj. $R^2$	0.0582		0.0485		0.0056		0.0699		0.0743		0.0820		0.0820		0.0032			
	$r_{t-1}$	0.2421	0.0000	0.1867	0.0000	0.0637	0.0138	0.2715	0.0000	0.2851	0.0000	0.2912	0.0000	0.2912	0.0000	-0.0441	0.0879		
	$r_{t-2}$	-0.0366	0.1676	0.0591	0.0245	-0.0018	0.9433	-0.0094	0.7249	-0.0796	0.0030	-0.0485	0.0711	-0.0485	0.0711	-0.0440	0.0889		
AR(4)	$r_{t-3}$	0.0210	0.4285	0.0417	0.1128	0.0550	0.0335	-0.0558	0.0364	-0.0095	0.7222	-0.0580	0.0310	-0.0580	0.0310	-0.0429	0.0969		
	$r_{t-4}$	0.0826	0.0014	0.0518	0.0450	-0.0049	0.8494	0.0770	0.0029	0.0773	0.0027	-0.0052	0.8390	-0.0052	0.8390	-0.0120	0.6439		
	Adj. $R^2$	0.0627		0.0504		0.0050		0.0748		0.0788		0.0814		0.0814		0.0026			
	$r_{t-1}$	0.2467	0.0000	0.1837	0.0000	0.0640	0.0132	0.2702	0.0000	0.2866	0.0000	0.2916	0.0000	0.2916	0.0000	-0.0442	0.0876		
	$r_{t-2}$	-0.0354	0.1811	0.0567	0.0307	-0.0052	0.8397	-0.0084	0.7528	-0.0798	0.0030	-0.0450	0.0945	-0.0450	0.0945	-0.0442	0.0876		
	$r_{t-3}$	0.0189	0.4745	0.0382	0.1456	0.0551	0.0329	-0.0557	0.0370	-0.0111	0.6810	-0.0550	0.0407	-0.0550	0.0407	-0.0432	0.0955		
AR(5)	$r_{t-4}$	0.0961	0.0003	0.0411	0.1176	-0.0089	0.7319	0.0722	0.0069	0.0828	0.0020	-0.0232	0.3877	-0.0232	0.3877	-0.0122	0.6375		
	$r_{t-5}$	-0.0558	0.0307	0.0575	0.0261	0.0621	0.0162	0.0175	0.4983	-0.0193	0.4554	0.0617	0.0170	0.0617	0.0170	-0.0053	0.8372		
	Adj. $R^2$	0.0649		0.0530		0.0082		0.0744		0.0789		0.0844		0.0844		0.0020			
		0.0649		0.0530		0.0082		0.0744		0.0789		0.0844		0.0844		0.0020			

These findings are consistent with the results of ADF and PP tests (see Table 3). Since presented time series don't follow random walk, the hypothesis of weak form efficiency was rejected. The findings obtained are therefore in line with the previously mentioned results of the study done by Dorina and Simina (2007) and Lomev and Bogdanova (2012).

In the end, this research has confirmed that stock markets from the SEE region are integrated, correlated and not weak-efficient. According to the theoretical concept, presented in Figure 1 it means that when investing on these stock markets, investors should be able to set their portfolio in the position “B”, meaning that they may face possibilities for the realization of excess return with small effects of international portfolio diversification.

## 6. Conclusion

In this paper we investigated the opportunities for international portfolio diversification across the selected stock markets in the SEE region. We proposed and tested the two-dimensional theoretical concept by which we examined not only potential portfolio risk reduction but also possibilities for the realization of excess return on these markets. Based on theoretical inferences and empirical evidence presented in this paper we came to the conclusion that, taking into account that the stock markets from the SEE region are cointegrated and not week-efficient, when investing on these markets investors may face small effects of international portfolio diversification with possibilities for realization of excess return. Therefore, investors should be careful when trying to diversify their portfolios on these markets, which is in line with a great deal of the previous work in this field. However, due to relatively small sample indices from the SEE region used (being considered the main limitation of the study) more research on this topic needs to be undertaken before the association between the stock market integration and efficiency is more clearly understood.

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## PART TWO:

*Business/Smes Financing And Accounting,  
Business Risk Evaluation*

## BALKANS CAPITAL MARKETS AND MARKET RISK FORECASTING UNDER LONG MEMORY IN RETURNS

Nikolay Ch. NETOV<sup>42</sup>, Boyan LOMEV<sup>43</sup>

### Abstract

*The Basel Committee on banking supervision at the Bank for International Settlements requires financial institutions to meet capital requirements on base VaR estimates, which has made the VaR methodology a fundamental market risk management tool employed by the financial institutions.*

*Although it is widely used, the practicability of VaR was questioned and the traditional approaches to VAR computations – the historical simulation, variance-covariance method, Monte Carlo simulation and stress-testing – were claimed to provide a non-satisfactory evaluation of possible losses for stock markets with long memory in returns.*

*This paper presents an empirical analysis of the value-at-risk in the financial environment of the regulated financial markets on the Balkans (Turkey, Croatia, Romania and Bulgaria). The results obtained for the considered stock exchange indices BET, CROBEX, ISE100 and SOFIX indicate presence of long-term dependencies in the logarithmic returns and variance, which means the returns are featured by the so called "fat tails" and respectively the assumption of a normal distribution of returns is inappropriate. At all indices under survey the  $VaR_{(1\%)}$  estimates which were calculated for the period  $Q_12002-Q_12014$  through historical simulation and under the assumption of normal and Student  $t$  distribution of the returns underestimate the actual market risk and respectively the results we have received evaluate the models as inaccurate. When estimating a Monte Carlo simulation which includes a model of the conditional heteroscedasticity without any long-term dependency the tests for adequacy of the model do not give unambiguous results. The models of conditional heteroscedasticity proposed by the author consider the long-term dependency computed it in three different classical methods (Rescaled-Range Analysis (Hurst Method), Whittle Method and Wavelets Method). They pass successfully through the test of adequacy and generally provide more accurate  $VaR_{(1\%)}$  forecasts.*

*The obtained results give an evidence that long range dependence is strongly connected with higher market risk and for modeling of the emerging markets volatility it has to be taken into account. In the case of more substantial long memory effect superior results are obtained using Whittle estimator for simulation.*

*For the purposes of this analysis the following statistical tests are used: Kupiec's test-likelihood ratio unconditional coverage test and Christoffersen's test - likelihood ratio independence coverage and likelihood ratio conditional coverage test.*

**Keywords:** Value at risk, Return distributions, Long memory

**JEL Classification:** C53, G15.

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## 1. Introduction

Studies of market risk in the financial environment of regulated stock markets are particularly relevant against the backdrop of the global financial crisis of 2007 and the subsequent sovereign debt crises in Greece (since 2010), Ireland and Portugal (since 2011) and Spain (from 2012). This is even more effective for Bulgaria and the regulated capital markets of the Balkans (Turkey, Croatia and Romania) in view of the fact that most of them are small and newly arisen regional markets. An exception to this is the stock market in Turkey, which is an established regional market and for it can be expected much weaker effects caused by its neighboring regional markets.

Patev et al. (Plamen Patev, Nigokhos Kanaryan and Katerina Lyroutdi, 2009) have examined the Bulgarian stock market risk over the period 24 October 2000 – 19 November 2004. The result of their research shows that the SOFIX index has basic characteristics that are observed in most of the emerging stock markets, namely: high risk, significant autocorrelation, non-normality and volatility clustering. Three models have been applied to assess and estimate the Bulgarian stock market risk: RiskMetrics, EWMA with t-distributed innovations and EWMA with GED distributed innovations. The results revealed that the EWMA with t-distributed innovations and the EWMA with GED distributed innovations evaluate the risk of the Bulgarian stock market adequately.

Zivkovitch et al. (Zivkovitch, Measuring market risk in EU new member states, 2007) applied VaR methodology and historical simulation on the Croatian stock market indices in an effort to measure Value-at-Risk. Zivkovitch et al. has also analyzed VaR models for ten small and newly arisen regional markets and concluded that use of common VaR models to forecast VaR is not suitable for transition economies. (Zivkovitch, Testing popular VaR models in EU new member and candidate states, 2007).

Kasman (Kasman, 2009) has examined long memory property of the Turkish futures market and the estimation results provide evidence supporting the FIGARCH models, in the sense that the FIGARCH models fit the data series better than the GARCH models. The results of the FIGARCH model show that estimates of the long memory parameters are significantly different from zero, suggesting that volatility series are long memory processes in the Turkish futures market. The estimation results also indicate that the skewed Student-t distribution outperforms the normal distribution. The VaR values have also been estimated using the FIGARCH (1, d, 1) model with three distributions. Comparing the estimated in-sample and out-of-sample VaR values based on Kupiec's LR test, the skewed Student-t model performs better than the normal distribution in describing the return series in the Turkish futures market. In summary, since long memory model outperforms the traditional short-memory model risk analyzing methods requiring variance series, such as VaR, provide more efficient results when the variance series of the ISE-30 index futures returns is filtered by the long memory model, rather than by the short memory model. Therefore, these findings would be helpful to the financial managers, investors and regulators dealing with the Turkish futures market.

Dorich (Dorich, 2011) has examined several alternative models of return distribution for BELEX15 to compare the predictive ability of the VaR estimates based on them. In the case of BELEX15 index returns asymmetric behavior was not discovered. Since the distribution of the log-returns exhibits leptokurtosis, several models of leptokurtic distribution were chosen: Student t, NIG, hyperbolic and stable. For both tails NIG distribution is the closest one to the empirical data. Based on Dorich results the Student t and NIG distributions are acceptable for all considered  $\alpha$  - values. Although static models cannot reproduce volatility clustering, they may be successful in modelling tails of distribution and computing VaR of the Belgrade Stock Exchange index BELEX15.

Such studies are very useful for investors who are trying to compile portfolios of global assets with the requirement to be resilient in times of crisis. An interesting question is whether in such



times of crisis, the market risk of the stock markets in the Balkans region differs significantly from that of the developed world's stock markets.

## 2. Methodology

The sense in which we use the “market risk” concept is that of a specifically selected measure of risk which is numerically measurable and for each of the examined stock markets (represented by their major stock indexes) we can collate a number that we call risk, determined for a portfolio of the respective stock market indexes.

In this context, let us consider a discrete random time series  $X_1, X_2, X_3, \dots, X_t, \dots, X_{t+m}$  which consists of closing prices of our sample indices and its logarithmic return at time  $t$  is:

$$R_t = \log \frac{X_t}{X_{t-1}}, \quad t = 2, 3, \dots, n \quad (1)$$

Historically, the oldest numerically quantifiable measure of market risk, proposed by Markowitz (1952) in the context of his classic works for portfolio optimization, is the standard deviation (variance) of a random variable. The dispersion of a random variable is a measure of the distribution of a random variable, i.e. its deviation from the mathematical expectation.

The Basel Committee on banking supervision at the Bank for International Settlements requires financial institutions to meet capital requirements on base VaR estimates, which has made the VaR methodology a fundamental market risk management tool employed by the financial institutions. According to Basel II framework, the preferred approach for market risk is value-at-risk (VaR). Banks will have the flexibility in devising the precise nature of their models, but the following minimum standards will apply for the purpose of calculating their capital charge: “Value-at-risk” must be computed on a daily basis, a 99th percentile, one-tailed confidence interval is to be used. An instantaneous price shock equivalent to a 10 day movement in prices is to be used, the historical observation period is a minimum length of one year and the banks should update their data sets no less frequently than once every three months. In particular VaR is defined for a fixed confidence level  $\alpha \in (0, 1)$  as the smallest number  $v$ , such that the probability that the loss  $L$  exceeds  $v$  is not larger than  $(1-\alpha)$ . If a random variable  $X$  describes a random return, then VaR is defined as the negative value of the lower  $\alpha$ -quantile of the distribution of returns.

$$VaR_\alpha(X) = -\inf_x \{x | P(X \leq x) \geq \alpha\} = -F_X^{-1}(\alpha)$$

where  $\alpha \in (0, 1)$  and  $F_X^{-1}(\alpha)$  is the inverse function of the distribution of the random variable  $X$ .

Despite the wide variety of approaches to calculating VaR estimates, we could consider them in four main groups. They differ among themselves in the assumptions made regarding the statistical properties of the time series formed by the empirical data and also in the approaches to construct a distribution function  $F_X(\alpha)$ . These groups are: the non-parametric historical approach, parametric approaches which could be analytical or could be based on a model, Monte Carlo stochastic simulations and stress tests based on scenarios. In this study the author has confined himself to the first three approaches and the markets under survey are not analyzed through stress tests.

### 2.1. The non-parametric historical approach (historical simulation)

The simplest from computational viewpoint is the non-parametric historical approach that does not assume any specific distribution of the returns of the financial assets which we consider and the VaR forecasts are determined based only on the historical returns. When the historical

simulation (HS) approach is applied the distribution of the logarithmic returns  $R_t$  is estimated within the settings of the distribution of the empirical historical data  $\mathbf{X}_{t-n+1}, \dots, \mathbf{X}_t$ . Thus, the method does not rely on any parameterized assumptions about the distribution of the returns. However this does not mean that stationarity is not implied for the discrete stochastic series of the empirical historical data  $\mathbf{X}_{t-n+1}, \dots, \mathbf{X}_t$ , which is a necessary condition to ensure convergence of the distribution of the empirical returns and of the distribution of the real returns. When we apply this approach we order the possible realizations of the logarithmic returns  $R_1 < R_2 < R_3 \dots \dots < R_n$  as an increasing statistical series and we set an appropriate level of confidence  $\alpha$ . The value of the quantile corresponding to the chosen level of confidence is actually the VaR of the asset. For example, in a simulation for a period of 1000 work days, if we want to calculate the VaR at 99% confidence level, the VaR value is simply the 10<sup>th</sup> lowest returns value.

## 2.2. Parametric approaches

The simplest of the computational point of view and at the same time the most widespread parametric approach is that of constructing a distribution function  $F_x(\alpha)$  with the assumption for normal distribution of the returns. Then the VaR forecasts are completely determined by two parameters - the mathematical expectation  $\mu$  and the standard deviation  $\sigma$ . Thus to construct the distribution function we are using the following formula:

$$F_x(\alpha) = \frac{1}{\sqrt{2\pi}\sigma} \exp\left\{-\frac{(\alpha - \mu)^2}{2\sigma^2}\right\} \quad (2)$$

$$\hat{\mu} = \frac{1}{T} \sum_{n=1}^T R_n, \quad \hat{\sigma} = \left( \frac{1}{T-1} \sum_{n=1}^T (R_n - \hat{\mu})^2 \right)^{1/2} \quad (3)$$

Despite its simplicity and wide spread, the assumption for a normal distribution is problematic, since the returns on most assets have distributions with strong skewness and kurtosis (fat tails). If we have such a distribution with fat tails, the VaR estimates obtained by this method will underestimate the maximum possible loss. This method uses the historical standard deviation, which makes it unsuitable in times of crisis and more generally in times of dynamic changes in the market conditions.

One possible approach for modeling of empirical distributions with strong skewness and kurtosis (fat tails) is the one in which in order to construct a distribution function  $F_x(\alpha)$  we have to assume Student  $t$  distribution of the returns. Under this assumption we can construct a distribution function using the formula:

$$F_x(\alpha) = \frac{\Gamma(\frac{v}{2} + \frac{1}{2})}{\Gamma(\frac{v}{2})\sqrt{\pi v\beta}} \cdot \left( 1 + \frac{(\alpha - \mu)^2}{v\beta} \right)^{-\frac{(1+v)}{2}} \quad (4)$$

## 2.3. Econometric approaches

The presence of statistically significant conditional heteroscedasticity in the empirical data for the regulated capital markets we have reviewed allows us to use econometric ARMA-GARCH approaches to construct the distribution function  $F_x(\alpha)$ . To forecast  $\varepsilon_t$  we could use an asymmetric ARMA-GARCH model and the conditional dependency of the error in the moment  $t$  on the previous realizations  $e_{t-1}, e_{t-2}, \dots$ . The distribution of the residuals is often found to be leptokurtic.

As an “ad-hoc approach” the innovations can be modeled by a t-distribution where the degree-of-freedom parameter is estimated with maximum likelihood. This approach works quite well for return series with symmetric tails but fails when the tails are asymmetric. McNeil, A. and Frey, R (McNeil, A. and Frey, R., 2000) have proposed the generalized Pareto distribution (GPD) approximation which employs the extreme value theory to model the tail of the distribution of the innovations.

The definition of the probability density function for the GPD with shape parameter  $k \neq 0$ , scale parameter  $\sigma$ , and threshold parameter  $\theta$ , is:

$$y = f(x | k, \sigma, \theta) = \left(\frac{1}{\sigma}\right) \left(1 + k \frac{(x - \theta)}{\sigma}\right)^{-1 - \frac{1}{k}} \quad (5)$$

For  $\theta < x$ , when  $k > 0$ , or for  $\theta < x < -\sigma/k$ , when  $k < 0$

For  $k = 0$ , the density is

$$y = f(x | 0, \sigma, \theta) = \left(\frac{1}{\sigma}\right) e^{-\frac{(x - \theta)}{\sigma}} \quad \text{for} \quad \theta < x. \quad (6)$$

#### 2.4. VaR under long memory in returns

The presence of a short-term dependency in a given data set could be modeled very well by the classical ARIMA processes however the covariance between the observations  $X_i$  and  $X_{i+h}$  decreases fast with the increase of  $h$ . More precisely – the autocorrelation function of the process  $\rho(k)$  is geometrically restricted:

$$|\rho(k)| \leq Cr^k, \quad k = 1, 2, \dots, \quad \text{where } C > 0 \text{ and } 0 < r < 1. \quad (7)$$

A class of models where the covariance between distant observations decreases like a power function, are suggested simultaneously by (Hosking, 1981) and (Granger, C.W.; Joyeux, R., 1980). A main feature of these models is the usage of fractional differentiation. The operator for fractional differentiation is formally defined by the following binomial decomposition:

$$\nabla^d = (1 - B)^d = \sum_{j=0}^{\infty} \binom{d}{j} (-B)^j = 1 - dB - \frac{1}{2}d(1-d)B^2 - \frac{1}{6}d(1-d)(2-d)B^3 - \dots \quad (8)$$

where  $B$  is the lag operator  $Bx_i = x_{i-1}$ , and  $d$  takes fractional values. To calculate the binomial coefficients it is technically more convenient to use the Gama function  $\Gamma(\cdot)$ :

$$\nabla^d = (1 - B)^d = \sum_{j=0}^{\infty} \pi_j B^j, \quad \text{where} \quad (9)$$

$$\pi_j = \prod_{0 < k \leq j} \frac{k - 1 - d}{k} = \frac{\Gamma(j - d)}{\Gamma(j + 1)\Gamma(-d)}, \quad j = 0, 1, 2, \dots, \quad (10)$$

The ARIMA (0,  $d$ , 0) process could be defined when the operator for fractional differentiation is used (in the case of Gaussian innovations):  $\nabla^d X_t = Z_t$ ,

where  $Z_t$  is a process of discrete white noise – for simplicity it is taken to have one as a dispersion and  $d$  takes values in the  $(-0.5, 0.5)$  interval.

The main features of one ARIMA (0,  $d$ , 0) process could be listed without a detailed exposition as follows:

- when  $d < 0.5$   $\{X_t\}$  is a stationary process with infinite moving average representation:

$$X_t = \sum_{j=0}^{\infty} \psi_j Z_{t-j} = \nabla^{-d} Z_t, \text{ where} \quad (11)$$

$$\psi_j = \frac{(j-1+d)!}{j!(-1+d)!} = \frac{\Gamma(j+d)}{\Gamma(j+1)\Gamma(d)} \quad (12)$$

$$\text{when } j \rightarrow \infty, \quad \psi_j \sim \frac{j^{d-1}}{(d-1)!}.$$

- when  $d > 0.5$   $\{X_t\}$  is an invertible process and has the following infinite autoregression representation:

$$\nabla^d X_t = Z_t = \sum_{j=0}^{\infty} \pi_j X_{t-j}, \text{ where the coefficients } \pi_j \text{ are defined in (8) when}$$

$$j \rightarrow \infty, \quad \pi_j \sim \frac{j^{-d-1}}{(-d-1)!}$$

- when  $-0.5 < d < 0.5$  the spectral density of  $\{X_t\}$  is  $s(\omega) = \left(2 \sin \frac{1}{2} \omega\right)^{-2d}$ ,  $0 < \omega \leq \pi$ , and in case of

$$\omega \rightarrow \infty \text{ we have that } s(\omega) \rightarrow \omega^{-2d}.$$

- when  $-0.5 < d < 0.5$  the autocovariance function, autocorrelation function and the partial autocorrelation function are:

$$\begin{aligned} \gamma(h) &= E(X_t X_{t-h}) = \frac{(-1)^h (-2d)!}{(h-d)!(-h-d)!} \\ \rho(h) &= \frac{\gamma(h)}{\gamma(0)} = \frac{\Gamma(h+d)\Gamma(1-d)}{\Gamma(h-d+1)\Gamma(d)}, \text{ and in case } h \rightarrow \infty \text{ we have} \\ \text{that } \rho(h) &\sim \frac{d!}{(d-1)!} h^{2d-1}; \quad \alpha(h) = \frac{d}{(h-d)}. \end{aligned} \quad (13)$$

The listed features reveal that when  $-0.5 < d < 0.5$  the ARIMA (0, d, 0) process is stationary and invertible, with coefficients  $\psi_j, \pi_j$  that decrease like a power function with the increase of j. We should note the difference from the exponential decrease in the case of a standard ARIMA (p, 0, q) process. When  $d > 0$  there is a long-term dependency, as could be seen from the formulas for  $s(\omega)$  if  $\omega \rightarrow 0$  and  $\rho(h)$  if  $h \rightarrow \infty$ .

A significantly broader class of ARIMA (p, d, q) processes with fractional d could be defined on the basis of the results received for ARIMA (0, d, 0).

The process  $\{X_t\}$  is a fractional ARIMA (p, d, q) process with  $-0.5 < d < 0.5$  if it is stationary and satisfies a difference equation of the form:

$$\Phi(B) \nabla^d X_t = \Theta(B) Z_t \text{ where} \quad (14)$$

$$\Phi(B) = 1 - \phi_1 B - \phi_2 B^2 - \dots - \phi_p B^p, \quad (15)$$

$$\Theta(B) = 1 + \theta_1 B + \theta_2 B^2 + \dots + \theta_q B^q,$$

B is the lag operator, and  $Z_t$  is a discrete white noise.

If the polynomials  $\Phi(B), \Theta(B)$  do not have common roots then in case of  $\Phi(z) \neq 0$  when  $|z| = 1$  a single stationary solution of (12) exists and it is given by:

$$X_t = \sum_{j=-\infty}^{\infty} \psi_j \nabla^{-d} Z_{t-j} \quad (16)$$

$$\text{where } \Psi(z) = \sum_{j=-\infty}^{\infty} \psi_j z^j = \Theta(z) / \Phi(z) \quad (17)$$

The models of conditional heteroscedasticity proposed by the authors consider the long-term dependency computed in three different classical methods (Rescaled-Range Analysis (Hurst Method), Whittle Method and Wavelets Method).

### 2.5. Rescaled-range analysis (Hurst method)

The method of rescaled-range is the oldest approach for assessment of the Hurst's exponent in case of self-similar processes and it should be noted for its very good numerical features. (H.E.Hurst, 1951), (R.Weron, 2002).

### 2.6. Whittle method

The Whittle method is one of the most popular approaches for assessment of the Hurst's exponent in case of self-similar processes. In the current paper the author has applied an estimator proposed by Murad S. Taqqu et al. (Murad S. Taqqu, Vadim Teverovsky, Walter Willinger, 1995).

### 2.7. Wavelets method

The wavelet transform appears to be a main tool for studying the scaling properties of a self-similar process ( Veitch, D.; Abry, P., Apr 1999). In the current paper the author has applied an estimator proposed by Flandrin (Flandrin, 1992), which estimates Hurst parameter H using the slope of the log-log plot of the detail variance versus the level. A more recent extension can be found in Abry et al. (Abry, P.; P. Flandrin, M.S. Taqqu, D. Veitch , 2003)

### 2.8. Evaluation framework

We have to analyze the models that we have employed to calculate the VaR forecasts in order to assess how much the forecasts reflect the actual market risk in the case of the capital markets of the Balkans. Thus we assess their statistical accuracy through a series of standard tests and in particular: the Kupiec's Test - *likelihood ratio unconditional coverage* and the Christoffersen's Test - *likelihood ratio independence coverage and likelihood ratio conditional coverage*. At this stage we accept as adequate only those models for VaR estimates of the risk for which each of the standard tests gives a positive assessment of adequacy.

For this purpose we define the following error function:

$$F_t = \begin{pmatrix} = 1 & \text{VaR}_t < R_t \\ = 0 & \text{VaR}_t \geq R_t \end{pmatrix} \quad (18)$$

### 2.9. Kupiec's test

This test was proposed in 1995 and is the most renowned method to test the adequacy of the models used for VaR forecasting. It is also known as POF- test (proportion of failures), and it provides an assessment of whether the number of exceptions is consistent with (corresponding to) the confidence interval.

In his publication (Kupiec, 1995) proves that the number of these exceptions  $S = \sum_1^T F_{t+1}$  is with binomial distribution  $B(T, \alpha)$ , where  $T$  is the number of observations. Thus we can appoint a model for VaR ( $\alpha$ ) forecasts of the risk as adequate if it has an empirical evaluation  $\hat{\alpha} = \sum_1^T F_{t+1} / T * 100[\%]$ , which is equal to the value  $\alpha$  that is set during the definition of the VaR( $\alpha$ ) model. The null hypothesis that we test is defined as  $H_0: \alpha = \hat{\alpha} - \frac{S}{T}$  against the alternative  $H_1: \alpha = \hat{\alpha} \neq \frac{S}{T}$  with a test statistic:

$$LR_{POF} = 2 \left[ \log \left( \left( \frac{S}{T} \right)^S \left( 1 - \frac{S}{T} \right)^{T-S} \right) - \log (\alpha^S (1 - \alpha)^{T-S}) \right] \quad (19)$$

$LR_{POF}$  is with  $\chi^2$  distribution with one degree of freedom.

If the value of the  $LR_{POF}$  - statistics exceeds the critical value of the  $\chi^2$  distribution, the null hypothesis cannot be accepted and the model will be evaluated as incorrect. For the BACKTESTING process is used 95% of the  $\chi^2$  distribution as a critical value for all tests of credibility.

The Kupiec test can accept the models for forecasting VaR values where the number of exceptions is consistent (corresponds to) the confidence interval, but at the same time they produce clustered underestimated forecasts. Then in the periods that follow the undervalued VaR estimate, the probability to have once more underestimated VaR estimate greatly exceeds the confidence interval, and from this perspective the model for forecasting of VaR estimates does not accurately reflect the actual market risk. This problem is discussed by (Christoffersen, 1998) in his paper from 1998.

### 2.9. Christoffersen's test

Christoffersen (Christoffersen, 1998) uses the same log likelihood testing framework as Kupiec, but extends the test to include also a separate statistic for independence of exceptions. The likelihood ratio test statistic is:

$$LR_{CC} = LR_{POF} + LR_{ind} \xrightarrow[T \rightarrow \infty]{d} \chi^2(2) \quad (20)$$

$LR_{CC}$  is with  $\chi^2$  distribution with two degrees of freedom.

If the value of the  $LR_{CC}$ -statistics exceeds the critical value of the  $\chi^2$  distribution with two degrees of freedom, the null hypothesis cannot be accepted and the model will be assessed as incorrect. For the BACKTESTING process is used 95% of the  $\chi^2$  distribution with two degrees of freedom as a critical value for all tests of credibility.



### 3. Empirical study

#### 3.1. Data description

All analysis undertaken in this paper is based on four Balkans stock markets (Turkey, Croatia, Romania and Bulgaria) in the period Q<sub>1</sub>2002 - Q<sub>1</sub>2014. The results that were obtained concern the indices that were surveyed - BET, CROBEX, ISE100 and SOFIX, measured as the daily logarithmic stock returns.

#### 3.2. Monte Carlo simulation method (Algorithm 1)

The Monte Carlo method simulates the behavior of risk factors and asset returns by generating random returns paths. Monte Carlo simulations provide possible index values on a given date  $t+n$  after the present time  $t$ ;  $n>0$ . The VaR value can be determined from the distribution of simulated index values. The Monte Carlo approach is performed according to the following Algorithm 1:

1. Specify an asymmetric stochastic AR (1)/GJR (1, 1) process that models well the dynamics of the capital markets under investigation. Additionally, the standardized residuals of each index are modeled as a standardized Student's t distribution to compensate for the fat tails that are often associated with equity returns.
2. Having filtered the model residuals from each return series, standardize the residuals by the corresponding conditional standard deviation. These standardized residuals represent the underlying zero-mean, unit-variance, i.i.d. series upon which the Extreme Value Theory (EVT) estimation of the tails and sample cumulative distribution function (CDF) of each asset using a generalized Pareto distribution (GPD) estimate for the upper and lower tails.
3. Then, by extrapolating into the generalized Pareto tails and interpolating into the smoothed interior, transform the uniform random variables to standardized residuals via the inversion of the semi-parametric CDF of each index. This produces simulated standardized residuals consistent with those obtained from the AR (1) / GJR (1, 1) filtering process above.
4. 1000 independent random trials of dependent standardized index residuals over a one trading day horizon are simulated.
5. Using the simulated standardized residuals as the i.i.d. input noise process, reintroduce the autocorrelation and heteroscedasticity observed in the original index returns.
6. Having simulated the returns of each index, compute the VaR at 1% confidence level, over the one trading day risk horizon.
7. Repeat steps 1 to 6 many times to form the distribution of the VaR over the 1569 trading days horizon with 1024 trading days window.
8. The VaR forecasting model is tested for adequacy through application of both - Kupiec's Test and Christoffersen's Test over the 1569 VaR simulated forecasts from step 7.

### ***3.3. Monte Carlo simulations under long memory in returns (Algorithm 2)***

The Monte Carlo approach is performed according to the following Algorithm 2:

1. Specify asymmetric stochastic AR (1) / GJR (1, 1) process that models well the dynamics of the capital markets under investigation. Additionally, the standardized residuals of each index are modeled as a standardized Student's  $t$  distribution to compensate for the fat tails often associated with equity returns.
2. Having filtered the model residuals from each return series, standardize the residuals by the corresponding conditional standard deviation. These standardized residuals represent the underlying zero-mean, unit-variance, i.i.d. series upon which the Extreme Value Theory (EVT) estimation of the tails and sample cumulative distribution function (CDF) of each asset using a generalized Pareto distribution (GPD) estimate for the upper and lower tails.
3. Then, by extrapolating into the generalized Pareto tails and interpolating into the smoothed interior, transform the uniform random variables to standardized residuals via the inversion of the semi-parametric CDF of each index. This produces simulated standardized residuals consistent with those obtained from the AR (1) / GJR (1, 1) filtering process above.
4. 1000 independent random trials of dependent standardized index residuals over a one trading day horizon are simulated. After that long range dependence, estimated on time horizon used for ARMA/GJR estimation is introduced to the simulated residuals.
5. Using the simulated standardized residuals as the i.i.d. input noise process, reintroduce the autocorrelation and heteroscedasticity observed in the original index returns.
6. Having simulated the returns of each index, compute the VaR at 1% confidence level over the one trading day risk horizon.
7. Repeat steps 1 to 6 many times to form the distribution of the over the 1950 trading days horizon with 1024 trading days window.
8. The VaR forecasting model is tested for adequacy through application of both - Kupiec's Test and Christoffersen's Test over the 1569 VaR simulated forecasts from step 7.

## **4. Empirical results**

In this section, we analyze the accuracy of the VaR estimated maximum probable loss earned on the next trading day obtained with HS, Normal distribution, Student  $t$  distribution, Monte Carlo simulations (Algorithm 1) and also with the Monte Carlo simulations under long memory in returns (Algorithm 2). Table 1 shows the results for Romania.

**Table 1.** Accuracy of the VaR estimated maximum probable loss earned on the next trading day in the regulated market of Romania

BET					
<i>Method</i>	<i>failure rate</i>	<i>Uncond. Test</i>	<i>Ho</i>	<i>Cond. Test</i>	<i>Ho</i>
HS	1,12%	0,270893309	accept	10,49469247	reject
Normal distribution	1,93%	13,5773632	reject	29,82304788	reject
Student t distribution	1,22%	0,904134997	accept	10,09184226	reject
Monte Carlo (Algorithm 1)	1,12%	0,270893309	accept	1,618974287	accept
Monte Carlo (Algorithm 2) (R/S)	1,07%	0,09024833	accept	0,09024833	accept
Monte Carlo (Algorithm 2) (Whittle Method)	1,12%	0,270893309	accept	0,270893309	accept
Monte Carlo (Algorithm 2) (Wavelets Method)	1,02%	0,00590575	accept	0,00590575	accept

For the BET index the  $VaR_{(1\%)}$  estimates which were calculated for the period Q<sub>1</sub>2002-Q<sub>1</sub>2014 through historical simulation and under the assumption of normal and Student t distribution of the returns underestimate the actual market risk. The Kupiec's test does not reject the historical simulation and the parametric model under the assumption of Student t distribution. The historical simulation and both parametric models are rejected by the Christoffersen's test. When estimating a Monte Carlo simulation which includes a model of the conditional heteroscedasticity without any long-term dependency the tests for adequacy do not reject the model. The models of conditional heteroscedasticity proposed by the authors consider the long-term dependency computed in three different classical methods (Rescaled-Range Analysis (Hurst Method), Whittle Method and Wavelets Method). They pass successfully through the test of adequacy and generally provide more accurate  $VaR_{(1\%)}$  forecasts.

**Table 2.** Accuracy of the VaR estimated maximum probable loss earned on the next trading day in the regulated market of Croatia

CROBEX					
<i>method</i>	<i>failure rate</i>	<i>Uncond. Test</i>	<i>Ho</i>	<i>Cond. Test</i>	<i>Ho</i>
HS	1,42%	3,158417912	accept	20,87731986	reject
Normal distribution	2,59%	35,05779863	reject	66,38154397	reject
Student t distribution	1,58%	5,621066727	reject	26,82232735	reject
Monte Carlo (Algorithm 1)	1,48%	3,910055681	reject	4,486576192	accept
Monte Carlo (Algorithm 2) (R/S)	1,02%	0,00590575	accept	0,00590575	accept
Monte Carlo (Algorithm 2) (Whittle Method)	1,02%	0,00590575	accept	0,00590575	accept
Monte Carlo (Algorithm 2) (Wavelets Method)	0,92%	0,145698538	accept	0,145698538	accept

For the CROBEX index the  $VaR_{(1\%)}$  estimates which were calculated for the period Q<sub>1</sub>2002-Q<sub>1</sub>2014 through historical simulation and under the assumption of normal and Student t distribution of the returns underestimate the actual market risk. The Kupiec's test does not reject the historical simulation. The historical simulation and both parametric models are rejected by the Christoffersen's test. When estimating a Monte Carlo simulation which includes a model of the conditional heteroscedasticity without any long-term dependency the tests for adequacy reject the model. The models of conditional heteroscedasticity which consider the long-term dependency,

proposed by the authors, pass successfully through the test of adequacy and generally provide more accurate  $\text{VaR}_{(1\%)}$  forecasts.

**Table 3.** Accuracy of the VaR estimated maximum probable loss earned on the next trading day in the regulated market of Turkey

ISE 100					
<i>method</i>	<i>failure rate</i>	<i>Uncond. Test</i>	<i>Ho</i>	<i>Cond. Test</i>	<i>Ho</i>
HS	1,27%	1,349149808	accept	10,05885938	reject
Normal distribution	2,39%	27,63263235	reject	35,4870631	reject
Student t distribution	1,68%	7,594455981	reject	13,21743452	reject
Monte Carlo (Algorithm 1)	1,37%	2,479255898	accept	6,165012091	reject
Monte Carlo (Algorithm 2) (R/S)	1,07%	0,09024833	accept	1,586461396	accept
Monte Carlo (Algorithm 2) (Whittle Method)	1,12%	0,270893309	accept	1,618974287	accept
Monte Carlo (Algorithm 2) (Wavelets Method)	1,17%	0,543507515	accept	5,375646733	accept

For the ISE 100 index the  $\text{VaR}_{(1\%)}$  forecasting models which were calculated for the period Q<sub>1</sub>2002-Q<sub>1</sub>2014 have similar adequacy. The historical simulation, the parametric models under the assumption of normal and Student t distribution of the returns and the Monte Carlo simulation which includes a model of the conditional heteroscedasticity without any long-term dependency underestimate the actual market risk. The models of conditional heteroscedasticity which consider the long-term dependency, proposed by the authors, pass successfully through the Kupiec's test and the Christoffersen's test of adequacy and respectively they generally provide more accurate  $\text{VaR}_{(1\%)}$  forecasts.

**Table 4.** Accuracy of the VaR estimated maximum probable loss earned on the next trading day in the regulated market of Bulgaria

SOFIX					
<i>method</i>	<i>failure rate</i>	<i>Uncond. Test</i>	<i>Ho</i>	<i>Cond. Test</i>	<i>Ho</i>
HS	1,27%	1,349149808	accept	21,44664856	reject
Normal distribution	2,49%	31,26147356	reject	69,87192193	reject
Student t distribution	1,42%	3,158417912	accept	26,94474592	reject
Monte Carlo (Algorithm 1)	1,17%	0,543507515	accept	0,543507515	accept
Monte Carlo (Algorithm 2) (R/S)	0,61%	3,501800005	accept	3,501800005	accept
Monte Carlo (Algorithm 2) (Whittle Method)	0,86%	0,380959479	accept	0,380959479	accept
Monte Carlo (Algorithm 2) (Wavelets Method)	0,66%	2,588207597	accept	2,588207597	accept

For the SOFIX index the  $\text{VaR}_{(1\%)}$  forecasting models which were calculated for the period Q<sub>1</sub>2002-Q<sub>1</sub>2014 have similar adequacy. The historical simulation, the parametric models under the assumption of normal and Student t distribution of the returns and the Monte Carlo simulation which includes a model of the conditional heteroscedasticity without any long-term dependency underestimate the actual market risk. This underestimation of the actual market risk on the Sofia stock exchange is the most significant among the Balkans' regulated markets. The models of conditional heteroscedasticity which consider the long-term dependency, proposed by the authors, pass successfully through the Kupiec's test and the Christoffersen's test of adequacy and respectively they generally provide more accurate  $\text{VaR}_{(1\%)}$  forecasts.

## 5. Conclusions

This paper presents an empirical analysis of the value-at-risk in the financial environment of the regulated financial markets on the Balkans (Turkey, Croatia, Romania and Bulgaria). The results obtained for the considered stock exchange indices BET, CROBEX, ISE100 and SOFIX indicate presence of long-term dependencies in the logarithmic returns and variance for CROBEX and SOFIX and respectively their returns are featured by the so called "fat tails" and the assumption of a normal distribution of returns is inappropriate.

For the purposes of this analysis the following statistical tests are used: Kupiec's test- likelihood ratio unconditional coverage test and Christoffersen's test - likelihood ratio independence coverage and likelihood ratio conditional coverage test.

At all indices under survey the  $\text{VaR}_{(1\%)}$  estimates which were calculated for the period Q12002-Q12014 through historical simulation and under the assumption of normal and Student t distribution of the returns underestimate the actual market risk and respectively are assessed as an inaccurate according the applied tests.

When estimating a Monte Carlo simulation (algorithm 1) which includes a model of the conditional heteroscedasticity without any long-term dependency the tests for adequacy of the model give unambiguous results.

The models of conditional heteroscedasticity proposed by the authors (algorithm 2) consider the long-term dependency computed by three different classical methods (Rescaled-Range Analysis (Hurst Method), Whittle Method and Wavelets Method). They pass successfully through the test of adequacy and generally provide more accurate  $\text{VaR}_{(1\%)}$  forecasts. This indicates that long memory implies higher volatility and hence higher risk.

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## POSSIBILITIES OF FORMING VENTURE CAPITAL FUNDS IN TRANSITIONAL COUNTRIES: AN EMPIRICAL STUDY IN BOSNIA AND HERZEGOVINA

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### Abstract

*Bosnia and Herzegovina (B&H) as a transitional country is suffering from insufficient institutional support for the development of SMEs and entrepreneurship in general. The heart of transitional process is institutional building. In this paper institutions are defined as “the rules of the game”, according to Douglas North’s and New Institutional Economics’ definition. One of the missing institutions for the support of the development of SMEs in the Republic of Srpska (RS), entity of B&H where the research has been conducted, is Venture Capital Funds (VC). In this paper we have investigated the possibilities and limitations of formation of VC in the RS. The research was conducted on the sample of 124 SMEs in the period from mid-July to mid-November 2013. The scientific objective and purpose of this research is finding answers to the question: What are the factors that discourage and slow down the formation of venture capital funds in the transitional countries, and how to overcome these obstacles? According to our research, formation of VC in the RS would result in economic growth and development of SMEs sector. Most SMEs from the research sample (97 out of 124 or 78.22 %) expressed their willingness to be financed from VC, beside other available external financing sources. In our research, we came to the conclusion that the harmonization of national legislation with the EU legislation, better implementation of the laws, the establishment of an unified register of companies, decreasing taxes and contributions on salaries, the introduction of differentiated VAT rates and cash accounting VAT scheme for SMEs and strengthening of the capital market institutions would make the formation of VC possible.*

**Keywords:** Institutions, venture capital funds, entrepreneurship, SMEs, innovation.

### 1. Introduction

Small and medium sized enterprises (SMEs) are the dominant form of business organization in developed, emerging and developing economies (Harvie et al., 2013; OECD, 2013) and play a major role in economic development, particularly in emerging countries (IFC, 2010). They account for 95-99% of enterprises, depending on the country, and are responsible for 60-70% of net job creation in OECD countries (OECD, 2006). „The 20 million European SMEs play an important role in the European economy. These are mostly micro-enterprises which in 2012 employed approximately 86.8 million people. This represents 66.5% of all European jobs for that

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year“ (European Commission, 2013, p. 10). In the Republic of Srpska (RS), entity of Bosnia and Herzegovina (B&H) where the research has been conducted, SMEs represent around 99.5% of enterprises. However, when analyzing the state of the SME sector, we used a variety of sources, and we concluded that the data on the number and size of companies are different depending on the source. One of the main problems that SMEs are facing with in transition countries, including B&H, is access to favorable external sources of financing (OECD, 2013; IFC, 2010; Balling et al., 2009, Burk and Lehmann, 2006). All companies are facing with this problem, regardless of whether they are companies that already have well-developed business or those that are start ups. In particular, this problem relates to SMEs in the early stage of development, so-called start-up companies that do not have sufficient funds for the activities of research, development and commercialization of innovations. It is extremely difficult to find sources for funding research, development and innovation projects. These projects are important for increasing the competitiveness of companies, especially developing companies, and therefore it was necessary to find new forms of financing. One way in which these companies realize their ideas is that they use Venture Capital Funds (VC) as the source of the initial capital. VC is one of many sources of funding for new ventures. However, it is not suitable for the vast majority of new ventures or SMEs (Smith, 2010). It is suitable for a specific type of new venture – one that has high growth potential and typically is characterized by a high level of risk.

A VC has five main characteristics: 1. A VC is a financial intermediary, meaning that it takes the investors' capital and invests it directly in portfolio companies. 2. A VC invests only in private companies. This means that once the investments are made, the companies cannot be immediately traded on a public exchange. 3. A VC takes an active role in monitoring and helping the companies in its portfolio. 4. A VC's primary goal is to maximize its financial return by exiting investments through a sale or an initial public offering (IPO). 5. A VC invests to fund the internal growth of companies (Metrick and Yasusa, 2011, p. 9)

How significant VC are for the development of the company is also indicated by the fact that in the period between 2000 and 2008 more than one-third of companies around the world used funds from the VC that were not located in the country where those companies were (Schertler and Tykvova, 2009). However, equity financing was severely affected by the financial crisis. A sharp decline in VC and growth capital occurred between 2008 and 2009. In 2010, equity funding had not recovered to its 2007 level, despite an overall positive economic trend. Countries with high growth rates for VC in 2011 include Denmark (+80%), Hungary (+62%), the Netherlands (+56%) and Canada (+30%). On the other hand, a strong decrease was observed in Portugal (-80%), New Zealand (-61%), Switzerland (-37%), Sweden (-25%) and Ireland (-11%) (OECD, 2013, p. 28). *The research problem* in our paper can be presented with a question: *What are the factors that discourage and slow down the formation of VC in the transition countries, and how to overcome these obstacles?* We will concretize the question in the following way: *Why do we not have VC funds in B&H?* In the recent economic history, transition countries represent a useful laboratory to assess changes of economic systems from one type to another (Estrin et al., 2009). B&H, Macedonia, Serbia and Montenegro are rarely found in samples of cross-country analysis of transition economies. Slovenia was the only ex-Yugoslavian country that was very often included in researches, while in case of Croatia the situation is different. Probably the most used examples of transition economies are those included in Transition Report of European Bank for Research and Development which in 2013 included 34 very different countries and group of countries (EBRD, 2013). *The aim of the research* in this paper is to analyze the possibilities and limitations of funding promising start up SMEs in B&H, i.e. in the RS through VC, as well as the interest of SMEs in financing from VC. In this paper, we will start from the following key research assumption: *encouraging the formation of VC funds will contribute to the economic growth and development of B&H through the comprehensive support for the development of*

*innovative SMEs, measured by the increase of the level of employment and the commercialization of innovations.* Quantitative research was conducted using a random sample method of 124 companies (122 SMEs) from 19 cities in the RS, with a structured questionnaire in the period from July to November 2013, whose results will be presented below in this paper, after a literature review.

## 2. Literature Review

In developed countries there are numerous sources of financing at the disposal of SMEs, such as bank loans, leasing, factoring, mezzanine financing, and financing from the Stock Exchange, up to the VC (Petković and Berberović, 2013; IFC, 2010, Balling et al. 2009). On the B&H market, companies usually use bank loans as a source of financing (Petković, 2010). However, today, at a time when the financial crisis and the crisis in the real sector show no signs of weakening, the loans become more expensive and unreachable, particularly for SMEs. The European Central Bank (ECB) published a report on the results of a new survey on firms' access to finance (2013). The total sample size for the euro area was 8,305 firms, of which 7,674 (92%) have less than 250 employees. Euro area SMEs reported a marginal deterioration in the availability of bank loans (-11% of respondents, in net terms, after -10% in the previous round). The survey results point to slightly increased rejection rates for euro area SMEs when applying for a loan (12%, up from 11%). The percentage of SMEs reporting access to finance as their main problem remains broadly stable (at 16%). Countries that expect high economic growth promise a lot more opportunities to VC exhilarating at the same time their activities. These funds invest much more in companies that are engaged in information technology, mechanical engineering and biotechnology than in other industries (Schertler and Tykvova, 2009). Metrick and Yasusa (2011) analyzed data about the industry concentration of VC investment for three periods: the preboom period of 1980-1994, the boom period of 1995-2000, and the postboom period of 2001-2009. The data show the dominance of IT (including communications, software, hardware, and semiconductors/electronics) and health care (including biotech and medical devices) for VC investment; together, these two sectors comprise about 75% and 80% of all investments in the preboom and postboom period, respectively. During the boom, media/retail investment had a brief (and expensive) rise, but even then the main story was the enormous increase in IT relative to the health care. Within the broad IT sector, the two most important industries in the boom and postboom periods were communications and software, followed by semiconductors/electronics and hardware. Within the health care, the story has been a gradual emergence of biotechnology as the dominant industry, receiving almost 60% of total health care investment in recent years. Popov and Roosenboom (2012) examined the impact of VC investment on patented innovation in 10 manufacturing industries from 21 European countries over the period 1991–2005. It represents the first study to use both cross-country and cross-industry data to this end. Popov and Roosenboom (2012) find that the effect of VC is significant only in the subsample of high-VC countries, where the ratio VC/R&D has averaged around 3.9% between 1991 and 2005 and VC has accounted for 10.2% of industrial innovation during that period. They also find that VC is relatively more successful in fostering innovation in countries with lower barriers to entrepreneurship, with a tax and regulatory environment that welcomes VC investment, and with lower taxes on capital gains.

### 2.1. Defining the concept of venture capital funds

According to the RS Law on Investment Funds, VCs are defined as open-ended investment funds of venture capital with private offering (RS Official Gazette no. 92/06, 2006). They pay special attention to investments in SMEs which are at the beginning of their development and

which are not burdened with a large number of employees. The law in RS does not distinguish between Private Equity and VC. However, it should be noted that the Private Equity Fund is a broader concept of VC. In principle, VC relates to the financing of the company at an early stage of development, while Private Equity Fund includes VC and additional taking over. About 80% of the organized VC market is controlled by independent VC firms. VC firms are small organizations, averaging about 10 professionals, who serve as the general partner (GP) for VC funds. A VC fund is a limited partnership with a finite lifetime, usually 10 years plus optional extensions of a few years (Metrick and Yasusa, 2011, p. 21). VC companies raise money from private investors and expect a high annual return (20-40%) on their investment and usually invest in companies for a period of three to seven years (Awe, 2006, p. 90)." In USA new ventures face an increasingly diverse set of funding sources. Although they have traditionally relied on independent venture capital (IVC) as a major funding source, a growing number of them have considered corporate venture capital (CVC) in recent years (Dushnitsky, 2006; Gaba and Meyer, 2008; Katila et al., 2008, as state in its research Park and Steensma, 2012). Thus, VC funds invest in innovative companies that promise a successful business. In a study conducted by Geronikolaou and Papachristou (2008), a correlation between the presence of VC and innovation was proven, where it was found that innovation should create demand for VC funds, but not the vice versa – VC funds for innovations. VC funds typically invest in mid-term and long-term period, provided that the fund has control over deciding the moment of leaving the company. After achieving its objectives, the Fund will seek the best possible way out of the company, i.e. to sell its share of the company thus realizing the return on investment. One of the most commonly cited reasons for the weak presence of venture capital funds in B&H is limited possibility of achieving the sale of ownership share of the company owned by the fund, and return on investment (Ćudić, 2012, p. 19). The expectation of a positive impact of VC on firm performance originates in the idea that venture capitalists are active investors who provide not only finance, but additional services of value to entrepreneurs who "are often technologically competent but commercially inexperienced" (Keuschnigg, 2004, p. 285). VC firms often take an active role in helping new ventures succeed by providing managerial advice and referrals to potential customers, alliance partners, management talent, and other investors (Hellmann and Puri, 2002; Hsu, 2006; Hochberg et al., 2007). Funds are well familiar with the network of suppliers, customers and other businesses in the area in which they invest their capital. Generally, venture capitalists specialize in the skills of screening, contracting and advising (Kaplan and Stromberg, 2001). So, they have become important not only because of the capital that they possess but also for providing professional support to companies in which they invest, which makes them very different from traditional bank loans. VC funds pay special attention to investment in SMEs that are at the beginning of their development, and that are not burdened with a large number of employees.

## *2.2. The importance and role of venture capital funds*

How important SMEs are for the economies of the member states of the European Union is best demonstrated by the statistics from 2012 in which out of 20.7 million enterprises in the non-financial business sector, 99.8% are micro, small and medium enterprises, i.e. companies that have fewer than 250 employees (European Commission, 2013). Financial resources for start-up companies, most often originate from thier own resources or the help of friends and relatives. Debates about the nature of relations between banks and SMEs emerged in the academic discussions in recent years. Until recently, it was believed that local and smaller banks are more prone to the financing of these companies because they are more adapted to the so-called "Partnership lending", i.e. to the type of funding primarily based on "soft" information received from the loan officer through continuous, personalized, direct contacts with SMEs, their owners and managers, as well as the local community in which they operate (Keeton, 1995, Berger et al., 2001; Sengupta, 2007). Bank-based systems in Continental Europe are viewed as less capable of



financing innovation and of facilitating path-breaking innovations than the market-driven systems in the US and the UK (e.g. Boot and Thakor, 1997; Rajan and Zingales, 2001; Carlin and Mayer, 2002; Herrera and Minetti, 2007, as stated by Popov and Roosenboom, 2012, p. 449). Today, at a time when the financial crisis and the crisis in the real sector show no signs of weakening, the loans become more expensive and unreachable, particularly for SMEs. It is shown in the OECD report from the 2013. "The report shows that in 2011, SMEs' access to debt and equity finance – and the conditions at which they were granted – varied across countries. SME lending conditions deteriorated in most countries, particularly as a result of higher interest rates and greater demand for collateral. This was also generally accompanied by modest or no growth in credit volumes, with the exception of a few countries (OECD, 2013, p. 2)". Also, according to the European Central Bank report (2013), "6000 SMEs supervised by the European Central Bank reported that the access to bank loans was reduced. When asked the reason for such a conclusion, 54% of SMEs mentioned the uncertain economic future, and 33% mentioned increase in non-interest expenses of loan and collateral. One of the forms of SME financing is the VC fund. This method of financing has proven to be very successful in countries with developed market economies. Numerous studies in this field show that this is true. Keuschnigg (2004) in his paper argues that VC funds allow faster growth of new established companies. Evidence that VC funds have a positive impact on macroeconomic indicators was given by Romain and Potterie (2004), who in their work dealt with macroeconomic impact of VC funds. Policymakers often perceive VC as being better able to finance innovation than banks (e.g. European Commission, 2009). According to the European Private equity and Venture capital Association (EVCA, 2012) there are following types of financing from venture capital funds: Seed, start-up and Later stage venture. About three-quarters of the difference in private sector R&D spending between Europe and the United States is due to difficult access to finance for small innovative companies (European Commission, 2008). As Popov and Roosenboom (2012) state, VC is perceived as a solution to these market failures that prevent the provision of risk capital and adequate funding of innovation by SMEs.

### *2.3. Venture capital access in Western Balkans countries*

Transition or transition economy is an economy which is changing from a planned economy, i.e. from socialism to the free market, i.e. capitalism. Gradual changes are made permanently, by adjusting the economic system to changes in economic and social life (Isailović, 2009, p. 155). Trade barriers are reduced to the elimination, privatization of state enterprises and resources has been done, and the creation of the financial sector, which should facilitate the movement of private capital. In most socialist countries for a long time there existed a system of comprehensive, directive and detailed planning of the development of the economy. However, the Yugoslav economic system was not at all typical of the socialist countries: the system of central planning was quickly abandoned, the market operated to a large extent, there was room for private property, a certain system of self-management was developed (Jovanović, 2010, p. 73). The existence of private property can be an essential element of the market economy and the development of the private sector is the main rule of the transition process. What are the main aspects of transition process which more or less prevailed in all transition countries? According to IMF (2000) these are the following: liberalization, macroeconomic stabilization, privatization and legal and institutional reforms. New entrepreneurial society that has yet to be built in these countries should be an association of people with a marked individuality and different needs, with different rights and obligations. Capital markets in Southeast Europe, in recent years, have become increasingly important. However, much work still needs to be done in order to provide more favorable conditions for the normal functioning of the capital market. This applies especially to the

countries of the Western Balkans. Croatian Private Equity and Venture Capital Association (CVCA) was founded on the territory of Croatia in 2004, and it started its activities in 2005. Since 2008 it has been an honorary member of the European Venture Capital Association (EVCA), and it has participated in the work of the Association of Central and Eastern Europe. There are several VC funds operating in the Western Balkans. Their investments are presented in Table 1.

**Table 1. Venture capital funds operating in the Western Balkans**

Name of the Fund	Established in	Estimate of the volume of investments (in millions of euros)	Number of investments since inception of the Fund until 2010	Status
Nexus Alpha	Croatia, 2007	11.0	3	The funds are not fully invested. The Fund has provided 35 million euros according to estimates. It is estimated that the Fund has 15 million euros ready to invest.
Questus Private Equity Capital	Croatia, 2003	26.5	7	Funds fully invested; it is estimated that 35 million euros have been provided. The Fund has so far achieved one exit.
RSG Capital	Slovenia, 2008	1.5	1	One investment in Croatia, the possibility to invest in all the Balkan countries. 19 million euros have been provided, and it is estimated that 15 million are available for investments.
SEAF South Balkan Fund	Serbia, Macedonia, Montenegro, 2005	7.1	7	Seven investments in Serbia, fully invested, the total of 13 million euros have been provided.
SEAF Macedonia	Macedonia, 1998	10.4	14	Fully invested funds are still in the portfolio.
SEAF Macedonia, SIF	Macedonia, 2007	1.0	3	Invested in three Macedonian companies. Funds fully invested. Additional one million euros have been provided for investments in 2011.
SEAF Croatia	Croatia, 1997	6.3	22	Funds fully invested. Three companies are still in the portfolio.
Poteza Innovation & Growth Fund	Slovenia, 2007	1.0	1	One investment in Croatia. The Fund no longer exists.
Horizonte Ventures	Austria, 2001	20.0	8	Eight investments in Bosnia and Herzegovina, Serbia and Croatia. An exit was achieved from most investments.
CC partnership LP	Poland, 1997	23.0	8	Eight investments in Bosnia and Herzegovina, Serbia and Croatia. An exit was achieved from all investments. The Fund no longer exists.
<b>TOTAL</b>		<b>107.8</b>	<b>74</b>	

Source: CVCA - Croatian Private Equity and Venture Capital Association, <http://www.cvca.hr>, Accessed on 18<sup>th</sup> September 2013.

We see from the table above that there are certain VC funds, which are present in the Western Balkans. Some of the companies in which investments have been made are: Fratello JSC (BiH), Cement Factory Lukavac JSC (BiH), Tele2 Ltd. (Croatia), Magma Ltd. (Croatia), Imlek JSC (Serbia), Bambi JSC (Serbia), and others. However, it is expected that the real development of these funds in this part of Europe will happen only with the accession of these countries to the European Union. EBRD and EIB have launched an initiative to establish a regional VC fund who-



se success mostly depends on the creation of favorable legal and tax environment for entrepreneurship development. For the countries of the Western Balkans it is important to develop the VC market, because this method of financing the company contributes to reducing unemployment, increasing the competitiveness of the economy, attracting foreign capital, in short to the growth and development of the economy. In order to attract foreign and domestic investors, i.e. from VC funds, it is necessary first to create a favorable business environment. In the example of B&H we can understand what it means to have unfavorable business environment. In transition countries, such as B&H, the capital markets are still underdeveloped and it takes much more to be done to make these markets more attractive to investors. The unstable political situation and unfavorable business and tax environment for SMEs are just some of the reasons why countries in transition are still unattractive to investors.

### 3. Empirical research results

We investigated the possibilities and limitations of the formation of VC funds in the RS, as well as the willingness, i.e. reluctance of SMEs to finance their business from VC funds. *The subject of research* presented in this paper is a theoretical and empirical analysis of the possibilities and limitations of the formation of VC funds in the transition countries with special reference to the RS.

#### 3.1. Methodological basis of the research

Quantitative research was conducted in the period from mid-July 2013 to mid-November 2013. 34 micro-enterprises, 88 small and medium-sized enterprises and 2 large enterprises participated in this research. We made sure that the research covered almost the entire territory of the RS. The research included companies from the following 19 cities and municipalities: Doboj (29), Derventa (24), Modriča (24), Banja Luka (11), Prnjavor (8), Bijeljina (6), Laktaši (5), Gradiška (3), Prijedor (2), Pale (2), Šamac (2), Istočna Ilidža (1), Istočno Sarajevo (1), Kozarska Dubica (1), Lončari (1), Ljubinje (1), Novi Grad (1), Mrkonjić Grad (1), Pelagićevo (1).

##### 3.1.1. Research Sample

Quantitative and qualitative data were collected using a structured questionnaire, to which respondents (owners, co-owners and managers of companies) answered independently. The questionnaire contains 26 questions that have been created so that they can be answered in a time interval of 5 to 10 minutes. The questions were designed in the form of closed questions, multiple-choice questions and open-ended questions. Quantitative research was conducted based on a random sample of 124 companies ( $n = 124$ ). The research involved mostly small enterprises and entrepreneurial shops. The questionnaires were sent by e-mail, and personally delivered to the owners and managers of companies (companies are chosen completely randomly from APIF business directories). Although we planned to collect responses to the questionnaires until mid-September 2013, due to low response rate, the research was extended to mid-November 2013, when we were able to form a representative sample for this research. We sent the questionnaires to 828 addresses, and we received 124 fully completed questionnaires or 14.97%.

### 3.1.2. Limitations of the research

The research was conducted on a relatively small sample compared to the statistical weight (1.31%). We wish to emphasize that the companies poorly responded to the invitation to participate in this research. Data may vary depending on the data source. According to the APIF data 15,292 legal entities have submitted final accounts for year 2012, and when non-economic entities are set aside, the total number of companies which submitted the required financial statements is 9,450. According to the APIF data, there were 9,463 companies in 2011, and according to the data from the RS Institute of Statistics, there were 6,804 companies, while according to the data of RARS (RS Agency for SMEs Development) there were 14,871 companies. As a statistical weight we chose the total number of companies that submitted financial statements to the APIF in 2012 ( $n = 9,450$ ). We believe that it is necessary to introduce a single central register of economic entities in the Republic of Srpska in order to solve this problem and to make researches a little bit easier in the future.

## 3.2. *The research results*

The questionnaire which we used to conduct this research consists of three parts and 26 questions. The first part relates to general information about the company through which we have collected basic information about the companies that participated in the research. The second part represents information on VC funds, i.e. in this part we have tried to find out how much the companies in the RS are familiar at all with VC funds and the way to access their resources. Finally, the third part refers to the willingness of companies to be funded by VC funds.

### 3.2.1. General information about the companies

We have already mentioned that we have made sure that this research includes the entire RS, whose territory is the subject of this research. We have chosen the companies randomly, using the APIF database. Out of 124 companies that participated in the research, 80 of them belong to the region of Dobož, or 64.52% of the total sample. Because of this fact, we will be cautious when making conclusions for the entire statistical weight. If we look at a sample from the viewpoint of the year of the company establishment, we come to the conclusion that the "average age" of selected companies is around 15 years, and that 50% of them were established before 2000, and vice versa. Most companies were founded in 2001, the oldest company was founded in the 19<sup>th</sup> century (1895), while the youngest one was founded in 2013. From this it can be observed that the dispersion of the data on this characteristic is quite large. According to the form of organization, the most common are the companies registered as a limited liability company (hereinafter Ltd.), followed by self-employed entrepreneurs and joint-stock companies. The vast majority of the sample consists of a limited liability company and an independent entrepreneurial shop (more than 90%, of which 77% Ltd, and about 13% entrepreneurial shops). When looking at the ownership structure of the companies in the sample, it can be seen that private companies completely prevail, because 110 of 124 companies (88%) are 100% owned by private persons. In addition, there are another 7 companies with majority private ownership. When we talk about the type of activities that companies in our sample are engaged in, statistically, over 55% of companies are engaged in trade (wholesale and retail) and the food industry, while all other activities (and there are over 15 of them) are less represented in the sample. Only 4 companies, or 3.22% are engaged in professional, scientific and innovation activities, while another 7 or 5.64% of the companies are engaged in some kind of high technology, such as communication technologies, renewable energy, computer engineering. Number of employees in the surveyed companies ranges from 1 to

700. The average number of employees is 30.1 which is not a representative figure, bearing in mind how big the average deviation from this number (standard deviation) is. The median shows that half of the companies in the sample have 14 or fewer employees, while 50% have 15 or more. At the end of the analysis on the number of employees, it should be noted that the majority of companies have 8 employees (Table 2).

**Table 2.** *Descriptive measures for the number of employees*

N	Sample	124
	Missing data	0
Average		30.07
Median		14.50
Mode		8
Std. Deviation		68.6
Minimum		1
Maximum		700

*Source: Author's calculations in the statistical software IBM SPSS Statistics (version 17.0)*

As for the division of the companies by size, the micro and small enterprises are most represented. These data will be presented in Table 3.

**Table 3.** *The size of the company and the number of employees in companies*

Size of the Company	Number of Companies	% relative to the total sample
MICRO	34	27.42%
SMALL	73	58.87%
MEDIUM	15	12.10%
LARGE	2	1.61%
TOTAL:	124	100%

*Source: Authors*

Qualification structure of employees in our sample is also better described using the median value (because of the large deviations) and it tells us that the average number of employees with higher education in these companies is 2, with a college degree 1, and employees with a high school degree 10. In all other groups more than a half of companies do not have a single employee of particular qualification. Specifically, 97.6% of companies have no PhDs, then 90% of companies have no Masters of Economics, and two-thirds of companies have no employees with completed only primary school education, and so on. Our research included a total of 3,729 workers who were employed in all the companies from our sample. The micro enterprises employ a total of 195 workers, or 5.23%, small enterprises employ 1,422 workers or 38.13%, medium-sized enterprises employ 1,162 or 31.16%, and the two large enterprises employ 950 workers or 25.47%. According to the collected data, SMEs employ 74.52% of the workers, which quite corresponds with the data from Annual report for small and medium-sized enterprises and skilled craft and entrepreneurship activity in the RS for 2011 (Government of the RS, 2012), as well as with the data of the RS Institute of Statistics for 2011. There is almost identical number of companies which have and those which do not have their own website (62 versus 61, while one data is missing). From those companies from the sample that have their own website, less than 39% (24 of 62) of them were receiving on-line orders, while the majority (54 of 62) regularly updated their website. Looking at this aspect from the viewpoint of the period of establishment, it may be noted that in companies that were established after the year 2000 there is slightly smaller number of those which have their own website, and vice versa. To come to a conclusion whether the observed difference is statistically significant, we used the method of chi-square test. By

applying the test we come up with the answer that there is no statistically significant difference between groups ( $p>0.05$ ). The structure is almost symmetric, but it cannot be concluded that there is a pattern in this regard.

### 3.2.2. Awareness of venture capital funds

Most respondents (87.1%) were unaware of VC funds before this research, which is a devastating fact. In addition, there is a higher percentage of respondents (almost 90%) who are not familiar with the way in which these funds operate, and therefore do not know how to get the funds from these funds (even 95% of them answered this question negatively). It is also interesting to mention that two of the respondents know how these funds operate, and they have not even heard of them, which is a contradiction, and it can be seen from the following table.

**Table 4.** *Awareness of venture capital funds and the way they operate*

		Do you know how these funds operate?		In total
		Yes	No	
Have you heard of venture capital funds?	Yes	11	5	16
	No	2	106	108
In total		13	111	124

Source: Authors

When we look at their lack of information from the point of owning a website, it can be seen that there is a statistically significant correlation. In fact, there is a smaller proportion of those who have not heard of VC funds in the group that has a website. By applying the chi-square test we confirmed this dependence ( $p<0.05$ ), which can be seen in the tables below.

**Table 5.** *Awareness of the funds and existence of the web pages*

		Web page		In total
		Yes	No	
Have you heard of venture capital funds?	Yes	12	3	15
	No	50	58	108
In total		62	61	123

Source: Authors

**Table 6.** *Chi-square test*

	Value	Degrees of freedom	p - value
Pearson Chi-Square	5,985 <sup>a</sup>	1	0,014
Continuity Correction <sup>b</sup>	4,713	1	0,030
Likelihood Ratio	6,367	1	0,012

Source: Author's calculations in the software IBM SPSS Statistics (version 17.0)

That the respondents in the sample are completely ignorant of the existence of VC funds can be sufficiently confirmed by the fact that only one of them knows about the funds that exist in the region, in the European Union and in the world. On the other hand, only two respondents know some companies that have financed their operations from these funds. Having in mind the previous analysis of the respondents' awareness of VC funds we can with great certainty say that they are much uninformed on this matter. The following are most commonly used as a source for financing liabilities (short-term and long-term ones):

- only a bank loan or a loan in combination with some other sources (104 respondents or approximately 84%).
- money from family and friends comes in second place, which, independently or in combination with other sources, appears 34 times in our sample, or 27.4%.
- the most significant of the other sources is leasing, amounting to 15.3% of total respondents.

It should also be noted that none of the companies in the sample use the funds that come from VC funds. As the most common reason why they opt for a bank loan the companies mention availability and speed (almost all of them chose one of these two available options or they combined them). Affordability, together with the previous two characteristics is the key reason why the funds from family and friends are quite frequent in financing companies. It is opinion of the respondents that the VC funds in the RS should get help from some of the relevant ministries of the Government of RS (Ministry of Science and Technology and Ministry of Industry, Energy and Mining), while a much smaller number of respondents believe that they should get help from universities. Answers to this question should be taken with a grain of salt, given the fact that they generally do not know anything about these funds.

### 3.2.3. The willingness of companies to be financed by the venture capital funds

Companies in our sample relatively take care of the technological progress of their business. When asked whether they regularly introduce new technologies, respondents were divided, i.e. there was approximately the same number of those who said that they had introduced new technologies, as well as those who said that they had not introduced new technologies.

**Table 7.** *Introduction of new technologies in the companies*

<b>Do you regularly introduce new technologies?</b>	<b>Number</b>	<b>%</b>	<b>Valid %</b>
<i>Yes</i>	64	51.6	52.5
<i>No</i>	58	46.8	47.5
<i>In total</i>	122	98.4	100.0
<i>Missing data</i>	2	1.6	
<b>In total</b>	124	100.0	

*Source: Authors*

When asked whether they regularly introduce new technologies, 64 companies or 51.61% of the total sample responded positively, while 58 companies or 46.77% gave a negative answer. Two companies did not provide an answer to this question. No company that participated in this research, had never applied for access to the funds of VC funds. What is very important for our research is the willingness of companies to finance their business from VC funds. Therefore, we asked the question which relates to the willingness of companies to finance their business from these funds. Although the companies we analyzed have a very low level of awareness of VC funds, and so far have not applied for these funds, most of the companies in the sample are still ready to finance their business in this way, as shown in the following table.

**Table 8.** *The willingness of companies to finance their business from venture capital funds*

Would you be willing to finance your business from these funds?	Number	%	Valid %
Yes	97	78.2	78.9
No	26	21.0	21.1
<b>In total</b>	123	99.2	100.0
Missing data	1	0.8	
<b>In total</b>	124	100.0	

Source: Authors

In the table above we see that the 97 companies in the sample, or 78.22% of companies are willing to finance their business from VC funds, while 26 companies in the sample, or 20.97% of companies responded that they would not be willing to finance their business from these funds. Therefore, we conclude that it would be useful to establish such funds in the RS.

#### 4. Check of the hypothesis

In our paper, we set one main hypothesis, which states: *encouraging the formation of VC funds will contribute to the economic growth and development of the RS through the comprehensive support for the development of innovative small and medium-sized enterprises, measured by the increase of the level of employment and the commercialization of innovations.*

From the literature review we concluded that the VC funds are funds that invest in start-up companies, at the same time offering numerous benefits to the companies that opt for this type of financing of development projects. In the RS, only Investment-Development Bank of the Republic of Srpska offers a line of financial support for start-up companies, which can be characterized as relatively modest. Based on the results of quantitative research conducted for the purpose of this final paper, most of the companies in the sample said that they only used a bank loan or a loan in combination with some other sources as an external source of financing (104 respondents, or approximately 84% of total respondents). Money from family and friends comes in second place, which, independently or in combination with other sources, appears 34 times in our sample, or 27.4%. The most significant of the other sources is leasing, amounting to 15.3% of total respondents. *It should be noted that none of the respondents in the sample uses the funds that come from VC funds.* When asked whether they regularly introduce new technologies in their business, 64 companies or 51.61% of the total sample responded positively, while 58 companies or 46.77% gave a negative answer. Assuming that the data we obtained from the research are realistic, we have a good starting point for the formation of VC funds in the RS. We asked for which benefits they would be willing to use funds from VC funds, given that we have stated the benefits of VC which we learned from the literature and previous research. Respondents could choose between several advantages and the following benefits appeared as most common responses:

- Division of risk and results;
- Commitment to the business development and success of the company;
- It does not burden the cash flow of the company, and
- Return to the fund depends on the growth and success of the company.

Based on this we can conclude that the sources of financing that companies use do not provide these benefits. We also mentioned this in the literature review where we compared bank loans and VC funds. Since our companies mostly use bank loans as a source of financing of their business,



which was confirmed by this research, we believed that we could use such a comparison. Companies in our research have shown great willingness to use funds from VC funds to finance their business. Out of 124 companies in the sample, 97 of them are willing to use these funds. Our respondents became interested in our research, and the majority (73 companies or 58.87%) responded that they will continue to be interested in financing from VC funds. How much the formation of VC funds and thus the increase of availability of alternative sources of funding could affect the growth of the GDP of the RS is illustrated by the fact that one million of new jobs were opened in the companies financed by VC funds in the European Union between 2000 and 2004. The total of 3% of the employees works in these companies and in the United States as much as 10%, or 10 million people.<sup>47</sup> In the RS operates the RS Guarantee Fund, which supports start-up companies. This Fund provides guarantees that serve to the commercial banks as additional security for the loan for companies whose projects are valued as good and promising. However, not even this Fund, conditionally speaking, supports high-risk businesses. That is, companies engaged in risky activities pay a high premium for the guarantee of this Fund<sup>48</sup>. It is necessary to bring the Fund to a higher level of development, i.e. that it can provide guarantees for high-risk businesses. Based on the aforesaid, we conclude that the formation of VC funds would contribute to the increase of alternative possibilities of financing of innovative SMEs that are at an early stage of development in the RS. Accordingly, we confirm the research hypothesis.

## 5. Conclusion

Entrepreneurs in the early stages of the life cycle of the company, in addition to the vision and good business ideas, must have access to a wide range of external sources of funding and the possibility of support from the built institutions of entrepreneurial infrastructure. If the environment provides motivation for creativity and the ability of entrepreneurs, there are much greater chances for his or her success. To keep pace with the competition and compete equally in the market, the entrepreneur needs to improve constantly, to expand his or her knowledge, to introduce new technologies into his or her business. To implement this project it is necessary to find the best sources of funding. In developed countries, entrepreneurs have access to numerous sources of funding from bank loans, microcredit organizations, through credit guarantee funds, to VC funds. Unfortunately, in the RS and B&H there are still no sufficiently built and developed institutions of entrepreneurship infrastructure, the transition is not yet complete, the entrepreneurial spirit of students in schools and the population in general is not encouraged, self-employment is not developed as an option to resolve the existence, nor is it sufficiently promoted. If we add this to the unstable political situation and uncertain future of B&H, a complicated political and legal system and underdevelopment of institutions to support the development of entrepreneurship, no wonder the poor state of the economy. In our research, we observed that, in general, most companies use bank loans as external sources of funding (84% of the companies in the research sample use bank loans). The most common reason why companies are opting exactly for a bank loan is the availability and speed. However, bank loans are becoming less favorable, especially for companies that are at the beginning of their development. Banks do not grant loans easily even to liquid companies that are already operating, and not to mention companies that are just starting a business. Even when banks decide to approve loans, their return is very expensive for start-up companies. The costs of processing loans almost do not differ for companies that already operate and start-up companies. One of the alternative sources of external financing is financing from VC funds. VC funds, unlike banks, are willing to invest in the companies at the beginning of their business. VC funds, of course, invest in companies of their interests, i.e. to achieve above

<sup>47</sup> [http://ec.europa.eu/cip/success-stories/index\\_en.htm](http://ec.europa.eu/cip/success-stories/index_en.htm), Accessed on 03 December 2013.

<sup>48</sup> More on: <http://garantnifondrs.org/public/?page=23&lang=1&charset=2>, Accessed on 03 December 2013.

average returns on investments. Unfortunately, officially there are no registered VC funds in the RS and BiH. According to our research, the formation of VC funds would lead to economic growth and development in the RS, through support to SMEs and increasing employment. Most companies in the sample (97 out of 124 or 78.22%) which participated in the research expressed their willingness to be financed from the VC funds. The companies from the research sample relatively take account of technological progress of their business. When asked whether they regularly introduce new technologies, 64 companies or 51.61% of the total sample responded positively, while 58 companies or 46.77% gave a negative answer. Assuming that the data we obtained from the research are realistic, we have a good starting point for the formation of VC funds in the RS. For the VC funds to operate, it is primarily necessary to adopt regulations governing this area, to create a favorable tax system (introduce cash basis for VAT calculation for SMEs), which tells us that the state should play its role in the development of the risk capital market. The vast majority of respondents in our research believe that in the establishment of VC funds the greatest support should be given by the Government of RS and its ministries, namely the Ministry of Science and Technology and the Ministry of Industry, Energy and Mining. In the analysis of the economic situation in the RS, we have concluded that we have under-developed legal and tax systems which are not supportive to SMEs, as well as underdeveloped capital market. In order to attract foreign and domestic investors, and form VC funds, it is necessary first to create a favorable business environment. The National Assembly of the RS should first harmonize laws governing economic life of the RS with the legislation of the European Union which govern these areas.

When we speak of B&H, in general, we see that the situation is far from ideal. There is not a single VC fund that would invest in companies in the country and the region. Specifically, in B&H, which is by itself a complex country, even laws in the entities are not harmonized to the fullest extent. Therefore, first laws should be harmonized with the EU legislation, and then laws between the state and entities should also be harmonized, as well as the laws between the two entities. International financial institutions such as USAID, EBRD, and IFC support the development of VC through their programs of support to developing countries, so that it could be expected in a long term period that these measures facilitate the development of these funds in our country as well. Based on the research and literature review, in part, we proved our hypothesis, so we concluded that the formation of VC funds would contribute to the economic growth and development of the RS, through supporting the development of innovative SMEs and increasing employment and commercialization of innovations.

*Is the RS ready to change its business climate and thus create better conditions to attract foreign capital? Will the RS soon provide more support to the SME sector? Would it be possible to create conditions in our country for the establishment of VC funds? Do our companies have enough ideas to interest VC funds? Are our companies ready to introduce innovations that will enable technological advancement of the RS?* Search for answers to these and many other questions we leave to future researches.

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## ANALYSIS OF YIELD POSITION OF PUBLIC COMPANIES IN THE REPUBLIC OF SRPSKA

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### Abstract

*Public companies occupy an important place in the economy of the Republic of Srpska. It is the companies that doing their activities must be carried out and some of the state delegated goals. Since the state as majority owner of their decisions affect their efficiency, it is important to analyse whether public companies are successful in carrying out its operations and where their sources of success (failure) are. Basis for profitability analysis is statement of comprehensive income. Net income presented in this statement comes from two sources: business activities and certain changes in the market and applying appropriate accounting policies. The recognition of certain types of income and expenses is result of first activities, with the difference representing as financial results. The recognition of certain types of gains and losses that are recognized directly in equity is result of the other activities. There is a tendency of losses growth as a result of operations in the last three years. Taking into account that these are companies over which the State carries out specific goals such as reduction of unemployment, buying social peace and the other, it is important to know in what condition these companies are, and identify the causes of these companies brought in bad condition.*

**Keywords:** public companies, states, profitability, success, performance analysis.

### 1. Introduction

Economic activities performed by both the private and public companies. Financial statements are the basis for the analysis performance, assets and the financial position of companies. An important part of the analysis is the analysis of yield position, and determines whether and how well the company performs the activity for which they are registered. It should also be borne in mind that the main objective of private enterprises is increase of the wealth of the owner, while public companies, in addition to this, also have other objectives entrusted by the state (increase in employment, the development of domestic production, harmonization of regional development, the provision of certain goods and services to citizens by prices that are below cost). The state often through various forms of financial benefit covers actual losses of public companies, thus wasting public funds and increasing the budget deficit.

Statement of comprehensive income includes information on the overall income and expenses of company. The first part of the report, which is in the literature and the practice known as the income statement relates to success in carrying out economic activities for which they are registered, and changes in net assets are reported in the framework of certain types of income and expenses. The second part of the report presents data on changes in equity arising from changes in the value of assets and liabilities in the market and, consequently resulting gains and losses. Both types of results are incorporated in the capital and are an integral part of the overall performance

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of the company. The financial result of the business can be both positive and negative, resulting in changes in assets and liabilities that give rise of income and expenditure of company. Revenue is recognized at a time when the assets increase without increasing of liabilities or when the liabilities decrease but whose reduction is not accompanied by a reduction of corporate assets. Expenses arise when assets decrease with the decrease was not accompanied by a reduction of liabilities, ie when the obligation increases but does not come up to increase the assets. A positive result is an increase in net assets of an company, or capital of the company (as profit for the year), a negative result is also integrated into the capital (through component loss for the year) and represents a reduction of capital of the company.

Financial reporting about the performance of public companies in the international accounting regulations ensured the requirements of certain international financial reporting standards (IFRSs).

In particular, analysing the performance of public companies stems from the fact that these businesses are a significant part of the economy of the Republic of Srpska. The importance of public companies speaks the following information: the participation of the business assets of public companies in the business assets of whole industry in the 2012. and 2011. is 37%, and the share capital of public companies in the capital of the whole economy 51% and 52% respectively. Since public company made a net loss in the period (in 2010 - 2012), their share in 2012. Is 32% of gains in the economy and the 2011. this percentage is significantly lower and is 4%. As the economy gains in the last two years changed only by 1%, the losses of public companies since 2010. by 2012. increased 400% (Poljašević, 2013). The amounts of these losses are mitigated or neutralized activity financing and other activities as well as the recognition of a net gain that is recognized directly in equity. Taking into account the above information and the importance that public companies have on the economy, it seems reasonable to analyse performance of public companies in the Republic of Srpska and sources of their (lack of) success.

Further work will define public companies, their contributory position and explain the structure of the business results. The aim of this paper is to show that the result of the ordinary operations of public companies largely depends on its financing activities, or income realized on this basis that offset the negative result of the ordinary business and make better overall picture. The research starts from the hypothesis that the result on financing activities, other activities and net gains recognized directly in equity significantly affect the net assets of public companies.

The research will be done on the basis of the financial statements of public companies which have submitted financial reports to APIF for 2012. A number of these companies is 128 and the research covers all companies.

## 2. Definition of public companies

Public companies in the Republic of Srpska are created by transformation of state companies. In the process of transformation, the state privatized some companies, while in the other retains a participation in the capital. According to the Investment and Development Bank of the Republic of Srpska, there is 217 companies (of which 98 in bankruptcy) in which the state has a different percentage of participation.

Due to the existence of market imperfections (the existence of goods which the market will not provide or provide immediate in insufficient quantities), the state through public companies realized a number of goals (reduction of unemployment, provision of certain goods and services to citizens, social peace, etc.). The inefficiency of the market in meeting the public (common) needs exist for (Richard and Peggy Musgrave, 1995): the lack of competitiveness of consumption of public goods and the impossibility of excluding individuals from the consumption of public goods.

Activity of state can be divided into three basic functions (Stiglich, 2004):



1. a function of resource allocation (deployment of resources by the state in order to create equal opportunities of using public goods),
2. the function of the income distribution (the distribution of income among individuals and redistribution of the national income for the purpose of financing public needs at the level of the minimum standards),
3. the function of the stabilization of the economy (the impact of tax and expenditure policies on the level of economic activity and macroeconomic aggregates).

The state performs its functions:

- across government units, which are often referred to in the accounting sense to budget users, who belong to the state or local level,
- companies as legal entities, which is when they are owned or controlled by the state called public companies.

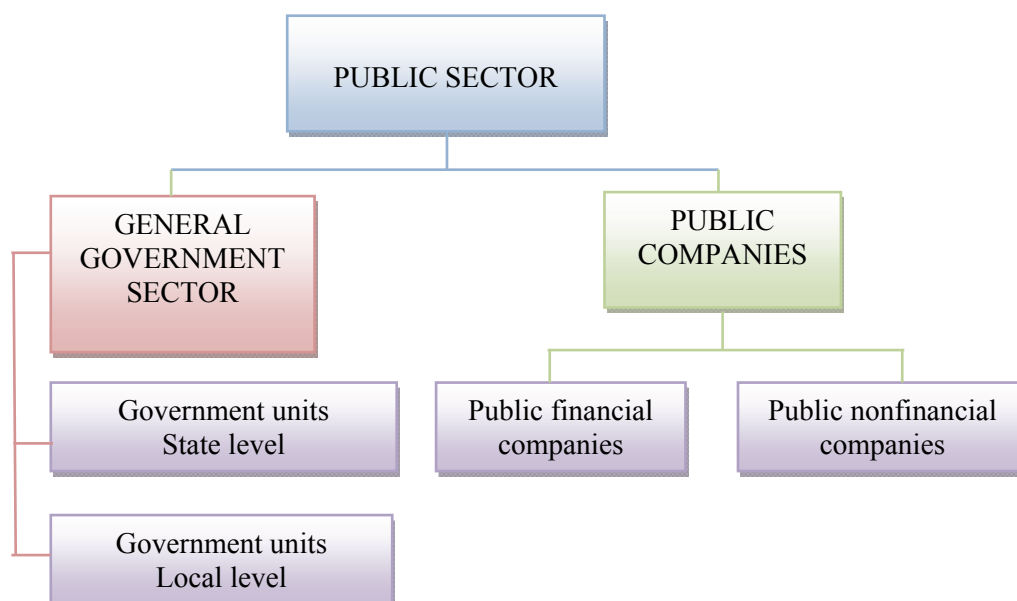
According to the Law on Public Enterprises (Law on Public Enterprises of the Republic of Srpska, 75/04 and 78/11), a public company is defined as a legal entity which is registered in the Register as a company in the form of a limited liability company or a joint stock company in order to perform activities of general interest in which the share capital of the Republic of Srpska or local government directly or indirectly holds the majority. It is believed that the majority ownership state shall provide by performing investments which give him the right to manage the business and financial policies of the company in which the investment was made, along with the realization of the benefits of that investment.

That is to say that the company is publicly owned if all of the following characteristics (International accounting Standards for public sector, 2013)

- has the right to enter into contracts in its own name;
- is financial and business authority to perform the activity;
- sale of goods and services in the ordinary course of business, other entity, for profit or full cost coverage;
- does not rely on constant state funding to maintain the continuity of operations, and
- controlled by a public sector entity.

According to the methodology of the International Monetary Fund (IMF Governmental Financial Statistics Manual, 2001) the public sector consists of government units and public companies which may be represented by the following picture.

**Figure 1.** *The public sector and the general government sector of the Republic of Srpska*



### 3. Analysis of yield position of the company

Analysis of yield, assets and financial position of the company is carried out in conditions (Mikerevic, 2011):

- when management of a company on the basis of the statements provides information to owners about condition and performance of the company,
- when assessing the credit solvency of companies,
- when planning,
- when valuating the company,
- when the company is restructuring, as well as in cases where it is necessary knowledge about the condition and the performance of the company.

The planning a company business can be achieved only if there is information about previous condition and performance. Basis for analysis are financial statements that present information on the assets, financial resources, the success of business operations and the ability of companies to generate sufficient cash to conduct business activities. The income is the part of own capital and can be presented as one account in which presented all income and expenses of one accounting period, broken down by the relevant principles, which is the result of success (result) (Malinic, Stevanovic, Milicevic, 2013). According to the current balance sheet forms income and expenses are classified as: operating, financial, other, revenues and expenses from revaluation of assets, and revenues and expenses from changes in accounting policies and corrections of errors.

Based on the summary financial statements it will be analysed yield position of public companies through (Mikerevic, 2011):

- the analysing structure of financial results and income statements,
- risk of achieve the results of operating activities, the break point, and rate of elasticity,
- financial power,

- profitability.

The structure of the operating results and structure of income statement shows how individual intermediate results participating in gross profit/loss presenting in the income statement. This type of analysis allows the conclusion which activity contributes to certain result, and as contributing to the gross score. The important component of income statement represents the position of operating result because it is basis for evaluating whether the profit or loss of the analysed company is successful or not, because revenues and expenses based on which is calculated this result are revenues and expenses related to the regular activities of the company.

As part of the risk analysis to achieve operating result, the break-even point and the rate of elasticity, is seen only the result of operating activities, as a repeated result from year after year, while the results for other activities are excluded, as they occur from time at the time, and the character of temporality and by temporary. This analysis includes calculating the operating, financial and overall risk, analysis of the break point of profitability (the point of the neutral operating results and the results of regular activities), the percentage of utilization of operating revenue for the achievement of neutral operating results and neutral results of the regular activities and coefficient of elasticity for achieving neutral operating and regular result.

Analysis of financial power is part of the yield position analysis of company which through specific indicators analyses the ability of companies to generate enough income to cover interest costs, fixed obligations (rental expenses and current part of long-term loans), and a fixed dividend.

An important part of the yield position analysis represents a profitability analysis that shows earning power, or the power of companies return on invested assets/equity. It includes the calculation of a set of indicators: the return of total capital invested, own and share capital, net earnings per share and dividends per share.

## **4. The empirical basis of research**

### ***4.1. Information power of the income statement***

Achieving positive results is goal of every company, both private and public. The importance of profit is reflected in the fact that without achieving positive results the company loses its capital and has the risk of bankruptcy. On the other hand, only profitable companies can grow and develop, which is a precondition for the survival of the enterprise market. For these reasons, the profitability of public enterprises should be assessed in the same way as a profitability of private.

Financial statements are the most important resource of information on the condition and success of the business. The success of the assets management available to the company, and changes in net assets are presented in the income statement-the statement of comprehensive income.

As part of the research portion of the work it will be analysed Statement of comprehensive income which is consist of result arises from ordinary activities and certain changes in the market and application of accounting policies. Based on the review it will be considered yield position of public companies and determine whether public companies are successful and which sources are generating profit or loss.

## *4.2. The methodological framework of analysis*

The aim of the study is to show the sources of (in) the success of public companies. For the analysis we have used data on the summary financial statements of public companies in the Republic of Srpska.

In fact, public companies have an important place in the economy of the Republic of Srpska because the amount of capital, assets and functions entrusted to them by the state. On the other hand it is the companies that generate significant losses.

The study included all 128 public companies that have their financial statements delivered to the base of Agency of brokerage, informatics and financial services.

Profitability analysis will be made on the basis of: the structure of the total results and the structure of gross results, indicators of economy, the structure of total income and expenses and changes in certain types of income and expenses, the performance ratios, coverage of interest expense, business, financial and total risk, the lower break-even point and rate of profitability public companies.

## *4.3. The survey results*

The purpose of the study was to assess the source of (un)successful public companies. Tested on whether public companies are successful and which are the sources of the (un)success of public companies.

Companies that are observed confirm initial hypothesis. Analysis of the companies included in the research include:

- net loss of public enterprises has a tendency to rise and increased by two years by about 400%,
- the total net result of public enterprises in 2010. and 2012. are offset by net gains recognized directly in equity 7.5 million and 3.7 million KM,
- in the 2011. it has changed the character of the overall results for the period as gains that are recognized directly in equity are higher than the net loss of 17.8 million KM,
- loss of ordinary activities in 2010, 2011, and the 2012. tempered gains on financing activities of 25.5 million, 27.76 million and 12 million KM,
- source of a positive result on financing activities is lending activities, and participation interest in the result of the financing of over 60% in the 2012. and over 100% in the other two years,
- operating income will tend to decline, while other expenses maintained at almost the same level,
- share of gains and losses from changes in accounting policies and corrections of errors in the overall result is not significant, but the large changes in the value of income and expenses from year to year (base index in the 2011. and 2012. were 149,79 and 162,90).

Therefore, it can be concluded that public companies are constantly realize losses tend to increase and are partly offset by financing activities and other activities as well as the recognition of net gains that are recognized directly in companies equity.

### *4.1.1. The structure of the financial results and performance of balance*

As part of this analysis it will be carried out analysis of the overall results of the company, the share of individual intermediate results in gross profit/loss of the company, the analysis of

certain types of income and expenditure in total revenues and total expenses, and changes certain types of income and expenses in the analysed period.

Total result in a company consists of result from the income statement as gains and losses recognized directly in equity, as shown in Table 1.

*Table 1: Structure of total net result of public companies*

	2012	2011	2010
<b>Net loss for the period</b>	- 46.584.177	- 40.374.777	- 11.707.673
<b>Net loss for the period based on profit and loss recognised directly in capital</b>	3.753.408	58.195.053	7.297.984
<b>Total net result for the period</b>	- 42.830.769	17.820.276	- 4.409.689

*Source: Author's data processing*

Total net result which was observed in all three years is negative, while the total result is positive in the 2011., because of the realized net gains that are recognized directly in equity companies. Cause of net profit based on gains and losses recognized directly in equity is significant amounts of revaluation reserves arising from the revaluation of fixed assets, as companies which are usually capital-intensive used the revaluation model for subsequent measurement of tangible fixed assets, which is permitted in accordance with IAS 16 - Property, plant and equipment.

For the analysis of yield position of the company, it is important the first part of the income statement with a list of income and expenses for certain types, which are the result of business. In order to determine the sources of net income, the structure of the gross results is presented:

*Table 2: Structure of gross result of public companies*

	Participation (%)		
	2012	2011	2010
<b>The types of results</b>			
<b>Operating result</b>	-261,99	-215,64	-963,93
<b>Result from financing activities</b>	28,81	78,79	693,57
<b>Result from other activities</b>	128,00	61,17	197,63
<b>Result from revaluation of assets</b>	1,23	-24,74	-52,43
<b>Result from changes in accounting policies and errors</b>	3,96	0,42	25,16
<b>Total result</b>	-100,00	-100,00	-100,00

*Source: Author's data processing*

In the analysis of the structure of the results it is evident that public companies collectively have a negative total result and that the highest contribution (source ) of the negative result is operating result that is in all three analysed years over 200%. In 2010. the share of operating loss in total result is about 960%. The point is that the companies had aggregate operating loss of approximately 35 mil KM, which is partly diminish by the positive result on financing activities and other results, and the total result is approximately 3.6 mil KM.

Operating loss in 2010., 2011., and 2012. was 35.4 million, 75.9 million and 110.63 mil KM. The cause of the increased loss in the 2012. is decrease in other revenues from grants for approximately 8.8 million KM, and a reduction in revenues from the sale of approximately 99 million KM. Sales of goods increased by approximately 67.3 million KM, but the higher the reduction in revenues from sale of products, the end result of changes in income is negative.

In the analysis of the structure of the results it can be seen that in all the years contributions to the results from other income and expense are positive and significant. Result from other income and expenses in 2010., 2011., and 2012. increased from 7.2 to 21.6 and 54.1 million KM. The increase in revenue is the result of an increase in the collection of receivables that were written off and an increase in income from the reversal of provisions and other liabilities.

Based on revaluation, public companies in 2010., and 2011.had a significant amount of changes, which have resulted in the determination of loss on revaluation, while in the 2012. the effects of the revaluation are positive and no significant on total result. The revaluation loss is approximately 1.9 million KM in 2010. and 8.7 million KM in the 2011. Revaluation surplus is 517.506 KM in 2012.

For analyse of the relation between revenue and expense, the analysis of revenue and expenses economy is importante with indicators showing how the revenue earned by a particular unit of costs (Belak, 2013).

**Table 3: Revenue and expenditure economy**

Indicators of economy	2012	2011	2010
<b>Economy of total business (Total revenue/total expense)</b>	0,98	0,98	1,00
<b>Economy of operating activities (Operating revenue/operating expense)</b>	0,94	0,96	0,98
<b>Economy of financing activities (Financial revenue(financial expense)</b>	1,38	2,09	2,25
<b>Economy of other activities (Other revenue/other expense)</b>	2,47	1,44	1,14

*Source: Author's data processing*

Based on the indicators of the economy it can be seen that the companies collectively from other activities and financing activities generate more revenue than from certain types of expenses, while this is not the case whit operating revenues and expenses.

In addition to the structure of the financial results it is necessary to determine the participation of certain types of revenues in the total revenue and the participation of certain types of expenses in total expense. The following table shows the structure of total revenue and expense of public enterprises:

**Table 4: Structure of total revenue and expense of public companies**

Types of revenue and expense	Participation of certain types of revenue in total revenue			Participation of certain types of expense in total expense		
	2012	2011	2010	2012	2011	2010
<b>Operating revenue/expense</b>	92,42	93,09	93,69	96,20	95,35	95,37
<b>Financial revenue/expense</b>	2,39	2,84	2,43	1,70	1,33	1,08
<b>Other revenue/expense</b>	4,90	3,77	3,07	1,94	2,57	2,68
<b>Revaluation revenue/expense</b>	0,16	0,19	0,74	0,13	0,64	0,84
<b>Revenue/expense from changes in accounting polities and errors</b>	0,13	0,12	0,08	0,04	0,11	0,03
<b>Total revenue/expense</b>	100,00	100,00	100,00	100,00	100,00	100,00

*Source: Author's data processing*

Based on the above table it can be seen that the share of operating revenue to total revenue declines, while the share of operating expenses to total expense grow. With respect to financing activities, the participation of financial revenue in total revenue increases, while the share of financial expenses to total expenses declines.

Analysis of revenue structure shows that the dominant share in total revenue is share of operating revenue (in all years the share is over 92%), while the share of financial revenue is from 2.3% to 2.8%, and other income from 3.07% to 4.9% .

Analysis of the structure of expenses shows that the dominant share in total expense is share of operating expenses and this percentage is higher than the share of operating income in total revenue (in all years the share is over 95%), while the share of financial expenses lower than re-



venue and ranges from 1.08 to 1.70% . The share of other expenditure is lower than the share of other revenue and ranges from 1.94% to 2.68%.

Analysis of the structure of revenues includes the calculation of performance ratios.

**Table 6:** Ratio of the performance of public enterprises

	2012	2011	2010
1. Operating and financing revenues	1.757.052.306	1.794.064.946	1.821.231.324
2. Operating result	-110.633.653	-75.995.707	-35.453.353
3. Ratio of performance (2/1)	-0,063	-0,042	-0,019

Source: Author's data processing

This ratio indicates that for every unit of operating and financial revenues realized loss. As it can be seen from the table above during the period loss constantly growth in relation to the sum of operating and financial revenue because the revenue decline was not accompanied by a fall in expenses.

The direction of movement of certain types of revenue and expense can be analyzed on the base<sup>51</sup> and chain indices.

**Table 5:** Changes in certain types of income and expenditure of public companies

	Base indices			Chain indices		
Changes in revenues	2010	2011	2012	2010	2011	2012
Operating revenues	100	98,07	96,48	-	98,07	98,38
Financial revenues	100	115,58	96,32	-	115,58	83,33
Other revenues	100	120,94	155,80	-	120,94	128,83
Revenues from revaluation of assets	100	25,27	21,57	-	25,27	85,37
Revenues from changes in accounting policies and correction of errors	100	149,79	162,90	-	149,79	108,75
Changes in expense	2010	2011	2012	2010	2011	2012
Operating expenses	100	100,34	100,70	0,00	100,34	100,36
Financial expenses	100	123,96	156,86	0,00	123,96	126,54
Other expenses	100	95,89	71,98	0,00	95,89	75,06
Expenses from revaluation of assets	100	77,06	15,70	0,00	77,06	20,37
Expenses from changes in accounting policies and correction of errors	100	391,22	131,08	0,00	391,22	33,51

Source: Author's data processing

Basic indices shows that operating revenues have decline trend (due to a fall in revenues from sale of products) while operating expenses are held to the same level. Other revenues were significantly increased (due to charge write-off claims and elimination of liabilities ) while other expenses are declining.

Due to the decrease in operating revenues , operating loss was growing: in 2010., 2011. and 2012. from approximately 35.45 mil, to 75.99 mil and 110.63 mil KM. Since on financing activities in all examined years results were positive, the amount of loss on ordinary activities was lower; in 2010, 2011. and 2012th year were 9.94 mil , 48.23 mil and 98.47 mil KM respectivel . It may be noted that on the basis of the activities for which they are registered, enterprises achieve losses, but on financing activities generate positive effects.

<sup>51</sup> 2010. Is base year

#### 4.1.2. Risk of achieving regular result analysis, break-even point and rate of elasticity

The indicators in this analysis indicate how the rapidly changing operating result compared to a contribution margin; how many times faster changes result from regular activities as a result of the operating result change by one percentage point, how many times faster changes result from regular activities when changing contribution margins by one percentage point. The lower break-even point is the point at which revenues equal with certain types of expenditure and that derive from the two bottom points of profitability: brake-even point of operating result and brake-even point of regular activities.

**Table 7:** *Risk of achieving regular result analysis, break-even point and rate of elasticity of public companies*

	2012	2011	2010
1 Operating revenues	1.708.908.560	1.738.517.474	1.783.040.571
2 Variable costs	1.186.640.076	1.193.801.436	1.196.804.473
3 Contribution margin (1-2)	522.268.484	544.716.038	586.236.098
4 Fixed and dominantly fixed costs	632.902.137	620.711.745	621.689.451
5 Net cost of financing	12.166.918	27.767.186	25.509.397
6 Operating result (3-4)	-110.633.653	-75.995.707	-35.453.353
7 Gross financing result from regular activities (6-5)	-98.466.735	-48.228.521	-9.943.956
8 Business risk factor (3/6)	-4,72	-7,17	-16,54
9 Financial risk factor (6/7)	1,12	1,58	3,57
10 Total risk factor (8*9)	-5,30	-11,29	-58,95
11 Percentage of contribution margin in operating revenues (3/1*100)	30,56	31,33	32,88
12 Operating revenues required for neutral financial result (4/11*100)	2.070.911.634	1.981.065.619	1.890.872.154
13 Operating revenues required for gross financial result (4+5)/11*100	2.031.100.405	1.892.443.778	1.813.285.172
14 Percentage of operating revenues usage to achieve neutral operating result (12/1*100)	121,18	113,95	106,05
15 Coefficient of elasticity for achieving neutral operating result ((1-12/1)*100)	-21,18	-13,95	-6,05
16 Percentage of operating revenues usage to achieve neutral gross financial result (13/1*100)	118,85	108,85	101,70
17 Coefficient of elasticity to achieve neutral gross financial result ((1-13)/1*100)	-18,85	-8,85	-1,70

Source : Author's data processing

In these period, contribution margin as the difference between operating revenues and variable costs, decreases due to the larger decline in revenues compared to the decline in variable costs. Both fixed and mostly fixed expenses have increased, resulting in a constant increase in operating loss.

Due to the positive net financing expenses, loss of regular activity is reduced compared to the operating loss. However, the loss of the regular activities of the 2011. is greater than 5.3 times the loss of the 2010. and at the 2012. 11 times higher than in 2010. The ratio of business risk in the period was negative.

The percentage share of contribution margin in operating revenues from year to year decline , which means that the company remains less margin to cover fixed and mostly fixed expenses.

Since that companies collectively show loss on the operating result, elasticity rate to achieve operating results neutral/neutral results of the regular activities shows how much the need to raise revenues in order to achieve operating results neutral/neutral result of regular activities.

#### 4.1.3. Analysis of financial power

Financial power<sup>52</sup> of public companies is analyzed by calculating the coverage of interest costs by operating result.

**Table 8:** Coverage of interest expenses of public companies

	2012	2011	2010
<b>Coverage of interest expense (operating result/interest expense)</b>	-3,52	-3,48	-2,29

Source: Author's data processing

Because of achieving a negative operating result, interest cost of public companies do not covered. The following table presented financial results, net of interest that in all the years are positive and participation of net interest in the results of financing:

**Table 9:** The ratio of net interest and results of financing activities public companies

	2012	2011	2010
<b>Financing result (financial revenues – financial expenses)</b>	12.166.918	27.767.186	25.509.397
<b>Net interests (interest revenues – interest expenses)</b>	7.335.918	28.525.040	28.067.209
<b>Participation of net interest in financing result</b>	60,29%	102,73%	110,03%

Source: Author's data processing

Sources of results from financial activities are interest revenues earned from invested cash, because public companies earn more by investing cash than they pay interest on the borrowed money.

#### 4.1.4. Analysis of profitability

Profitability of public enterprises is analyzed using the gross rate of return on total capital, the net rate of return on invested capital, the net rate of return on its own capital and the rate of net return on initial capital.

**Table 10:** Profitability of public enterprises

	2012	2011	2010
	-0,08%	-0,11%	0,10%
<b>The gross rate of return on total capital</b>	-0,12%	-0,15%	0,03%
<b>The net rate of return on invested capital</b>	-0,37%	-0,40%	-0,19%
<b>The net rate of return on its own capital</b>	-0,44%	-0,39%	-0,11%
<b>Rate of net return on initial capital</b>	-1,06%	-0,92%	-0,26%

Source : Author's data processing

<sup>52</sup> Financial power entails calculating the coverage of fixed charges and preferred dividends, which in this work because companies realize business loss due to limitations in the study (the lack of information on the amount of rental expenses and the amount of fixed dividends are calculated).

The rates of return are negative in all years and show an upward trend, except for the gross and net return on total capital in 2010. year, which is positive because the higher interest expenses from the net loss.

## 5. Conclusion

Successful business management assumes analysis of business results. Analysis of yield position determine the cause of the realized losses in order to eliminate them and improve business of public companies. Although public companies exopt carrying out its core business, implement and certain government activities, manage the access should be the same.

It is established by analyzing summary financial statements of public companies that these companies, from year to year, create increasing losses and results from financing activities, other activities and net gains recognized directly in equity significantly affect the net asset of public companies.

By analyzing the structure and results of total revenues and expenses it was found that the companies collectively generate operating losses, which increases becouse operating revenues declining from year to year, while operating expenses are held to the same level. Across the years, the company achieved operating losses tend to increase.

The survey results confirm that the financing activity significantly affect the result of ordinary activities and the effects of these activities are positive, because public companies achieved gains from financial activities. The most important types of revenues and expenses arising from financing activities are interest revenues and interest expense, which means that public companies collectively earn more on investments of the funds rather than lending them. Due to the positive effects of financing activities, in all the years loss on ordinary activities is lower than the loss of operating activities. Effects from other activities on the net result was also positive.

That public companies collectively generated neutral business rezultat it is necessary to increase operating revenue by 6.05 % , 13.95% and 21.18% in 2010., 2011. and 2012.

Collectively observed, public enterprises are not financially powerful in the sense that they can cover interest expenses from operating revenues, because they achieved an operating loss in all the years.

Analyzing profitability, it was observed that all the yields rates (except for the gross and net return on total capital in 2010. which is a positive because the higher interest expenses from the net loss) negative, which means that public companies collectively are not profitable.

All the above indicates the sources of (un)success of public companies. These companies are still dominant in our area and they must operate efficiently in terms of making a profit, growth opportunities and the development and improvement.

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## SYSTEMIC RISK EVALUATION OF INVESTING IN ELECTRIC SECTOR OF THE REPUBLIC OF SRPSKA

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### Abstract:

*Economic theory and research studies that deal with scientific issues of the investment decision-making, especially in conditions of global financial and economic crisis that began in 2007th years, indicating that the risk assessment of investment is a primary factor when making investment decisions. This paper presents an analysis of systemic risks of investing in Electric Energy Sector of the Republic of Srpska. Rating systemic risk should provide the basis for the adoption of primarily high-quality investment decisions, followed by consideration of the situation in the Electric Energy Sector of the Republic of Srpska from the perspective of systemic risk measured by the beta coefficient. The scientific objective of this work is to connect and evaluate the systemic financial risk of investing in the Electric Energy Sector of the Republic of Srpska, through econometric analysis. Systemic risk includes risks arising from general economic and other trends that affect all economic entities. Systemic risk will be measured on the basis of econometric analysis indexes of Electric Energy Sector of the Republic of Srpska ERS10 enterprise. Beta coefficient is a measure of systematic risk of Electric Energy Sector of the Republic of Srpska and constant change reflects the expected return on the i-th securities of the company Electric Energy Sector of the Republic of Srpska, in relation to the change in the yield on the market index ERS10.*

**Keywords:** Systemic risk, the beta coefficient, the Electric Energy Sector of the Republic of Srpska, ERS10;

### 1. Introduction

The sources of risk are changes in the macroeconomic environment, the changes in a variety of economic sectors, as well as unexpected events that are associated with a particular type of asset. The system includes a variety of risk management policies, procedures and practices that collaborate in order to analyze, assess, monitor and control risks. Taking into consideration the course and consequences of the economic crisis that has engulfed the Electric Energy Sector of the Republic of Srpska, as well as frequent and intense changes in the capital markets in the developing world, which the capital market of the Republic of Srpska is itself, grading systemic risk is an important factor when making investment decisions. Beta coefficient poses a measure of systematic risk of securities and portfolios. Beta coefficient market index is 1, and the actions and portfolios are considered more or less sensitive to market movements according to whether their beta is less than or greater than unity. During research and data processing, we used the statistical software SPSS and MS Excel.

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It is used as an indicator of how adding individual securities to diversified portfolio affects the risk of the portfolio. The first premise of Markowitz's portfolio theory had applicability problems in practice due to the large number of input variables during optimization. With the advent of models with one index (single - index model), where the yield of shares is linearly associated with yield of the market, there is a significant simplification of the portfolio selection. The significance of the coefficient of proportionality, that is, the beta coefficient, between share yield and market yield, reflects a systematic risk to which the share is exposed to, and which can not be avoided by further diversification. Standard estimates of beta coefficients is performed through regression, that is, the method of least squares, where the yield of shares in relation to yield of the market is observed. That way we come to the historical values of the beta coefficient on the basis of which future (expected) value of beta coefficients are determined. Beta coefficient is an indicator for the evaluation of the systemic risk performance. Also, the beta coefficient represents a benchmark for the creation of investment strategies. Most often, as market portfolio yield indicators, are used indexes of individual capital markets, on which the securities are listed (eg, the S & P 500, NYSE, NASDAQ, DJIA, etc.). The main research questions, that are embodied through the issue of this study, and to which we will be looking for the answer in this paper, are: „Which companies are an indication of the state of the Electric Energy Sector of the Republic of Srpska and by which indicator are they shown; which financial indicators are important in the evaluation of system risk of Electric Energy Sector of the Republic of Srpska, what are the values of the same indicators in the Electric Energy Sector of the Republic of Srpska." Scientific research subject belongs to the field of analysis and risk management in order to create decision-making investment decisions. Scientific objective of this paper is to evaluate the financial systemic risk, measured by beta coefficient which is calculated through the deviation of the price of individual companies of Electric Energy Sector of the Republic of Srpska in relation to the status indicator in the Electric Energy Sector of the Republic of Srpska, displayed by the Banja Luka Stock market index ERS10, through econometric analysis.

Data analysis will allow the calculation of systemic risk through beta coefficient of enterprises Electric Energy Sector of the Republic of Srpska. The aim of the study was also to provide a good basis to the creators of investment strategies, to observe the scenario of investment options, depending on the investment decision. As a result, the paper needs to show the intensity of systemic risk measured by the beta coefficient of individual companies Electric Energy Sector of the Republic of Srpska compared to the Banja Luka Stock Exchange index Electric Energy Sector of the Republic of Srpska ERS10. Therefore, follows the basic research hypothesis  $H_0$ : „Electric Energy Sector of the Republic of Srpska company shares are mostly defensively oriented, from the perspective of systemic risk,". In the analysis, we used the annual reports of companies listed on the Banja Luka Stock Exchange for the year 2013, which makes index of enterprises Electric Energy Sector of the Republic of Srpska ERS10, as well as other publicly available information on the Internet. In favor of actuality of this research topic is the fact that over 20 % of all scientific research papers and research studies published in the last five years, contained in the databases of scientific research papers such as EBSCO, ProQuest, Springer, Science Direct, CSA, Open Directory, belongs to the field of research in this paper and contains keywords that are in this research. During the research, secondary data sources for the calculation of systemic risk company of Electric Energy sector of the Republic of Srpska will be used, as well as primary sources – based on research and author calculations. The paper will be using scientific methods of deduction, induction and regression analysis.

## 2. Review of the literature and previous research

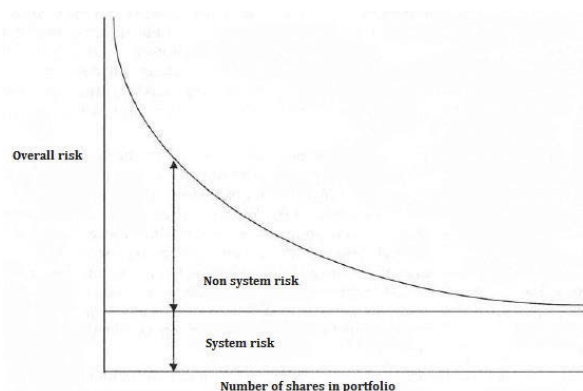
In addition to yield, certainly the most important aspects of investment analysis are related to risks. They are associated with the probability of realizing losses or yield smaller than expected. Many risks can not be eliminated, but can be controlled and managed. Therefore, it is extremely

important to understand their true nature and essence. In this paper we will observe overall risk of investing as a sum of the system and the Non-system risk (Brzaković, 2007, p. 269). In his work *Betas and Their Regression Tendencies* published in the scientific journal *Journal of Finance* No. 10, Blume, M. defines the beta coefficient as a measure of systemic risk, which represents the ratio of return on a given securities, and the market index yield (Blume, 1975, p.79). Black, F. in his paper *Beta and Return*, published in *The Journal of Portfolio Management* 20, No. 2 believes that business policy of the enterprise, promotion of new products, new technologies, changing the way of doing business, competition entering in the production program, are only some of the factors on which the non-systemic risk depends. In contrast, systemic risk includes risks arising from general economic and other trends that affect all economic entities (Black, 1993, p.148).

Systematic risk is also known as market risk and refers to the factors that affect the entire economy, including the securities market. Systematic risk affects all companies, regardless of their financial state, management or capital structure, may include both domestic and international factors, depending on the investment structure. Elton, EJ and Gruber, MJ, in their book *Modern Portfolio Theory and Investment Analysis*, 5 edition, analyzes systemic risk through the CAPM model. According to the CAPM, beta is the only relevant measure of the share risk. It measures the relative instability of the share, and that is in fact how much the price of a single share jumps up and down in relation to the same movement of entire market (Elton, and Gruber, 1995, p. 196). If the share price moves exactly in line with the market, then the beta of the share is: A statistical measure of the tendency in the market, or certainty of a sudden rise or fall. Instability is typically calculated by using the variance or standard deviation of returns. A measure of the share relative instability in the market is its beta. A very unstable market means that prices fluctuate enormously in very short periods. Changes of beta coefficients over time can be analyzed by Blume technique (Blume, 1975, 193), which is used to determine the dependence of the beta coefficients in successive periods.

On the other hand, adjustment of the beta coefficients to an average beta coefficient is performed by using Bayesian estimation. Beta coefficient assessment can be made *ex ante*, since human expectations can not be quantified. Therefore, beta is measured by observing the value of realized share yields and market in the past. Numerous studies have shown that such improved estimates of beta coefficients give better results than a standard assessment (Elton and Gruber, 1995, 174). Non-systematic risk as opposed to systematic risk, impacts on a small number of companies or investments, and is usually associated with investing in a particular product, company or industry sector.

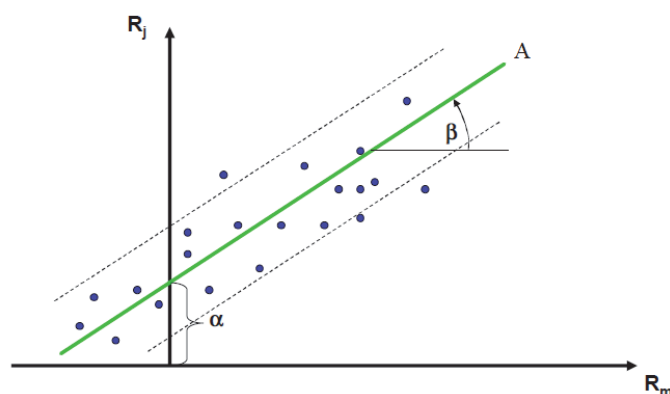
Examples for non-systematic risk include: risk management, credit risk, etc. Risk management, also known as the company's risk, refers to the impact of the bad management decisions, internal wrong moves or even external situations that have a negative impact on the company performance and on the investments value. Credit risk, which is also called the default risk, represents the possibility that the issuer of bonds does not pay interest as scheduled or does not pay principal at maturity. One way to control non-systematic risk, is to spread investments by portfolio diversification in each asset class. Graphical interpretation of the systemic, Non-systemic and the overall risk ratio, is presented in the chart 1.

**Figure 1.** The ratio of the system, non-system and overall risk

Source: (Bodie, and Alan, 2010, p. 265)

By constructing an efficient investment portfolio, ie., by diversifying investments, non-systematic risk that is inherent in each individual company, can be significantly reduced or even completely eliminated. Research conducted by Eldomiaty, Al Dhahery and Al Shukri (Eldomiaty and Al Shukri, 2009, p.158) shows that there is a close correlation between changes in the share price, due to changes in systemic risk and especially in the amount of the book value of the company's assets, which is a significant determinant of exposure to systemic risk.

On the other hand, systemic risk can not be avoided by diversifying investments. In any case, the risk is an integral part of the investment. The investors have to face it and find an appropriate way to manage it. Risk management has grown into a separate scientific discipline in recent decades. The measure of systematic risk can be graphically represent with the regression line (A). The regression line (A) represents the best approximation of the dispersion diagram, ie. observed share yield and the market portfolio ratio. The regression line is also called the characteristic line of the share. It can be completely defined by the slope coefficient, and the inclination  $\beta$  on the vertical axis  $\alpha$  sequence. Discussed above, we can graphically represent on Chart 2<sup>55</sup>.

**Figure 2.** Graphical interpretation of beta and alpha coefficients

Source: Adapted from: Šoškić, 2007, p. 106

Beta coefficient explains for how much the yield of certain share will change, if the rate of return of the market portfolio changes by 1. Ordinate intercept  $\alpha$  shows us what would be the rate of return of certain share in the year in which the market rate of return is zero.

Covariance is a statistical measure that shows how the two observed variables (in our case, the rate of return on the stocks that makes the index and the index of Electric Energy Sector of the

<sup>55</sup> Adapted from: Šoškić, D., Hartije od vrijednosti-upravljanje portfoliom i investicioni fondovi, CID Ekonomski fakultet Beograd, 2007., str. 106.

Republic of Srpska - index ERS 10) move in relation to one another. Covariance can be calculated based on the following mathematical relations (Ross, Westerfield and Jaffe, 2010, p. 326):

$$Cov_{nm} = \frac{1}{N-1} \sum_{t=1}^n (r_{nt} - \bar{r}_n)(r_{mt} - \bar{r}_m)$$

wherein:

$Cov_{nm}$  = covariance returns of n share and m markets

$r_{nt}$  = returns of share n in period t

$r_{mt}$  = market m yield in period t

$\bar{r}_n$  = average returns of n share

$\bar{r}_m$  = average market m yield

Slope coefficient  $\beta$  and the intercept on the ordinate  $\alpha$  are calculated by the relations (Šoškić, 2007, p.107):

The methodology  $\beta = \text{Cov}(R_j, R_m) / \text{Var}(R_m)$

$\alpha = \bar{R}_j - \beta \bar{R}_m$

$R_m$  – rate of return on the market index

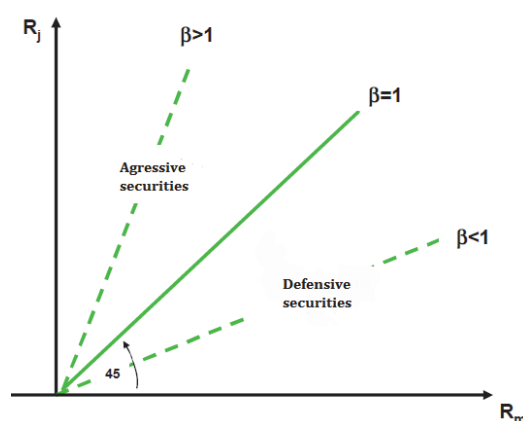
$R_j$  – rate of return on security

$\beta$  - slope coefficient

$\alpha$  - intercept on the ordinate

Depending on the movement of return on individual securities and the return on the market index, Figure 3 provides an overview of beta coefficient development.

**Figure 3.** Display of beta coefficient movement direction



Source: Adapted from: Popović, 2000, p. 75

Based on the previous chart, we can see that investor applies different investment strategies, depending on the beta coefficient value. Defensive, if the beta coefficient is lesser than 1, offensive if the beta coefficient is greater than 1, and neutral if it is equal to 1.

### 3. Research methodology and sample analysis

#### - Electric Energy Sector of the Republic of Srpska

Based on the data and sampling, we will calculate beta coefficient as a measure of systemic risk Electric Energy Sector of the Republic of Srpska. First, we perform calculation of the standard deviation for the selected interval index ERS 10 and the securities that make up the index. Then we will calculate the rate of return for selected interval index ERS 10 and the securities that make up the index. In the next step we will calculate correlation coefficients of rate of return for the selected interval between the securities that make up the index ERS 10. After that, we calculate the coefficients of determination of yield for the selected interval between the securities that make up the index ERS 10. Finally, we will make a calculation of beta coefficient ( $\beta$ ) as a measure of systemic risk Electric Energy Sector of the Republic of Srpska for the selected interval.

Based on the sampling of Electric Energy Sector of the Republic of Srpska, for this analysis we chose the companies that make up the index companies Electric Energy Sector of the Republic of Srpska (ERS10) on the Banja Luka Stock Exchange. Index of companies ERS10 represents an important indicator of the state of the financial parameters of Electric Energy Sector of the Republic of Srpska. The analysis will include companies that make up the index companies Electric Energy Sector of the Republic of Srpska (ERS10) in the latest revision on 22.11.2013. year. The sample consists of the following companies : Power Distribution Inc. Pale (EDPL-R-A), Elektrokrajina ad Banja Luka (EKBL-R-A), Elektrohercegovina ad Trebinje (EKHC-R-A), Elektro - Bijeljina ad Bijeljina (ELBJ-R-A), Elektro Doboj ad Doboj (ELDO-R-A), Hydro power plants on the Drina ad Visegrad (HEDR-R-A), hydroelectric power plant on the river Vrbas ad Mrkonjić City (HELV-R-A), HPP on Trebišnjici Trebinje (HETR-R-A), TPP Gacko ad Gacko (RITE-R-A), Ugljevik ad Ugljevik (RTEU-R-A). The graph 4 displays the movement of the index value for Electric Energy Sector of the Republic of Srpska (ERS10) enterprises, from 01.01.2013. to 31.12.2013. year.

**Figure 4.** The movement of the index value for Electric Energy Sector of the Republic of Srpska (ERS10) enterprises from 01.01.2013. to 31.12.2013. year



Source: Authors, Based on data available in the Banja Luka Stock Exchange, (<http://www.blberza.com>, accessed 20.03.2014.)

Based on the chart 4 analysis, we can see that there is a decline in the value of the indicators of Electric Energy Sector of the Republic of Srpska (ERS10) enterprises, on the Banja Luka Stock Exchange. Stock market analysts name extremely low turnover due to low demand and supply for stocks, as a critical and chronic problem of the state of capital market of the Republic of Srpska.

Eventhough, there is a great potential of the Republic of Srpska economy, investors show a decline in interest in Electric Energy Sector of the Republic of Srpska. The reason for this is primarily countries risk and effects of the global economic and financial crisis.

**Table 1.** *The weighted average value for the selected interval index ERS 10 and the securities that make up the index*

Date		Indeks ERS10	EDPL- R-A	EKBL- R-A	EKHC- R-A	ELBJ- R-A	ELDO- R-A	HEDR- R-A	HELV- R-A	HETR- R-A	RITE- R-A	RTEU- R-A
01.12.2013.	31.12.2013.	655,80	0,276	0,220	0,202	0,208	0,600	0,3905	0,4165	0,4296	0,1306	0,1987
01.11.2013.	30.11.2013.	671,66	0,255	0,229	0,173	0,225	0,601	0,4020	0,4200	0,4459	0,1296	0,2103
01.10.2013.	31.10.2013.	676,97	0,248	0,201	0,143	0,219	0,600	0,4046	0,4300	0,4413	0,1276	0,2418
01.09.2013.	30.09.2013.	677,04	0,225	0,176	0,121	0,198	0,600	0,4030	0,4300	0,4387	0,1322	0,2245
01.08.2013.	31.08.2013.	669,60	0,226	0,176	0,101	0,200	0,600	0,4143	0,4316	0,4252	0,1360	0,2306
01.07.2013.	31.07.2013.	671,04	0,224	0,185	0,101	0,200	0,600	0,4174	0,4260	0,4205	0,1442	0,2348
01.06.2013.	30.06.2013.	663,68	0,234	0,183	0,103	0,196	0,600	0,4105	0,4258	0,4054	0,1482	0,2391
01.05.2013.	31.05.2013.	675,67	0,262	0,201	0,128	0,202	0,609	0,4163	0,4260	0,4020	0,1561	0,2434
01.04.2013.	30.04.2013.	701,70	0,306	0,212	0,128	0,204	0,602	0,4242	0,4300	0,4279	0,1733	0,2425
01.03.2013.	31.03.2013.	711,54	0,310	0,204	0,160	0,206	0,606	0,4251	0,4310	0,4313	0,2485	0,2535
01.02.2013.	28.02.2013.	709,00	0,302	0,202	0,160	0,222	0,600	0,4268	0,4118	0,4351	0,2429	0,2485
01.01.2013.	31.01.2013.	716,82	0,302	0,201	0,174	0,231	0,600	0,4347	0,4202	0,4226	0,1845	0,2429

Source: Authors based on data available in the Banja Luka Stock Exchange, (<http://www.blberza.com>, accessed 20.03.2014.)

On the basis of data in the table above, we can see that the value of the index ERS 10 in a given period moved in range from 655.80 to 716.82. Furthermore, we can see that the maximum value had shares of company Elektro Doboj ad Doboj. Also, shares of Elektro Doboj ad Doboj had the least values fluctuation during the distance.

#### 4. Results and Discussion

Based on the data in the table 1, Table 2 will provide an estimated value of the standard deviation for the selected interval index ERS 10 and the securities that make up the index.

**Table 2.** *The standard deviation for the selected interval index ERS 10 and the securities that make up the index*

Date		Indeks ERS10	EDPL- R-A	EKBL- R-A	EKHC- R-A	ELBJ- R-A	ELDO- R-A	HEDR- R-A	HELV- R-A	HETR- R-A	RITE- R-A	RTEU- R-A
01.12.2013.	31.12.2013.	655,80	2,80%	0,00%	3,57%	2,77%	0,04%	0,98%	0,31%	2,71%	1,70%	2,77%
01.11.2013.	30.11.2013.	671,66	1,66%	5,20%	0,53%	5,60%	0,00%	0,42%	0,52%	2,61%	5,94%	3,92%
01.10.2013.	31.10.2013.	676,97	4,08%	4,20%	5,78%	4,16%	0,04%	1,05%	0,00%	1,95%	2,48%	2,90%
01.09.2013.	30.09.2013.	677,04	0,58%	0,00%	4,32%	0,65%	0,00%	0,77%	0,50%	1,44%	0,92%	1,73%
01.08.2013.	31.08.2013.	669,60	0,55%	0,47%	0,00%	0,00%	0,00%	0,79%	0,53%	0,94%	0,00%	0,93%
01.07.2013.	31.07.2013.	671,04	1,72%	0,68%	0,40%	1,25%	0,00%	0,57%	0,05%	0,97%	1,16%	2,00%
01.06.2013.	30.06.2013.	663,68	0,65%	1,58%	4,37%	0,66%	0,00%	1,38%	0,05%	0,40%	1,46%	0,95%
01.05.2013.	31.05.2013.	675,67	4,77%	0,59%	0,00%	0,00%	1,02%	0,46%	0,23%	1,41%	1,75%	1,58%
01.04.2013.	30.04.2013.	701,70	0,56%	3,47%	4,26%	1,59%	0,00%	0,42%	0,05%	0,69%	0,92%	1,11%
01.03.2013.	31.03.2013.	711,54	0,58%	1,27%	0,00%	2,21%	0,99%	0,48%	0,52%	0,31%	0,70%	0,78%
01.02.2013.	28.02.2013.	709,00	0,07%	0,16%	1,80%	1,70%	0,00%	1,30%	0,64%	1,16%	2,04%	1,13%
01.01.2013.	31.01.2013.	716,82	0,08%	0,40%	3,47%	2,38%	0,00%	0,57%	2,35%	1,27%	4,29%	4,53%

Source: Calculation based on research by Author

The standard deviation of the selected interval ERS 10 index ranged from 655.80 in the period (01.12.2013. - 31.12.2013.) up to 716,82 in the period (01.01.2013. - 31.01.2013.). It is important to emphasize the fact that the largest standard deviation to the shares of RITE-RA in the period (01.11.2013. - 30.11.2013.), ie. the average value of the shares RITE-RA differs from the value of shares RITE-RA by periods in an average of 5.94%. Hereafter, we will analyze the rate of return for selected interval index ERS 10 and the securities that make up the index.



**Table 3.** The rates of return for selected interval index ERS 10 and the securities that make up the index

Date	Indeks ERS10	EDPL -R-A	EKBL -R-A	EKHC -R-A	ELBJ -R-A	ELDO -R-A	HEDR -R-A	HELV -R-A	HETR -R-A	RITE -R-A	RTEU -R-A
01.12.2013. 31.12.2013.	-2,36%	8,14%	-3,76%	16,76%	-7,47%	-0,17%	-2,86%	-0,83%	-3,66%	0,77%	-5,52%
01.11.2013. 30.11.2013.	-0,78%	3,11%	13,90%	20,81%	2,51%	0,15%	-0,64%	-2,33%	1,04%	1,57%	-13,03%
01.10.2013. 31.10.2013.	-0,01%	10,19%	14,03%	18,35%	10,76%	0,02%	0,40%	0,00%	0,59%	-3,48%	7,71%
01.09.2013. 30.09.2013.	1,11%	-0,71%	0,00%	19,80%	-1,00%	0,00%	-2,73%	-0,37%	3,17%	-2,79%	-2,65%
01.08.2013. 31.08.2013.	-0,21%	0,89%	-4,71%	0,00%	0,00%	0,00%	-0,74%	1,31%	1,12%	-5,69%	-1,79%
01.07.2013. 31.07.2013.	1,11%	-4,10%	1,09%	-1,94%	2,04%	0,00%	1,68%	0,05%	3,72%	-2,70%	-1,80%
01.06.2013. 30.06.2013.	-1,77%	-10,69%	-9,15%	-19,53%	-2,97%	-1,51%	-1,39%	-0,05%	0,85%	-5,06%	-1,77%
01.05.2013. 31.05.2013.	-3,71%	-14,38%	-5,19%	0,00%	-1,08%	1,20%	-1,86%	-0,93%	-6,05%	-9,92%	0,37%
01.04.2013. 30.04.2013.	-1,38%	-1,29%	4,23%	-20,00%	-0,78%	-0,64%	-0,21%	-0,23%	-0,79%	-4,36%	-4,34%
01.03.2013. 31.03.2013.	0,36%	2,65%	0,89%	0,00%	-7,21%	0,98%	-0,40%	4,66%	-0,87%	-1,74%	2,01%
01.02.2013. 28.02.2013.	-1,09%	0,07%	0,35%	-8,05%	-4,15%	0,00%	-1,82%	-2,00%	2,96%	-0,05%	2,31%
01.01.2013. 31.01.2013.	-6,65%	-0,03%	-0,79%	-13,86%	0,17%	0,00%	-1,20%	-9,83%	-2,40%	-7,05%	-18,49%
Average	-1,2830%	-0,5127%	0,9082%	1,0285%	-0,7651%	0,0021%	-0,9819%	-0,8785%	-0,0263%	-3,3757%	-3,0814%
Standardna devijacija	2,1066%	6,6105%	6,7568%	14,3533%	4,6177%	0,6546%	1,2372%	3,1880%	2,7876%	3,1850%	6,6604%
Varijansa	0,0444%	0,4370%	0,4565%	2,0602%	0,2132%	0,0043%	0,0153%	0,1016%	0,0777%	0,1014%	0,4436%

Source: Calculation based on research by Author

Based on the data in the table above, we can see that the average loss rate was -1.2830% for the index ERS 10, in the observed period. The highest average yield in the observed period of the securities that make up the portfolio, is realized on shares EKHC - RA in the amount of 1.0285%. The highest rate of loss in the period in respect of shares which make index ERS 10, is realized on shares of RITE-R-A, the amount of -3.3757%. In the following table based on research, analysis is given for the correlation coefficient of rate of return for selected interval between the securities that make up the index ERS10. The objective of this study was to test whether there is a significant simple linear correlation between the movement of the rate of return of securities that make up the index ERS10, ie . whether the market effects multiply throughout the entire Electric Energy Sector of the Republic of Srpska.

**Table 4.** Correlation coefficients yield for the selected interval between the securities that make up the index ERS 10

	EDPL -R-A	EKBL -R-A	EKHC -R-A	ELBJ -R-A	ELDO -R-A	HEDR -R-A	HELV -R-A	HETR -R-A	RITE -R-A	RTEU -R-A
EDPL-R-A	100,00%									
EKBL-R-A	60,03%	100,00%								
EKHC-R-A	54,71%	49,21%	100,00%							
ELBJ-R-A	19,93%	65,70%	38,12%	100,00%						
ELDO-R-A	3,22%	16,38%	-17,10%	-4,35%	100,00%					
HEDR-R-A	8,03%	44,78%	18,02%	54,99%	0,34%	100,00%				
HELV-R-A	3,38%	-3,97%	7,50%	-18,64%	13,99%	19,23%	100,00%			
HETR-R-A	17,99%	25,72%	7,50%	25,07%	-36,96%	35,30%	18,95%	100,00%		
RITE-R-A	63,71%	44,16%	46,94%	-18,32%	-11,96%	-2,80%	20,83%	44,99%	100,00%	
RTEU-R-A	1,33%	0,17%	10,98%	11,67%	13,48%	16,58%	73,86%	18,96%	-1,15%	100,00%
Indeks ERS 10	23,92%	28,59%	39,36%	13,75%	-1,24%	34,03%	34,03%	69,93%	47,54%	59,40%

Source: Calculation based on research by Author

On the basis of previous part of the research, we can see that the rates of return of securities that make up the index ERS 10, mostly are not in significantly expressed positive correlation. In number of cases there is a negative correlation. Correlation between yield of securities RTEU-RA and RA-HELV is 73.86%, which emphasizes the existence of a distinct positive correlation. Also, it exists between the rate of return of stocks EDPL-RA and RA-RITE, in the positive amount of 63.71%. Data analysis in this table is very important in the investment decision-making and creation of securities investment portfolio. Below, on the basis of the research, we will calculate the coefficient of determination of yield for the selected interval between the securities that make

up the index ERS 10. It is evident that there is a significant positive correlation between the rate of return on the market index ERS 10 and movement of rates of return for securities HETR-RA.

**Table 5.** *The coefficients of determination of yield for the selected interval between the securities that make up the index ERS 10*

	EDPL-R-A	EKBL-R-A	EKHC-R-A	ELBJ-R-A	ELDO-R-A	HEDR-R-A	HELV-R-A	HETR-R-A	RITE-R-A	RTEU-R-A
EDPL-R-A	1,0000									
EKBL-R-A	0,3604	1,0000								
EKHC-R-A	0,2993	0,2422	1,0000							
ELBJ-R-A	0,0397	0,4316	0,1453	1,0000						
ELDO-R-A	0,0010	0,0268	0,0292	0,0019	1,0000					
HEDR-R-A	0,0065	0,2005	0,0325	0,3023	0,0000	1,0000				
HELV-R-A	0,0011	0,0016	0,0056	0,0347	0,0196	0,0370	1,0000			
HETR-R-A	0,0324	0,0661	0,0056	0,0629	0,1366	0,1246	0,0359	1,0000		
RITE-R-A	0,4060	0,1950	0,2204	0,0336	0,0143	0,0008	0,0434	0,2024	1,0000	
RTEU-R-A	0,0002	0,0000	0,0121	0,0136	0,0182	0,0275	0,5455	0,0359	0,0001	1,0000
Indeks ERS 10	0,0572	0,0817	0,1550	0,0189	0,0002	0,1158	0,1158	0,4891	0,2260	0,3528

Source: Calculation based on research conducted by Author

On the basis of the coefficient of determination, we can see that the extent to which variations of dependent variables (rate of return of securities that make up the index) are determined by variations of independent variables (the rate of return on the index ERS 10 in the selected interval). Based on previous analysis, we can see that the variation of rate of return on the market index ERS 10, are majorly determined by variations of rate of return for HETR-R-A securities. In the following table based on research, we will calculate beta coefficient as a measure of systemic risk of Electric Energy Sector of the Republic of Srpska.

**Table 6.** *Calculation of beta coefficient ( $\beta$ ) which measure systemic risk in securities that make up the index ERS 10 for selected interval*

	Indeks ERS 10	EDPL-R-A	EKBL-R-A	EKHC-R-A	ELBJ-R-A	ELDO-R-A	HEDR-R-A	HELV-R-A	HETR-R-A	RITE-R-A	RTEU-R-A
Beta coefficient ( $\beta$ )	1	0,751	0,917	2,682	0,301	-0,004	0,200	1,176	0,925	0,719	1,878

Source: Calculation based on research by Author

Based on the survey results, the value of beta coefficient of Electric Energy Sector of the Republic of Srpska during the observed period, ranged from -0.004 (ELDO-R-A) to 2,682 (EKHC-R-A). It is evident that HETR-R-A shares most precisely monitor yield changes of the overall Electric Energy Sector of the Republic of Srpska market. The standard deviation of the beta coefficients of the securities that make up the index is 0.768, which indicates that there are significant fluctuations in the value of beta coefficient and a certain dose of unevenness in rates of return.

Range of rated beta coefficients, among companies of Electric Energy Sector of the Republic of Srpska and business branches which belong to, is higher than 1 for the three companies, reaching a maximum value in securities EKHC-R-A in the amount of 2,682. A single share has a negative value of beta coefficient, which is the ELDO-R-A, amounting to -0.004. In general we can say that the risk management process is a series of steps that allow initial and continuous testing of potential hazards and risks, which purpose is to ensure the business subsistence and the achievement of set goals. Risk management is a specific business function which task is to identify, assess, manage and control business risks, ie. to systematic manage risks to which business is exposed.

## 5. Concluding Remarks

Beta coefficient measures the systematic risk of securities, ie. expresses the ratio of the risk of certain securities to market fluctuations as a whole. It is used as an indicator of how adding certain securities to diversified portfolio affects the risk of the portfolio. If the beta coefficient of a specific securities is less than 1, then the securities is less risky than the market as a whole. On the other hand, in example, if a beta of securities equal 0.8 and if the market risk is increased by 1%, the risk of that securities will increase by 0.8%. If this ratio is equal to one, for a specific securities, that securities are risky as a risky market as a whole. Finally, if the beta is greater than one, observed securities are riskier than the market portfolio. In practice, the classification of the risk of securities is performed using beta coefficient in the following manner. When a securities have beta coefficient equal to one, then it is offensive. It ranges in proportion to the market. For a more comprehensive overview of the beta coefficient, it is necessary to analyze the branches in which the company operates. Companies EDPL-R-A, EKHC-R-A, ELBJ-R-A, ELDO-R-A operating in the electricity sector. Companies HEDR-R-A, HELV-R-A, HETR-R-A in the field of power generation (hydro). On the other hand the company RITE-R-A and RTEU -R-A are in the field of mining and energy sector.

When a certain securities have beta coefficient greater than one is called aggressive. When a securities have beta coefficient less than one, they are called defensive. Based on the calculated beta coefficient for the Electric Energy Sector of the Republic of Srpska index ERS through 10, we can conclude the following. Shares: EKHC-R-A (2,682), HELV-R-A (1,176) and RTEU-R-A (1,878) belongs to a class of aggressive securities. Shares of the companies: EDPL-R-A (0.751), EKBL-R-A (0.917), ELBJ-R-A (0.301), ELDO-R-A (-0.004), HEDR-R-A (0,200), HETR-R-A (0.925), RITE-R-A (0.719) fall into the category of defensive securities. This can confirm the basic research hypothesis  $H_0$ , that the shares of Electric Energy Sector of the Republic of Srpska companies are, from the perspective of systemic risk, major defense-oriented. In general we can say that the risk management is a process that deals with the systematic investigation of exposure to risk of losing certain company. This process can significantly help mitigate the consequences of different levels of risk involved in performing the tasks that contribute to the fulfillment of the ultimate goals of the enterprise. Good risk management provides a great warranty in the business activities and administrative functions, from individual departments to the senior management team and ultimately to the governing body.

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## CONCEPTUALIZATION OF ECONOMIC SECURITY OF THE ENTERPRISE: A LITERATURE REVIEW

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### Abstract

*This article addresses the theoretical concept of economic security of the enterprise (ESE) and discusses its features in post-Soviet countries based on a review of the Ukrainian scientific literature. This study includes an explanation of the specific conditions of economic and social transformation as well as of the developments in post-Soviet economic science that led to the introduction of the term “economic security of the enterprise”. This research intends to explain the concept of ESE in post-Soviet economic thought and discusses its utility for different stakeholders. The main research questions are therefore: What are the approaches to a definition of ESE within the concept of ESE in Ukrainian economic thought? How can the main features of ESE be defined? What are the benefits of the concept of ESE for a firm's stakeholders? Our study is based on a qualitative content analysis of the Ukrainian economic literature considering ESE. We conducted a content analysis of the definitions of ESE presented in over 50 dissertations defended in Ukraine during the period 1999-2011. This analysis allows us to identify the distinctive features of the concept: ESE is presented as a generalizing concept, in which terms such as competitiveness, threats, and profitability point out only one aspect of the phenomenon neglecting others. The notion of economic security of the enterprise has a complex internal nature that includes a variety of structural interactions among internal elements of a firm and its external environment. Being a broader concept than other widely applied concepts, the concept of ESE can be of special interest for business managers as well as public authorities due to its ability to propose a solid foundation for economic security on local, regional and national levels. In this context, the economic security framework gives public authorities a basis for policy decisions regarding the future of enterprises.*

**Keywords:** economic security, economic security of the enterprise (ESE), post-Soviet countries, threat, risk management.

### 1. Introduction

Under the conditions of fundamental change, the concept of economic security of the enterprise (ESE) was developed in post-Soviet economic thought. It has experienced transformation and gained specific features with different approaches to its interpretation and evaluation. At the same time, one can observe a distinction between the conceptualization of ESE in post-Soviet states (PSSs) and in Western economic thought. While English-speaking scientific literature has concentrated on economic security of the state, family and individual, the post-Soviet economic school

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has paid attention, in addition to the above, to economic security of the region and economic security of the enterprise.

Some Western scientists have used the notions of “economic security of the enterprise”, “economic security of the firm” and “economic security of business” in their studies. Thus, Bowie (1930) and O’Dell (1968) mention the provision of economic security of the enterprise among the main duties of the manager. Simultaneously, Keating (1969) mentions the term “economic security of the firm” considering its increase along with profitability as a possible long-term goal of the firm (p. 56). Discussing problems of firm growth and market growth, Pelkmans (1984), in his study of market integration in the European Community, discusses factors that may strengthen economic security of the firm.

Notwithstanding these isolated mentions, the concept remains undeveloped and overlooked by the majority of Western economic scientists. Buzan, Wæver, and Wilde (1998) explain this by the fact that “...the firm, has a relatively weak claim to status as a security referent object because of the contradiction between the inherently instrumental, ephemeral nature of the firm and the logic of existential threats that underlies security” (p. 100). The firm “appears mainly in the role of a functional security actor that affects the security dynamics within the sector” (p. 103). This remark serves as one of the possible explanations for the lack of attention to the firm in security studies in Western economic literature.

In contrast, at the beginning of the 1990s the problem of economic security gained high attention among economists in the PSSs. At first, the focus of attention was the state. The economic system experienced drastic changes due to the transformation from Marxist economic theories into those which had been criticized during the long Soviet period. Gradually, scientists brought into focus such objects of economic security as region and then enterprise. Since that time, interest in the concept of ESE has increased greatly which can be shown by the number of books and articles published and by the number of dissertations defended in PSSs during recent years.

A growing interest in this topic can be explained by several factors. First, security issues were in fact a “touch-me-not” topic for open discussion by an ordinary scientist during the Soviet period. Indeed, the communist ideology presumed that Soviet enterprises could not bear risks and a planned economy could not create economic risks in contrast to the market economy. Consequently, risk theory was almost neglected since there was no sense to research risks, threats and economic security of a Soviet enterprise operating within the command and administrative economy. Second, specific conditions of business development in PSSs in the early 1990s that shaped the course of business research in these countries. A lack of important institutions that would have protected property rights aggravated a difficult economic and social situation which, along with growing rackets and corporate raids (Taras, 1996; Volkov, 1999), contributed to the evolution of the concept of ESE. Finally, theories and concepts from Western scientific literature were unfamiliar to local scientists or they were considered as inadequate for transitional economies. Cross-border transmission of business practices through internationalization remained relatively limited in PSSs. Academic articles of compatriots served as the most accessible source of information on business practice.

The above mentioned considerations determined our research objectives. Our research is to present the concept of ESE, trace its conceptual boundaries and discuss its utility. For this purpose, the paper is organised as follows; first, to develop our methodological approach for a more detailed study of definitions of ESE and present the main findings. Second, we present and discuss our findings. Finally, we argue for the utility of this concept.

## 2. Methodology

Due to the increasing popularity of more structured, all-encompassing methods of literature review in different scientific areas (Booth, Papaioannou, & Sutton, 2012; McLeod, 2003; Torgeron, 2003), we decided to employ both a content analysis and a narrative literature review. On the

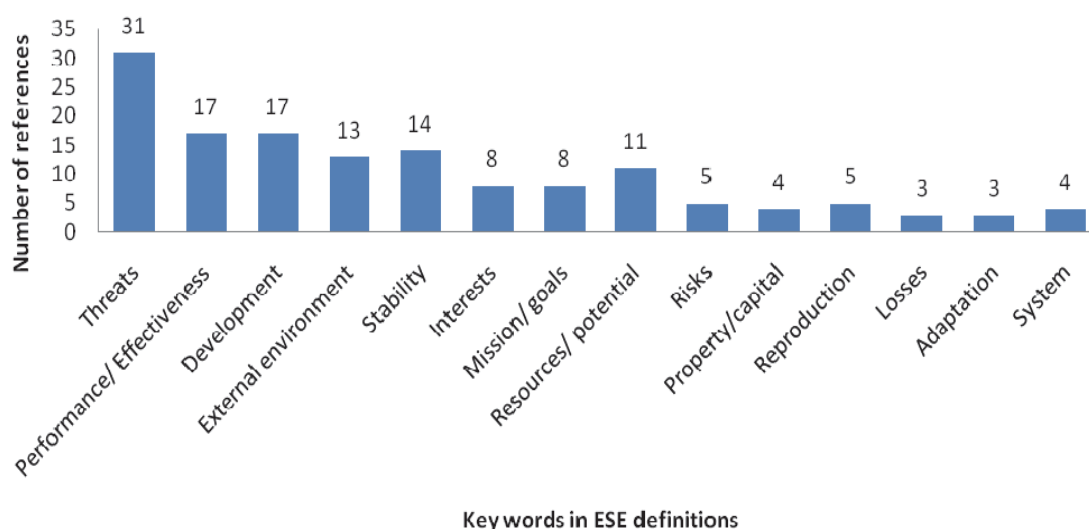


one hand, utilization of content analysis allows obtaining a deeper understanding of the matter under inquiry and avoiding bias since it “entails a systematic reading of a body of texts...not necessary from an author’s or user’s perspective” (Krippendorff, 2004, p. 18). On the other hand, the purpose of our study coincides with the intention of a narrative review which is “to describe and synthesize the available literature on a topic, providing a conclusion from this evidence” (Green, Johnson, & Adams, 2006, p. 106).

First, we looked through PhD theses prepared and defended in Ukraine during 1999-2011. We limited ourselves to economic literature, leaving aside works published in sociology, law, politics, and safety studies. From the list of 64 (abstracts) theses, we excluded those that were not available to us, specifically, one work defended in 1999, one work of 2005, one of 2010, and two works of 2011. The second criterion of exclusion was absence of a definition or clear explanation of an author’s view on ESE. In total, we selected 54 works that provide a definition of ESE or explain it briefly.

Figure 1 contains the results of a content analysis of PhD studies basing on defined attributes of the selected ESE definitions. The figure also includes information on the number of authors who use the identified key words.

**Figure 1.** Content analysis of Ukrainian PhD dissertations:  
*Characteristics of ESE*<sup>59</sup>



The next step of our research was to extract definitions or parts of the text containing a detailed explanation of ESE, and to derive those attributes that the authors used to characterise ESE. We merged the words that fall under the same category such as “effective use of resources” and “effectiveness”. Further, we cluster the definitions by attributes to derive the main approaches dominating research on ESE. Counting the frequency of utilization of one or another attribute by authors we eliminated repetitions by the same author. Also, we did not take into account prepositions and conjunctions and the word “enterprise” in a definition.

In our study, we employ “narrow context analysis” as well as “wide context analysis” (Seuring & Gold, 2012, p. 546). While the first one is used to analyse extracted attributes, the second approach allows grasping a wider picture, taking into account the period when a definition appeared and additional information from the text. Guided by the word count, we analyse the most used attributes of definitions of ESE. To enrich our research and provide an integral view upon the issue, we support our discussion of results by additional scientific sources.

<sup>59</sup> Based on the Database of the Vernadsky National Library of Ukraine, <http://www.nbuv.gov.ua/>

### 3. Conceptualization of ESE: Discussions of the Content Analysis

The popularity of the concept of economic security at the micro-level in PSSs is sometimes explained due to the lack of knowledge about the concept of economic risk extensively developed in Western scientific literature. Our analysis of PhD research shows that the term “risk” is rarely used in definitions of ESE. Moreover, those who refer to risk as a component of ESE rarely discuss the conceptual borders between ESE and risk. Usually, scholars simply admit existence of risks and a need to manage them. Thus, Grigoruk (2009) sees the ESE as “an institution of governance that establishes the rules of economic activities of the enterprise, reforms them in case of loss of adequacy under crisis and risk...” (p. 5).

At the same time, it can be observed that although most Ukrainian PhD dissertations on ESE do not refer directly to risk, this category is indirectly embedded via the term “threat”. Indeed, many ESE definitions are dealing with external and internal threats of the enterprise. From this perspective, ESE is commonly defined as “a state of protection of an enterprise from external and internal threats...” (Pletnikova, 2001, p. 6). Due to such substitution of these notions, there is an on-going debate in economic literature on relations between the concepts of *threats* and *risks*. This, in turn, presents a challenge for their implications in the ESE definitions because both are considered as central to understanding the security concept (Rausand, 2013).

Appealing to external and internal threats and risks, scholars support the idea of the division of an enterprise’s environment into external and internal and admit the importance of influence of the external environment on enterprise performance. However, when implied in the concept of ESE, the external environment is seen sometimes not just through a prism of potential threats and negative factors but corresponds to a view of Ansoff (1980) who considers it also as a source of opportunities in his strategic issue management system. Likewise, ESE is defined as “realization of strategic interests of an enterprise on the basis of exploitation of external environment opportunities and effective interaction with external environment actors” (Shemayeva 2010, p. 12). It should be noted that notions of *threats*, *risks* and *external environment* are implemented in most theoretical perspectives of the ESE.

In recent years, the narrow physical and informational approach has revived because of a growing problem of corporate raids (Kireev, 2007). Likewise, Kapitula (2009) interprets ESE as a state of “protection of an enterprise, namely its capital, personnel, tangible and intangible assets, rights, market position, image and prospects of further development from aggregate economic endogenous and exogenous factors” (p. 6). Simultaneously, Molodetska (2010) points out that it is possible to divide ESE into two dependent elements: economic security of a company and economic security of holders. The first characterizes the efficiency of assets, ensuring their optimal structure to achieve solvency, financial stability and efficiency of its performance, in other words it reflects a state of protection from economic threats. The second relates to the achievement of effective corporate governance and control, of a high degree of security for the company’s shareholders from potential corporate conflicts.

The limitation of resource management to only the prevention of losses closes many opportunities for enterprises. Therefore, a wider resource-based approach gained more popularity and became one of the most popular approaches to the interpretation of the concept of ESE along with information and physical security. According to this approach, ESE is viewed as the most effective use of the enterprise’s resources to prevent threats, reduce risks, achieve goals and ensure stability in the present and future period (for example, Kuzenko, 2004).

The other connotation of this approach can be found in the definition of Kirienko (2000) who points to the optimal level of use of economic potential of the enterprise as the vital criterion of ESE. Therefore, ESE is presented as a combination of several components that most often represent different groups of the enterprise’s resources including, financial, technical and technological, human resources, information and ecological. This interpretation of ESE allows considering ESE as a complex system, determines protection-needed objects and gives some instruments to

managers, and therefore makes it easier to operationalize the concept and conduct research. This approach gained a lot of opponents which resulted in its further development.

Notably, some authors link effective resource management with competitiveness and interpret ESE through the notion of competitiveness. For example, Reshetnikova (2003) sees competitiveness as a foundation of ESE. From this perspective, ESE is interpreted through the presence of competitive advantages and a corresponding balance between material, financial, human and technical-and-technological potential, firm's organizational structure and its strategic goals and objectives.

Speaking about the goals and objectives of the enterprise, scholars refer very often to an enterprise's interests. The approach to ESE in the work of Kozachenko, Ponomarev and Lyashenko (2003) goes further in underlying the need to harmonize interests of various actors in the business environment.

Following the neoclassical view of the firm, according to which profit is considered as the main interest and therefore the main goal of the enterprise, some Ukrainian researchers introduced the category of profit as the main criteria of ESE. At the same time, they agreed that this absolute measure can be helpful in identifying if the enterprise is economically secure but does not allow identifying a precise level of ESE. Despite this criticism, the application of profit as a criterion of ESE has gained its proponents.

Thus, a broader application of this approach can be found in the study of Ponomariov (2000) and later in Kozachenko et al. (2003) who both suggest to define ESE as a measure of harmonization of economic interests of an enterprise with the interests of external environment agents and propose to use the indicator of minimum profit as a criterion for this harmonization. Further studies consider the capability for generating profit from the point of view of supporting a high development potential and strengthening the enterprise's investment opportunities rather than receiving current benefits (Kamyshnikova, 2010).

Kozachenko et al. (2003) refer also to another important category of economic theory—reproduction (as defined in Marxian economics). Discussing the proposed indicator of the minimum profit required for simple reproduction, the scholars underline the importance of expanded reproduction of the enterprise's capital for safeguarding its interests and considering interests of other economic agents (p. 139). Likewise, Zhalilo (2003) argues that the definition of economic security should be revised by taking into account that economic security is explained in the first place as the state of security of its main economic interests, and the main vital interest in the economic sphere is reproduction of sources of performance. Following the view of Zhalilo (2003), the basic difference between the reproduction approach and other approaches is that in the case of the reproduction approach, there is a transformation from economic security as a provision (i.e., an externally managed process) to economic security as an ability (presence of internal mechanisms of production, distribution, realization and consumption).

Further works (for example, Shutyak, 2011) support and develop the idea of the reproduction approach to the definition of economic security. This approach is based on the economic reproduction theory of Marx where reproduction is defined as a continuous renewal of the process of production of goods, services and nonmaterial benefits, on the base of which there is a reproduction of all elements of an economic system—productive forces, technical and economic relations, organization and economic relations, production relations (or relations concerning economic property) and the economic mechanism. Therefore, ESE is considered as an enterprise's ability to achieve qualitative development, when the company can not only increase production, but also improve the performance of production.

Many Ukrainian scholars in their research directly or indirectly elaborate the term *system* in the definition of ESE. Under this approach, economic security, more precisely the economic security management system, mainly deals with adverse effects on the enterprise system as well as with a complex of measures to eliminate these influences and their consequences (Rudensky, 2002). This underlines the conceptualisation of ESE as an object of management. The reasoning behind this concept is based on interdependencies of external and internal conditions in the economy and

society, which require the management system of ESE to be aimed not only at the elimination of the consequences of threats, but also the elimination of these threats based on the development of preventive measures and procedures (Rudensky, 2002). The category of system embedded in the concept of ESE also has implications for the institutional integrity of an enterprise. Here it is also worth outlining the theoretical proposition developed by Arefiev (2009) that institutional capacity and economic security present a single integrated process, the main goal of which is ensuring economic security and its development on the basis of adequate institutional capacity and improvement of the relevant content of its components.

#### 4. Conclusions

The concept of ESE found its popularity in the PSSs during a comparatively short period of time while the English-speaking literature concentrated on economic security of the state, nation, family, and individual. The science of PSSs develops alternatively the concept of economic security of the enterprise, connecting it to different economic terms such as threats, risks, development, profitability, economic interests, competitiveness and many others.

Summarizing our content analysis of ESE definitions in Ukrainian research, several distinctive features may be identified. First, originating from political science, economic security has been primarily connected to the protection of interests.

Second, despite an enterprise being very often perceived as an inanimate phenomenon, its interests have a subjective nature. This characteristic explains a conflict that may arise between various groups of an enterprise's stakeholders. Therefore, along with protection, ESE implies harmonisation or accommodation of interests of the main stakeholders. Proponents of this approach argue that provision of ESE is not limited to the protection of interests of shareholders, top managers and employees, but also embraces interests of other groups of stakeholders including society as a whole.

Third, the authors refer to ESE as a state or situation of protection. In connection with a need for protection, threats constitute an inherent part of the concept of ESE. The notion of risk is rarely used in definitions of ESE proposed by Ukrainian scientists. Instead, the majority of scholars refer to threats or negative influences. A few works concurrently with the elimination of threats grasp a more complex combination of threats-opportunities. This combination however characterises the real environment in which a firm operates. Discrimination and utilisation of opportunities allows a firm to strengthen and thus, increase the level of its economic security. Therefore, ESE is interpreted as a state or situation where a firm may achieve its goals based on elimination of threats and utilisation of opportunities.

Forth, a growing number of authors recognise the need to include dynamics in the concept of ESE, which can be seen from the number of PhD studies that apply the terms *development*, *reproduction*, *mission* and *goals achievement* to the definition of ESE. From this perspective, it becomes important for the enterprise to not simply secure minimization of risks/losses and achieve stable performance, but also to use the available resources in an effective way to provide ground for further development.

Finally, a selection of studies tried to incorporate the notion of *system* in the definition of ESE. This approach underlines a vital implication of ESE, that both the enterprise by itself and economic security in general has systemic nature that implies a complexity of relationships among different players in the business environment. Moreover, ESE has a complex internal nature that includes a variety of structural interactions between internal elements of an enterprise and the external environment.

Questions unexplored in this paper leave a range of opportunities for other researchers. Their work may focus on further elaboration of the concept of ESE, particularly, in relation to more common theories and concepts including but not limited to economic risks, bankruptcy, and sustainable development. The next step after theory development is empirical research that must test

and enrich the theory of ESE and bring it in line with managerial practice in modern organisations. In this case, evaluation of ESE is among the most important and challenging issues for business researchers.

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## HOW MUCH MONEY IS “THROWN” INTO DUMPSTERS?

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### Abstract

*The concept of environment, according to the Environmental Protection Act<sup>60</sup>, represents a natural setting of organisms and their living communities, including humans, which enables their existence and further development. Environmental issues can be defined as “any change in conditions of the physical surroundings caused by human activity that put those conditions out of balance, and result in socially unacceptable ones, according to the existing environmental standards”. Humans have been influencing their environment since the beginning of their existence, adjusting it to their needs. During all these centuries of human civilization, these processes have not endangered the environment. Intensive “pressure” on the environment in the contemporary society has caused numerous problems. This paper presents the facts on how much money we lose by throwing away things that are not needed anymore. This results not only in material losses but also negatively affects our environment. We are aware that this area requires more actions, more activity on saving our planet and species we are sharing this planet with. The basic intention of this paper is to provide information for our citizens on domestic waste disposal management, with specific emphasis on the potential and needs of its usage instead of expensive natural resources.*

**Key words:** waste, recycling, waste depots, ecology, environment

### 1. Introduction

People satisfy most of their needs with the production of different products like tools, machines, food, clothes, means of transport etc. After being used, these products become waste. People are the only creature on planet Earth that produces waste. The amount of waste increases constantly despite of dramatic warnings of ecologists. Bosnia and Herzegovina is slowly creating conditions for the introduction of an integrated waste management system. The current situation is best seen on Bosnian rivers - once pure and beautiful, they are now filled with a variety of waste.

Due to the increasing amount and harmfulness to the environment, waste is considered to be one of the most important environmental problems of the modern world. Crucial element for the environmental change are people and their activities which should be changed. Those activities are associated with satisfying needs. A large part of the demand is created artificially, and the question is whether we really need so many different products that, after we use them, are to become waste. Responsible attitude towards waste and the development of a culture of proper waste management, is based on creating a healthy environment as the basis for a healthy life. Citizens are not environmentally conscious anymore, and government does not invest in the maintenance of cities, just as they do not care for the area around dumpsters. Management of solid, as well as other types of waste, and illegal waste depots are still major problems. In the waste that is often indiscriminately disposed or thrown into nature, a large amount of resources can still be found that can be used again. It is both financially, and environmentally justifiable to take these resources

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from waste, in order to produce a new product from natural or artificial means. This process could create new jobs in the industry of solid waste management.

As our country strives to be more adapted to the requirements and standards of the European Union, we want with this paper's aim is bring our citizens closer to the problem of waste, ways of its solving, and point out how much money is thrown into dumpsters.

## **2. Where does the waste come from?**

Waste is produced through wrong handling of resources. In nature there is no waste. Nature ensures that every resource and the result of applying the resource can be re-used and incorporated as a foundation for other processes. Nature achieves and holds the circulation of resources. People create linear systems, taking resources from the source, and use resources a way from the sources, and bring the waste in adequately back to nature. Things people do not need and want to get rid of are called waste. Most waste from our homes is waste of food, paper and packaging materials.

## **3. Where does the waste go?**

Overloaded garbage dumps have sadly become our everyday life and a major problem. But it doesn't need be our destiny. With reasonable waste management, most parts of the discarded residues can be processed and converted into new valuable and use ful substances.

An unconditional prerequisite for such civilized waste management is separate collection of waste or waste sorting. By separating different types of waste, already in the house holds, we can achieve better quality of secondary raw materials and easier processing. The generation of waste often cannot be prevented, but if we act responsibly with it, waste is not necessarily bad.

First steps in thoughtful and responsible waste management are:

- Avoiding waste production
- Separation of waste by type

Iron, aluminum, copper, steel and other metals are particularly valuable because their waste fall into the non-renewable natural resources. The separate collection of metal waste saves energy. The price of 1kg of old aluminum ranges between 1 BAM and 1.50 BAM. 95% of energy is saved producing aluminum form old (recycled) aluminum instead of bauxite. Aluminum can be sold and purchased in many places where you can buy raw materials (old metal). Scrap iron is a high-quality raw material for steel production. Reused metal waste replaces the need for raw materials in the production of iron in blast furnaces.

Every day we throw away 350-390 tons of waste. Of which:

- 104 tons of organic waste from the kitchen, gardens, parks
- 63 tons of paper and cardboard
- 44 tons of plastic waste
- 21 tons of glass waste
- 10 tons of metal waste
- 5.7 tons of wood waste

Daily amount of waste of a house hold divided to categories:

- Paper waste 25%
- Kitchen and backyard waste 35%

- Plastic waste 11%
- Metal waste 11%
- Glass waste 9%
- Other waste 11%

**Picture 1.** Daily amount of waste of a house hold



**Table 1.** Prices of individual waste components that end up in dumpsters

Prices of individual waste components that end up in dumpsters	
Cardboard paper	0.20 BAM/kg
Ordinary paper	0,15 BAM/kg
Nylon	0,50 BAM/kg
Plastic	0,50 BAM/kg
Glass	0,35 BAM/kg
Tin	0,25 BAM/kg
Aluminum	1.5- 2 BAM/kg
Iron	0,25-0,30 BAM/kg
Zinc	1 BAM/kg
Lead	1,5 BAM/kg
Brass	4,5-5 BAM/kg
Copper	8- 8,5 BAM/kg

#### 4. How much of these products do we throw in the trash annually?

Paper: 100,000 tons  
 Nylon: 10,000 tons  
 Glass: 80,000 tons  
 Plastic bottles: 50,000 tons  
 Iron: 130,000 tons  
 Tin: 50,000 tons  
 Copper: 10 tons

Unofficially, collectors of plastic bottles and cans annually earn around 5000 BAM. Fumblng through trash cans and dumpsters, a collector of bottles collects about 40,000 returnable bottles and cans per year, what brings the collector profit of 5000 BAM if the deposit on all the bottles

and cans is 0.12 BAM per piece. For some people collecting bottles is a source of livelihood, and for others a business.

World consumption of plastic bags, per year, reaches between 500 billion and a trillion pieces. Only in the U.S. 100 billion bags are used annually, which requires 12 million barrels of oil. Plastic bags have been blamed for the deaths of thousands of birds, turtles and marine mammals which die each year after eating them or suffocate in them.

As the plastic products are made of natural resources like oil and natural gas, we also have to take care of these resources. The average citizen of Bosnia and Herzegovina uses about 1000 plastic bags per year.

Discarded bags usually end upon depots or on waste incineration dumps. Incineration of four plastic bags consumes as much oxygen as a human needs for a day, which speaks about the dangers of using and burning plastic bags. This is illustrated by the fact that degradation of various plastic products takes 1 00-1000 years.

Nowadays, many countries in the world have been organizing collecting, buying and recycling of plastic, therefore they make a lot of money on this secondary raw material. The example of substantial benefits of recycling plastics is data from Germany (2001). With the energy saved by using old plastic 1.8 million house holds in Berlin could use electricity for 130 days. The savings amounted to 523 million of BAM.

If you have a bunch of newspapers and magazines, or old paper with a bit of will you can help our planet. One way of earning is to sale paper waste and the price is 0.15 to 0.25 BAM per kilogram. The purchase price of paper depends on the type of paper waste.

*Picture 2. Scrap, sheet metal and copper waste.*



## 5. Budget

If you annually throw away about 100,000 tons of paper and a kilogram of paper costs 0.15 BAM, that means that you annually "throw away" 15000000 BAM.

Around 80,000 tons of glass are annually thrown away, a kilogram of glass costs 0.35 BAM which means that we annually "throw away" 28000000 BAM.

Around 10,000 tons of nylon are annually thrown away, a kilogram of nylon costs 0.50 BAM which means that we annually "throw away" 5000000 BAM.

Around 50,000 tons of plastic bottles are annually thrown away, a kilogram of plastic costs 0.50 BAM which means that we annually "throw away" 25000000 BAM.

Around 130,000 tons of iron is annually thrown away, a kilogram of scrap metal costs about 0.25 BAM, which means that we annually "throw away" 32500000 BAM.

Around 50,000 tons of tin is annually thrown away, a kilogram of metal costs about 0.25 BAM, which means that we annually "throw away" 1 2500000 BAM.

Around 10 tons of copper is annually thrown away, a kilogram of scrap iron costs around 8,00 BAM, which means that we annually "throw away" 80000 BAM.

*Table 2. Budget*

Waste	Amount of waste thrown away annually	Price per kilogram	Total amount of money that is "thrown away" in BAM
Paper	100.000 t	0,15	15.000.000
Glass	80.000 t	0,35	28.000.000
Nylon	10.000 t	0,50	5.000.000
Plastic bottles	50.000 t	0,50	25.000.000
Iron	130.000 t	0,25	32.500.000
Tin	50.000 t	0,25	12.500.000
Copper	10 t	8,00	80.000
<b>Total amount of money that is "thrown away" into dumpsters:</b>			<b>118.080.000</b>

## 6. Conclusion

From all of the above mentioned, in this paper we summarize that people unconsciously throw away waste, thus their money, as well. From the above presented results, it can be seen that a large sum of money is annually disposed in the trash. This fact not only brings loss of money but also it threatens the environment and disrupts the ecology.

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## RELATIONSHIP BETWEEN FUNDRAISING SUCCESS AND NONPROFIT PERFORMANCE: EMPIRICAL ANALYSIS OF CROATIAN NONPROFITS

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### Abstract

*In this paper, we analyze the problem of nonprofit organizations' performance and the influence of fundraising to achieving such performance. In the theoretical part of the paper, we present the contemporary theoretical foundations for analyzing nonprofit performance. Those are based on the theory of multiple stakeholders' interpretations and, as such, are increasingly complex for operationalization in an empirical study. Therefore, we argue that a simplified version of the nonprofit performance measurement, oriented toward assessment of organizational growth, might be beneficial for empirical studies. We argue that this is especially true for social, political and economic environments, which lack the support for development of nonprofit organizations, i.e. civil society. At the other hand, the fundraising performance of a nonprofit organization can be more easily measured, since it is oriented toward a single group of organizational stakeholders and can be more easily conceptualized. The empirical analysis builds upon the theory of nonprofit performance, based on previous theoretical discussions, as well as on authors' conceptual research of fundraising. The objective of research is to provide a preliminary empirical verification of the hypothesized positive influence of fundraising practices to overall nonprofit performance. The empirical research has been conducted on an indicative sample of Croatian humanitarian organizations, by using a subjective assessment of overall, growth-oriented organizational performance, while both financial and non-financial indicators have been used to evaluate fundraising success. Based on the results of empirical research, theoretical conclusions, as well as practical recommendations are provided. They are formulated in terms of regional implications of the European integration process, since the experiences of the Croatian civil society may serve as a certain benchmark to the nonprofit organizations in the wider region.*

**Keywords:** fundraising performance, nonprofit performance, civil society, Croatia

### 1. Nonprofit performance: Foundations and dependencies

There have been many discussions related to the issue of nonprofit performance, which is often also referred to as organizational effectiveness, since it enables donors, users/beneficiaries, as well as a range of other stakeholders, to assess whether an organization uses its resources in the most productive manner. Different concepts of measuring nonprofit performance have been used in the literature: from using a range of financial and non-financial indicators, to measuring beneficiary/constituent satisfaction and organizational reputation (Herman, 1990). Although a range of theoretical approaches have been used to measure the nonprofit effectiveness, this construct is, still, usually described by conceptual studies and very difficult for practical implementation (Le-

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cy, Schmitz and Swedlund, 2012). Although complex methodologies and multiple indicators prove to be most useful in measuring nonprofit performance, needs of donor community and wider society for an increased transparency are, unfortunately, served by simple metrics of rating organizations (e.g. *Charity Navigator*, *American Institute of Philanthropy/CharityWatch*, etc.).

Probably the most influential comprehensive theoretical approach has been advocated by Herman and Renz (1997), who bring together two distinct approaches from economics and social science, i.e. multiple constituencies/stakeholder orientation and social constructivist view. Since nonprofits are engaged in a constant conversation with a range of relevant stakeholders in the society, their effectiveness might be, indeed, socially agreed upon, as a result of adjusting different stakeholders' perceptions. Their empirical results show that stakeholders differ in their choice of indicators of nonprofit performance, as well as in their starting assumptions: e.g. following prescribed procedures might be of major importance for donors, but could be easily overlooked by other relevant stakeholders. This might lead to challenging problems for nonprofit managers, trying to assess the effectiveness of their organizations, as well as to misunderstandings, when trying to manage stakeholder relationships.

At the other hand, in their further analysis of the initial dataset, used by the previous study, Herman and Renz (1998) focused on two groups of organizations: especially effective and those being perceived as the least effective ones. In this case, their empirical data demonstrated that, for these organizations, the relationship between the use of procedures/practices, perceived to be 'correct', and the perceived performance, proves to be much stronger than for the average organizations. This could be interpreted in terms of the lessons for organizations, whose stakeholders interpret their work as unsatisfactory. The importance of professionalization and application of generally accepted marketing and management tools is of utmost importance for such nonprofits. In their following study, the same authors (Herman and Renz, 1999) summarize the previous research by suggesting that a complex construct, such as the nonprofit effectiveness, cannot be easily equated to the outcomes of nonprofit projects (or programs), as well as that multiple indicators and careful interpretation of stakeholders' expectations and interests should be used. The same authors continue to emphasize the relative character of 'best practices' in the nonprofit sector and warn that, instead of an elusive search for good/best practices, organizational responsiveness and communication with the relevant stakeholders might be the key to achieving a high level of perceived performance (Herman and Renz, 2004, 2008).

Some authors try to identify major dimensions of nonprofit effectiveness, such as conformance of organizations and managerial work to what seems to be the 'best practice' of nonprofit management and the success of organizational projects and programs (Sowa, Selden and Sandfort, 2004). They call for a mix of perception-based and objective indicators as a correct way to measuring performance. However, the practical applications of theoretical discussions on nonprofit effectiveness do not seem to be adequate. Thomson (2010) reviews the existing studies on the state of performance measurement in U.S. nonprofits and finds that the majority, at least, tries to measure the outcomes of their projects/programs, i.e. engages in some kind of an evaluation process. Simultaneously, there are a lot of opportunities for improvement of this dimension of performance measurement, while organizations, engaged in complex ways of assessing effectiveness, seem to be quite rare. The performance measurement and management are also much more accepted among practitioners at the project/program level, than at higher organizational levels (such as the performance of an organization, or a network), although researchers call for a differentiated approach to measuring individual levels of nonprofit performance (Herman and Renz, 2008).

It is also important to mention that Thomson (2010) singles out funders' mandates and available resources as the most significant drivers of performance reporting for the nonprofit organizations. This dimension of nonprofit performance analysis can be associated with the resource dependence theory (RDT), originally developed to describe the behavior of a for-profit organization, as responding to pressures from the external environment (Pfeffer and Salanick, 1978). When applied to the nonprofit setting, RDT would support the notion of preferring donors' percep-

tions of organizational effectiveness over those of other stakeholders, since nonprofits tend to reduce the uncertainty, arising from their environment. In addition, beneficiaries of nonprofits' services cannot influence the fundraising process and their needs may not be served by the donor-provided resources, since nonprofits tend to adapt to the perceived major donors' agendas (Ost-rander and Schervish, 1990).

In the era of restrained government spending on social service, the increased dependence on donors' perceptions becomes applicable to nonprofits financed from public budgets, as well (Smith, 2010). They are supposed to use contemporary management tools, transferred from for-profit sector, such as benchmarking, the balanced scorecard, etc. This might, in their further work, lead to the decreased contact with their users, whose interests should be put to the center of managerial attention. As to reduce such problems, nonprofits should strive to balance the challenges of professionalization and the application of 'best practices' with community and citizen engagement.

Performance measurement/management in nonprofit organizations may be also legitimated by a view of all organizations to be essentially comparable, as positioned on a continuum of different organizational forms (Baruch and Ramalho, 2006). This entails that different approaches and indicators may be used, while the managerial focus on performance is, simply, inherent to all organizations. The managerial viewpoint of organizational performance is supported by the analysis of 'best practices' in the nonprofit sector, which are cited as being increasingly market- and technology-driven, globally- and customer-oriented, as well as aware of the economic efficiency of their operations (Hecht, 2008).

The managerial approach to nonprofit performance, i.e. effectiveness of organizational and managerial functioning, is compatible with the 'practitioner' viewpoint, advocated by a more recent study (Mitchell, 2012). Based on interviews with leaders of major international nonprofits, active in the U.S., this study identifies two dimensions of effectiveness. For the majority of interviewed managers, effectiveness can be equated to accountability of nonprofit managers and their reputation for delivering promised outcomes. A small amount of respondents interpreted the notion of effectiveness in terms of focusing to the economic efficiency of services delivered, i.e. minimizing administrative and other overhead costs of an organization. Those two approaches to explaining nonprofit performance seem to be much more meaningful to practicing nonprofit managers, than the 'vague' theoretical, multidimensional models.

The findings described can be, also, interpreted in terms of maintaining donor relationships. Namely, the delivery of stated organizational goals is of utmost importance for achieving the reputation of a successful nonprofit manager in the donor community (and, as such, comparable to previous analysis of 'best' managerial and other practices). The latter factor should not be overlooked, since empirical research (Tinkelman and Mankaney, 2007) confirms the lack of donors' financial commitments to organizations with high ratios of administrative costs (compared to amounts raised).

## **2. The fundraising success and its relationship to overall performance**

Previous discussion clearly demonstrates that donors' perception strongly contributes to the assessment of organizational outcomes and/or overall organizational effectiveness. This is especially emphasized by a conceptual study (Herman and Renz, 2008, p. 410), suggesting that the pieces of 'hard' data, including those related to fundraising, do contribute to the overall perception of the organizational performance, although such a perception may be (re)constructed in a social process. In addition, previously mentioned preliminary empirical analysis (Alfirevic, Pavicic & Najev Cacija, 2014) has demonstrated that sources of funding, especially those related to "crowding out" of private donations, influence some aspects of the nonprofit organizational effectiveness.

This is why we hypothesize the following:

*Hypothesis: Fundraising performance of nonprofit organizations is one of major causes of overall organizational effectiveness.*

Measurement of fundraising performance also proves to be complex, although financial measures and derived quantitative methods may be successfully used for such a purpose (Brooks, 2004). Several popular financial measures for this purpose have been developed (Sargeant, Jay and Lee, 2008; Sargeant and Shang, 2010). Those include the ratio of total costs of fundraising per one unit of funds raised and the ratio of total fundraising/administrative costs to the entire revenue. The low values of those indicators should demonstrate that an organization is consuming a small amount of funds raised for its own overhead which, according to the perception of 'best practice', leads to the perception of high effectiveness. Other 'hard data' used to measure effectiveness of donors sometimes includes donations as a percentage of total revenue, effectiveness of fundraising pleas and the relative number of donors (Alfirevic, Pavicic and Najev Cacija, 2013). Donor satisfaction should be also included into the fundraising performance measurement, since it strongly contributes to the strategic/relationship marketing perspective of fundraising (Najev Cacija, 2013).

Nevertheless, if non-financial indicators are overlooked, in order to 'look good' in donors' eyes, the evaluated nonprofits may be tempted to lower the quality of services to their beneficiaries, or even misrepresent their activities in reports to funders (Steinberg and Morris, 2010). Another problem of financial measurement is related to the manner in which an organization approaches implementation of its mission, since organizations focusing on direct service provision to their beneficiaries might be judged better than the organizations engaged in education of general public and advocacy of their beneficiaries' needs. In addition, the structure of funding and the specific features of accounting in nonprofit organizations represent additional limitations for simple measurement of fundraising success (Sargeant, Jay and Lee, 2006). The complexity of fundraising performance measurement/management is, therefore, best addressed by more sophisticated methodologies, such as the Balanced Scorecard (BSC), although their usage may be limited to single cases, or analyses of 'good/best practices' (Alfirevic et al, 2005).

### 3. Methodology of the empirical research

It is increasingly difficult to define the population of the nonprofit organizations in Croatia, since official registers contain records of approximately 50.000 registered nonprofit entities (in 2013)<sup>65</sup>. Many of these organizations are only formally existent, do not engage in significant activities and do not represent methodologically relevant units of research (Alfirevic, Pavicic and Najev Cacija, 2013).

This is why it is necessary to create a sample of active, high capacity nonprofit organizations, which can be done by using one of the nonprobabilistic sampling methods, such as the 'snowball sampling'. It involves a subjective initial choice of respondents, who are further asked to refer new ones, which fit the researchers' criteria. Since this method is quite adequate for revealing 'hidden populations' and their characteristics, it has been successfully used in the research of Croatian nonprofit organizations (Alfirevic and Gabelica, 2007). Although this approach cannot lead to statistically significant sampling, it still creates interesting insights, which are indicative of trends in the analyzed populations. After several rounds of data-collection, our sample has arrived to 47 major humanitarian Croatian organizations. In each organization, a short telephone

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<sup>65</sup> Two registries are available – a more comprehensive one, run by the *Croatian Ministry of Public Administration* (available over the Internet at <http://www.appluprava.hr/RegistarUdruga>) and a less comprehensive one (containing only the name and address of registered organizations), run by the *Ministry of Finance* (available over the Internet at <https://banovac.mfin.hr/rnopr>).

interview has been conducted with the person, who served as the top manager (regardless of his/her formal title, such as: director, managing director, secretary, etc.), as to obtain the subjective definition of organizational performance and agreement for participation in the empirical research.

After the telephone interviews, we have created a special research instrument, which *measured both fundraising and overall organizational performance for surveyed nonprofits*. Conceptualization of these constructs and the choice of indicators was quite a challenging task, taking into account a multitude of theoretical approach, as well as practical limitations in using complex, multi-dimensional methodologies in a postal survey. Since our objective was to collect initial empirical data, needed to assess the relationship between the fundraising and organizational performance, we opted for a simplified approach. Due to the overall assessment of nonprofit effectiveness / performance as being socially constructed, we chose the ‘practitioner’ approach, adopted by Mitchell (2012). It leaves to the top manager/executive of a nonprofit organization to define the notion of effectiveness for his/her organization, which can be considered as appropriate, due to the strategic decision-making role, the amount of information available to the executive, as well as the position of the central person in the ‘sense-making’ constructivist process (Herman, 2010). By using the ‘soft’ data from nonprofit leaders, we have established their *growth and development orientation*, i.e. a tendency to describe the success of their organizations in terms of the growth in revenues, number of employees/volunteers and the number of beneficiaries (or service provided to them).

This is the reason for a new approach to measuring nonprofit performance, which we used in the questionnaire. It focuses on the following four measures of organizational growth and development, which have been consistently singled out in the telephone interviews with nonprofit leaders: (a) revenue of an organization, (b) number of employees, (c) number of volunteers and (d) number of direct beneficiaries. Respondents did not place a special emphasis to any of the four performance dimensions identified.

We have successfully applied the same, growth-oriented methodology to establishing nonprofit performance, in a study, which contrasted the performance effects between privately and publicly funded nonprofit organizations (Alfirevic, Pavicic and Najev Cacija, 2014). This provides an additional empirical verification of our methodological approach.

Since the overall effectiveness is considered to be socially constructed, we decided to measure the leaders’ perception of the previously described indicators, by using the standard Likert’s 5-degree scale. This entails the need for a ‘soft’ measurement of fundraising performance, as well, in order to ensure the comparability of the two sets of performance indicators. For this reason, we also chose to apply the ‘soft’, perception-based measurement of fundraising success, assessed by the nonprofit leaders / managers. We used a mixture of financial and non-financial fundraising indicators, described in the previous section of the paper.

The developed questionnaire has been preliminary tested with five chosen nonprofit leaders, who served as initial informants for the development of study sample. After their feedback was incorporated into the research instrument, it was mailed to the remaining 42 respondents, who filled it in and returned it, but only after several additional pleas, which were sent by e-mail, or communicated personally – either by phone, or after a short face-to-face meeting.

#### 4. Results of the empirical research

As to test the existence of the proposed relationship between the fundraising and organizational nonprofit performance, we computed the bivariate correlations between the indicators measuring both constructs (see Table 1). It demonstrates highly significant bivariate correlations, of moderate to high strength, among indicators of fundraising success and the revenue/employee growth & development indicators (related to the overall nonprofit effectiveness). The complex nature of the nonprofit effectiveness construct is well demonstrated by the beneficiary/volunteer growth and development dimensions, which are poorly related to the fundraising success. This seems to be a

plausible result, since funders' perceptions of performance might underestimate the importance of volunteer an community development, beneficiary satisfaction and other 'soft' outcomes of nonprofit activity. Nevertheless, results of correlation analysis demonstrate the *existence of the previously hypothesized relationship*.

Further analysis needed to *confirm the direction of the association*, which can be easily established by using the linear regression model. In order to obtain a single measure of nonprofit effectiveness, we introduced a new variable, calculated as a mean of the four dimensions of effectiveness, established during the phone interviews. Since our respondents placed equal emphasis on all four dimensions of effectiveness, such a procedure can be viewed as methodologically acceptable.

**Table 1.** Correlation among indicators of fundraising and organizational performance

		Assesment of fundraising plan implementation	Total number of donors	Amount of donations received	Costs per monetary unit of donations received	Number of loyal donors	Number of new donors	Donor satisfaction
<b>Revenue growth</b>	Pearson Correlation	,640**	,875**	,687**	,474**	,346*	,708**	,483**
	Sig. (2-tailed)	,000	,000	,000	,001	,017	,000	,001
	N	47	47	47	47	47	47	47
<b>Employee growth &amp; development</b>	Pearson Correlation	,486**	,631**	,408**	,165	,384**	,616**	,454**
	Sig. (2-tailed)	,001	,000	,004	,269	,008	,000	,001
	N	47	47	47	47	47	47	47
<b>Volunteer growth &amp; development</b>	Pearson Correlation	,195	,336*	,101	,095	,342*	,267	,360*
	Sig. (2-tailed)	,190	,021	,499	,526	,019	,069	,013
	N	47	47	47	47	47	47	47
<b>Beneficiary growth</b>	Pearson Correlation	,325*	,355*	,107	,176	,273	,323*	,391**
	Sig. (2-tailed)	,026	,014	,476	,237	,064	,027	,007
	N	47	47	47	47	47	47	47

\* Significant at 1% level \*\* Significant at 5% level

A simple linear step-wise regression model was used, as to show that *the fundraising success actually contributes to the perception of the overall organizational effectiveness*. Two models were tested, with the total number of donors (as a measure of fundraising performance) being used as a single predictor in the first case. Results of statistical analysis are presented in Table 2.

**Table 2.** Total number of donors as a predictor of organizational performance (Model 1)

	Coeff. B	SE	t	p-value	Tole- rance	VIF	R <sup>2</sup>	Adj. R <sup>2</sup>	F	p
<b>Regression of mean overall effectiveness</b>							,540	,530	52,852	,000
(Constant)	1,304	,229	5,698	,000						
<b>Total number of donors</b>	,608	,084	7,270	,000	1,000	1,000				



The entire regression model is highly significant (with  $p < 0.01$ ), as well as the only predictor (also with  $p < 0.01$ ). The predictive strength is relatively high, as the adjusted  $R^2$  explains as much as 53% of variance. Nevertheless, when donor satisfaction is introduced as the second predictor (see Table 3), predictive strength of the regression model is increased to 59.4% (as measured by the adjusted  $R^2$ ). Although the model has only two predictors, the existence of multicollinearity has been formally checked. It can be ruled out, with the low value of the VIF indicator (lower than 5) and values of tolerance (variance of one predictor, unexplained by the other ones) higher than the cut-off value of 0.2. This regression model is also highly significant, as well as both predictors (all with  $p < 0.01$ ).

*Table 3. Total number of donors and donor satisfaction as predictors of organizational performance (Model 2)*

	Coeff. B	SE	t	p- value	Tole- -rance	VIF	R <sup>2</sup>	Adj. R <sup>2</sup>	F	p
<b>Regression of mean overall effectiveness</b>							,612	,594	34,663	,000
<b>(Constant)</b>	,939	,248	3,784	,000						
<b>Total number of donors</b>	,494	,087	5,652	,000	,791	1,265				
<b>Donor satisfaction</b>	,204	,072	2,849	,007	,791	1,265				

As to check the predictive strength of the obtained model, a similar regression model has been tested, with all the indicators entered as predictors of organizational effectiveness. Although the model was highly significant (at  $p < 0.01$ ), all new predictors were not and the predictive strength was improved by 1.1% (compared to previously described Model 2). Therefore, it can be concluded that this study provided **initial empirical evidence for a significant contribution of fundraising performance toward the formulation of the nonprofit organizational effectiveness perception**. Its results also suggest that the most important dimensions of fundraising performance, in this context, are the **total number of donors and the level of their satisfaction**.

## 5. Conclusions and the future research tasks

Previous research has indicated that sources of funding, especially if publicly and privately funding is contrasted, contribute both to fundraising performance (Alfirevic, Pavicic and Najev Cacija, 2013), as well as to some aspects of overall nonprofit performance (Alfirevic, Pavicic and Najev Cacija, 2014). This is why we chose to analyze a more general research question **on the causal relationship between the fundraising and organizational effectiveness (performance) in nonprofit organizations**. In this study, we have provided solid empirical evidence, which supports such a hypothesis, on the basis of data from Croatian humanitarian organizations. From the theoretical point of view, this study opens a new direction in nonprofit performance research, which answers the theoretical calls for more quantitative research in the area, which should use both financial, as well as non-financial indicators for the construct measurement. The future research tasks are multiple, as different predictors (managerial, marketing and other practices, as well as other approaches, often theoretically labeled as the ‘best practices’ in the nonprofit sector) should be also tested for their contribution to the perception of overall nonprofit organizational performance.



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## CUSTOMERS' SATISFACTION IN THE BANKING SECTOR OF SLOVAKIA AND THE CZECH REPUBLIC

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### Abstract

*The satisfaction of bank's customers presents important area of building of long-term relationships with the client, which significantly determines the financial performance of commercial banks through successful business. Satisfied customer buy bank's products, is willing to pay also higher price for the product or service and represents some form of free advertising and considerable less effort, time and money needed for keep him, than to get a new one. This article presents current situation in the banking sector in Slovakia and Czech Republic. The aim of this article is to examine the development of an overall customers' satisfaction in commercial banks in Slovakia during the financial crisis, individual reasons of customers' dissatisfaction and satisfaction and development of important customers' feelings in communication with commercial banks. Results from 2012 have been compared with the situation in the Czech Republic. Customer satisfaction research has been conducted through a questionnaire survey. First research has been carried out on the first half of 2008 on the sample of 298 respondents, ie. the time before the financial crisis. In 2012, same research has been conducted on the sample of 320 respondents. Results have been compared with the situation in the Czech Republic where same questionnaire has been conducted in 2012 on a sample of 323 respondents. Change of satisfaction factors, respectively dissatisfied bank's customers compared with 2008 have been investigated by standard statistical methods. Results of our research in 2012 showed satisfaction reduction of banks' customers and also changes in respondents' preferences of the perception of satisfaction factors, respectively dissatisfaction in relation to commercial banks. It was examined that the overall levels of satisfaction in both countries are different. The most important reason of satisfaction of banks' customers was the possibility to use e-banking. Czech clients mostly mentioned this possibility as a reason for their satisfaction compared with Slovak clients. Our research has shown that there is no statistically significant difference between the most important reasons of dissatisfaction (prices of products and services) in the Czech Republic and Slovakia. Czech and Slovak banks' clients felt a low rate of interest in solutions to their financial needs and prevailed the opinion that bank wants just to sell their products and earn money. This feeling had 43 % of Czech respondents compared with 31 % of Slovak respondents. Research has shown that according to respondents the approach of banks has improved during the crisis. According to our findings, 66 % of respondents in the Slovakia and the same number in the Czech Republic stated that the approach of banks has during the crisis improved or greatly improved.*

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## 1. Introduction

The commercial bank achieves its basic targets through purchasing of banking products and services to their clients. The optimal volume and composition of banking transactions determines to achieve an appropriate financial performance of the bank.

Clients have a dominant position in the management of banking transaction and financial performance of the bank. Because they buy bank's products and by their consumers' decisions they creates and increases efficiency, a competitiveness and prospects of the bank. Any banking system cannot exist without customers' ability and willingness to save money to the financial system and purchase banks' products.

In relation to a financial performance and competitiveness of commercial banks, it is particularly important to maintain customers' satisfaction.

According to Ernst & Young (2011, p.3), the overall confidence of clients in banking industry has been significantly reduced and now contacts with their clients through improvement of banks' products and services have to be re-established by the bank. It is important for banks to find effective way how to pay attention to clients individually and be able to distinguish and analyze clients' financial needs.

In this context it is essential to analyze the development of customers' satisfaction in banks and individual attributes of clients' satisfaction respectively dissatisfaction in Slovak banking sector at the time of intense impact of critical factors. Results have been compared with the current situation in the Czech Republic.

## 2. Attributes and importance of customers' satisfaction in the bank

Munari, Ielasi and Bajetta (2013) indicate that the customer satisfaction is becoming a stable goal of banking market policies, an important element for strengthening corporate reputation.

Chavan and Ahmad (2013) state that bank business increasingly depends on the quality of the customer service provided and overall satisfaction of the customer. Relationship marketing has become the most critical aspect to corporate banking success.

Besides objective parameters including interest, fees and other business conditions of products, customers' satisfaction creates also system of subjective feelings and perceptions such as a feeling to be appreciated in the bank, a feeling of staff access to customers' needs, a sense of banking environment etc. Feelings of customers are hardly measurable, largely unpredictable, but very important in the process of creating of clients' satisfaction.

Many authors such as Croxford, Abramson and Jablonowski (2002) examines satisfaction's factors of banks' customers and consider that dominant attributes of customers' satisfaction in the bank are service quality, brand and a price. In this context, Wruuck (2013) states that prices play a central role for customer satisfaction and profitability. Especially in the current situation, marked by cost pressure and changing customer expectations, pricing is thus of particular importance. The satisfaction with products' pricing does not mean automatically the overall and complete satisfaction, but it is only one of the most important requirements.

The satisfaction with products' prices does not automatically mean the overall and complete satisfaction, but it belongs to the one of the most important precondition. Price's change does not always have the same impact on the customers' satisfaction but bank would certainly create dissatisfaction in the cases such as raising prices in a situation where people do not have any other

choice. On the other side, if a customer has a positive experience with a bank, increasing prices would not be such a problem for him. A credible price (price which is obvious at first glance and not hidden any additional cost) represents an important factor of creating a customers' satisfaction. Also due to a financial crisis, customers also prefer transparency and simplicity, which applies not only to the products, but also to their prices. Since customers now have a strong need to search for information themselves, banks which offer them in a clear and accessible form, gaining a competitive advantage.

According to Berry (2005), dominant attributes of customers' satisfaction are an understanding of clients' financial needs, an active offer of attractive products and feeling to be appreciated in the bank.

Chakrabarty (2006) defined four factors of customer' satisfaction related with the branch (speed of service, access of employees, the privacy, opening hours), economic satisfaction (level of charges, interests), satisfaction with remote access (dial-up or internet banking) and availability of ATMs.

Lages and Piercy (2012) argue that customers require a high level of acceptance of their own needs and accurate provision of services from employees' side in the bank.

Maddern, Maull and Smart (2007) examined the relationship between customers' satisfaction depending on employees' satisfaction and a service quality in banking sector. Results of this study showed that a high correlation between employees' satisfaction and customers' satisfaction has been confirmed.

Baumann, Elliott and Burton (2012) examined the loyalty of bank's customers which has been based on the overall satisfaction, emotional attitudes towards banks, service quality, the perception of the market situation (costs and benefits of the change) and customers' characteristics.

Mandahachitara and Poolthang (2011) indicated that customers' loyalty is very important because gaining new customers entails more costs and vice versa, longer duration of relationship with customer brings higher profitability from this relationship. This is a key element of long-term profits of the company. According to the research of Fraering and Minor (2013) which were held in USA, they state that satisfied, cognitive, affective, cognitive, and active loyalty are positively related to fortitude.

Houn-Gee Chen, Julie Yu-Chih Liu, Tsong Shin Sheu and Ming-Hsien Yang (2012) argue that people rarely try to get the best services; instead they seek only for a fair services and a consistent treatment. Unfair treatment is a critical factor that leads to the complaining. In their presented study, the significant direct correlation between a customer satisfaction and the fair approach has been proved. Furthermore, the significant correlation between a fair approach and a perception of quality services has been demonstrated. The fair approach and the perception of the quality services together explain more than 59 % of the variability of the customers' perceived value. These two variables along with the perception of the services value explain more than 66 % of the variability of customers' confidence in the service provider. These variables together explain more than 71 % of the variability of customers' satisfaction.

The profit and company's growth are primarily stimulated through customers' loyalty which is immediately formed by its satisfaction. Customers' satisfaction is determined by service quality that creates satisfied, loyal and productive employees (Heskett, 1994; Gelade a Young, 2005; Kamakura, Mittal, De Rosa a Mazzon, 2002; Saura, Contrí, Taulet a Velasquez, 2005). Seiler, Rudolf, and Krume (2013) find that service value has no significant direct effect on customer loyalty; the impact of service value on customer loyalty is completely mediated by customer satisfaction.

It has been found that neither customer satisfaction nor loyalty has a significant impact on the financial performance of banks, while the remaining factors have indicated unprecedented results (Keisidou, Sarigiannidis, Maditinos, and Thalassinou, 2013).

Dimensions of service quality are employee behavior, tangibility and information technology. Dimensions of service convenience are decision convenience, access convenience, transaction convenience, benefit convenience and post-benefit convenience. (Kaura, 2013)



The survey of Ernst & Young (2012) indicates that banks do not really recognize customers' needs and do not adjust banks' products to these needs according to customers' opinions. Because only 44 % of respondents worldwide believe that the bank adjusts their products to customers' needs. The most important impulse to change the bank is the amount of charges because 53 % of European clients would have changed their main bank precisely because of this fact. The second most important reason is a bad experience in the bank's branch.

According to Deloitte research (2012), only 17 % of respondents in Czech Republic and 12 % of clients in Poland changed the bank in the past or they have accounts in two different banks in comparison with Slovakia where 52% of respondents changed their account to another banks (28% in Hungary and 42% in Romania). Ernst & Young (2011) argues that European banks' customers change their banks primarily because of poor quality services (48%) and because of high prices (43%).

The aim of this article is to examine the development of an overall customers' satisfaction in commercial banks in Slovakia during the financial crisis, individual reasons of customers' dissatisfaction and satisfaction and development of important customers' feelings in communication with commercial banks. Obtained results have been compared with a situation in the Czech Republic.

### 3. Methods and Resources

The research about customers' satisfaction has been conducted through a questionnaire survey. A survey has been developed on the basis of results of foreign studies and our own knowledge of this issue (Chakrabarty, 2006; Berry, 2005; Croxford, Abramson a Jablonowski, 2002).

Our research has been conducted for the first time in Slovakia in 2008 on the sample of 298 respondents. Five years later in October 2012, research has been carried out again. The research included a total of 320 respondents of which 55% were women and 45% men. The age structure of respondents was as follows: 23% of respondents were in the category up to 30 years, 59% were between 30 – 50 years and 18% of them had more than 50 years. 89% of respondents were employed, 5% were unemployed and 6 % were retired. The educational level of respondents was as follows: 6% of them had primary education, 48% reported high school education and 46% reported a university education.

In the survey in Czech republic, 323 of respondents have been approached where 37,46% of them were males and 62,54% were females. The age structure of respondents is as follows: 31,58% of them are under the age of 30 years, 50,46% are in the age of 30 to 50 years and 17,96% of them were respondents above the age of 50 years. The education structure of respondents is as follows: 0,93% - primary education, 61,61% - secondary education and 37,46% - university education.

In our research, five scientific hypotheses have been set. By determining the quantitative criteria, the method of expert estimate has been used.

The overall level of satisfaction of banking customers in Slovakia has decreased during the financial crisis and it was not different from the overall level of satisfaction of banking customers in the Czech Republic.

Factor of satisfaction of Slovak banking customers has not changed during the crisis. The most important factor of satisfaction has become the possibility to use electronic banking. This factor was more important in the banking sector of the Czech Republic.

The most important factor of dissatisfaction of Slovak banking customers has remained a high price of products and services. In the banking sector of the Czech Republic, the situation was similar.

Banking clients in both countries intensively felt a low level of banks' interest to solve their financial needs and had a prevailing feeling that bank wants only sell a product and earn money.



Clients in both countries thought that the approach of banks to solve their financial needs has worsened during the crisis.

The associations in contingency tables were analyzed by Pearson statistics for count data. In the cases, where of asymptotic requirements for the test were violated; series of 5000 Monte Carlo replications from original data has been conducted.

P-value is being compared with standard 5 % confidence level. P-value lowers than confidence level leads to rejection of the null hypothesis. The null claims there is no association between variables. Calculations have been performed in statistical packages XLStatistics and R.

In Tab. V, the weighted average has been used for a calculation of Cross-sell index (CSI – the number of products per 1 client).

## 4. Results

The development of the overall customers' satisfaction in Slovak banking sector during the crisis and current situation in the Czech Republic are shown in Tab. 1.

**Table 1.** *The development of the overall customers' satisfaction in Slovak banking sector from 2008 to 2012 and the comparison of the Slovak Republic (SR) and the Czech Republic (CR) in 2012.*

Question: Are you satisfied with provided banking products and services?	SR 2012 in %	R 2008 in %	p-value	R 2012 in %	p-value
1. Yes	61	64	0.51810	62	1.00000
2. No	23	21	1.00000	26	1.00000
3. I do not know to recognize	16	16	1.00000	12	1.00000
$\chi^2=0.69300/2.28230$		p-value=0.72930/0.31950			

By using a test of dependence in pivot table ( $\chi^2=0.693$ , p-value=0.7293), the change of overall level of customers' satisfaction in Slovak banking sector has not been proved.

Based on results of our research it can be stated that the overall satisfaction in both countries does not differ significantly ( $\chi^2=2.2823$ , p-value=0.3195).

Tab. II shows the development of individual reasons of Slovak customers' satisfaction in observed period and the preference of satisfaction's reason of Czech banking customers.

**Table 2.** *Reasons of banks customers' satisfaction in Slovakia in 2008 and 2012 and the comparison of the Slovak Republic (SR) and the Czech Republic (CR) in 2012.*

What are you most satisfied in the bank with?(you can specify up to 3 reasons)	R 2012 in %	R 2008 in %	p-value	R 2012 in %	p-value
1. Fast service in the branch	28	22	0.10400	14	<0.01
2. The possibility to use the electronic banking	67	49	<0.01	75	0.03078
3. Quality products and services	22	17	0.14330	18	0.25200
4. Comfortable and friendly service in a branch	20	25	0.16360	17	0.38500
5. The availability of branches	53	45	0.05650	50	0.49990
6. Developed network of ATMs	28	54	<0.01	40	<0.01
7. Other (quality consulting, services without charges)	4	21	<0.01	0	<0.01

Individual reasons of customers' satisfaction have been changed and values of test criteria have shown it. The highest number of customers in 2012 stated that the reason of their satisfaction is usage of e-banking in the banking sector. Results of test of proportions have shown statistically significant growth of this factor about customers' satisfaction in Slovak banking sector during the crisis. The most important reason of satisfaction of Slovak banking clients in 2008 was the developed network of ATMs. This reason of satisfaction has significantly decreased during the crisis.

The most important reason of satisfaction of Czech banking clients was also the possibility to use electronic banking. Compared to the situation in Slovakia, Czech banking clients increasingly indicated this possibility.

Tab. III shows the development of reasons of customers' dissatisfaction in Slovak banking sector.

Reasons of customers' dissatisfaction in Slovak banking sector have not been significantly changed during the reporting period. The most important reason of clients' dissatisfaction remained high price policy of banking products and services. The percentage in our research reached 63%. P-value has not confirmed the significant change of this reason in this period.

Our research has shown that there is not statistically significant difference between the values of the most important reasons of dissatisfaction (prices of products and service) in the Czech Republic and Slovakia.

**Table 3.** *Reasons of dissatisfied clients in 2008 and 2012 in Slovakia and Czech Republic*

What are you most dissatisfied in the bank with? (you can specify up to 3 reasons)	SR 2012 in %	SR 2008 in %	p-value	CR 2012 in %	p-value
1. Slow service in the branch	38	36	0.66640	23	<0.01
2. Poor e-banking	3	8	0.01030	2	0.60930
3. High price policy of products and services	63	59	0.34900	65	0.87820
4. Poor availability of branches	11	8	0.25810	10	0.87820
5. Impersonal approach	19	16	0.38220	14	0.09959
6. Low acceptance of my needs	8	11	0.25570	13	0.05971
7. Others (personnel arrogance, abuse of financial illiteracy of clients)	3	6	0.10680	0	-

Tab. 4. shows responses about that what kinds of feelings have clients in communication with the bank.

**Table 4.** *The development of feelings of banks' clients in communication with the banks in Slovakia and the comparison to the Czech Republic (CR).*

Do you have a feeling that the bank is interested in solving of your financial needs or if the bank would like just sell you something?	SR 2012 in %	SR 2008 in %	p-value	CR 2012 in %	p-value
1. They are interested very much	13	4	<0.01	5	<0.01
2. They are interested rarely	31	30	0.84000	24	0.06595
3. They are absolutely not interested	11	16	0.07750	11	1.00000
4. Bank would like just sell and earn money	31	33	0.66500	43	<0.01
5. I do not know to consider	14	17	0.34960	17	0.35310
$\chi^2=18.8555/21.8595$		p-value=<0.01/<0.01			

The development of banks' customers has been significantly changed during the crisis because the number of respondents who indicated that the bank is very interested in a solution of their

financial needs has been increased. Despite of this fact, only 13% of respondents in Slovakia and 5% in the Czech Republic said that they have a feeling of intense interest from branch staffs. There is still large group of clients in both countries who have a feeling that the bank would like just sell them products and earn money respectively is absolutely not interested in solving of clients' financial needs. This feeling had up to 43% of Czech respondents in comparison to 31% in the Slovak Republic.

Numbers of used products in own bank are shown in Tab. 5.

**Table 5.** *The development of used products in the banking sector*

How many products do you currently use?	SR 2012 in %	SR 2008 in %	p-value	CR 2012 in %	p-value
1. Product	17	31	<0.01	26	<0.01
2. Products	53	45	0.05160	36	<0.01
3. Products	19	17	0.60040	23	0.25090
4. and more products	11	7	0.12280	15	0.16440
$\chi^2=17.8072/19.9995$	p-value=<0.01/< 0.01				
CSI2012=2.24/2.27	CSI2008=2.00/-				

*Notes: data are not available*

In 2012 compared with 2008, clients of Slovak banks showed more intensive usage of banking products. The average value of CSI (Cross-sell index) has been increased by 0.24 (that is 12 %) in observed period and was slightly lower than in the Czech Republic (2.27).

The number of Slovak clients who used only one product has been statistically decreased in observed period. During this period, the number of banking clients who use two banking products has been increased. The Czech Republic compared to the Slovak republic has a higher portion of clients who use only one product and has significantly lower number of clients who use two banking products.

This number indicate large sales opportunities of commercial banks in Slovakia and Czech Republic, because a normal consumer needs objectively more banking products: current account for payment needs, credit card for routine purchases, saving account for the need to cover future risks and the mortgage for provide housing or other investments' products.

Table 6. shows opinions of clients if the approach of banks has changed during the crisis.

**Table 6.** *The development of used products in the banking sector.*

How has changed banks' attitude to the needs of customers during the crisis?	CR in %	SR in %	P-value
1. Approach has significantly worsen	3	0	<0.01
2. Approach has worsen	27	31	0.30200
3. Approach has improved	64	52	<0.01
4. Approach has significantly improved	2	14	<0.01
5. Another: it has not changed, I cannot judge	4	3	0.68770

The research confirmed that according to statements of respondents, banks' approach has improved during the crisis. The precondition that 50% of Slovak and Czech population feel that the approach of banks has worsen, has not been confirmed. Although there are significant differences in respondents' responses, most of them stated that the approach of banks has improved in the Slovak and Czech Republic (sum of answers 3 and 4 was 66% in Slovakia and 66% in the Czech Republic).

This trend has been expected. We assumed that due to the crisis, banks with their measures (such as an increase of interest of mortgages and consumer's loan in the initial period of the crisis, charges' growth, pressure on tighter discipline during repaying loans, worsening of credit condi-

tions in relation to enormous increase in the risk sector etc.) caused larger dissatisfaction of their customers.

## 5. Conclusion

The research about customers' satisfaction in Slovak banking sector proved that perceived level of satisfaction has slightly decreased during the crisis and is comparable to the situation in the Czech Republic.

The most significant distribution channel of commercial banks in Slovakia has become an electronic banking during the crisis. This distribution channel is significantly preferred also in the Czech Republic.

The most important factor of customers' dissatisfaction remains a high price policy of banking products and services. Similar situation was occurred in the Czech Republic where up to 65% of respondents chose this reason of dissatisfaction.

Banks' clients in Slovakia and Czech Republic felt very intensively that banks only want to sell them products and earn money and they are interested very poorly in solving their financial needs.

In the Czech Republic compared to the Slovak Republic, portion of respondents is significantly larger who use only one banking product and significantly lower who use two banking products. Current values of CSI give prospective opportunities for growth in the retail segment to commercial banks within the Czech Republic and Slovakia.

Research showed that according to respondents, banks' approach has improved during the crisis. A larger portion of respondents in Slovakia and the Czech Republic considered that the approach of banks has improved respectively significantly improved during the crisis.

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## PART THREE:

### *Technology Transfer, Ict, Innovation*



## INFLUENCE OF WEBSITE QUALITY ON PERCEPTIONS OF PRODUCT QUALITY AND PURCHASE INTENTIONS – THE CASE STUDY OF BOSNIA AND HERZEGOVINA

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### Abstract

*The Internet has become an important strategic tool in today's business environment, making e-commerce more and more popular. As a result of these trends, there is a need for assessing the quality of a website for big entrepreneurs and especially for middle and small ones. Arrangement, reorganization and updates of the website must be an ongoing process, and if possible in accordance with the dynamics of the observed changes in the market of final consumption. Technical characteristics of the websites and servers are the basis and prerequisite for efficient website. If the website does not meet basic technical requirements, users will encounter difficulties and give up the use of the site. The main objective of this research is to assess the impact of website quality on revisiting the web page, and on perceptions of product quality and purchase intentions. The research was conducted in five companies with different spectrum of business activities in Široki Brijeg region (Bosnia and Herzegovina). Questionnaires examined opinions and attitudes of 93 consumers about the impact of the quality of websites on the intention of re-visits, and on perceptions of product quality and purchase intentions. The results showed that there is a strong positive impact of the website quality on customers re-visits, meaning that better website quality leads more frequent visits. Thus, consumers understand and accept the importance of the use of the website, and they are willing to return if the site proved to be of high quality and professional. It was also proved that high quality websites influence on better perception of the product quality. Thus, the website is somewhat a representation of the product quality, which means that poor and low quality websites are another indication of bad products and companies. On the contrary, neat and professional websites are a "consequence" of high quality products of the company. In the research result, elements of websites quality were elaborated and ranked in order of importance and impact on users. Similarly, the research also showed that there is a positive correlation between the quality of the website and purchase intentions. Consumers who are satisfied with the quality of a website will buy more products from that company, while bad websites reduce the desire of consumers to buy products represented on the site.*

**Key words:** quality of web sites and consumer satisfaction, perception of product quality, purchase intention, entrepreneurship competitiveness, Bosnia and Herzegovina

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## 1. The influence of the internet on digitalization of business and company advertising

According to Dobrinić, et al., (2005), the possibility of business application of the Internet can be observed through three main aspects: (1) *The Internet as a promotional medium*; (2) *The Internet as a sales channel*; (3) *The Internet as a distribution medium*. According to the definition of Borges, Hoppen and Bins Luce (2008, pp.883-900) *electronic business* represents a global platform of electronic networks and communication infrastructure where users and organizations can communicate with each other, collaborate and obtain information. According to Shankar (2012, p.1), *electronic commerce*, or abbreviated e-commerce is the process of buying, selling, or exchanging products, services or information via computer networks, including the Internet. Forsythe and Shi (2002, pp.867- 875), point out that the usefulness is one of the main advantages of e-commerce because customers save money and time, there is no waiting while buying and neither pressure from the sales staff. According to the survey conducted by Ltifi and Gharbi (2012, pp.37-39), the range of products available to consumers is also wider as consumers can buy almost all products that were previously available only in traditional stores, have access to more information as well as access to competitive products and thereby spending power is highly increased. However, Shankar (2012, p.2) underlines that with the development of e-commerce and online shopping consumers face the choice of a multitude of products and partly "suffer" from information overload. When it comes to companies, the benefits of the introduction of electronic commerce are also numerous. However, there are also some disadvantages arising from the nature of the relationship based on computer technology. So in e-commerce there is no physical interaction with the user and that is why certain age groups don't feel sufficiently inspired or confident to perform the purchase (e.g. older generations). The information technology facilitates greatly to companies to collect and analyze data about customers, however, its use when it comes to user's causes concern due to way in which these data are used. Consumers need to be sure that they are treated fairly and that their personal data will be protected (Joubert and Van Belle, 2002). As for the companies, a major drawback of trading via the Internet are cultural and legal barriers so sometimes it is quite complicated to deliver to customers a "global" product. Forsythe and Shi (2002, p.869), classify Internet users into two groups of users: *Internet buyers* (purchasing performed exclusively via the Internet) and *Internet browsers* (collecting and comparing information about products/services online with no immediate intention to purchase). According to Iwaardeen, et al., (2004, pp.947-959) it is much more easy to retain customers via the Internet than in traditional stores and not to forget that companies spend three to five times fewer resources to retain their customers. Fast loading of company's website, delivering orders on time, reacting quickly to customer inquiries and enabling customers to return or to replace merchandise, help companies to be perceived as reliable and safe and that is how they are likely to be visited again.

Electronic marketing through electronic-based activities associate creative and technical aspects of the company's business on the Internet, including design, development, advertising and sales (Shankar, 2012, p.2). Technologies on which electronic marketing is based expand the meaning of initial, one-sided advertising of e-companies on management activities on relationship with customers, improving sales activities, customer support, participation in the creation of services for customers, post-sales activities as well as research and planning for the marketing activities of a company. (Trainor et al., 2010, pp. 162-174). According to Young Sohn and Lee (2005, p.68), the adoption of e-CRM (*Customer Relationship System*) enhances a company not only in terms of establishing relationships with customers, understanding, retaining customers and attracting new customers, but also in terms of possibility of an individual access to customer by adapting services to each consumer individually. According to Tohidi and Jabbari (2012, pp.579-582) software applications for data analysis analyze more deeply stored data of customers to service provider, predict future patterns of consumer

behaviour and support the observation of trends relevant for the analysis of consumer behaviour. The goal of any business is to win and to retain customers.

## **2. Website - Basic holder of marketing activities on the internet**

Web sites are marketing tools that enable to companies to communicate with existing and potential clients, in two ways. First, websites ensure the provision of all necessary information about the company or its products. Second, websites facilitate transactions with customers and reduce transaction costs (Usunier and Roulin, 2010, pp.190-191). According to Kotler and Keller (2008), the quality is totality of features and characteristics of a product or service related to its ability to satisfy stated or implied needs. The quality of service of a company shall be tested at each service encounter. Clients generally compare the perceived service with the expected service (Parasuraman, Zeithaml and Berry (1985). According to Poddar, Donth and Wei (2008, p.444), the website quality is defined as overall perceived quality from the point of view of consumer. First, an effective website should to be the main source of information about products and services that enables users to find quickly information using search engines on the web site. According to Mithas et al., (2007, pp.103-104) websites should be designed so as to be visually appealing and attractive to their visitors. Quality graphic design, visual appearance of the site and complementary colours on the page, entertainment content and multimedia features are essential for increasing customer satisfaction (Mithas et al., 2007, pp.105-106). In order to increase the perceived usefulness and quality of websites, they must be organized and easy to use. In the context of a website, the ease of use refers not only to the facility of navigating the website, but also to instant access and uploading site, ease of access to information and simple index (Beldad, De Jong and Steehouder, 2010, p.861). Many companies that do business via the Internet use icons on their website to present products they offer. When graphic elements are interesting (e.g. product images) they cause satisfaction among consumers or arouse the curiosity of consumers, which inspire consumers to find out more information about the product. However, one should take into account that a lot of images on site can significantly slow down the page loading speed, and thus distract users away from using that site. Also, the arrangement of icons affects the efficiency of navigation and quality of website display (Lam et al., 2007, pp.36-59). The quality of information on the website is also very important for Internet users. According to Ltifi and Gharbi (2012, pp.37-39), the quality of available information is reflected in three aspects: (1) *semantics* (perspicuity of a web page); (2) *syntax* (logical sequence scale of information); (3) *graphics* (comfortable reading thanks to the graphical interface). Also, the safety of the users while using website is very important: users need to share their personal data with an organization they do not know. Studies have shown that at least 50 % of Internet users are worried about their safety on the Internet: abuse of data from credit card they use, sharing personal information with website owners and cookies that track customer's activity (Iwaardeen, et al., 2004). According to Iwaarden and Wiele (2004, pp.947-959), less than 10 % of users leave a website if the page load time is under 7 seconds. However, when page load time rises above 8 seconds, 30% of respondents leave the page. So, it is very important for companies to have a website that is faster, but on the other hand, website that is also visually appealing.

Service quality of websites relates to the customer's satisfaction with received level of services after visiting certain website. As an internet purchase does not include physical contact, service quality of website plays an important role in company's business activity. Service quality of website includes online but also offline elements. Online elements include ease and simplicity of ordering product but also a feedback in case of complaints. Offline elements include fast delivery of products or services and allow return of goods with a refund if customers are not satisfied with the product or service. Quality of service involves willingness to respond

quickly to customers demands, including changes in orders, cancellation of purchase and return of goods with a refund (Kima, Galliers and Shin, 2010, pp.378-382). Websites can convey tangible (inner) product characteristics (e.g. product features and virtual experience of the product) but also intangible (external) characteristics associated with the product (e.g. price or brand). Consumers are generally more confident in their ability to assess intangible qualities of a product rather than tangible, because intangible characteristics can be evaluated without knowledge of the product (e.g. price or brand) (Wells et al., 2011, pp.379-381).

### 3. Perception of product quality and purchase intention customer perceived value

*The total customer value* is perceived monetary value which consists of economic, functional and psychological benefits that customers expect from a particular market offer. *The total customer cost* consist of set of costs that customers expect to incur in evaluation, obtaining, using and disposing of given market offer, including cash, time, energy and psychological cost. Thus, customer perceived value is based on the difference between what customers get and what they give for different possible choices (Kotler and Keller, 2008). *Perceived website quality* reflects consumer opinion about work and the appearance of website of a particular company, especially in comparison with sites of other companies. There is a positive correlation between website quality and consumer confidence. If a consumer has a positive initial experience due to professionalism, clarity and high quality of site, it is likely that the initial consumer impression will be positive and will have positive impact on the perception of website quality. (Lowry, et al., 2007, pp.205-207). According to a study conducted by Chen, Hsu and Lin (2010, pp.1007-1010), the impact of different levels of websites quality on purchase intention of consumers online was proved, suggesting that the website quality also affects the perception of quality of products which will be discussed below. When consumers do not have experience with the product, it is quite easy to meet their needs, however, when the experience and “appetite” with certain product increase, it is more difficult to meet their needs. The greater is the expectation of products consumers have not purchased, the lower is the level of satisfaction with the purchased product. That is why expectations of users decrease and consequently cause customer dissatisfaction. (Solomon et al., 2010). Consumer confidence is strong, positive indicator of *purchase intention* of consumers. Unlike traditional physical stores, the sensitivity of consumers in online transactions is greater because of the physical absence of sellers. In situations where consumers have no experience in using certain websites, or in using products and services offered by that site, the level of consumer confidence in a website will decrease and in the end, consumer will buy less products from it (Lowry, et al., 2007, p.205). Moreover, according to Chen, Hsu and Lin (2010, p.1009), the purchase intention is defined as an important indicator of an actual intent of purchase, i.e. desire of consumers to buy something on website. Furthermore, Chen, Hsu and Lin (2010, p.1010) when it comes to the intention of online purchase highlight three factors that play an important role in purchase intention, namely: (1) *Technological factors*; (2) *Purchase factors*; and (3) *Product factors*. *Technological factors* facilitate online transactions and they also include security, privacy and usefulness of websites. Information security refers to confidentiality, integrity and authentication of e- transactions and online data. Privacy is defined as the possibility of consumers to control, manage and selectively disclose their personal information (Belanger, Hiller and Smith, 2002, pp.247-249). According to the survey conducted by Belanche, Casalo and Guinaliu (2012), the usefulness of websites refers to the entire website design and functionality. *Purchase factors* refer to convenience, trust and delivery of products. Convenience refers to services and practices of online purchase that reduce time and effort of users in process of e-transactions. Trust is important in building long-term relationships with consumers. Delivery of products is related to overall time spent on shipping and handling product (Chen, Hsu and Lin, 2010, p.1010).

*Product factors* refer to perceived quality of products or services. Product factors include the value of a product, technology and familiarity with merchandise. The products value indicates perceived quality of products and services for consumers (Chen, Hsu and Lin 2010, p.1010). Research conducted by Belanche, Casalo and Gulinailu (2012, pp.124-132) showed that customer *satisfaction*, resulting from an overall assessment of all aspects that make a link between consumers and products, is a crucial factor that influences new intention of using website or buying products/services again. According to Schaupp (2010, pp.46-49), user satisfaction is a *prerequisite* for revisiting certain website. The basic guideline is that consumers must feel satisfied in order to return to the website and become its "loyal visitors", and thus visit more frequently the site, which will consequently affect better purchase of products. Thus, the quality of certain website does not affect directly the purchase intention, however, once the satisfaction of using the website is achieved, the intention of buying products on that website increases.

#### 4. Methodology

This research pretends to obtain quality information about views of users when it comes to the use of the websites in Bosnia and Herzegovina. This primarily refers to information about how and in which extent citizens of Bosnia and Herzegovina use websites, whether the quality of websites affects their perception of the quality of products, and therefore their purchase intention. The questionnaire was carried out at two levels: the first part of the questionnaire includes questions relating to the *general* opinion of consumers about the influence of quality of websites on the perception of product and purchase intention, therefore, the opinion of consumers about a *fictional* situation of the company, with a *general* product. The second part of the questionnaire consists of questions relating to the opinion of consumers about the impact of websites quality on the perception of product quality and purchase intention on a *specific* level, that is, products that consumers buy and use specifically on the example of five companies of various descriptions of activities. In order to continue the tests and obtain reliable data, survey examined 93 users of five companies from Široki Brijeg of different spectrum of activity. So there were two companies operating with consumer goods, furniture store, company that operates with seed goods, plant protection products and accessories for pets, and company that performs transportation services in urban and suburban lines in Široki Brijeg. Based on pre-set research goals the following hypotheses were set out:

*H1: The quality of websites has a positive impact on consumer's intention to reuse websites.*

*H2: The quality of websites influences positively perceptions of product quality.*

*H3: The quality of websites affects the intention to purchase products/services.*

#### 5. Research results

In the questionnaire, questions related to socio-demographic characteristics and degree of the use of websites, consumer attitudes towards the level of quality of websites, and its impact on the perception of product quality and purchase intentions were used. According to the research, 58 % of respondents would revisit the site if it is a quality, professional and clear site while 28 % of respondent is completely sure that they would revisit the site. As for the results obtained from surveys of visitors of websites of five companies from Široki Brijeg, 38% of respondents said they would revisit the site; however, there are also a significant percentage of those who have irresolute attitude.



After performing the t-test (Table 1) on an unknown arithmetic mean of the basic set, we see that the average score for the assertion 1: "If a website is clear, high quality and professional, I intend to visit it again." in the basic group was significantly higher than 3.5 ( $p \approx 0$ ;  $t = 7.095$ ), which *confirms the hypothesis H1*. When it comes to a website of a *specific* company (Table 2), the average score was not significantly higher than 3.5, which is probably due to the fact that those websites did not meet the requirements of being visible, high-quality and professional. But in this case, the average score was statistically significantly greater than 3 ( $p = 0.003$ ,  $t = 3.080$ ).

**Table 1. One-sample test**

	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Prosjek Difference	95% Confidence Interval of the Difference	
assertion 1	7,095	91	,000	,587	,42	,75
assertion 1	-1,699	89	,093	-,178	-,39	,03

**Table 2. One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Prosjek Difference	95% Confidence Interval of the Difference	
assertion 1	3,080	89	,003	,322	,11	,53

51 % of respondents agreed that the quality of websites is an important factor in assessing the quality of a product, while 28 % of respondents were undecided. 50% of respondents said that vast website creates a bad opinion about the quality of the product itself, while 23 % of respondents disagreed. 21 % of respondents did not declare themselves. 71 % of respondents agreed that professional and helpful website enhances the perception of the quality of the product, while 16 % of respondents did not declare themselves. 44 % of respondents were undecided about the impact of websites quality in assessing the quality of the product, 31 % of respondents agreed that there was an impact. The largest percentage of respondents 42% expressed disagreement with the fact of the bad influence of websites quality on the perception of the product. 23 % of respondents did not express an opinion, 19% of respondents disagreed. Unfortunately, the largest percentage of respondents, 37% did not express an opinion about the positive impact of websites quality on the perception of product quality. 41 % of respondents agreed that there is a positive relationship, 19 % of respondents disagreed.

T - test on an unknown arithmetic mean shows that the average score on the assertion 2 of "Website quality influences positively perceptions of product quality ..." in the *general* stat. case is significantly greater than 3 ( $p \approx 0$ ,  $t = 6.382$ ) while for the specific company "Website quality influenced positively the perception of product quality" the average score was not statistically



different from 3 ( $p = 0.180$ ,  $t = -1.352$ ) (which is due to the fact that those sites were not quality sites and were not able to influence positively the perception of product quality). New  $t$ -test on an unknown arithmetic mean shows that the average score on the question of "Website quality influences positively perceptions about product quality," in *general* case does not differ statistically from 3.5 ( $p = 0.360$ ,  $t = 0.92$ ) while for a *concrete* company "Web site quality has influenced positively the perception of product quality," the average score was statistically significantly lower than 3.5 ( $p \approx 0$ ,  $t = -8.957$ ) (Table 3 and 4)

**Table 3. One-Sample Test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Projek Difference	95% Confidence Interval of the Difference	
					Lower	Upper
assertion 2	6,382	92	,000	,58423	,4024	,7660
assertion 2	-1,352	89	,180	-,08889	-,2195	,0417

**Table 4. One-Sample test**

	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Projek Difference	95% Confidence Interval of the Difference	
					Lower	Upper
assertion 2	,920	92	,360	,08423	-,0976	,2660
assertion 2	-8,957	89	,000	-,58889	-,7195	-,4583

So the attitude of the general population is: "I agree" when asked „Website quality influences positively perceptions of product quality" so the hypothesis *H2 can be accepted*.

44 % of respondents agreed that the quality of a website affects their purchase intention, 27 % of respondents had not declared themselves, 24 respondents said that the quality of websites does not affect their intention of buying. 65 % of respondents agreed that the quality of websites facilitates and speeds up decision to buy. 17% of respondents have not stated an opinion, 14 % respondents disagreed. 32 % of respondents disagreed with the statement that their interest in purchase declines after using low-quality sites, while 41 % of respondents agreed. There is a significant percentage, 23% of those who did not declared themselves. As far as specific companies, 42% of respondents did not declared themselves about the impact of websites quality on purchase intention. 30 % of respondents said quality affects intention to buy, 28 % of respondents disagreed. 34 % of respondents did not declared themselves about the impact of websites quality which is supposed to animate a purchase decision, while there was the same percentage of those who agreed and disagreed - 36 % of respondents agreed, while 30 respondents disagreed. It is interesting that the majority of respondents, 67 %, said that that the poor quality of sites did not affect their interest in purchase, 22 % of respondents did not declared themselves about the impact, 11 % of respondents agreed with this statement.

T - test on an unknown arithmetic mean shows that the average score on the assertion 3 of "Website quality affects the intention to purchase products/services." in *general* stat. case is

significantly greater than 3 ( $p \approx 0$ ,  $t = 4.140$ ) while for the *specific* company "Website quality affected the purchase of products/services" the average score was stat. significantly lower than 3 ( $p = 0.005$ ,  $t = -2.902$ ) (which is due to the fact that those sites were not high quality sites and were not able to influence positively the purchase intention). However, the average score on the question of "Website quality affects the intention of buying products/services" in the *general* case is still statistically lower than 3.5 ( $p \approx 0$ ,  $t = -3.783$ ) while for the *specific* company "Website quality influenced buying the product/service" the average score was statistically significantly lower than the 3 - a (Table 5 and 6).

So, when it comes to the question "Website quality affects the intention to purchase products/services", the attitude of the general population is somewhere between "neither I agree nor I disagree" and "I agree", so the *hypothesis H3 can also be accepted*.

**Table 5. One-Sample Test**

	Test Value = 3.5					
	t	df	Sig. (2-tailed)	Projek Difference	95% Confidence Interval of the Difference	
					Lower	Upper
assertion 3	-3,783	92	,000	-,23871	-,3640	-,1134

**Table 6. One-sample test**

	Test Value = 3					
	t	df	Sig. (2-tailed)	Projek Difference	95% Confidence Interval of the Difference	
					Lower	Upper
assertion 3	4,140	92	,000	,26129	,1360	,3866
assertion 3	-2,902	91	,005	-,21467	-,3616	-,0677

## 6. Conclusion

Taking into account theoretical and empirical assumptions of this study, three variables were examined as the backbone of the research: *websites quality*, *perceptions of product quality* and *purchase intention*. This research has proven that there is a positive correlation between websites quality and revisiting certain site. Thus, analysis of test results to the case of general, fictitious companies, but also on examples of specific companies, proved that there is a positive correlation between websites quality and intentions of re-visits so the hypothesis H1 is fully accepted at both levels. As for the example of "general, fictional situation of the company", the majority of respondents agree that website's quality is very important as a website is a kind of "copy of" product quality. Accordingly, poor and low quality websites are just another indication of bad products of companies, while on the contrary; neat and professional websites are just a "consequence" of quality products of company, which on the general level confirms the hypothesis H2. However, when it comes to specific companies that respondents "like" and whose products they use, the results are significantly different, and consumers are "softer" while evaluating the quality of websites. Although it is quite possible that this result is due to the nature of the product and/or usage habits, for example, in case of specific and rare products, or products consumers are accustomed or obliged to use. Therefore, the hypothesis H2 in case

of specific companies is rejected. On the results of specific companies consumers have, therefore, expressed neutrality when declaring themselves about the existence of influences, but are not sure about the lack of connection and therefore upon the overall analysis of the results of the general, "fictitious situation of companies", and upon analysis of examples of specific companies, hypothesis H2 can be partially accepted and it can be concluded that there is a positive correlation between websites quality and its impact on the perception of product quality. Finally, the hypothesis H3 investigated the impact of websites quality on purchase intention. In the examples of the general population it was proved that the quality of a website affects the growth of the consumer's motivation and desire to purchase the product. However, when websites are shown as bad, the results of intention to purchase products ranges from neutrality to agreement. This is a possible indication that consumers are still unsure about the information provided on the site and not sure how to react in cases of bad sites. When website quality does not meet their expectations - consumers will not have a great purchase intention, but will not withdraw from the purchase. While in the case of extensive, relevant and fresh information on websites - consumers will certainly buy a product. Thus, the attitudes of the general population proved hypothesis H3. As far as examples of specific companies and products consumers use, the results are somewhat different. Customers were unsure when expressing their opinion about the impact of sites on purchase intention, and the results also varied from neutrality to agreement. Those consumers who have perceived certain website as low-quality website – did not lose interest or desire for purchasing the product. Thus, the hypothesis H3 can be partially accepted in examples of specific companies, with the restriction that consumers are loyal and faithful to a particular product/service, and that is likely to be a reason of their purchase intention. In the questionnaire, as a key element of websites quality visual appeal, design, safety during visit to the page (for example, personal data protection and privacy), and page loading speed and ease of navigation were offered. Results showed that the most important thing for users during a visit to a site is safety, followed by visual appeal and design, page loading speed and finally the ease of navigation. Although the sample of studies is relatively small, obtained results are representative and could serve as guidelines to companies in evaluating the importance of the quality of individual elements of the website and improving quality, especially of those websites of companies that are just beginning their activity. The quality of websites is very topical but also under-researched topic so this thesis can be seen as a starting point for further researches and testing, given that certain topics were only "broached". Also, this is also a very modern technological topic that changes constantly, therefore, this work cannot take into account all website factors that can affect consumers, and these are in fact the guidelines for further researches on a similar theme.

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## THE INFLUENCE OF INNOVATIVE VISUAL IDENTITY ON A CONSUMER'S PERCEPTION

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### Abstract:

*The aim of this paper is to emphasize the role and significance of product's innovative visual identity in its positioning and existence on the market. The paper is based on the contemporary understanding of design, its role and significance in doing business on the global market. Term „design“ is mostly attached to the usage of art in constructing, shaping and creating certain object, while the process itself, is based on a plan, idea or conception which is determined in advance. Design was developed as a response to a practical need of creating product's visual identity, and it can be defined as a sum of different means which create unique artistic-graphic display about certain product. Design, as a specific aspect of the artistic form, tends to promote itself through the product, and at the same time, the product through itself. The aim of every company is to use the unique visual identity to gain public affection, and to gain a position on the market through promoting its benefits and qualities. One of design's most important functions is to visually represent product's essence. The paper contains empirical researches that were conducted on different products of different producers, and on the same product of different producers, which belong to the same rank, based on their price and quality. The conclusion which stands out as a result of this research is that visual aspect of the product, as a primary communication with the consumer, has a decisive significance in making a decision about purchasing. The research has also shown that domestic producers pay very little attention to the visual identity of the product, which results in lack of competitiveness on the local, and especially on the global market. The paper contains appropriate recommendations and suggestions for creating successful visual identity of the product, as well as the most successful and innovative examples from practice.*

**Keywords:** innovative design, product, visual identity, customer's perception, communication with customers.

### 1. Introduction

Term design is most commonly attached to the usage of art in constructing, shaping or creating certain product. The design is usually carried out as a pre-determined plan, idea or concept. The purpose of design is the implementation of plans or ideas that may be caused by the need to solve a specific problem in the artistic creation of visual identity.

When talking about product design, it is usually defined as the arrangement or configuration of individual components which form the whole product, subject or object. The design serves a purpose, although its aesthetic value, ie. its visual identity, is the integral part of its decoration.

Development of design can be identified with the development of industry and mass production and consumption. Therefore, a designer's success is measured by the number of copies of his

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work that has been accomplished. The design follows social trends and is therefore very fast changing in developing new styles.

It can be said that design originated from the need to innovate product's visual identity, and is the sum of various resources which are the visual-graphic manner of creating a unique impression of a product, the entire brand, or a particular corporation and its activities. (Spahić, 2008).

The objective of any company is that unique visual identity wins the favor of customers and consumer public, and that consistency in presentation of their advantages and quality provides the product with taking its place in the market. It is important to keep in mind that carefully designed components of product's visual identity are used consistently, in order to achieve good recognition and product differentiation in the market.

Research problem is defined in a manner that answers the question: How and to which extent innovative visual identity of the product affects the perception of the consumer?

Bearing in mind the fact that, based on the set of research problems, our aim is to analyze how product's visual identity affects the perception of the consumer, there is a need for determining the main hypothesis: insufficient work on innovating product's visual identity negatively affects the consumer's perception, and at the same time, the product's success on the market. Hypothesis was tested through theoretical and empirical research regarding companies and consumers on the market. In this research following scientific methods were used: statistical method, method of analysis and synthesis, inductive and deductive method, method of abstraction and concretization, comparative and other methods.

The paper will first address the history of design and its development as well as strengthening its role in developing modern economy and society. The second chapter will deal separately with the importance of the integral packaging components and its impact on the perception of the consumer. Third chapter will elaborate on the importance of visual identity of products, primarily in terms of successful product promotion. In the fourth and fifth part, successful examples from practice will be analyzed and the performance of two manufacturers, in terms of visual identity, will be compared.

## **2. The development of product design**

### ***a) Design development***

The roots of contemporary design can be found in the Greco-Roman art. Greek art was developed primarily for practical reasons, because it was necessary to portray ceramics, vases, amphorae, pixies and plates. In the 9th century BC, subjects which had been in daily use, were presented by using geometric shapes: spirals, rosettes, tracery, meanders, triangles and circles deployed in horizontal rows. This method of decorating is called "geometric style" and the influence remained even during the period when they were used to decorate the human figure. Ceramics from 6th century BC, is rich in elements that are reminiscent of oriental art, which is rich in organic characters and lines.

Unlike the Greeks, which were primarily making pottery, the Romans were manufacturing glass, transparent and colored, and jewelry.

### ***b) Contemporary design***

Contemporary design, alongside with quality and price of the product, plays a key role in the placement of products on the market and strengthening the competitive abilities of companies (Porter, 2007). This statement was confirmed, to a great extent, by our researches.



The research was conducted in companies and through consumer surveys. Research in enterprises was performed on a sample of 45 companies in the Republic of Srpska and 15 companies in Federation of Bosnia and Herzegovina in 2013. The empirical data was collected through questionnaires, interviews and discussions with company management. In addition, in this survey, special sources and methods of indirect data gathering and information were used: reports of retail chains and associations, online databases, analysing promotional activities and promotional materials. The results of the research are displayed in segments in following chapters of this paper.

Packaging design for consumer products, as well as alimentary products, has a growing importance. This statement can be confirmed with the answer analysis of the companies being interviewed – 64% of the consumer goods producers claimed that they pay great importance to the packaging design of their products, 22% claimed that the packaging is significant for selling their products, and only 14% claimed that the design of product packaging has a secondary significance when compared with the quality of the product.

However, from the answer given to the question: how much do expert services pay attention to the packaging advancement and do they have plans for such activities, it can be concluded that domestic companies do not follow world trends in this area enough. Almost 70% of the companies said that they make such little effort in this field.

### **3. The influence of product and packaging design on the perception of the consumer**

Every single product has specific integral elements and features, which human beings, to the greatest extent perceive by the eyesight, which is usually considered as the most important for examination and understanding the environment and objects in it. Those basic components are the elements of form, harmony, rhythm, accent, plasticity and product ornaments. When talking about packaging design, following components are important: decorative effects, shadows, color, graphic means of informing, typographic elements, style and fashion.

According to S. Sokolović, the following elements have particular significance for the contemporary design: line, harmony, plasticity, color, fashion and style (Sokolović and Sokolović, 2011).

Line is the oldest artistic mean, the most simple among elements and the most elementary among forms. For the observer, it is the most comprehensive and the clearest element, because it takes the least physical effort for its intellection.

Harmony is the combination of the elements which are related in one or more characteristics. The elements are harmonious if one or more of their elements or attributes, i.e. shape, size or color are similar. Harmony of a certain product, as one of the basic requests in achieving its aesthetics, implies the unity of the entire form, mutual compliance of shapes, compliance of used colors and shapes, as well as compliance of the product itself with the environment.

The need to emphasise certain key details of the product can be achieved by accentuation. It is achieved by implementing different colors, shapes, illumination, which results in achieving aesthetic effect, as well as easier usage of certain product, in terms of easier noticing of certain parts, information and content.

Plasticity is the characteristic which is commonly used while shaping the product, simply because plastic surfaces look far more effective from plane ones. It can be complemented with using ornamented details, ie decorations which enhance the general appearance of the product, avoiding the monotony of the construction, although it can also be placed simply for its functional significance.

Shadow on a plastic product appears as a consequence of natural or artificial light effect and it has a great impact on the aesthetic aspect of the product. Therefore, paying attention to the way of forming plasticity on the product, the effect of illumination and placement of light source is very

important. In accordance with this, it is necessary to strive to the organization of shadow placement, i.e. it is important to use only horizontal or only vertical shadows when exposing and presenting the product.

Color is very important for the complex visual experience and it appears as an effect of electromagnetic waves on the optic receptors in the eye. It is a natural phenomenon induced by light and registered by human psyche and therefore it has a very important influence on human emotions, perception and their consciousness in making choices and decisions. Color serves for bringing the most important messages to the consumer. Therefore, while designing the product, it is important to avoid using dark as well as too bright or contrasting colors, because they create fatigue and accommodation of the eye by reflecting bigger doses of light.

Color, as the element of the product composition, should be observed and evaluated from the aspect of its expressiveness, in case of its usage on a concrete product. Color can influence the balance of the composition, rhythmicity, proportion, shape harmony, compactness and even the size of the product itself, because darker colors create the impression that the dimensions of the observed parts are smaller than they really are.

Therefore, the dominant color should be chosen for the calming as well as the resting effect that it has on the human psyche, such as light blue or light green. Inappropriate color choice can lead to the effect of drawing attention from the message that was sent to the consumers and therefore creating confusion. That is the reason why color should be related to the product. Good example is “John Deer“, which uses green for their tractors because it is associated with nature, while “IBM” uses intensely blue which represents stability and reliability, and has a calming effect on the conscience of the consumer.

“To determine the color without experts' advice is like wandering through the Andes without a guide“ considers product designer Marc Gobe (Gobe, 2006).

#### **4. The roll of technological innovations in packaging design**

In this paper, the effects of two innovative packaging, which were a turning point in packaging industry of alimentary products, were researched. Those two cases are a functional egg packaging, which protects them and at the same time makes them easily accessible and bottle packaging which can preserve desired temperature for a certain period of time. Both packaging are biodegradable and suitable for recycling. Our research showed that during last few years numerous radical ideas were based on sustainable packaging, which are nature friendly and at the same time easy to use. Therefore, the designers' aim is to find packaging solutions made from biodegradable and recyclable materials which will create as less waste as possible (Skarzinski and Gibson, 2009).

Good example is a new egg packaging design, created by Hungarian designer Eva Valicsek (Gilliland, 2010 ) which arrived into the spotlight of certain companies after being presented in TV show Future Imagineering broadcasted on BBC. Despite the fact that design is still in phase of realization, many large retail companies are already interested in this product.

Innovative egg packaging was designed as a result of college project, but it became world famous when large companies became interested in it, ready to introduce the new packaging design in their business. Interesting fact is that first egg box was designed by Joseph Coyle, more than 100 years ago, and the one which is widely used today was created by HG Bennett during the fifties. Current packaging is not an ideal solution. The main deficiency of this packaging is that it cannot be adapted to the size of every single egg: „Smaller eggs can easily roll over and be broken in transport“, elaborates young designer. In addition, the new packaging allows the eggs to be seen, which will help consumers to choose the one that they want. New box is flexible and it fits to different eggs sizes.

Other case of biodegradable packaging is a product of “Veuve Clicquot“ company which made the latest revolution in production of sustainable packagings. This French brand produced

champagne cooler made entirely of potato and paper. Designer Credic Ragot created ecological bottle which can be completely recycled (Popović and Milićević, 2013). He used the advantages of starch hidden power. As a result, this product keeps the sparkling drink cool even two and a half hours, thanks to its isothermal features. This material, on the one hand ensures attractiveness, and on the other hand is very cheap to produce.

This is a unique 100% biodegradable isothermal packaging in the beverage industry. When talking about the reasons for producing this packaging, the company “Veuve Clicquot” stated that reducing the pollution produced by their packagings is their constant concern. It is evident that the company's aim is to introduce new innovative technical solutions that will be completely in accordance with nature, but still elegant, useful and practical (Vukmirović, 2012).

## **5. The significance of visual identity from the aspect of successful promotion of the product**

Term promotion, in this paper, is observed as the „process of communication between company and customers with the aim of creating a positive attitude about products and services which leads towards favoring certain products on the market compared with the competitive ones“ (Rakita and Mitrović, 2007).

Promotion is a complex system of communication with the customers, which includes considering which way of communication will be efficient to apply, what kind of message should be sent to the customers and which media should be used for efficient promotion. The implementation of these components should be observed from the aspect of target groups to which promotional messages are sent. Promotion, as an instrument of marketing mix, is besides product, price and distribution the fourth instrument which producers use to influence consumers with the aim of conquering the market.

The search for media values has forced the companies to rely less on the conventional ways of advertising and to accept other ways of communication: design, direct marketing, sales and promotion. “Design, as a specific way of artistic form, tends to advertise itself through the product and the product through itself at the same time.” (Rakita and Mitrović, 2007). Successful usage of design can, in a great deal, help the product to obtain and sustain competitive advantage. 68% of the interviewed companies consider that the most important role of design is the visual representation of product features, which can create competitive advantage.

Observed from a marketing point of view, the importance of packaging is quite different. According to Mark Gobe, packaging is instant advertisement, which must act instantly to attract attention or to establish a close relationship with the product. It takes only half a second to spot an advertisement, and another half a second for the observer to like it (Gobe, 2006). Therefore, it has to be instantaneous and impressive, but also emotional, in order to help the consumer to achieve a specific contact on a personal level. In order to achieve the efficiency of a packaging, following is necessary:

- Clearly stated definition of the product,
- Label of the manufacturer,
- The ability to establish an emotional connection - through a perceptual message, or an element of surprise (Gobe, 2006).

Packaging is the ultimate advertising tool, and the most imaginative ideas emerge as the result of strict limitations imposed by the "packaging" of the product. It is often the result of packaging dimensions, which does not offer enough space for a particular product to be fully presented to consumers, as well as the inability to perceive all its benefits and features in short period of time. Therefore, the packaging design should be very effective, in order to allow the product to stand out from the competition and to contribute in strengthening the brand.

The goal of every brand is to achieve a lasting relationship with the customer through its products, a kind of emotional connection, which is its "intangible capital" because the product existence is based on consumers perceptions and feelings towards it.

It is necessary to bear in mind that sudden and drastic changes in packaging design of the product or the manner in which consumers are accessed may cause consumers to lose favor for the product (Popović and Milićević, 2013).

Far from basic packagings with noticeable logos and very accentuated benefits that product offers, today, high-quality packaging is based on establishing an emotional connection on a more personal level, which results in creation of trust and loyalty to brand. The reason why great importance is given to the visual aspect of the product is the fact that consumers observe a brand and its packaging as an inseparable whole, ie together they create a "product".

It appears that visual aspect of the product and all the intangible components that are associated with it, put aside the content of the product. The "Coca-Cola" company claims that 75 percent of its brand value lies in intangible value, as can be inferred from the promotional campaigns that are based on emphasizing traditional values, togetherness, emotions that people associate with the holiday sentiment.

The size and shape of the packaging depend on the level of development and income of markets on which product is sold. Thus, in countries with higher incomes typically larger packagings are sold, because population in developed countries treats packaging mainly from the aesthetic point of view. In contrast, in developing countries packaging is valued for its functional qualities because it is very probable that the packaging will be saved and used for other purposes (Rakita and Mitrović, 2007).

## 6. Comparative analysis of successful examples from practice

*For a comparative analysis of the impact of identity on visual recognition and product positioning in the market, we selected two brands that have a significant, if not dominant role in the countries of South Eastern Europe. These are the food industry manufacturers, "Dukat" and "Imlek".*

According to processing and analysis of statistical data gathered from several sources from the market of food products in the Republic of Croatia, trademark "Dukat" is present in the dietary habits of the population to the extent that most of the respondents, when word "Dukat" is mentioned, first think of milk and dairy products and not of the gold coin. This statements is confirmed by the fact that this brand has been declared the most reliable in the field of dairy products in Croatia six years in a row (Popović and Milićević, 2013). Besides that, according to the survey this company offers consumers the best quality for the price, it is evident that great attention is given to the visual aspect of the product, which makes this manufacturer to stand out not only in the food market of Croatia, but also in the region.

Packaging design of the entire product range follows the same basic idea of creating such a package that is practical, easy to use, aesthetically appealing and in line with the wishes of customers which all makes products of this brand easy to identify, regardless of whether it is fruit yoghurt, cheese or milk. The fact that confirms thoroughly thinking about that design of the packaging in this company, is the fact that "Dukat" company often consults consumers in process of creating the visual identity of their products, e.g. action among school children in painting package of "Dukat" milk. Such activities are not a coincidence, since it is known that children are important part of consumer population for this type of product. In this way brand seeks to become even closer to consumers and to establish more important emotional connection with consumers, creating a product designed for them personally, product that is distinctive, interesting and unusual.

"Imlek" was, based on information that we obtained from the research organization "Moja Srbija" for 2012, the most popular brand in the category of 146 local brands. Analysing "Imlek" promotional material, we came to the conclusion that the basic idea of the company is to create the impression for a consumer that by purchasing "Imlek" products "Nature is within reach", and by

naming the product "My Cow" closeness to customers is achieved. The company creates products for a variety of buyers, thus it is necessary to design a packaging that will accompany the image that is being built around the product.

The distinctive logo is very simple, yet very effective, suggesting that what the company does. Point at the letter i, is stylized droplet which separates from the milky white area at the top of the logo. In addition to white color, which is a clear association, green is also used to be associated with the natural origin of the product, while blue has a calming effect. Likable cow, trademark of the company, is shown in an idyllic setting and is well known and a favored by all generations.

As modern society is increasingly turning to a healthy life, and trend of healthy and quality "organic" foods becomes more and more important in our society, the company created a product line of organic products called "Bello", which by its design refers to the aforementioned ideology. In fact, it is probably an identical raw material, which design is "selling" as an entirely new, different and above all, personalized product. Younger population is addressed through product line "Jogood" for which company is using strong colors and playful design at the same time, through typographic and pictorial elements that do not follow the strict form. In this way, company wants to create a product with which consumers will be able to identify with and which will become part of their lifestyle.

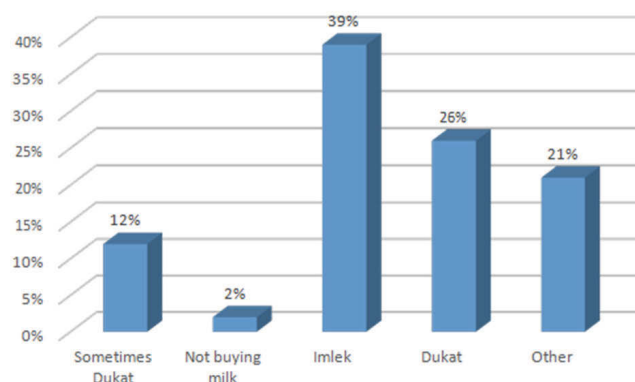
The research was conducted in the city of Banja Luka. Sample consisted of 105 respondents (130 entered the survey, 25 respondents did not provide complete answers and were not included) in one store of one of the leading retail chains - Intereks. On site testing was used to determine how consumers react when buying selected products. The aim of this study was to determine which factors of the visual identity of packaging, and to what extent, affect the decision to buy the product. Respondents were offered two competing products, milk of two known manufacturers "Imlek" and "Dukat". This product was chosen because it is in daily use and it is bought by habit. The fact is that if you make a purchase on a daily basis you do not think about it before buying unlike when purchasing more expensive products.

The questionnaire was compiled of questions related to packaging design, brand and quality of milk.

The results showed that "Imlek" the most frequently purchased milk. Respondents emphasized that when buying milk producer is an important issue to consider. They also emphasized that "Imlek" is very present in the media, that company has a well-designed advertising campaigns, and that they trust this manufacturer.

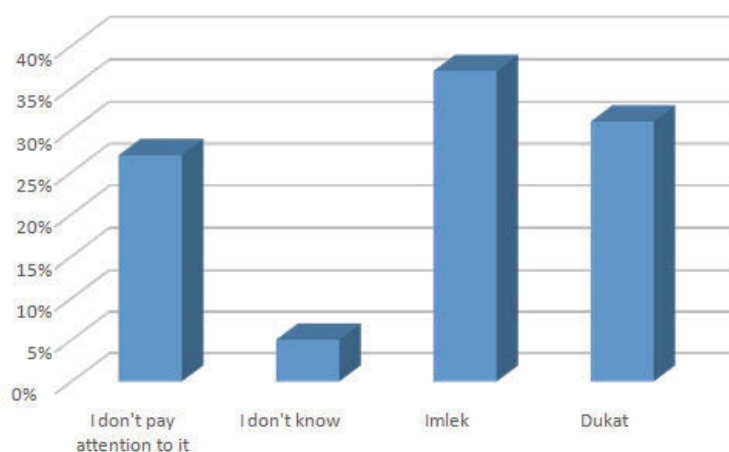
Respondents also indicated that they believe the quality of both milk producers is about the same, but that decision about purchase of a specific product is based on convenience of packaging, message that product is addressing to them when they decide to buy, and manufacturers communication with consumers. Results of research have also shown that when creating product packaging proper selection of typography is essential because the word "milk" is the most visible element of packaging for more than 50% of respondent. This is followed by the manufacturer's logo and illustration.

*Chart 1. The most purchased milk brand*

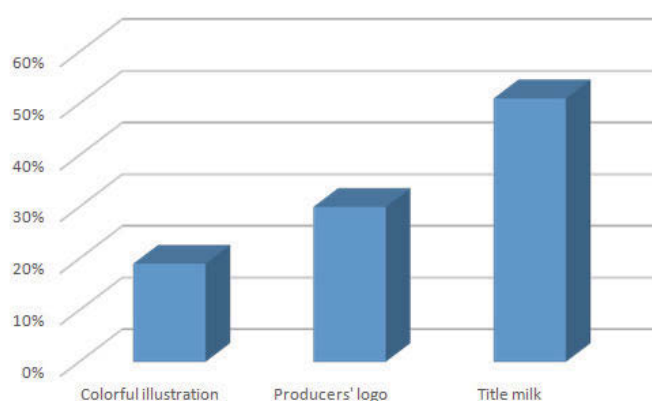


*Source: Authors' research*



**Chart 2.** *Examinees' opinion on milks' quality*

*Source: Authors' research*

**Chart 3.** *The elements of products' visual identity that are noticed first*

*Source: Authors' research*

Displayed charts illustratively indicate the above researched and analyzed significance of original, innovative design which is often decisive factor in creating consumer habits.

## 7. Conclusion

Researched consumer behaviour, pointed to the special rules in consumer actions and decision making. Although, it would be logical that selection of product while purchasing is based on a simple comparison of price and quality, our research shows that very often design and packaging are crucial in deciding which product will be chosen by the customer. The reasons for this are very logical and are associated with human psychology and the way of perception and understanding of certain shapes, colors and textures. Consumers are consulted both before and after creation of design solutions because they are the ones who decide about the success, survival and sale of a product on the market. In some cases, the opinion of customers is important to the extent that decisions about creating packaging design is left to consumers.



Conducted researches and quoted scientific insights have shown that the importance of well-designed product promotion, its visual identity and complete philosophy that is associated with the brand itself, also created by marketing experts, is as important as the product itself, ie. its structure and quality. However, manufacturers frequently follow wrong philosophy by believing that the package should be modest, because otherwise customer might think that the product is expensive. This provides a solid base for counter effect because such product in tough competition will not stand, and will often, regardless of the quality of the raw materials, be ignored and unnoticed. The reason is the fact that the visual aspect of the product attracts customers and quality of the product retains them. A product that does not "impose itself" to a buyer can not expect success in the market.

Researches have shown that while creating visual identity of the product, attention has to be paid to its numerous aspects, beginning with the texture and structure of the packaging. Therefore, rounded contours are frequently used, because they suggest the elegance and slenderness of the human figure. Smooth and rounded contours refer to the beauty and fineness of production and they are used for creating the effect of exclusivity and uniqueness of the packaging. Rustic packaging are a bit more simplified and they usually remind of some traditional products, while packagings with emphasized functionality and ergonomics usually designed for products which are being consumed on the go, such as energy drinks, which structure usually refers to dynamics of the move.

Usage of color has big significance in the structure of products visual identity. Therefore, when using colors, different color effects, ie the manner in which humans perceive them and cultural significance that some color has in certain environments should be taken into account, as well as the way in which used color fits in the idea or philosophy of the product or brand.

Based on researched literature and analysis of companies marketing plans, it can be concluded that design and the quality of the packaging is as important as the quality of the packaging content itself, because of the fact that it is important to find a way for the product to "reach" the consumer.

Growing significance is given to selecting appropriate typographic solution, which must not be burdened with large number of effects, using different types and sizes of fonts, because it creates confusion and uncertainty while observing it.

Increasingly, successful brands and companies, analyze their significance on the market through their non-material values, such as recognition, popularity, trust and the impact that they have on the customers. At the same time, this statement confirms above disclosed theoretical insight that „customer creates value“ and hypothesis about growing influence of product innovative visual identity on sale increase.

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## BUSINESS INTELLIGENCE AND ITS ROLE IN DECISION-MAKING

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### Abstract

*Increasingly commercial, nonprofit and public-sector companies' decisions tend to be based on data. The information available to these companies is the most critical component for their success. Guided by the increased competitiveness due to changing business models and the growth of the demand for new applications, many companies are adopting Business Intelligence (BI) technologies, data warehouse (DW) and systems that help the decision making process. Companies have realized the importance of implementing BI strategies in achieving their business goals. Many of them are making BI functionality more useful for all decision makers, officers and employees who deal with clients. Product quality specialists can now use the appropriate data in Data Warehouse to analyze the quality of the product. After a successful analysis of data on products they can find rules and patterns that lie behind and consequently help the quality analysts and managers to make better decisions regarding quality management. This paper focuses on the importance and advantages offered by BI in the decision-making process by analyzing the factors, technologies and best techniques for the implementation of BI.*

**Keywords:** Business Intelligence (BI), OLAP cube, Data Mining and Data Warehousing

### 1. Introduction

Nowadays, many organizations are developing and implementing Business Intelligence, or BI systems. However, BI is not a new technology. It was first developed and used in 1960s and was known as Management Information Systems (MIS). MIS were designed to support managerial decision-making. Those systems have evolved over the years: in late 1960s they were known as Decision Support Systems; in the 1970s as Executive Information Systems; in the 1990s as Data Warehouse systems and Knowledge Management Systems. It was in the 1990s that the term Business Intelligence became widely used (Shollo, 2013). BI was used to cover the idea that the data in IT system can be exploited by the business itself (Dekkers, 2007).

In literature review we find two major types of definitions for BI:

1. BI is a set of technologies, that is a set of tools and methods that supports the gathering, analysis and transformation of data into information ( Watson and Wixoxm, 2006).
2. BI is a process in which internal and external data are gathered, integrated, analyzed and transformed into information which is then turned into knowledge used in decision-making (Petrini and Pozzeban, 2009).

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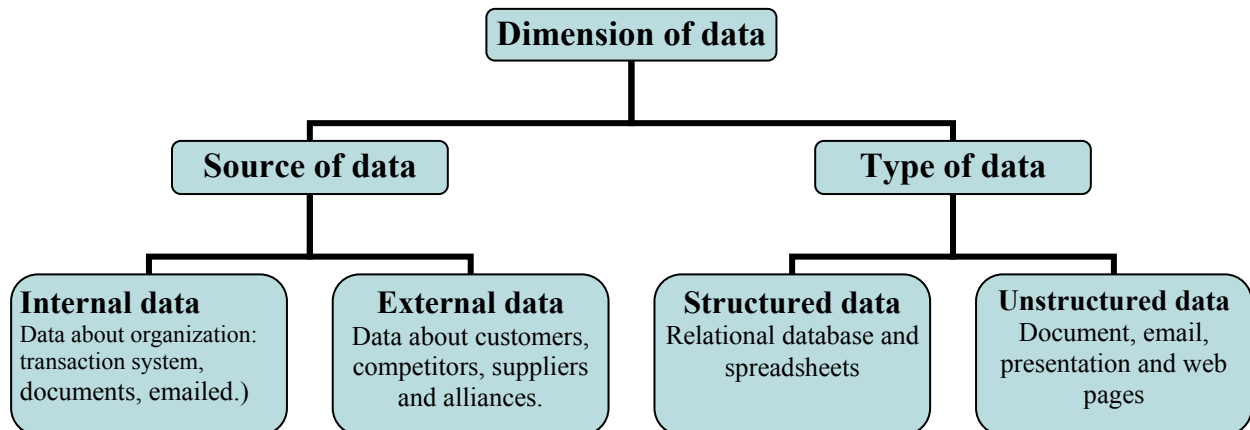
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According to the first definition, BI combines data warehouse technology with data mining and on-line analytical processing (OLAP), and it gathers information from KMS, DSS and other information systems used in the business (Negash 2004 ). In gathering and storage technologies, the main idea about BI is that it is a system that gathers and stores data. Figure 1 shows the categorization of data according to Negash first in respect to dimension and second in respect to source and type.

*Figure 1. Type of data in organization*



Traditionally, BI technologies are developed and implemented for the gathering and storing of structured data (Baars and Kemper, 2008). But only the combination of structured and unstructured data will provide decision-making with actionable information. Around 85 % of all business information exists as unstructured data, and 60 % of CIOs and CTOs consider unstructured data as vital for improving procedures and creating new business opportunities (Negash, 2004).

According to the second definition, BI process consists of three phases:

1. Data gathering and storing phases,
2. Data processing and analysis,
3. Actual application of the BI output.

To capture the real value of BI, the organization should find ways to integrate BI into management processes in order to use it in decision-making (Williams 2004).

## 2. Business Intelligence

Given that business and organizations receive a vast amount of information from different resources, the main problem in taking the operational decision is to focus on the right information. In today's rapidly changing business environment, organizational resourcefulness depends on operational monitoring of how the business is performing and mostly on the prediction of the future outcomes which are critical for a sustainable competitive position. Intelligence becomes an asset only if it is used (Flud, 2003).

Implementing a BI system can help to identify the causes and reasons of certain occurrences thus, helping the business to make predictions, calculations and analysis; so that the needed knowledge is successfully extracted from the data and that the proper decisions are made (Zekic and Susac, 2008). BI consists of a wide range of analytical softwares that provide the information of taking better decision by every user of the business, such as analyzers, managers and operators. The information is in real-time and supports reporting on every organizational level.

According to Blomme, traditionally, BI systems provide a retrospective view of the business by querying data warehouse which contain historical data. On the contrary, contemporary BI-systems analyze real-time event streams in memory (Blomme, 2013).

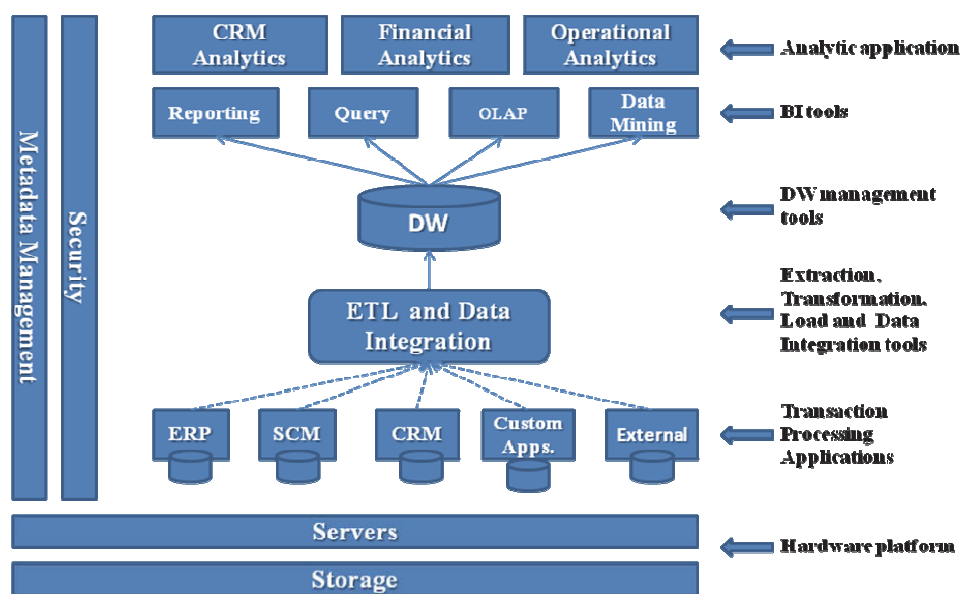
BI is implemented to give users access to information in their systems in an automatic and efficient way. The users need not to have any technical knowledge of the underlying system because all data gathering are performed automatically by the BI systems (Ritacco, 2003).

### 3. BI component

Efficient Business Intelligence connects business with information technology (IT) so that the available resources can be allocated with respect to their own capabilities, as well as provides intelligent problem solutions (Ranjan, 2008). Figure 2 describes the BI environment, which integrates many of the business processes (ERP, CRM, etc. ) into multiple applications that serve the primary source of data. Once the data are gathered and stored in a DW can be easily analyzed with the help of BI tools, such as reports, OLAP, and data mining. These analytic tools have the potential to provide actionable information that can be turned into valuable information on which the companies base their decisions.

ETL refers to three separate functions. The *Extract* function extracts desired subset of data from data sources, such as orders, invoices, shipping, web clicks, external data, etc. (Howson, 2008). The *Transform* function is used to transform acquired data into a desired state, using rules or lookup tables, or creating combinations with other data. Finally, the *Load* function is used to write the resulting data to a target database. The most time consuming of the ETL process is the transform function, especially when the source databases are heterogeneous and distributed/decentralized. Inconsistent codes, handling incomplete data and changing codes to meaningful terms are all part of the transform process.

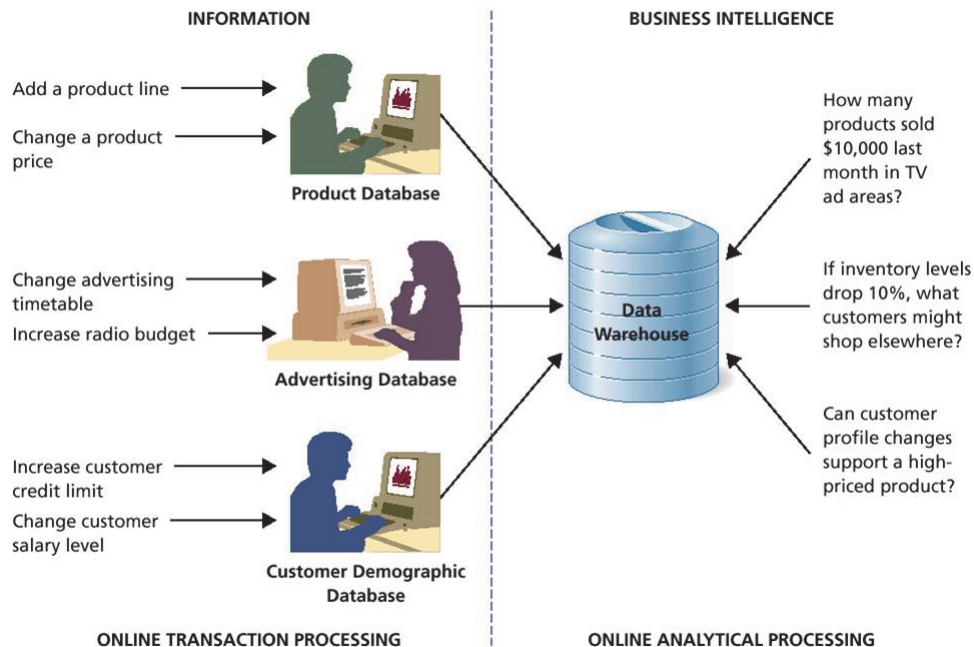
**Figure 2. BI environment**



Data from the ETL are loaded into the **data warehouse**, or DW. Bill INMO, the father of DW, defines it as "A data warehouse is a set of data of subject-oriented, integrated, consistent, and varies according to the time in support of management decisions". BI applications can extract data from the data warehouse on which they produce information and show it into reports. DW

are extracted from various sources and transformed into a single consistent type and loaded for analysis (Figure 3).

**Figure 3. One BI example (Hemphill, 2004)**



**OLAP** is a technology designed to provide high performance for query-business case. OLAP is designed to operate efficiently with the data organized according to common dimensional model used in the data warehouse. A data warehouse provides a multidimensional view of data in an intuitive model designed to suit the requirements raised by analysts and decision makers. OLAP organizes data warehouse in multidimensional cubes based on this dimensional model, and then processes these cubes to provide maximum performance for query-that multiply the data in different ways.

**Data Mining (DM)** is the analysis knowledge which discovers new patterns from large data sets and involves statistical and artificial intelligence methods.

#### 4. Benefits provided by implementing BI

BI can offer different benefits to a business including improvement on ROI, effective decisions, better plans for the future and an improvement in the customer satisfaction. BI, when well-conceived and properly implemented, allows all users to make informed choices and decisions every time and in every situation. Additionally, information gleaned from a competent BI installation makes employees more productive, suppliers more efficient, and customers more loyal (Miller, 2011). Within the BI tools market, the end-user query, reporting, and analysis segment accounts for 81.9% of the revenue.

- Reducing costs

Once in place, the BI make possible for regular employees to create reports and also to be able to discover answers to their own questions. It becomes possible to reduce the human resource costs for the organization, and the labor costs (Henrichsen, 2010).

BI systems reduce labor costs for generating reports by:



- automating the data collection and aggregation process,
- automating report generation,
- providing report design tools that make programming of new reports much simpler, and
- reducing training needed for developing and maintaining report.

BI minimizes manual and repetitive work. The BI toolkit and the synchronistic nature of the BI environment help to facilitate a very different orientation to the everyday tasks of data accumulation and processing.

- Make data actionable

BI make data actionable in a unified view offering the right information to the right people in the organization. This data quality prevents conflictual definitions and incompatible report data. Data are consolidated from different data sources.

- Better and faster decision to business trends

Whether tracking customer buying habits, inventory turns, or other sales and/or operational parameters, any and all of these areas are more readily evaluated and employed in the business decision-making process whenever coherent and consistent BI tools are available. As it turns out, the graphical nature of most BI toolkits consistently and dramatically provide easy access and demand attention to the most useful trends. Indeed, the very nature of the BI toolkit gives rise to a dynamic and readily identified representation of the most pertinent trend data (Miller, 2011).

## 5. Implementation of BI

Many businesses have or are implementing Business Intelligence because it is the top CIO technology whose priorities and trends are driving information revolution and innovation (Hostman, 2013).

According to Rayner: *“Through 2015, predictive and prescriptive analytics will be incorporated into less than 25% of business analytics projects, but will deliver at least 50% of the business value.”* (Rayner, 2013).

However, as far as Albania is concerned, we conclude that we are at the very beginning of the process: at the point where the business and technological advances promised by BI are still being developed, explored, and enhanced.

Some of the most important softwares for implementing BI solutions are: Cognos (IBM), Microstrategy, Informatica Builders, BusinessObjects (SAP), Board, Oracle, SAS Institute, Tableau, QlikView, etc.

BI solutions are implemented in:

- *In industry* - In retail industries, managers use advanced information technology to provide performance and achieve their objectives in the broad field of applications. The use of BI improves commercialization decisions, provides faster response to the requested information, increases employee productivity and provides a better service to customers.
- *In insurance* - The use of BI for insurance systems enables a comprehensive view of business, better service to customers and executes operations in the most efficient manner. Typical questions that requires the insurance industry in respect to BI solutions are mainly related to risk analysis for new customers.
- *In banks* - BI enables an increase in the number of users (to a high number of users) and offers a superior capacity for generating reports, which are easy to use and contain well-detailed analysis of the level of granularity of the data. It provides:
  - Analysis of the benefit of the client,
  - Management of credit,

- Branches of sales.
- Telecommunications industry - BI allows business satisfying requirements of end-user community fully extended. Telecommunications industry requires information such as:
  - portrayal and customer segmentation.
  - Demand planning clients.
- Manufacturing industry and the use of large - In manufacturing industry, management is using advanced information technology to improve performance and achieve their objectives in the broad field of applications. BI provides a single source for critical information throughout the organization, so it will be less time for data review and more for taking critical decisions. The following are some of the requirements of this industry:
  - Sales / Marketing.
  - Forecast.
  - Ordering and fulfillment.
  - Analysis of purchases / sales.
  - Distribution and logistics.
  - Management of transportation.

Recently BI applications are implemented on mobile for data analysis and discovery. This is not only because of the increasing use of the mobiles but also because of the request to have the right information at any time, everywhere.

## 6. Conclusions

Nowdays, business and organizations are receiving a vast amount of information from different resources, but are they making better decisions? Descriptive analysis which is used to identify what happens in the business reports that business are more interested in optimizing their decisions and predicting the future. Business Intelligence, which provides the opportunity to make a better decision, is becoming more and more prevalent and important.

Business intelligence efficiency would be achieved, only if in BI system are implemented all structured/unstructured data of the business. The implementation of the data should be done by the high specialized employers of different sectors always supervised by the technical business intelligence staff.

By implementing the Business Intelligence organization can gather large return on investment with a lower cost, make faster and better decisions, and use more effectively the information assets of the organization.

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## LINKING FIRM PERFORMANCE TO SCALE-BASED PRESSURE, TECHNOLOGICAL DEGREE OF PRODUCTS AND INTERNAL CHANGE

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### Abstract

*This paper seeks to explore empirically the drivers of firm performance across a range of dimensions critical to success. To accomplish this objective, we distinguished six dimensions that are sales volume, openness in innovative activities, active buyer role in the market for technology, participation in technology alliancing, the acquisition of technical equipment for R&D purposes and successful patent issuing. Our findings suggest that competitive pressure posed by larger rivals in an industry affect sales performance negatively, but the possession of absorptive capacity can counter this deleterious effect. Absorptive capacity altogether with competitive pressure favours the acquisition of advanced equipment. Findings with regard to effects of a product portfolio with high technological content are mixed. Depending on the performance measure applied, the results show evidence of pure negative effects for sales and equipment purchase, U-shaped effects for participation in technology alliancing, and inverted U-shaped effects for open innovation practices and patenting. Further, the commitment of a firm's management toward internal change promotes open innovation and patenting activities, and sets back technology alliancing.*

*As secondary findings, we show that firms with a higher international orientation clearly enjoy a higher rate of company sales, open innovation endeavours and patenting. The turbulent nature of the environment is harmful to openness and technology purchase. Firms' downstream activities toward a more robust market presence assist to openness, R&D equipment purchase and patenting, but surprisingly hinders sales. The data for our analysis comes from the 2008 PITEC database, which is the Spanish correspondence of the Community Innovation Survey. The data collection was administered by the Spanish National Statistics Institute. As a result of the sample generating procedure where only firms expending a positive amount of resources on innovation activities have been included, our sample embraces more than 3000 firms.*

**Keywords:** performance competition technology change

### 1. Introduction

A relevant body of research tries to seek the factors that can enhance or set back the performance of firms. Prior works revealed that largely absolute firm size, complementary assets, location, external channels of R&D, and breadth of product range were at the forefront of empirical investigations (Dobrev *et al.*, 2002; Folta *et al.*, 2006; Giarratana and Fosfuri, 2007; Laursen and

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Salter, 2006; Sorenson, 2000). These results notwithstanding, there might be other potential issues at work pointed out by the business press and anecdotal evidences, such as scale economies, the innovativeness of product portfolio, the possession of absorptive capacity, and the rate of internal change in operations (Alexy *et al.*, 2013; Chesbrough, 2007; Chiaroni *et al.*, 2011; Dobrev & Carroll, 2003; The Economist, 2011a). What are then the further drivers of firm performance? In order to address our research question, we draw on a population of 3048 firms taken from the Spanish Community Innovation Survey.

## 2. Theory and hypotheses

Scale economies exert a determinative force in several industries on organizational evolution, such as the automobile industry in the U.S. and in Europe (Dobrev and Carroll, 2003), the U.S. television receiver industry (Klepper and Simmons, 2000; The Economist, 2011a), the beer-brewing industry (Carroll & Swaminathan (2000), the worldwide container shipping industry (The Economist, 2011b), and the smartphone industry (The Economist, 2011a). The aftermath of scale-competition is the worsened position of smaller organizations against their larger rivals that can manifest in higher average costs leading to internal inefficiency. This can range from supplier and buyer markets to hurdles on the labor market by the inability to offer favorable wage conditions and overall job security in contrast to large competitors (Dobrev and Carroll, 2003; Dobrev, Kim and Carroll, 2002; The Economist, 2011ab). Another source of scale-based selection pressure posed on smaller entities is associated with preferential treatment enjoyed by large firms from regulatory bodies and politicians which conveyys them an advantage in intrapopulation competition (Nelson and Winter, 1982).

Dobrev and Carroll (2003) provide a detailed discussion regarding the theoretical and analytical relevance of dividing organizational size into two types. In line with this article, we distinguish between absolute and relative size as this latter represents noteworthy economic advantages to lower costs, political and institutional advantages and important complementarities originating from scale-competition. In addition, studying the U.S. television receiver industry, Klepper and Simmons (2000) observed that major product and process innovations were mainly produced by large incumbent organizations. Because economies of scale acts as a major driver of competition in the sectors referred above, we believe that it also has to affect firm performance. We posit that scale competition does affect smaller competitors negatively, arising from competitive problems due to scale pressure posed by larger rivals.

*Hypothesis 1:* Higher rates of competitive pressure posed on firms by bigger rivals deteriorate firm performance.

Absorptive capacity is an important element to boost firms' ability toward learning and innovation (Cohen and Levinthal, 1990). The literature discusses two key roles played by absorptive capacity regarding external knowledge (Cohen and Levinthal, 1989; Zahra and George, 2002). According to the first role, absorptive capacity is conducive for firms to detect available external knowledge flows (Escribano *et al.*, 2009). The second role is associated with the benefits, the firm obtains when using or exploiting external knowledge.

According to Fabrizio (2009), there is a strong link between a firm's absorptive capacity building activities and the search process for innovation, placing the firm in an advantageous situation in terms of both the timing and quality of search outcomes. These advantages can translate into marketable products that eventually contribute to increased sales volumes which offset deleterious effects of scale-based pressure and promote firm performance. It is further buttressed as absorptive capacity breeds the speed and frequency of incremental innovation which rely heavily on the existing knowledge base of firms (Anderson and Tushman, 1990; Helfat, 1997; Kim and Kogut, 1996). Van den Bosch *et al.* (1999) pointed out that in turbulent and unstable periods,

firms are likely to increase their absorptive capacity level and the focus of firm's knowledge absorption will be on exploration.

Therefore, we can assume that there is heterogeneity among firms in the level of absorptive capacity. Firms with higher levels of absorptive capacity are able to identify more external knowledge and can exploit it more efficiently. These abilities attached to higher degrees of absorptive capacity can smaller firms make a good turn when facing competitive pressure vis-à-vis larger rivals.

*Hypothesis 2:* Strong absorptive capacity deployed by a firm counters the negative effect of competitive pressure and enhances firm performance.

The management of product portfolio represents a key strategic issue for firms (Giarratana and Fosfuri, 2007; Eggers, 2012; Sorenson, 2000). According to prior literature, product scope width is particularly conducive during higher degrees of environmental turbulence (Dobrev *et al.*, 2002) and for pursuing a hedging strategy against risk of losses (Sorenson, 2000).

In competitive industries, rivalry faced by firms is associated with poorer performance and activates internal organizational learning processes (Barnett and Sorenson, 2002). Such internal learning processes can entail that firms commit resources to continuously refine their product offerings that fit more closely the needs and expectations of their customers.

We define technological degree of product portfolio as consisting of products that display high level of innovativeness. We argue that firms having developed a product portfolio of too innovative products have worse company performance. First, having a portfolio of products with excessive innovativeness, could produce a product cannibalization effect (Garud and Kumaraswamy, 1993) inside existing product categories when the firm updates too often its product offerings. Second, excessive innovativeness of products could entail the rise of control and coordination costs (Jones and Hill, 1988). Third, relying extensively on external channels can greatly confine the developer organisation's ability to regulate the product's technological trajectory (including the features of the product) by losing some control compared to closed design (Almirall and Casadeu-Masanell, 2010).

*Hypothesis 3:* Firms with a product portfolio that exhibit higher levels of technological content display lower company performance.

Damanpour (1991) introduces the concept of managerial attitude toward internal change defining it as the extent to which managers are in favour of change inside the organisational boundaries. We contend that managers that trigger a process of internal change toward operations for major production capacity, and savings on material use, costs and energy will place their organizations into a more favourable situation. Often shifts in the traditional practices of doing business inside the industry impel internal organizational changes of incumbents. Individual level attributes can help tackle effectively those external shifts that eventually improve firm performance (Alexy *et al.*, 2013). Enhanced managerial attitude toward handling change plays an important role when the organization is on the transition from a traditional to a new business model, leaving behind former internal practices and routines (Chesbrough, 2007). Under such circumstances, the involvement of senior managers is crucial in administering internal issues associated to change, and guarantees higher probabilities for success (Di Minin *et al.*, 2010).

*Hypothesis 4:* Firms that witness unfolding internal change within their boundaries tend to exhibit better performance.



### 3. Empirical analysis

#### 3.1. Data

We turned to the PITEC database to test our ideas. The dataset is drawn from the Community Innovation Survey gathered in Spain, in 2008, and administered by the Spanish National Statistics Institute. Numerous previous works resorted to this database (Barge-Gil, 2010; Escribano *et al.*, 2009), or its U.K. counterpart (Laursen and Salter, 2006). Due to sample selection restrictions, only those firms were included into the sample that realized R&D activities, expending a positive amount of resources on innovation activities. In the end, our sample embraces more than 3048 firms.

#### 3.2. Dependent variables

Following the literature (Baum and Silverman, 2004; Folta *et al.*, 2006; Santamaría *et al.*, 2009), we examine firm performance using multiple measures that embrace a range of dimensions critical to success: the logarithm of sales (LOG\_SALES, Model 1), breadth of open innovation (OPENNESS, Model 2), buyer role on the market for technology (TECHN\_PURCHASE, Model 3), success in attracting technology alliance partners (TECHN\_ALLIANCING, Model 4), equipment purchase to enhance R&D (AQU\_EQUIP, Model 5), and development of intellectual property by issuing patents (PATENTING, Model 6). To measure the breadth of open innovation, we constructed the variable OPENNESS with a maximum (minimum) value of 1 (0) implying full (no) openness: firms rate in the PITEC questionnaire on a four-point scale the importance of ten external channels for their innovative processes; we normalized the sum to vary between 0 and 1. For the rest of the dependent variables (for Models 3-6), we created dichotomous, 0-1 variables to depict the underlying phenomenon (obtaining a patent, acquiring disembodied technology or a sophisticated equipment, and crafting a technology alliance).

#### 3.3. Variables of theoretical interest

The variable CPRESSURE aims to grasp competitive pressure. Following Dobrev and Carroll (2003), it is operationalized by the following formula

$$CP_{it} = \sum_{S_{jt} > S_{it}} [(S_{it} - S_{min})^{-1/4} - (S_{jt} - S_{min})^{-1/4}]$$

where  $S_{it}$  stands for the sales volume of firm  $i$ . The variable measures the aggregate distance of firm  $i$  from all larger firms  $j$  inside its respective industry, applying an adjustment with the smallest firm. As the formula shows, the greater the number of larger rivals, the greater the competitive pressure the focal firm faces. In our specifications, we interact the CPRESSURE variable with absorptive capacity, as implied by the second hypothesis. The construct absorptive capacity (ABS\_CAPAB) is grasped through the principal component of four variables, such as internal R&D, permanent R&D, training and R&D skills. This latter encompasses the number of scientist and researchers over total employees. The construction of ABS\_CAPAB is in line with Escribano *et al.* (2009). The technological degree of product portfolio (TECH\_PP) is measured as the fraction of the firm's turnover associated both to products new to the world market and to products new to the firm. Thus, TECH\_PP simultaneously incorporates a firm's product offerings and their rate of technological content. Firms rate on a four-point scale, the effectiveness of five different methods that can undertake toward the adjustment of their internal operations. The five

areas embrace improvement on flexibility and capacity of production, and achievement of savings on material use, material costs and energy. For the last core variable, MACH\_INT, we sum up the five scores, and rescale them, so that the resulting index of managerial attitude toward change of internal affairs varies between 0 (minimum internal change) to 1 (maximum internal change).

*Table 1. Descriptive statistics*

	Variable name	Mean	SD	Min	Max
1	CPRESSURE	0.98	1.80	0.00	31.55
2	TECH_PP	34.58	36.91	0.00	100.00
3	MACH_INT	0.64	0.21	0.00	1.00
4	GEO_MARK	3.55	0.77	1.00	4.00
5	ABS_CAPAB	0.00	1.09	-12.12	1.59
6	INVESTMENT_DA	0.34	0.48	0.00	1.00
7	TURBULENCE	0.31	3.40	-20.03	11.29
8	ABS_SIZE	4.31	1.32	0.69	9.23

#### 4. Control variables

We introduce a series of control variables to distinguish effects different from our variables of theoretical interest. Firms' learning and innovation potential measured by the absorptive capacity (ABS\_CAPAB) variable is already demonstrated above. We control for the size of the actual product market (GEO\_MARK). GEO\_MARK takes the values from 1 to 4, with 1 corresponding to 'local', 2 to 'regional', 3 to 'national', and 4 to 'international'. Firm success through higher commercialization potential of products crucially depends on downstream assets (Gans and Stern, 2003; Teece, 1986). To be aligned with these important observations, we follow Arbussá and Coenders (2007) and construct the variable investment in downstream activities (INVESTMENT\_DA), which is a dichotomous variable, displaying 1 if the organization in question invested in either design and other technical procedures, or in internal or external marketing activities. The performance of firms might be affected by the degree of environmental uncertainty. To isolate such effects, we introduce the variable TURBULENCE that refers to the turbulent nature of an industry. The variable is calculated as the difference between the industry rate of increase in sales of new or significantly improved products and the average rate of increase for the whole economy (including all industries). We use the number of employees on a log scale as a measure of firm's (absolute) size (ABS\_SIZE) that clears up its effect from relative size considerations. Table 1 displays the basic statistics for the variables used for our analyses. Table 2 provides covariates correlations.

*Table 2. Descriptive statistics*

	1	2	3	4	5	6	7	8
1	1.00							
2	0.06	1.00						
3	-0.09	0.07	1.00					
4	-0.22	0.02	0.08	1.00				
5	0.09	-0.01	-0.17	-0.11	1.00			
6	-0.01	0.09	0.14	0.05	-0.21	1.00		
7	0.00	0.11	-0.03	0.01	0.09	0.03	1.00	
8	-0.54	-0.11	0.12	0.25	-0.24	0.05	-0.03	1.00

## 5. Methodology

According to the nature of the response variables that are continuous, dichotomous or percentage value, we used the following models: multiple linear regression, Logit or Tobit model, respectively. The fitting of these models was performed in the statistical program R by using different functions as described below. The multiple linear regression model involves the function *lm()* that uses the QR method to calculate the parameter estimates. In so doing, the method applies a permutation matrix, an orthogonal matrix Q and an upper triangular matrix R. As a measure of goodness of fit, the multiple linear model makes feasible to extract the adjusted R square value. The Logit model works with the function *glm()* with the binomial family option. The *glm* function deals with generalized linear models. In the logit model the dependent variable can take the value 1 with probability of success  $p$ , or the value 0 with probability of failure  $1-p$ . The logistic regression equation is given by the expression:

$$L = \log \left( \frac{p}{1-p} \right) = X^T \beta$$

where the probability  $p$  is given by:

$$p = \frac{1}{1 + e^{-X^T \beta}} = \frac{e^{X^T \beta}}{1 + e^{X^T \beta}}$$

Finally, the Tobit model resort to the function *tobit()* in the package called AER. This function is appropriate for specification of the censoring information. The default model is the classical Tobit model (Tobin, 1958; Greene, 2008).

## 6. Results and discussion

Table 3, 4 and 5 provide the estimation results. Our first hypothesis gains support only in Model 1 where the variable CPRESSURE is negative and statistically significant. When experiencing higher degrees of competitive pressure within the respective industry, the performance of firms captured by the volume of sales deteriorates, as implied by Hypothesis 1. It is an interesting finding per se that other key strategic performance dimensions, do not suffer from deleterious hindrance associated with small size. Therefore, smaller firms can have equal probabilities to increase their involvement in open innovation, act seamlessly as technology acquirers, initiate strategic technology alliances, buy R&D equipments, and grant patents. Through the joint inclusion of CPRESSURE and ABS\_SIZE, we could parse out effects associated to economies of scale and scope, providing a value addition to prior literature.

**Table 3. Results of Model 1 and 2**

Method	Multiple Linear Regression			Tobit Model		
Dependent variable	LOG_SALES Model 1			OPENNESS Model 2		
	Coefficient	Std error		Coefficient	Std error	
<b>Independent variables</b>						
Constant	11.46	0.09	***	0.12	0.02	***
CPRESSURE	-0.14	0.01	***	-0.0009	0.002	
CPRESSURE X ABS_CAPAB	0.02	0.01	*	0.002	0.002	
TECH_PP	-0.001	0.0003	*	0.001	0.0004	**
TECH_PP <sup>2</sup>				-0.00001	0.000004	**
MACH_INT	0.01	0.06		0.35	0.02	***
GEO_MARK	0.13	0.02	***	0.01	0.004	*
ABS_CAPAB	-0.07	0.01	***	-0.03	0.004	***
INVESTMENT_DA	-0.06	0.03	*	0.01	0.01	†
TURBULENCE	-0.004	0.004		-0.002	0.001	†
ABS_SIZE	1.07	0.01	***	0.01	0.003	†
LOG_SCALE				-1.73	0.01	***
	Adjusted R-squared: 0.841			Wald-statistic: 803.6 on 10 df		
	p-value: < 2.2e-16			p-value: < 2.22e-16		

\*\*\* *p*-value < 0.001, \*\* *p*-value < 0.01, \* *p*-value < 0.05, † *p*-value < 0.1

Hypothesis 2 gains support by Model 1 and 5. The finding revealed in Model 1 argues that smaller firms with strong absorptive capacity offset the hindrance linked to small size, and increase firm sales. The multiplicative effect between competitive pressure and absorptive capacity proves positive and significant in Model 5, too. Perhaps, skilled professionals or R&D engineers who in unison act as main pillars of a firm's absorptive capacity can effectively argue and their negotiation power result in the regrouping of internal pecuniary resources for the purchase of technical equipment.

As pointed out by several models, the technological degree of product portfolio is a key determinant of firm performance. We experimented with the inclusion of the square term of TECH\_PP to discern whether a linear or curvilinear relationship is most appropriate. Models 1 and 5 deliver the proposed effect by Hypothesis 3: technologically advanced products discourage the purchase of technical equipments required for R&D, and deteriorate the volume of sales. Hypothesis 3 is also demonstrated by Model 4 when a U-shaped effect is revealed with regard to the rate of technological content of product portfolio and the participation in technology alliancing. Models 2 and 6 demonstrate an inverted U-shape, while Models 1 and 4 reveal a U-shape effect between the technological content of product portfolio and firm performance. Accordingly, the technological content of product portfolio positively influences the practices of open innovation and patenting at its lower values, and this effect becomes negative at higher variable values. For instance, there might appear an attention problem of trained personnel in choosing higher rates of product development vis-à-vis patent crafting process and openness. The opposite effect is true regarding sales and technology alliancing. Except these two latter cases, results corroborate Hypothesis 3.

**Table 4. Results of Model 3 and 4**

Method	Logit Model			Logit Model		
Dependent variable	TECHN_PURCHASE			TECHN_ALLIANCING		
	Model 3			Model 4		
	Coefficient	Std error		Coefficient	Std error	
Independent variables						
Constant	-6.19	0.88	***	-0.04	0.35	
CPRESSURE	0.08	0.07		0.0072	0.031	
CPRESSURE X ABS_CAPAB	-0.01	0.07		0.009	0.029	
TECH_PP	-0.004	0.003		-0.025	0.0060	***
TECH_PP <sup>2</sup>				0.00019	0.000056	***
MACH_INT	0.42	0.58		-0.76	0.25	**
GEO_MARK	0.25	0.19		0.09	0.067	
ABS_CAPAB	-0.32	0.07	***	-0.15	0.048	**
INVESTMENT_DA	0.94	0.24	***	0.09	0.10	
TURBULENCE	-0.08	0.03	**	0.018	0.014	
ABS_SIZE	0.21	0.10	*	-0.04	0.044	
AIC: 35.47			AIC: 2669.2			

\*\*\*  $p$ -value < 0.001, \*\*  $p$ -value < 0.01, \*  $p$ -value < 0.05, †  $p$ -value < 0.1

The coefficient of MACH\_INT defines the rate of firms' commitment toward internal process changes. Data reveal that maintaining such an internal orientation, it enhances open innovation and patenting performance. Such results buttress Hypothesis 4. However, surprisingly Model 4 reveals a relationship opposite to the hypothesized prediction. We speculate that enhanced commitment for internal change makes unfeasible the participation in technological alliances to which firm need to provide sufficient level of organizational attention. Thus, results point toward a potential trade-off between joint technological collaboration and a comprehensive firm strategy addressing internal change.

As far as it concerns our control variables, the estimates of the GEO\_MARK variable report that firms with international market orientation tend to enjoy enhanced performance in sales (Model 1), open innovation initiatives (Model 2) and patent granting (Model 6). It exhibits a negative effect in Model 5, though it is significant on the margin. Coefficient estimates for absorptive capacity prove negative and significant in all models, suggesting that considering alone, absorptive capacity has no value per se but incurs heavy development costs, thus lowering performance.

The turbulent nature of the environment appears to be negative in Models 2 (openness) and 3 (technology purchase). It can be that partner selection for lucrative open innovation initiatives and the appraisal of appropriate technologies to be purchased involve more difficulty under major shifts in the industry. Investments in downstream activities contribute in several cases to firm performance shown by Model 2, 5 and 6, but contrary to expectations it deteriorate the amount of sales. Not surprisingly, firm size positively influences performance implied by all indicators of performance, except technological networking (Model 4) where the variable does not reach established levels of significance.

**Table 5. Results of Model 5 and 6**

Method	Logit Model			Logit Model		
Dependent variable	AQU_EQUIP			PATENTING		
	Model 5			Model 6		
	Coefficient	Std error		Coefficient	Std error	
<b>Independent variables</b>						
<b>Constant</b>	-1.50	0.30	***	-3.97	0.37	***
<b>CPRESSURE</b>	-0.04	0.03		0.0497	0.032	
<b>CPRESSURE X ABS_CAPAB</b>	0.07	0.03	*	-0.004	0.033	
<b>TECH_PP</b>	-0.003	0.001	*	0.018	0.0057	**
<b>TECH_PP<sup>2</sup></b>				-0.00016	0.000055	**
<b>MACH_INT</b>	0.24	0.22		0.66	0.25	**
<b>GEO_MARK</b>	-0.10	0.06	†	0.27	0.075	***
<b>ABS_CAPAB</b>	-0.18	0.05	***	-0.27	0.052	***
<b>INVESTMENT_DA</b>	0.72	0.09	***	0.17	0.10	†
<b>TURBULENCE</b>	-0.01	0.01		-0.003	0.014	
<b>ABS_SIZE</b>	0.08	0.04	†	0.16	0.044	***
	AIC: 3205.4			AIC: 2817.6		

\*\*\*  $p$ -value < 0.001, \*\*  $p$ -value < 0.01, \*  $p$ -value < 0.05, †  $p$ -value < 0.1

## 7. Conclusions

In this paper we have investigated empirically the determinants of firm performance across a range of dimensions critical to success. To this end, we distinguished six dimensions, such as sales volume, openness in innovative activities, active participation in the market for technology as a buyer, participation in technology alliancing, the acquisition of technical equipment for R&D purposes and successful patent issuing. We took our data from the 2008 PITEC database, which is the Spanish correspondence of the Community Innovation Survey. Our findings suggest that competitive pressure (aggregate distance from larger rivals in an industry), the possession of absorptive capacity, a product portfolio of high levels of technological content, and managerial attitude toward internal change are important factors in explaining firm performance, but their effects are dependent on the type of performance measure.

Accordingly, higher rates of competitive pressure only affect smaller firms in their sales levels, not affecting other performance dimensions, however such a negative effect might be reverted with stronger absorptive capacity. Strong absorptive capacity and the pressure posed by bigger rivals in unison encourage the acquisition of advanced equipments to be used at R&D undertakings. The technological degree of product portfolio is a key factor in deciding about firm performance. To elicit more precise links with firm performance, we aimed to grasp potential curvilinearity. Results are mixed. Technologically advanced products discourage the purchase of R&D equipments and reduce sales volume. Relatedly, there exists a U-shaped effect with the technological degree of product portfolio and the participation in technology alliancing. On the other hand, we explored an inverted U-shaped relation that product characteristics exhibit with open innovation practices and patenting. Further, the commitment of a firm's management toward internal changes influences positively open innovation and improves patenting performance, but holds back alliancing activities.

The research agenda we set forth has implications for theory. Complementing prior studies, we detected some specific organizational and within-industrial traits that had not been studied before. For this reason, the research presented here implies a theoretical value addition for the body of literature addressing the study of firm performance.



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## PROTECTION OF INTELLECTUAL PROPERTY AS A MEANS OF EVALUATING INNOVATIVE PERFORMANCE

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### Abstract

*Intellectual property is an important tool that helps to improve the competitive position of firms in the market. Currently, companies have no motivation to protect intellectual property because they have enough experience in order to handle the entire process themselves. Commercialization of innovations into protectical use does not currently exist without the protection of intellectual property. Firms should be aware that when you interest a lot of resources into research and development, and implementation of protection of this investment is a necessary phase that should be included in the innovation process. Innovative activity is closely related to the definition of innovation process. Innovative activities can be seen as capturing the relative performance of firm in a given period. It should be stressed that it has no meaning to speak of innovation activities of firms without binding to specific competitive conditions and regardless of the specification of rivals. Distribution of innovative activities of individual companies in a given time period then reflects differences in innovative capabilities among firms. Innovation performance follows the innovative activities of the company but as innovation activity it is not the property of the company. It is again the result of the innovation process and arises from interactions among competing firms in a given market situation. Innovation performance (implementation of innovation) stands up to the very end of the innovation process. For measurement it is necessary to understand and describe the whole innovation process and to identify factors that may affect the ultimate realization of innovation. Measuring output includes for example number of newly listed products, changes in market share, growth in sales and profit growth from sales of innovative products. It is also important to know that the measurement should involved financial and nonfinancial criteria for evaluation of innovation performance. Innovation performance is generally considered as a crucial component of long-term competitiveness of countries and regions. The paper introduces innovative performance and patent activity of the Czech Republic on the basis of secondary research. From the primary research it may be inferred that measurement of innovative performance can have high impact on the speed of adaptability of companies to changes and development. The aim of the paper is to highlight that innovation and patent activity and their measurement are a prerequisite for the development of companies. This paper was supported by the project "Innovation of Educational Programs at Silesian University, School of Business Administration in Karvina" n. CZ.1.07/2.2.00/28.0017*

**Keywords:** innovation performance, intellectual property, innovation

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## 1. Introduction

Innovations today determinate the competitiveness of any organization; often they are pre-conditions of its survival. The paper introduces innovative performance and patent activity of the Czech Republic on the basis of secondary research. From the primary research it may be inferred that measurement of innovative performance can have high impact on the speed of adaptability of companies to changes and development. (Vacek, Egerová, and Plevný, 2011, p. 538)

Innovation measurement can be assessed in two basic levels. Company's level uses to the measure research that deals with the economical results and financing, motivation of employees, or there is applied customer satisfaction. It can include revenue from the sale of a new product, the cost of research and development, the length of the life cycle of the product or how the product is perceived by consumers. The second level is the political - and deals with the competitive advantages of regions or countries in which innovation plays its unique role. In this case, the innovation can be evaluated by using the areas dealing with technology, processes, or marketing. (Pitra, 2006)

Measuring innovation should be carried out effectively, efficiently (must bring relevant information to the corporate management) and economically (must be done at a reasonable cost). Individual indicators generally meet the requirement of economy, but rarely effectiveness, as they focus on innovation from a too narrow view. (Hadraba, 2006)

Many companies began to realize the seriousness intellectual property (IP) in the last few years. This issue came to the fore of interest of entrepreneurs because it is means of ensuring competitive advantages. The importance of patent protection is becoming more important due to the rapid technological development in certain fields such as IT. On the market there are always new products, process marketing innovations that arise as a result of continuous customer needs. IP should be understood as a managerial discipline within which offers a portfolio of formal and informal means of tools, their specifics purpose is to support the business. Companies should be automatically established intellectual property protection in the innovation cycle, because in the event of the premature publication of new knowledge e.g. through publication in the journal, before he was protecting innovation, then the owner of this means high losses and losing competitive advantage. Currently IP should constitute a strategic element of any society. For this reason, businesses should create innovative strategy, which should include the patent strategy.

## 2. Innovative performance measurement and patent activity of the Czech Republic

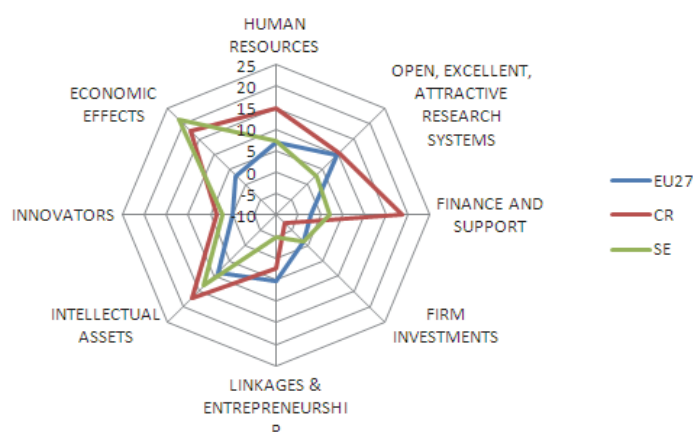
According to the SII (Summary Innovation Index) the Czech Republic ranks third position in the group of countries known as moderates innovators with SII value slightly below the EU-27 in recent years. Moderate innovators are countries reaching 50 to 90 % of the EU-27. The average innovation performance is measured using a composite indicator that takes into account the "innovative results" of countries based on 24 indicators, zero is the worst possible result and maximal possible result is assigned by value 1. In the year 2011 the average innovation performance reflects the real innovation performance in 2009/2010 – the reason is the time delay in disclosure of relevant statistical data.

Countries belonging to the innovative leaders (innovation leaders) are reaching at least 20 % higher innovation performance than the average for the EU-27, the so-called followers of innovation (innovation followers) are those whose innovation performance is within 10 % below average to 20% above the EU-27 average. Performance of Moderate Innovators group of countries is lower than in the EU-27, but reaches higher values than corresponds to 50 % of the EU-27. Countries with lower innovation performance belong to the group Moderate Innovators.

Czech Republic belonged according to rating dynamics of innovation performance (calculated on the basis of the development of the indicators making up the SII in the previous five years) with an average annual growth of 4.8 % among well above average among countries (average annual growth rate of the EU-27 amounted to 1.8 % ) in the year 2009. In the year 2010, the average annual growth in innovation performance of Czech Republic was lower - only 2.6 %, while the average annual growth rate of EU countries amounted only 0.85 %. Thanks to economic growth in the year 2010 (mainly due to positive developments in the manufacturing and service industries), the current average annual growth rate of the innovation performance of the Czech Republic rose to 3.2 %. While in the year 2010 the value for the EU-27 was 0.85 % in the year 2011 average growth rate dropped to 0.33 % due to the impact of the economic crisis. In both years, the resulting growth rate is positively influenced by the development of indicators in open, excellent and attractive research systems, the negative impact was observed in indicators of corporate investment, in usage of venture capital (there decreased indicator - amount of funds designated as venture capital to HDP3) and in innovators group (decrease of innovative small and medium sized enterprises).

The figure 1 shows the average annual change in the major indexes, which is calculated indicator SII. The graph shows the average annual change in the CR compared with Switzerland and EU27. Switzerland was chosen because it achieves the best position to evaluate and ranks among the leaders in innovation.

**Figure 1.** Annual average growth per indicator and average country growth (2011)



Source: Chobotová, 2013

By international comparison of overall innovative performance of the Czech Republic remains below the EU-27, however, the ability to take advantage of economic benefits of innovation is deluxe. The main shortcomings of the innovative environment include low availability of financial resources for innovation (especially in venture capital) and small industrial use and legal protection. The data document "Analysis of research, development and innovation in the Czech Republic and their comparison with foreign countries in 2011" shows that competitiveness (innovative performance) CR is mainly driven by innovative activities of firms while the quality of the institutional environment is likely to be reduced (more information Innovation Union Scoreboard 2011, 2012).

The final position of the Czech Republic in the field of innovative performance is still below the European average but there is a trend of gradual convergence to the average innovative performance of the EU-27. However, the innovative performance and competitiveness of the country slows down inefficient management of public funds, excessive bureaucracy and poor political environment. This is clear from the international comparisons of WEF. Arising from the inter-



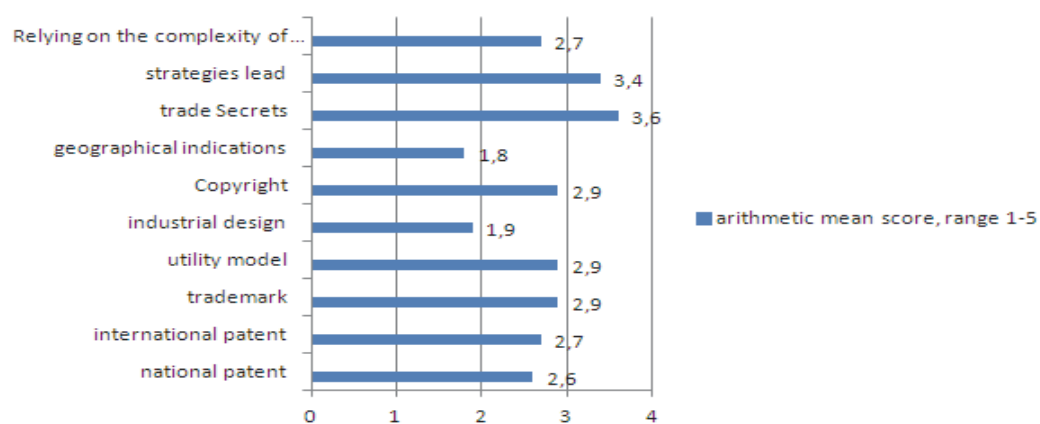
national comparison, the most evident limitation of the Czech innovative system is a relatively lower availability to financial resources and skilled workforce with the appropriate requirements for the development of innovative economic performance. Lack of innovation is also the number of entities that use legal forms of intellectual property protection. In the area of R & D the Czech Republic suffers with research activities support and ability to use venture capital to support individual firms with these activities. Compare to EU-27, the Czech Republic is also below average rate in using public resources spending on research and development. The communication and cooperation of the innovative system is also assessed as very weak. A little emphasis is placed at the return of investments and commercialization as the results of scientific research supported projects. Positive side of CR is the export of the high technology with the results achieving above-average. This is primarily due to the structure and openness of the Czech economy market. One of the tools for improving the environment in the area of science, research and innovation and which was also successfully used in many countries is so-called "Foresight". In Czech conditions, this is a completely new service provided by a state with the purpose to successfully identify technology areas of strategic importance. Foresight as an open system for the collection, evaluation and processing signals for strategic decision-making would enable The Czech republic to provide businesses with relevant information on new requirements, key technologies, changing markets, new sectors and new trends.

The results contained in the report of the international audit research and development (R & D) in the Czech Republic, among other things, reviewed, using a questionnaire survey where respondents classified (grade 1 = not at all to 5 = large extent) the use of formal and informal instruments for the protection of industrial property the following conclusions (figure 2):

- Czech companies consider the protection of intellectual property rights as an important medium.
- Patents were among the "limited" and "moderate" range of both national and international.
- Higher values were recorded trademarks and utility models with grade 2.8 were considered "moderately important."
- Greater weight gave the company informal tools IP.

Protection of trade secrets was graded 3.6 ("moderate" and "large" scale), which is the highest value obtained in the survey. In second place with a 3.4 rating is considered strategies lead. Surprisingly strategy of relying on the performance of the technical solution is not so much preferred (average 2.7). (Radauer, 2011)

**Figure 2** Relevance of different tools industrial property selected Czech companies

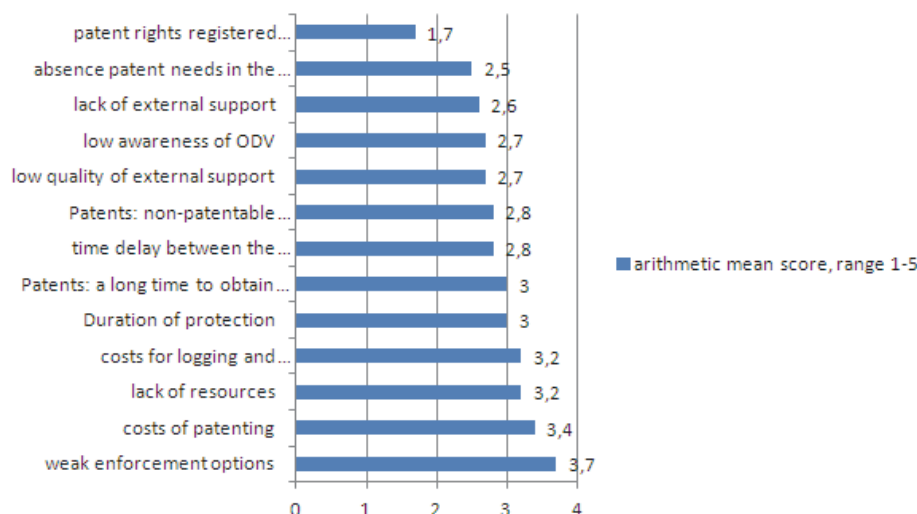


Source: own according Radauer, 2011



In this research have been identified barriers to the use of intellectual property (figure 3), respondents evaluated again grades 1 - "no obstacle" to 5 - "obstacle to large-scale". From the results shown in figure shows that the greatest obstacle to the use of IP enforcement is weak possibility (3.7) in second and third place are cost and lack of resources (time) to patenting. The problem were considered, the cost of filing and maintaining other forms of IP.

**Figure 3** Barriers to the use of intellectual property, as perceived by respondents in industrial research



Source: own according Radauer, 2011

The overview of the current state of research, development and industry, as well as the competitiveness of individual sectors indicate the number of patent applications, as well as the number of granted national patents and European patents for the validation of the Czech Republic. The website of the Czech Statistical Office annually publishes the data on the statistics of industrial property protection.

In terms of the breakdown field of patents granted at the end of 2012 in the Czech Republic had recording a total of 4,009 valid patents in the field of "Organic Chemistry" in 2012 were awarded the IPO (or validated) 747. This field together with the field of "Transport and storage" is including among the most important in terms of patent protection for domestic applicants. Very significant in terms of total number of patents is also necessary to mention the field of "medical, dental and hygiene products", here have been recorded 2,803 valid patents in 2012. Compared with utility models, which are considered small patent situation is somewhat different, 93.6% of the valid utility models, the owner of the Czech Republic. The most important industries are "Construction Industry" with 931 and "Handling and Storage" with total 889 utility models. From the perspective of selected areas of technology during the last 20 years in high-tech fields was granted only 7% of patents granted to applicants from the Czech Republic, representing the period 1992-2012 only 112 patents in high-tech fields of the total in 1729, and especially in micro-organism and genetic engineering. At the end of 2012, public research institutions had belonged less than half of Czech applicable patents in high-tech fields. Over the last 20 years was granted 700 patents in biotechnology (10 in 2011) and patents in the field of renewable 196 (3 in 2011) patents.

Association of Small and Medium-Sized Enterprises and Crafts of the Czech Republic (AMSP CR) conducted in the year 2012 research entitled "The position of the SME entrepreneurs to innovations and their financing" From the sample of 506 SMEs in the next 5 years there plan to devote 75 % of companies in the SME to innovation. Entrepreneurs are planning to introduce new models, mostly in the area of product innovation (52 % of companies) and the dynamics of

innovation in comparison with the volume of innovations over the past five years is expected to decrease slightly according to the Association of Small and Medium Enterprises Czech Republic. 54 % of asked companies want to be focused on the patent activity development in the next five years.

### 3. Primary research and innovation performance

Department of Management and Business of School of Business Administration in Karvina, Silesian University in Opava conducted survey under the title "Adaptability of SMEs in the current economic conditions in the years 2007 – 2010 and the same research in the period 2008 - 2011. Interpreted sample characterizes the state in 206 companies in the Czech Republic. The questionnaire was completed by students on personal meetings with a manager of company. The questionnaire survey included the following categories: Identification of the company (11 questions), Strategic and Project Management (9 questions), Risk and crisis management (11 questions), Personnel Policy (7 questions), Production, services and innovative activities (9 questions), Use of grants and subsidies (8 questions), Energy savings and renewable energy (6 questions), Identification and intermediate student opinion survey (6 questions).

In order to evaluate the survey there was used SPSS 11.5 program. Outputs were achieved with using several methods, for the purposes of this study there were selected three methods: Rotated Component Matrix (factor loadings after rotation, arranged by size), Communalities (part of variability explained by variables common factors) Correlation Matrix (mutual dependence of two questions).

From the primary researches which were conducted in the periods 2007 – 2010 and 2008 – 2011 there were found out categories which can have the greatest impact on the speed of adaptability of companies to changes and development. In the primary research there was established hypothesis: Measurement of innovation has the impact on innovation activities of companies in the examined periods. From the research the most important issues with a correlation coefficient higher than 0.8 are product and service innovation, written strategy, performance measurement, cooperation and measurement in practice. The hypothesis is confirmed and supported by the research.

The perspective of innovation as adopted by an organization would delineate the ideal measures of innovation. (Jensen & Webster, 2009). Organizations require means not only to measure their innovative output but also to assess their ability and capacity to innovate. Measurement helps to better understand and evaluate the consequences of the initiatives geared towards innovation. Furthermore, like any other measurements, these will allow organizations to specify realistic targets of innovation in the future and to identify and resolve problems hindering progress towards goals, making decisions and continuously improve the abilities to innovate (Ebert & Dumke, 2007). Misra et al. (2005) proposed a goal-driven measurement framework for measuring innovation activities in an organization. According to Dibrell et al. (2008) innovations vary in complexity and can range from minor changes to existing products, processes, or services to breakthrough products, and processes or services that introduce first-time features or exceptional performance.

Most of the broad empirical studies on the relation between innovation and performance provide evidence that this relation is positive (Bierly and Chakrabarti, 1996, Brown and Eisenhard, 1995 and Caves and Ghemawat, 1992; e.g. Damanpour, 1991; e.g. Damanpour and Evan, 1984, Damanpour et al., 1989, Hansen et al., 1999, Roberts, 1999, Schulz and Jobe, 2001, Thornhill, 2006, Weerawardenaa et al., 2006 and Wheelwright and Clark, 1992). However, as Simpson et al. (2006) point out, innovation is an expensive and risky activity, with positive outcomes on firm performances but also with negative outcomes, such as increased exposure to market risk, increased costs, employee dissatisfaction or unwarranted changes. In addition, some studies arrive at conflicting conclusions. For instance, Wright et al. (2005), using a sample of small businesses, find that product innovation does not affect performance in benign environments, but has a positive effect on performance in hostile environments. (Jiménez and Sanz-Valle, 2011)

Innovation can be assessed in two basic levels. Company's level uses to the measure research that deals with the economical results and financing, motivation of employees, or there is applied customer satisfaction. It can include revenue from the sale of a new product, the cost of research and development, the length of the life cycle of the product or how the product is perceived by consumers. The second level is the political - and deals with the competitive advantages of regions or countries in which innovation plays its unique role. In this case, the innovation can be evaluated by using the areas dealing with technology, processes, or marketing. Another way of assessing is the monitoring of expenditure on R & D as a percentage of GDP. The European Union's Lisbon Strategy has determined that the average expenditure on R & D should be 3 % of GDP. (Pitra, 2006)

Patents, serving as an important output indicator of research and development activities, are widely adopted in researches concerning relationship between patent counts and corporation performance (Bosworth and Rogers, 2001, Comanor and Scherer, 1969, Deng et al., 1999 and Scherer, 1965). However, they often fail to offer sufficient information regarding innovation output since that some enterprises may have only a few patents but with high influence, while others may have a lot of patents yet low in influence (Hirschey and Richardson, 2001 and Park and Park, 2006). This phenomenon is also known as the skewed distribution of patent value which means that patents with high value and high influence only take a small portion of total patents (Park and Park, 2006 and Schankerman and Pakes, 1986). (Chang, Chen and Huang, 2012)

Innovation performance follows the innovative activities of the company but innovation activity it is not the property of the company. It is again the result of the innovation process and arises from interactions among competing firms in a given market situation. According to Rylková (2012) innovation performance is generally considered as a crucial component of long-term competitiveness of countries and regions.

Problem of all available metrics measuring innovation performance is according to Hadraba (2006) that measuring innovation should be carried out effectively, efficiently (must bring relevant information to the corporate management) and economically (must be done at a reasonable cost). Individual indicators generally meet the requirement of economy, but rarely effectiveness, as they focus on innovation from a too narrow view. Comprehensive indicators then fight with economy and practicality sometimes because they contain subjective indicators or indicators difficult to estimate (for example percentage of time dedicated by management on innovative activities instead of resolving operational issues). Individual financial indicators (or their various combinations), which would seem to be suitable for easy traceability and fairly wide angle, they have not good informative value.

Measurement of innovation performance in a company should be connected with evaluation of these categories – realized innovation (number of implemented innovations during a period), success of innovation (number of successful projects to the total number of initiated innovative projects), time of innovation (average time implementation of innovative projects), acquired patents (number of patents for a certain period), economic indicators (return of innovation, total expenditure on innovation as a % of sales, real contribution of the project to the overall cost of the project). (Rylková, 2011)

It is possible the indicators of innovation performance summarize in table 1.

**Table 1** Measurement of innovation performance. (Source: own processing)

Individual indicator	Measure
<b>Realized innovation</b>	Number of implemented innovations during a period
<b>Success of innovation</b>	Number of successful projects to the total number of initiated innovative projects
<b>Time of innovation</b>	Average time implementation of innovative projects
<b>Acquired patents</b>	Number of patents for a certain period
<b>Economic indicators</b>	Return on Innovation Total expenditure on innovation as a % of sales Real contribution of the project to the overall cost of the project

Primary research found that measurement of innovation performance is an important determinant of organizational success. The table shows that patents are an important component of the innovation performance of the organization. The above mentioned evaluation criteria (individual indicators) should be involved into the development strategy of company and integrated into a regional innovation strategies.

It is also important to know that intellectual property is nowadays one of the most important forms of intangible assets. Its protection is one of the basic elements of business relationships around the world. The globalization of markets and rapid technological development has positives for companies and new opportunities, but also poses a future threat. Where once was the protection of intellectual property merely administrative and support functions, is today one of the key managerial and organizational activities. Companies should consider the intellectual property rights for a resource that not only protects, but also checks essential intellectual property. It is one of the tools that help companies to maintain their market and increasing national and global competitiveness. For this reason, it is especially important that intellectual property rights were considered, both in terms of organization or individual person as a means of public interest.

Intellectual property rights give a certain protection which is intended to prevent illegal use. Owners of intellectual rights have the right to stop, allow, or even encourage the use of this right. Right to provide a license to use innovation allows the holders of the rights to exercise significant control over their innovations. The extent of this control depends on a number of internal and external factors that should be utilized to create a strategy for protecting intellectual property (IP). Strategic management of IP came to the attention of a lot sooner than many companies could found out, how it is importance. Currently a strategic element of any society and use of IP is one of the key strategies that businesses may rely upon to improve their competitiveness.

#### **4. Conclusion**

The paper introduced innovation performance and patent activity which can influence the speed of the adaptability of the company to the competitors and can influence development of company. There were introduced factors which specifically help companies to develop based on primary and secondary research. High attention must be focused on innovation activities if company has to be competitive. The innovation process is nowadays without intensive cooperation with R & D organizations, universities and other innovative parts of the region (also known as an innovative process of "higher rank") and patent activity. Cooperation and patent activity, which are still not so used in the Czech Republic, are characteristics of the knowledge economy and are source of competitiveness of firms and regions. Most of today's successful innovation is a combination of innovation, where combined products are the output of joint innovation activities carried out by individual members of networks and also innovations based on patent activity. The linear model of innovation is being replaced with an interactive model. Patent area and innovation area should be included in the development strategy, which will also include prerequisites for patent activity and innovation activity and lead to performance measurement. The performance measurement within innovation performance should include measurable results, balanced cost of capital, it should include both qualitative and quantitative criteria, it is necessary to monitor realized innovation, success of innovation, time of innovation, acquired patents and economic indicators based on the primary and secondary research.

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# DETERMINANTS OF INNOVATION ACTIVITIES AND THEIR IMPACT ON THE ENTREPRENEURIAL BUSINESS PERFORMANCE: EMPIRICAL EVIDENCE FROM CENTRAL AND SOUTH EASTERN EUROPE

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## Abstract

*Innovation is a driving force for enhancing firms' efficiency and productivity. The importance of innovation is also recognized at economy level, namely increase in R&D and innovation activities will help the creation of new jobs, prosperity and improvement of the standards of living. In order to increase the innovation activities undertaken by firms in the EU the Lisbon Strategy set a goal for Europe to become "the world's most competitive and dynamic knowledge-based economy in the world, capable of sustaining growth with more and better jobs and greater social cohesion" by 2010. The aim of this paper is to investigate the determinants of innovation activities and their impact on firm performance. For the empirical analysis of the study we employ Business Environment Enterprise Performance Surveys (BEEPS) firm-level data conducted by the World Bank and the European Bank for Reconstruction and Development (EBRD) in 2002, 2005 and 2009. We utilize the advantage of a larger number of observations of the data by pooling the observations in years and thus generating a sample of 9,300 companies.*

*To examine the relationship between innovation activities (measured as introduction of new product and/or process), ownership structure and firm performance (measured as labor productivity and net profit margin) we apply instrumental variable (IV) technique, which enables us to control for the endogeneity between innovation activities undertaken by entrepreneurial businesses and their performance. Our findings suggest that firms' size, R&D intensity, foreign ownership, competition, skilled workers and export activity have positive and significant impact on their incentive to undertake innovation activities. Considering the determinants of productivity, we find evidence that firms that have undertaken innovation activities (instrumented variable) and owned by foreign ownership, having higher degree of skilled workers and that are European Union member country firms perform better.*

**Keywords:** Innovation Activities, Ownership Change, Productivity, Instrumental Variables Technique

## 1. Introduction

Based on the statistics where US experienced increasing average annual labour productivity from 1.2 percent in the 1973-1995 period to 2.3 percent from 1995 to 2006, whereas in 15 EU

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countries (members up to 2004) occurs productivity growth slowdown with annual rate of 2.4 percent in the 1973-1995 period to 1.5 percent from 1995 to 2006 one can say that there is evidence for US experiencing higher labor productivity growth than EU (Ark et al., 2008). Several studies have shown that the US increase in labor productivity is attributable to intensive development of innovation activities (O'Mahony et al., 2010; Crescenzi and Rodriguez-Pose, 2011). In order to increase the innovation activities undertaken by firms in the EU the Lisbon Strategy set a goal for Europe to become “the world’s most competitive and dynamic knowledge-based economy in the world, capable of sustaining growth with more and better jobs and greater social cohesion” by 2010. This aspiration also presents the first priority area of the ‘Europe 2020’ Strategy, which is ‘smart growth’ through the development of knowledge, innovation, and education (EC, 2010). Accordingly, EU has set itself an ambitious target - the Barcelona objective - of increasing R&D expenditures to 3 per cent of GDP in particular by improving the conditions for R&D investment by the private sector, and developing a new indicator to track innovation (EC, 2010). In order for accomplishing these goals the OECD has prepared an ‘innovation strategy’, containing the following major themes: i) the “openness” of innovation; ii) the central role of entrepreneurship; iii) creating and applying knowledge; iv) applying innovation to address global and social challenges; and v) improving the governance of policies for innovation.

The literature on the relationship between innovation activities and firm performance (henceforth innovation-performance relationship) varies on different ways of defining innovation and on the measures employed, with challenges faced related to the problem of finding relevant variables for measuring innovation activities. The most often employed measures in the empirical literature are: R&D expenditure – as a measure of input; patents - as a measure of output; and introducing new product/ new process - as output accepted by the market. Further we investigate the empirical evidence on the relationship between innovation activities and firm performance. The main focus is on the data and methodology used in these studies. This stream of literature mainly applies structural approach for modeling innovation.

For the purpose of the paper we empirically investigate the innovation-performance relationship. A dataset derived from the Business Environment and Enterprise Performance Survey (BE-EPS) of 2002, 2005 and 2009 is employed, and we apply instrumental variable technique.

The structure of the paper is as follows. In the next section we review the literature related with the innovation-performance relationship, with main focus on the model and the determinants of innovation activity. Section 3 elaborates the sample and the data. Section 4 considers the methods of investigation and the empirical estimations. The interpretation of the results is provided in section 5. Section 6 concludes the study.

## 2. Empirical Evidence on Innovation

The empirical literature on investigating innovative behavior and its effect on firm performance face two major methodological challenges: (i) of how to measure innovation or technological change and (ii) with estimation technique to apply for taking into consideration the endogeneity problem. The first methodological challenge is accompanied with the difficulty of getting appropriate data which correspond to the definition of innovation. Consequently the empirical studies have mainly adjusted their analysis of innovation depending on available measure of innovation, by using proxies which reflect some aspects of the innovation process.

In defining innovation activities undertaken by companies most of the empirical evidence follows Joseph Schumpeter, who defined innovation in a broad sense, as (1934, p.66): “*carrying out of new combinations*” that include “*the introduction of new goods (...), new methods of production (...), the opening of new markets (...), the conquest of new sources of supply (...) and the carrying out of a new organization of any industry*”. He was the first to develop a three-stage classification: invention, innovation and diffusion, known as Schumpeterian trichotomy (Jaffe et

al., 2004; pp. 63). Innovation in the Schumpeterian scheme encompasses one of the three stages, however it is often used broadly to refer to all stages of the technological change process.

Following Schumpeter's definition of innovation activities, most of the empirical literature defines innovation as the development of new products and/or new processes introduced to the market. OECD (2005) Oslo manual guiding the collection of data on innovation reflects this perspective by defining innovation as: "... 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 (p. 46). An alternative definition of innovation adopted more recently by policymakers in the UK and also applied in the literature (Stoneman, 2010; Battisti et al., 2011) regards innovation as the 'successful exploitation of new ideas'. If this is scrutinized further (i) new ideas – involve new product/process or service, (ii) exploitation – presents the applicability of the idea, (iii) successful – implies that the innovation is adapted by the market (from firm level viewpoint the target is increased profitability).

Based on these definitions, the most common measures used in the literature for analyzing the innovative process are as follows: i) a measure of the inputs into the innovative process, such as R&D expenditure, ii) an intermediate output, such as the number of inventions which have been patented, and iii) a direct measure of innovative output, new product or new process. These proxy measures for the innovation process have their limitations. Not all R&D expenditures end in innovation output since this measure reflects only the resources committed to producing innovative output, but not the innovative process. The number of patents does not indicate whether this output has a positive economic value or whether it has successfully been introduced in the market. Whereas the new product and/or process is acknowledged as a proxy that directly quantifies the effect of innovation and its success in the market.

Considering the other methodological challenge, one can put it into two dimensions: (i) the determinants of innovation and the impact of size and market structure on the process, and (ii) the impact of innovation on productivity, firm performance and economic welfare (Stoneman, 2010).

Schumpeter (1928, 1942) developed the ideas on which most of the theoretical and empirical analyses of the economics of innovation are based. His theoretical framework on the relationship between firm size and dynamic market performance is characterized with two contradicting waves. According to Schumpeter Mark I of *The Theory of economic Development*, it is the new (often small) firm that carry out innovation (1934, p.66). According to the second fundamentally different view, Schumpeter Mark II of *Capitalism, Socialism, and Democracy*, it is the established (large) firm that generates technological progress (1943, p.82).

Another determinant related to the Schumpeterian hypothesis is the market structure, indicating positive relationship between innovation and monopoly power. According to him monopolists, compared to competitive firms, have stronger incentives to innovate because of the gains captured without being imitated by rivals. Schumpeter's theory was supported by Galbraith (1952) saying that inventions are costly and only large firms with monopoly power have the necessary resources for undertaking them.

The first economist who contradicts the Schumpeterian view that monopoly stimulates innovation is Arrow (1962). He indicates that firms operating in a competitive market have stronger profit related incentive to innovate than monopolist. This is so because of what Arrow called the 'replacement effect' i.e. an innovative monopolist replaces one profitable investment with another, therefore has less incentives for undertaking changes. Furthermore, innovation yields greater net profit in a perfectly competitive industry than in monopoly because: the payoff to innovation for the monopolist is the additional monopoly profit from the new product or process compared to the gains with the existing technology; whereas the payoff to innovation for the innovating firm in a competitive industry is the net gain of the all profit that flows from successful innovation.

Guided by the Schumpeterian theories, the literature on innovation activities has mainly focused on empirically investigating the impact of market structure and firm size on innovation activities undertaken by firm. There are numerous surveys summarizing the findings of this

stream of literature (Kamien and Schwartz, 1982; Scherer, 1980; Baldwin and Scott, 1987; Cohen and Levin, 1989 and Symeonidis, 1996) but they come to inconclusive results.

The findings of the empirical literature summarizing the evidence on the impact of market structure and firm size on innovation point out two main hypotheses regarding innovation: (i) large firms tend to have higher innovation activities, and (ii) highly concentrated markets (characterized by imperfect competition) are more conducive to technical change. Cohen and Levin (1989) outline some arguments for large firms being more innovative: i) they can use internal funds to finance the risky R&D activities; ii) they have advantage in financial markets for getting additional sources to finance their innovation activities; iii) they may better exploit economies of scale and scope in R&D activities; iv) they are able to spread fixed costs of innovation over higher levels of sales, and so on.

Earlier studies found support for the Schumpeterian hypothesis that large size companies tend to have higher R&D intensity (Galbraith, 1952). Scherer (1965a, 1965b) evidenced that the relationship between R&D intensity and sales is an inverted U shape. Some other studies obtained similar results to Scherer (Malecki, 1980 and Link, 1981), or even negative relationship between R&D and size (Kamien and Schwartz, 1982). Cohen and Klepper (1996) put forward somehow different conclusion compared to previous studies that large firms are characterized with higher investment in innovation and are more engaged in innovation activities, however innovation output diminishes with firm size.

Considering the second hypothesis, the literature on the innovation-market structure relationship is broad and inconclusive. Symeonidis (1996) expects that R&D intensity will be higher in companies with higher market power because: (i) they will have higher levels of cash flows thus can use profits to finance their R&D activities; and (ii) they are more advanced in appropriating the returns from innovation since they are in better position to benefit from patents, therefore have higher incentives to innovate. The empirical evidence on the innovation-market structure relationship (Farber, 1981; Geroski, 1990; Scherer and Huh, 1992) has generally concluded that the relationship between innovative output and market structure shows weak positive results. This is also confirmed by Aghion et al.'s (2002) study of innovation in transition economies which concluded that new firms drive innovation and that for these firms competitive pressures raise innovation.

More recent literature on innovation has moved toward identifying appropriate models to empirically investigate the technological change. The innovation-performance relationship has been a matter of significant interest among researchers for some period. The more recent literature has enriched the models used for empirically investigating such relationship. The most common way found in the literature for modeling the relationship between innovation activities and firm performance is the multistage approach.

The growing power of simulation techniques has had its impact on the numerous recent studies (Loof and Heshmati, 2006; Griffith et al., 2006; Damijan et al., 2008) which apply similar model to Crepon et al. (1998) known as the CDM model, named according to the three authors Crépon, Duguet and Mairesse. It is a structural model with four stages following the basic form as whether firms would invest in innovation or not; then they decide how much effort to put into innovation; then knowledge is produced as a result of this investment and output is produced using knowledge. This model is formalized in four equations: i) the firm's decision to engage in sufficient effort to result in observable R&D investment; ii) the intensity with which the firm undertakes R&D; iii) the innovation or knowledge production function; and iv) the output production function, where knowledge is an input. By employing the CDM model the most recent studies tend to control for the endogeneity of innovation.

Hall and Mairesse (2006) summarize papers that have employed similar models to CDM for their analysis of innovation. They conclude that important progress has been done in modeling and employing appropriate econometric estimation methods by using innovation survey data. They emphasize that better results are obtained when researches combine the survey data with census-type information on the accounting data of the firms, which enables the measurement of

final outcomes in the form of profitability and productivity. Most of these studies provide positive impact of innovation on productivity growth.

### 3. The Sample and the Data

For the empirical analysis of this chapter we use World Bank/EBRD's Business Environment Enterprise Performance Surveys (BEEPS) firm-level data conducted in 2002, 2005 and 2009. Out of the overall BEEPS dataset we make use of the data on fourteen Central Eastern and South-Eastern European Economies. Since there are European Union member countries, we are able to provide comparative analysis between countries that recently joined EU (list of nine EU countries - CEE (alphabetic order): Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia) and those in South-eastern Europe (list of five South-East European countries – SEE (alphabetic order): Albania, Bosnia and Herzegovina, Croatia, Macedonia FYR, and Serbia & Montenegro). The major advantages to be emphasized for this dataset are that: (i) it provides large number of observations comparable for TEs for 2002, 2005 and 2009, consisting the pooled data; and (ii) it includes three year retrospective information for each survey round which makes available data on firms over a nine-year period. The BEEPS questionnaire consists of questions which allow us to specify the variables of our interest by following the theory. For the purpose of the investigation we employ the pooled data for 2002, 2005 and 2009 in order to utilize the advantage of a larger number of observations having the final sample consisted of 9,354. Table 1 gives the description of the variables employed in the model and their expected signs.

According to the statistics on the pooled data, the average labor productivity has increased for 25 percent from 2002 to 2005, while it has doubled it mean from 2005 to 2009. The size of the companies in the sample is varying on average from 90 to 140 employees. On average firms R&D investments are approximately 4% (R&D expenditure to sales ratio). The average of firms that have exported directly is 10–12 percent. Firms are established mainly 16 to 20 years ago (the eighties – nineties). For companies surveyed in 2002, on average 33 percent of the employees have university degree, and this percentage drops to 14 percent for 2009. Considering innovation activities, 62 percent of the companies have indicated that they have introduced new product and/or process in 2002, and the number of innovative firms has increased for 25 percent by 2009. The next section continues with the empirical investigation of the determinants of innovation activities and their impact on firm performance. Pooled data procedures on CEE and SEE countries are applied.

### 4. Methods of investigation and Empirical Findings

In order to explain the extent of innovation activity in CEE and SEE countries, we empirically investigate the relationship between firm's innovation and labour productivity. We follow the approaches and techniques employed by studies that have empirically estimated this relationship. We apply the instrumental variable (IV) technique (Green, 2012). The empirical estimations of the innovation-performance relationship are generated in two steps. The first model presents the probability of the firms to innovate (probit model) which reveals the importance of individual factors on firms' innovation activity. The second estimations present a semi-logarithmic specification of the productivity model, which incorporates the predicted values of the first regression in conjunction with ownership structure and other firm characteristics.

The general model we will refer to can be written as follows:

$$\text{Innov\_activity}_{it}^* = \phi_0 + \phi_1 \text{Size}_{it} + \phi_2 \text{R\&Dintensity}_{it} + \phi_3 \text{Direct\_export}_{it} + \phi_4 \text{dFRGNinv}_{it} + \phi_5 \text{dDOMprivate}_{it} + \phi_6 \text{FRGNcompress}_{it} + \phi_7 \text{Skilled\_workers}_{it} + \phi_8 T1 + \phi_9 T2 + \varepsilon_{it} \quad (1)$$



$$LNproductivity_{it} = \theta_0 + \theta_1 PrInnov\_activity_{it} + \theta_2 dFRGNinv_{it} + \theta_3 dDOMprivate_{it} + \theta_4 Skilled\_workers_{it} + \theta_5 Age_{it} + \theta_6 Agesq_{it} + \theta_7 EU\_members + \theta_8 Sector + \theta_9 T1 + \theta_{10} T2 + \varepsilon_{it} \quad (2)$$

The impact of individual factors, such as size, share of R&D expenditure on total sales (or dummy invested in R&D variable), dummy for foreign and domestic ownership, direct exports, pressure from foreign competitors, share of employees with university degree, and age on the probability to innovate of a firm  $i$  in period  $t$ . Innovation activities as dependant variable (Inno\_ - activities $_{it}$ ) present product and/or process innovation. The justification for taking the decision to treat product and process innovation in one common variable relies on the almost identical results of their separate estimations.

Following the methodological approach applied in the literature and because of the suspected endogenous relationship between innovation activities and firm performance the IV technique is applied. The regression coefficients and corresponding p-values of the probit model regression of the probability to innovate together with the empirical results of productivity model are presented in Table 2 (see Appendix I and II for STATA output)

Before going to the interpretation of the coefficient, the diagnostics of the regressions are provided. The obtained results indicate that we have insufficient evidence to reject null hypothesis that the model has correct functional form at 5% level of significance. The diagnostic tests suggest that there is insufficient evidence to accept the null hypothesis that the residuals have normal distribution. Furthermore, there is insufficient evidence to reject null hypothesis of homoscedasticity in the model.

Considering the instrumental variable regression, the validity test of the instruments employed, F-test, shows that they are jointly significantly different from zero. The statistics of 20.20 indicates the strength of the instruments. After considering the diagnostics of the model we continue with the interpretation of the coefficients.

## 5. Discussion of the results

Two major models are estimated using the BEEPS 2002, 2005, and 2009 dataset: (i) the innovation probit model - with the undertaken innovation activities (dummy variable) employed as dependant variable and (ii) the productivity semi-logarithmic model - with the labor productivity as dependant variable. The probit model results - show significant effect of some of the innovation activities determinants, which are in accordance with the theoretical literature. The consideration of size as a determinant explaining innovation goes back to Schumpeter (1942) who stated that large firms in concentrated markets are more advantageous in innovation. The positive and significant sign of the firm size supports this hypothesis indicating that larger firms in transition economies tend to undertake more innovation activities than smaller ones.

According to new growth theory, R&D activities are expected to lead to product and process innovation. Becheikh et al. (2006) on a review of empirical studies published between 1993 and 2003 bring together a set of variables related to the innovation process, and find that R&D expenditure do not necessarily lead to new product and/or process. For the TEs, we mentioned in the previous section that not all firms that undertake innovation activities have indicated to invest in R&D. However, the R&D variable in the regression appears to have positive and significant relationship with innovation activities.

Ownership structure is shown to influence productivity both directly and indirectly, through innovation activities (Hill and Snell, 1989). Carlin et al. (2001) find significant effect of privatisation on new product restructuring. Moreover new product directly increases sales and productivity growth, implying an indirect effect of ownership on enterprise growth. We employ variables of private foreign and domestic owned firms (state companies as base category) in innovation and productivity models. We expect that foreign ownership plays an important role in explaining innovation, considering it as external source of information for innovation. In accordance to this,

the results show that foreign owned firms with more than 10% of ownership are significantly positively related to firms' innovation activities, indicating that they are more innovative than state owned firms. The same applies for the domestic owned firms.

The literature on innovation suggests that a moderate degree of competition is better than either monopoly or intense competition. The data provides a qualitative perception variable of foreign competition pressure on decision to develop new product. We employ this variable for having the impact of competition, and the results show positive significant coefficient of the variable. The firms' innovative activities are higher if the firm has competitive pressure from foreign firms.

The role of human capital on the decision of the firms to innovate has gained importance in the most recent literature. We employ the level of education of the employees as the share of employees with university degree. The coefficient of this variable is significant and positively related to the decision to innovative.

The firm's export activity may have effect on the innovation behaviour of the firm. We suppose that firms learn from trade in terms of innovation (learning-by-exporting hypothesis) and thus exporting firms will improve their innovation activities to remain competitive in international markets. The variable included in the model is the percentage of direct exports to sales to indicate the effect on innovation activities. The regression results show positive significant impact of export intensity on innovation activities when using R&D intensity as independent variable. However the results show insignificant coefficient when applying the other alternative variable of R&D, the dummy invested in R&D. The Age of the firm together with age squared appears to be insignificant in both probit model specifications. We control for time and sector in the model.

The interpreted coefficients are statistically significant at 1% level of significance, offering evidence that the  $H_0$  hypothesis, ( $\theta_{it} = 0$ ) can be rejected for these cases. On the other hand age and age squared are statistically insignificant at 1%, 5% and 10% level of significance. Therefore their calculated *p values* lie in the region of acceptance, so we fail to reject the  $H_0$  hypothesis. According to chi2 statistics the explanatory variables are jointly significant (since Prob>chi2 = 0.000) at 1% level of significance, therefore the null hypothesis that all regressors are jointly insignificant may be rejected.

Productivity model regression – is estimated using instrumental variable techniques (instruments used for innovation activities are R&D intensity and direct export). The validity of the instruments is tested for both models, but only invest in R&D and direct export showed to be valid instruments. The results show positive and statistically significant impact of instrumented variable, undertaken innovation activities, on firm performance. This impact confirms our hypothesis that more innovative firms' tend to perform better.

The IV model appears to have insignificant coefficients of foreign ownership and skilled workers, thus we do not interpret their impact. Whereas domestic ownership appears to have negative significant coefficient, indicating that private domestic firms are not performing better than state owned firms. The firms' age also has negative significant coefficient indicating that new firms outperform older ones. The EU membership dummy variable is positive and significant, showing that EU member state firms' perform better than the ones that operate in non-EU countries. Generally, one can notice that different estimation techniques bring us to slightly different results. By controlling for the endogeneity through IV we provide more reliable and robust econometric results for the labor productivity model.

## 6. Conclusion

This study critically reviews the empirical literature on innovation-performance relationship. The main focus is on the determinants of innovation and the methodology employed in the innovation literature. Following the applied methodology, this paper continues with the empirical investigation of the determinants of innovation, and their impact on firm performance.



From the review of the empirical evidence on innovation activities, one can come to the conclusion that the measurements of innovation variables that are most commonly employed are related with the Schumpeterian definition of innovation. In other words whether the firms have introduced new product or have changed new production line is an indicator for the firm to be innovative. Based on the definition there are also studies that have employed a measure of input such as R&D intensity of the firm, or measure of output such as patents. However, these measurement are criticized in the literature as they do not indicate whether they enhance firm performance or whether they have been successfully introduced in the market.

Another challenge faced by the literature on innovation is related to the determinants of the innovation activities. Following the Schumpeterian hypothesis on the relationship between the size of the firm and the market structure, these determinants are most often employed in the innovative behaviour models. The most recent literature extends these models by incorporating other factors such as ownership structure, human capital development, export intensity, availability of financial resources and other firm-level characteristics.

Considering the methodology employed for the empirical estimation of the innovation activities model, the simulation techniques or structural models are the most often used in the literature. However, because of the specific data necessary for estimating the four stage model (the CDM model) some of the studies have applied part of the stages depending on the data availability.

The empirical investigation on the determinants of innovation activities and their impact (including ownership structure) on firm performance is provided using BEEPS 2002, 2005, and 2009 in fourteen CEE and SEE countries. For the purpose of the investigation we employ the pooled data for 2002, 2005 and 2009 consisted of 9,354 observations. The same models corresponding to the methodology requested for the pooled data are estimated. The first model presents the probability of the firms to innovate (probit model) which reveals the determinants of firms' innovation activity.

The general findings for the probit model indicate that size, dummy invested in R&D, foreign ownership, foreign competition pressure, the share of employees with university degree and export intensity are significant determinants and positively affect the firms innovative activities. The findings of the productivity model show that the innovative activities variables, together with private foreign ownership and the share of employees with university degree, have significant positive coefficients indicating that these determinants enhance firm performance.

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**Table 1.** Description of the variables and expected signs

Dependant variable		
<i>LNproductivity</i>	Labour Productivity = Sales / number of employees	
<i>Innov_act</i>	Dummy for innovative firms (product and/or process)	

Independent variables		Expected signs
<i>Size</i>	Number of employees	- / +
<i>R&amp;D intensity</i>	Amount spent on R&D / Sales	+
<i>dInvestR&amp;D</i>	Invested in R&D (indicator variable = 1 if the firm has invested in R&D)	+

<b>Direct_exports</b>	% of establishment sales as direct exports	+
<b>dFRGNinv</b>	Foreign Ownership – (=1 if the % share of foreign capital in the company > 10%)	-/+
<b>dDOMprivate</b>	Domestic Ownership– (=1 if the % share of domestic capital in the company >10%)	-/+
<b>dSTATE</b>	State Ownership	-
<b>FRGNcomppress</b>	Pressure from foreign competitors - Effect on decisions to develop new products	- / +
<b>Skilled_workers</b>	Share of employees with university degree	+
<b>Age</b>	Firm experience – year since establishment	+
<b>Agesq</b>	Firm experience – year since establishment squared	+
<b>EU_members</b>	dummy = 1 if EU member country	+
<b>NEU_members</b>	dummy = 1 if non-EU country or candidate for EU	-
<b>Sector</b>	The industry in which the firm operates	

Table 2. The determinants of the probability to innovate and the productivity model

Independent Variables	DEPENDANT VARIABLE:			
	Innovation Activities		LNproductivity	
	Probit model		IV regression	
	Coeff.	p-values	1 <sup>st</sup> stage Coeff.	IV Coeff.
Size	0.13***	(0.000)	.00	-0.00
Innov_act (instrumented)				1.50***
Inv_RnD	0.67***	(0.000)		
Direct_export	0.00	(0.298)		
dFRGNinv	0.22***	(0.002)	.11***	-0.01
dDOMprivate	0.17**	(0.012)	.13**	-0.29**
FRGNcomppress	0.07***	(0.000)		
Skilled_workers	0.01***	(0.000)	.01**	0.00
Age	0.00	(0.612)	.00	-0.01**
Agesq	-0.00	(0.267)	4.32	0.01*
EU_members	-0.25**	(0.046)	-.06**	0.24***
Sector	-0.01***	(0.001)	-.01**	0.01***
D1: 1- if year =2002	-0.52**	(0.078)		
D2: 1-if year=2005	-0.49**	(0.043)		
Constant	0.65	(0.113)	0.7***	9.04***
Observations	5,281			1,220
Instruments:				
Inv_RnD			√	√
Direct_export			√	√
LR chi2	654.2			
Pseudo R2	0.1028			
R-squared				-0.144
F-statistics				9.019
df_r				.
Log Likelihood				-1916
Sargan statistics				0.333
Cragg-Donald Wald F statistic			20.20	20.20

Note: Standard errors in parentheses, and \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$  \*The model reflects results with R&D intensity as determinant of innovation \*\* The model reflects results with dummy invest in R&D as determinant of innovation

## SOCIAL MARKETING AND ENTREPRENEURSHIP IN PUBLIC SECTOR - THE CASE OF CROATIA

Ana BULIĆ<sup>84</sup>, Zoran MIHANOVIC<sup>85</sup>

### Abstract

*Today, in modern, developed societies, the focus is more on quality than quantity of life. Since the public sector is aiming to transform the society into a community of responsible individuals oriented towards personal/family progress, but also towards the progress of the community, the public sector becomes an important regulator of social welfare. In past, marketing was the marginally used in the public sector, but in the last decade it is attracting more and more attention. Achieving better performance of public enterprises on one hand and societal benefits on the other will be easier if the integrated approach of social marketing is used, applying marketing principles and techniques to influence the target audience to voluntarily accept, reject, modify or abandon certain current behaviors. Business entrepreneurs typically measure performance in profit and return but social entrepreneurs adopt a mission to create and sustain social value. They also take into account a positive return to society. The aim of this research is to explore benefits of using the concept of social marketing in public sector and to support the results with example from practice. The research was conducted by studying the municipal waste management in the city of Split and the surrounding area (Republic of Croatia). The study included a public company that performs this activity and citizens who use the services of the company. All was compared with municipal activity of the city of Graz (Austria), representing a good example of waste management practice. Several things were investigated: whether a public enterprise uses a concept of social marketing and to what extent; does it inform and educate users and does it meet the expectations and their desires; to what extent customers of public enterprise show environmental consciousness and what is their attitude related to the potential change their own behavior towards socially responsible behavior. Research results showed that users' needs and desires are inadequately met by the public enterprise and that users are not sufficiently informed and educated about their services and the new, desired behavior that the company wants to adopt (e.g. recycling). The results also demonstrated that users are willing to change their behavior towards socially responsible behavior that will be necessary for implementation of standards and regulations specified by the European Union on environmental protection. Ultimately, it is concluded that the public company inadequately uses the concept of social marketing. However, due to changing conditions in the society, social marketing is becoming a necessary tool by which companies in the public sector can influence the changing behavior of its users, in order to achieve better performance and to meet needs and desires of individuals, but also to accomplish societal benefit.*

**Keywords:** social marketing, entrepreneurship and public institutions, environmental awareness, municipal waste management, the case of public sector in Croatia

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## 1. Introduction

Marketing concept can be defined as planning and coordinating of all company's activities in order to meet customer needs and thus wants to create the most effective mean to achieve and maintain a competitive advantage and to accomplish company's goals over time (Walker, 1992 stated in Turner and Spencer, 1997). Nowadays, after centuries of marketing development, there are six different concepts according to which companies, organizations or institutions can carry out their marketing activities (*concept of production*, followed by *concept of the product*, *sales concepts*, *marketing concept*, *concepts of consumers*, and *concept of social marketing* (Morgan, 1996). However, when it comes to *marketing concept*, the emphasis is placed on the needs and preferences of consumers. Marketing philosophy focuses directly on three key issues: customer orientation, integrated efforts and focus on making a profit (McGee and Spiro, 1988 stated in Morgan, 1996). Finally, *the concept of Social Marketing* oriented towards the satisfaction of target consumer's needs and preferences keeping in mind the maintenance and improvement of the welfare of society as a whole is being developed (Previšić and Ozretić-Došen, 2004). The concept of Social Marketing is based on the fact that marketing management should strive for a balance between company's profit, needs and preferences of consumers and social demands. It is considered that the concept of Social Marketing relies on the basic marketing concept - customer satisfaction and profitability – along with a third element called *long-term benefit of consumers* (Crane and Desmond, 2002).

## 2. Specificities of marketing in the Non-Profit sector

The Nonprofit Marketing can be divided into two categories (Meler, 2003): (1) Marketing for non-profit organizations which refers to application of marketing concepts and techniques in organizations such as schools, health institutions, government bodies, local and regional governments, etc. (2) Social Marketing with regard to development of programs designed to influence the acceptability of social ideas, where the main goal is to change social behaviour primarily for the benefits of the target group or society as a whole. The non-profit organizations are a significant factor for development of social policies. The term non-profit as a fundamental characteristic of a non-profit organizations indicates that the first feature of these organizations is absence of the profit, that is that these organizations operate primarily with a purpose other than making a profit, which is associated with the public (general, common) interest (Sargeant, 1999). The aim of non-profit organizations is to provide services and not to gain primarily profits for its owners. The emergence and development of a non-profit sector can be associated with the development of the concept of social responsibility which represent a concern for the functioning and prosperity of the community (Bežovan, 1995). The non-profit sector, also called "the third sector" includes all organizations focused on creating values for society as a whole which are not focused on getting personal profits and do not distribute the profit and surplus to shareholders or members of organizations (Lettieri, Borga and Savoldelli, 2006). The application of marketing techniques in the non-profit sector has made a shift in thinking due to a number of realized benefits by applying marketing concepts and tools in the non-profit sector with emphasis on the systematic approach along with strategic planning (Andreasen and Kotler, 2003 stated in Dolnicar and Lazarevski, 2009). Although the main purpose of the existence of non-profit organizations is not profit, it does not mean that non-profit organizations that use the non-profit marketing in their business do not take into account the needs and preferences of their users, as they also have their own mission and goals that focuses principally on citizens and entire society Pavić (2003). Marketing concept and the particular combination of elements of the marketing mix can help to non-profit organizations to define in a simpler and more efficient way their role and needs of the target market, as well as to promote activities and thus gain competitive viability, which will help them to perform more efficiently their social role (Ivanović, 2007 stated in



Ivanović and Kostić- Stanković and Ognjanov, 2012). Also specifics of Non-profit organizations are that they must continually develop relationships with stakeholders who will support their mission by giving them their time and/or money. Relationship marketing focuses on developing partnerships and thus may increase the loyalty of stakeholders. Efforts to involve the public in the activities and decision making of organizations in Croatia are most noticeable in the non-profit sector. Corporate social responsibility is present in Croatia, but is still in its infancy and is mainly related to investments in sport and education (Mihanovic, 2009).

### **3. The basic tenets of Social Marketing**

First formal definition of Social Marketing was presented by Kotler and Zaltman (1971) who see social marketing as "establishment, execution and control of marketing programs aimed at increasing, acceptance of social ideas or social practices in the target group i.e. groups". The modern view of social marketing outlines its domain around the process of exchange and voluntary behaviour change (Domegan, 2008). Kotler, P.; Roberto N.; Lee N. (2002) define Social Marketing as the use of marketing principles and techniques to influence the target audience to voluntarily accept, reject, modify or abandon the current behavior for the benefit of individuals, groups or society as a whole. Social Marketing also involves (Rangun and Karim, 1991 stated in Andreasen, 1994): changing attitudes, beliefs and behaviors of individuals and organizations with the goal of general social welfare, and it is crucial that social changes remain most important regardless of the purpose of the campaign itself. If certain behaviors are not prohibited by the laws of social actors, such as governments and the public sector they must provide with variety of services, facilities and support marketing campaigns a support to change unwanted behaviors in desirable ones both for the individual and for society as a whole (Buurma, 2001). Social Marketing can affect the consciousness of an individual to change his opinion which was the cause of unwanted behavior and to transform it into the desirable behavior. (Ivanović, Kostić - Stanković, Ognjanov 2012).

### **4. Social marketing in the Public Sector**

The public sector has a role of regulator of social welfare. The quality of public services emerges as a result of fulfilling expectations, needs and preferences of citizens. In order to increase satisfaction of citizens and to fulfill their expectations Kotler and Lee (2007) believe that the public sector must improve its actual and expected performance. Also, they consider that marketing precisely is the best tool that could lead to greater citizen support and satisfaction. The public sector is almost exclusively focused on services that are intangible and therefore the communication with customers is extremely important so that the gap between the expected and delivered service quality could be reduced (Parasuraman, 1985). Given that the public sector often tackles tough and unpopular issues, the communication can be quite challenging (the ban on smoking in public places for example) (Kaplan and Haenlein, 2008). Walsh (1994) believes that consumerism is the way forward and that the users of public services should be recognized as customers and treated adequately. The introduction of consumerism in the public sector brings a number of changes such as decentralization, increase of customer awareness and enhancement of communication between public services and the users of their services, which leads to possibility of choices and thereby to higher customer satisfaction. Also, another reason for the increased interest in marketing in the public sector is the establishment of promotion and public relations within public bodies. Greater public organizations are increasingly paying more attention to the promotion and public relations. Marketing in the public sector contributes to more effective and efficient disposal of resources (Walsh, 1994). Marketing is one of marginal activities within the public sector. Negative image of marketing within the public service stems from the large number

of ads and promotion within the public sector. The notion of marketing exclusively through the 1P from 4P (marketing mix - *product, price, place, promotion*) is a big mistake. Such thinking results in a loss of power and uses acquired by marketing thinking. The point is that marketing is not the same as advertising. Advertising is only one part of that complex process (Kotler and Lee 2007). Through all four elements of the marketing mix a company can form the final product which is being offered in the market.

The term *product* refers to physical goods or services, including events, people, places, company itself, information and ideas that an individual or an organization offers on the market in order to meet needs and preferences of that same market. Products in the public sector are usually not tied to tangible goods as in the private sector (Kotler and Lee, 2007). A product in social marketing mix represents an offer of different behaviors for targeted users, often involves intangible assets such as behaviors and ideas, but can also represent tangible assets (Gordon, 2012). New products can be developed without demand or even despite objections from society (Kaplan and Haenlein, 2008). *Price* is one of the key marketing mechanisms used for achieving business goals. In the public sector the price is not only related to charge for products/programs/services, as it is also reflected in monetary sanctions (fines, penalties) and financial incentives (such as discount coupons) (Kotler and Lee, 2007). Costs that the target audience has to pay and the barriers that must be overcome in order to achieve the desired behavior relate to the price in Social marketing. Also "costs" can be psychological (e.g. stress arising due to smoking cessation), cultural, social (public pressure due to unwanted behavior), practical, physical and financial (e.g. sanctions for improper disposal of waste) (Gordon, 2012). As an example, one can still mention the overall environmental policy in Croatia, which is based on command - monitoring instruments while economic instruments appear as their supplement where the predominant economic instrument is charge, which occurs in the form of user charge and charge on pollution as charge on protection of water. Special taxes are prescribed on certain products, and the system of deposit and refund for glass packaging in wholesale and retail trade, on a voluntary basis is applied (Kordej - De Villa, Papafava, 2003). Costs of financial nature are associated with tangible objects and services related to adoption of the desired behavior while the non-cash costs include time, effort and energy invested in order to change behavior, then perceived and experienced mental risks and losses and various physical symptoms that can be associated with the adoption of a new behavior (Kotler, Roberto and Lee, 2002). *Distribution* or place in Social Marketing represents channels that promote desired behavior and channels that encourage and support behavior change to be achieved from the target audience (Gordon, 2012). The larger distribution network is there is a greater possibility that the target audience will buy a particular product/service, i.e. they will adopt the desired behavior, but on the other hand this is associated with higher maintenance costs and that is why the public administration needs to find the right balance (Kaplan and Haenlein, 2008). *Promotion* is used to inform, educate, and often to stimulate the target market to adopt the desired behavior. Promotion is one of the three basic tools in addition to various economic instruments and government and public sector legislation to affect knowledge, attitudes and behavior of the target audience (Kaplan and Haenlein, 2008).

When developing the message one should start with the three main questions: (1) *what is you want your target audience to know?* - This type of message is focused on information, specific facts and messages; (2) *what do you want target audience to believe in?* - Does not refer to information than to the message that evokes feelings in the targeted users; (3) *what do you want target audience to do?* - Encouraging communication must go beyond informing and changing perceptions, the message must encourage users to act (Kotler and Lee, 2007). Creating of effective communication message includes some form of market research in order to choose the best design and content of the message. The second step in creating an effective message is to present the message in a way that attracts attention, evokes appropriate emotions on relevant, compelling and understandable way (Henley, Raffin and Caemmerer, 2011).

When it comes to customer satisfaction, the first thing to say is that the satisfaction as a notion has a subjective nature, and can be defined as the opinion that customers have of the

company and opinion they compare with their expectation use (Kos, Trstenjak and Kralj, 2011). Satisfied customer tends to maintain the same level of his consumption or increases the consumption of products/services with which he feels satisfied. The customer satisfaction has become an important indicator of the quality and future revenues. The customer satisfaction also affects the buying behavior and satisfied customers tend to be loyal customers (Andreassen, 1994). Kotler and Lee (2007) believe that there are many benefits from improvement of user satisfaction in the public sector, such as: (1) *Improving services and satisfaction can increase revenues*; (2) *Improving services and satisfaction can support future financing needs*; (3) *Improving services and satisfaction can fix operational efficiency*; (4) *Improving services and satisfaction can improve benchmarks for performance improvement*.

## 5. Research methodology

For the purpose of research, the investigative (exploratory) research, which is deep interviews with representatives of public utility companies, was conducted. It was also applied the case study where a practical example was analyzed. The mentioned example consisted of two main variables - what you want to change and the factors by which the mentioned change can be achieved and, it was also conducted a descriptive study on a representative sample by using a questionnaire as an instrument of research. The questionnaire was implemented with direct access on the field, with a direct contact with respondents. A total of 100 questionnaires were collected,

i.e. the study included 100 families who use the services of utility company in the area of Split and its surroundings. As a way of selecting units in sample a quota sample was used. Also in the survey, subjects with varying degrees of education, monthly incomes, qualifications and different places of residence (district) were represented. As a control trait the quarter in which respondents live was taken. The area of operation of Public Utility Company was divided into following blocks - *Centre, East, West, Solin - Kaštela - Dugopolje* which consist of certain neighborhoods and local committees.

## 6. Research results

Based on interviews conducted within the utility company and obtained responses it has been concluded that it was necessary to develop administrative area of marketing in utility company. The problem is that people who work in marketing of the company, and generally people within the nonprofit sector, are not sufficiently familiar with the literature and practice of conducting marketing concept. They accede to marketing problems according to their impressions and intuition. According to some researches, it was concluded that there was still an under- investing in financing of marketing activities that contribute to sustainable development and businesses. Realization of business, and thus marketing activities focused on development of socially responsible marketing requires additional investment in specific resources and capabilities of enterprises (Stanković, Đukic, Popović, 2012). The same problems are present in the public service company of Split area. Public Utility Company implements systematically education of children of kindergarten and school age children while other age groups are being neglected. The oldest and simplest model of a pro-environmental behaviour suggests that knowledge of ecology leads to environmental awareness and concern (environmental attitudes) that are likely to lead to ecological behaviour (Kollmuss and Agyman, 2002).

As a practical example, and also an example of good practice the city of Graz was taken due to the application of the entire, integrated waste management system that achieves excellent results of recycling rate which reduces greatly operating costs and allows the reuse of resources in order to preserve nature and the environment, improving thus the quality of life of the entire society. Besides, the business case of for example Graz was chosen as one of the most important

factors in waste management issues is population and population density. According to these criteria, the city of Graz and Split have the same predisposition for waste management. The main objectives in the field of waste management in Croatia overlap with the goals of the overall integrated waste management system in Graz, which was the basis for a successful development of the entire system. The turning points in the development of a successful system were: the establishment of "Waste Advising Centre" - the base to prevent formation of large amounts of waste and to promote recycling in a way to increase public awareness and sensitivity of the entire population to the problem of waste management; the separate collection of waste and collection of bulky waste whose components can be reused or can be used as fuel in industry; implementation of the concept of reintegration of organic waste in material cycle of nature and encouraging of private and group composting in special containers; introduction of stationary and mobile spots for the disposal of hazardous waste such as old batteries, energy saving lamps, dyes, drugs and other toxic waste. All these measures have resulted in an increase in the amount of collected waste that can be reused and in reduction of the amount of residual waste by two-thirds. This great achievement relies on early developed concept of integrated and intelligent waste collection, the measures taken to date, employee commitment, and above all, high motivation and the willingness of the population and local companies to carry out the proposed measures. Graz has so far reached a recycling rate of 69%. Besides citizens, local businesses are also integrated into the implementation of the waste management plan through ECOPROFIT program that helps to ensure sustainable economic development in the region and provides a win- win situation for both companies and bodies, and ultimately a win-win situation for the environment. Experiences from Graz show that people are willing to support a sustainable approach to waste management, however, it is important for them to know what they need to do and why they should do it. Companies also need to be motivated to be able to participate actively in sustainable waste management, and this will be achieved if the municipality offers interesting incentive conditions. When analyzing the data collected by surveying the average value of all matters relating to individual research goals was used. In the following tables, the term *Satisfaction* refers to the degree of fulfilment of needs and preferences of service users from the utility company Čistoće d.o.o.; the term *Lack of information* refers to the lack of information and education of service users from the utility company and the term *User behaviour* means the environmental behaviour of users, and the probability of changing the existing behaviour towards more environmentally conscious behaviour. The table 1 presents the results of testing research goals of an unknown arithmetic mean of the basic set.

**Table 1.** Data on the average grade of satisfaction/lack of information/user behaviour according to place of residence (residential block)

Area of residence:		<i>Satisfaction</i>	<i>Lack of information</i>	<i>User behaviour</i>
<b>Centre</b>	Mean	2,6190	4,3333	4,0556
	N	21	21	21
	Std. Deviation	,70542	,69522	,65475
<b>East</b>	Median	2,6667	4,5000	4,1667
	Mean	2,4170	4,3298	4,0277
	N	47	47	47
<b>West</b>	Std. Deviation	,73152	,68586	,58695
	Median	2,3333	4,5000	4,0000
	Mean	2,8039	4,0882	3,9314
<b>Solin-Kaštela-Dugopolje</b>	N	17	17	17
	Std. Deviation	,90376	,64312	,80376
	Median	2,6667	4,0000	4,1667
<b>Total</b>	Mean	2,4476	4,5714	3,8714
	N	14	14	14
	Std. Deviation	,73260	,51355	,60112
	Median	2,4167	4,7500	4,0000
	Mean	2,5306	4,3232	3,9949
	N	99	99	99
	Std. Deviation	,76098	,66361	,63780
	Median	2,5000	4,5000	4,1667

Source: Research results

**Table 2.** One-Sample Kolmogorov-Smirnov Test

		<i>Satisfaction</i>	<i>Lack of information</i>	<i>User behaviour</i>
<b>N</b>		99	99	99
<b>Normal Parameters(a,b)</b>	Mean	2,5306	4,3232	3,9949
	Std. Deviation	,76098	,66361	,63780
<b>Most Extreme Differences</b>	Absolute	,098	,250	,131
	Positive	,098	,162	,074
	Negative	-,046	-,250	-,131
<b>Kolmogorov-Smirnov Z</b>		,974	2,489	1,307
<b>Asymp. Sig. (2-tailed)</b>		,299	,000	,066

a Test distribution is Normal. b Calculated from data.

Source: Research results

Kolmogorov - Smirnov test tested the hypothesis that the distribution has a determined form. Based on the results of the Kolmogorov - Smirnov test, which tested the fact that the distribution has a determined form, it can be concluded that in the variable "Satisfaction" empirical significance is  $\alpha^* = 0.299 = 29.9\%$ ,  $\alpha > 5\%$ , and that the distribution of variables "Satisfaction" has a normal form i.e. it can be concluded that the utility company from wider area of Split does not meet the expectations and preferences of users of its services. Analogously to



the previous result, it can be concluded that the distribution of the other two variables (insufficient information and user behaviour) has a normal form, and it is concluded that the utility company from the wider area of Split does not inform sufficiently neither educate users of its services and that the customers of the utility companies are not sufficiently eco-friendly, but have a positive attitude about the potential change of their own behaviour towards socially responsible behaviour. Using bidirectional testing the average scores of variables to be tested was examined.

The following table 3 shows the estimation of the average interval value (satisfaction/lack of information/user behaviour) of the basic set by districts, which is placed in the survey in the form of a scale of 1 to 5 where 1 represents the lowest value and 5 the highest, with the reliability of estimates of 95% .

**Table 3.** *Estimated average values of the variables satisfaction/lack of information/user behaviour of basic set by districts*

		N	95% Confidence Interval for Mean	
			Lower Bound	Upper Bound
<i>Satisfaction</i>	Centre	21	2,2979	2,9402
	East	47	2,2022	2,6318
	West	17	2,3392	3,2686
	Solin-Kaštela- Dugopolje	14	2,0246	2,8706
	Total	99	2,3789	2,6824
<i>Lack of information</i>	Centre	21	4,0169	4,6498
	East	47	4,1284	4,5312
	West	17	3,7576	4,4189
	Solin-Kaštela- Dugopolje	14	4,2749	4,8679
	Total	99	4,1909	4,4556
<i>User behaviour</i>	Centre	21	3,7575	4,3536
	East	47	3,8553	4,2000
	West	17	3,5181	4,3446
	Solin-Kaštela- Dugopolje	14	3,5244	4,2185
	Total	99	3,8677	4,1222

Source: Research results

The test of homogeneity of variance proved that the empirical significance of satisfaction is  $\alpha^* = 0.713 = 71.3\%$ ,  $\alpha^* > 5\%$ , insufficient information  $\alpha^* = 0.254 = 25.4\%$ ,  $\alpha^* > 5\%$ , user behaviour  $\alpha^* = 0.475 = 47.5\%$ ,  $\alpha^* > 5\%$ . According the results there is no significant statistical difference between the variances by districts so the test of variance analysis can be performed. According to the test results of analysis of variance with one variable factor, it can be concluded that the district i.e. block in which respondents live has no significant effect on satisfaction. The same applies to an inadequate level of information ( $\alpha^* = 0.253 = 25.3\%$ ,  $\alpha^* > 5\% = > H_0$ ) and behaviour of the user ( $\alpha^* = 0.804 = 80.4\%$ ,  $\alpha^* > 5\% = > H_0$ ). Taking into account that the variable "Lack of information" is not normally distributed (tested above) suitable nonparametric (Kruskal - Wallis test) tests were implemented for this variable. According to the data, the empirical significance is  $\alpha^* = 0.242 = 24.2\%$ ,  $\alpha^* > 5\%$ , which shows that there is no significant statistical difference in the lack of information according to districts.

From the survey results it is clear that the entire local population should be included in the training program. Also, in order to motivate citizens to new activities they should be educated about the importance of recycling and introduction of new infrastructure. Besides, the company should develop overall marketing campaign that includes not only provision of information, but a whole range of activities that will help change behaviour of citizens.



## 7. Conclusion

It can be concluded that the respondents i.e. users of the services of a public utility company are not completely satisfied with the services provided by the company and feel that those do not meet their needs and preferences. Also, respondents are not satisfied with the level of awareness as they consider that the company does not provide enough information and education to them. As for the desire of changing behaviours, the respondents have positive attitude about the potential changing of their own behaviour towards socially responsible behaviour. Also, the majority of users are dissatisfied with the system of separate waste collection and believe that it is necessary to improve that system as the separate waste collection is of great importance to sustainable development. The vast majority of respondents believe that the theme of environmental protection is not adequately represented in the media and that the utility company and the competent institutions should focus on informing and educating citizens about environmental conservation. Moreover, the majority of respondents would support the City in an effort to reduce the amount of organic/biodegradable waste going to landfills, they would also support the use of separate containers/bins for the collection of organic kitchen waste and are willing to dedicate more time for separate waste collection. Ultimately, it can be concluded that communal activity in Split and its surroundings uses insufficiently the concept of social marketing and that in certain aforementioned aspects marketing concepts and Social Marketing can contribute to increase satisfaction and awareness of service users of the company. Therefore, it is very important that the public sector enterprises integrate marketing concept and Social Marketing in their strategy in order to facilitate ultimately their operations and to ensure the well-being of whole society.

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## PART FOUR:

*International Business Cooperation,  
FDI, Government Regulation*

# THE NEED FOR DIFFERENTIATION BETWEEN VERTICAL AND HORIZONTAL INWARD FOREIGN DIRECT INVESTMENTS AS A FACTOR FOR IMPROVING HOST COUNTRY NATIONAL COMPETITIVENESS- EVIDENCE FROM BULGARIA

Milen VELUSHEV<sup>86</sup>

## Abstract

*This study divides the inward FDI into two major groups in order to measure their impact on the host country's competitiveness – FDI in the tradable and FDI in the non-tradable sector. The division is based on the assumption that FDI in those two different groups affect differently national competitiveness in terms of productivity. This leads to the development of an instrument that, in combination with the Terms of Trade index, successfully explains the level of national competitiveness, measured by the Real effective exchange rate.*

**Keywords:** *Inward FDI, Tradable sector, non-tradable sector, national competitiveness, terms of trade*

## 1. The need for this study

At present Bulgarian economy continues to have times lower productivity than the advanced<sup>87</sup> economies of the old EU member countries. Its development is also lagging behind the rest of the transition economies of the EU member countries. This is attested by the last place the country persistently holds when EU member countries are ranged by a major indicator of economic performance as per capita GDP<sup>88</sup>. According to the Solow- Swan neoclassic growth model, the reason an economy to prematurely reach steady state of low growth is insufficient investment, due to lack of capital accumulation – the factor behind productivity growth and capital deepening (Madsen 2009). The rate of economic growth as well as the perspectives of a country to sustain a certain desirable rate of growth depends on multitude of structural factors. The concept of national competitiveness<sup>89</sup> gives us means to analyze those factors.

Here we aim to connect the level and perspectives of the national competitiveness of Bulgaria with the volume and quality of FDI inflows. We turn to FDI because, in general, they represent the investment decisions of multinational, heterogeneous firms. We know that heterogeneous firms are more productive and thus have higher return on investment, so they are prompt to expand toward international trade (Melitz and Redding 1012). In line with the eclectic paradigm (Dunning 1980), dependent of the existence and accumulation of I-advantages, multinational, heterogeneous firms will supplement or substitute international trade with outward FDI. In short,

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<sup>87</sup> As per the classification of International Monetary Fund

<sup>88</sup> This is easily verifiable by searching the Eurostat's web page at [http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search\\_database](http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database)

<sup>89</sup> The conclusion for the need for national competitiveness measurement exists in many researches, a summary of which is found in Competitive Industrial Performance Report 2012/2013, The Industrial Competitiveness of Nations. Looking back, forging ahead, UNIDO, Vienna 2013.

the existence and the structure of inward FDI carry information about the ability of the host economy to provide for meeting the high required rate of return that multinational firms have. Higher rate of return would encourage more investment to speed up economic growth.

In order to construct a model of the connection and test it against the statistical data, available for Bulgaria, we divided the paper in four parts: discussion of the concept and the measurement of national competitiveness, discussion of the nature and gravity of the impact the inward FDI have on the host country's economic prosperity and finally attempt to quantify the relationship between national competitiveness of the host country and the inward FDI. In the end we draw conclusions based on the empirical findings. In all this we aim to demonstrate that a simple ratio, comparing inward FDI in the tradable and those in the non-tradable sector, carries important information about the efficiency of the production factors and the structure of the host economy. Furthermore it can successfully be used as a leading indicator for the state of national competitiveness in the near future.

## 2. Definition and measurement of national competitiveness

For the purpose of this paper we will regard national competitiveness as equilibrium- a certain level of development and coexistence of structural factors that, as result, produces growth of national welfare. This view is inspired by the very definition of World Economic Forum for national competitiveness: "...We define competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to grow faster over time..."<sup>90</sup>.

Economies are different and unique as combination of institutions, policies and factors that determine the level of productivity and, although we can range and group the countries, we can't find complete similarity. These are indications in support of the view that countries are heterogeneous in achieving national competitiveness. The best evidence in this respect is the fact that the scholars community cannot agree upon a sole measure for national competitiveness.

In terms of measurement of the national competitiveness, first we have to consider the two major views on national competitiveness: the business strategy point of view of the management (business) school and the macroeconomic perspective of the economic school. The management school gives an excellent definition for national competitiveness, articulated in the Global Competitiveness Report. It connects national competitiveness to the level of productivity and through it to the rate of return on investments. Defining national competitiveness as a "...set of institutions, policies, and factors that determine the level of productivity of a country...", in order to measure each of those contributing factors, the management school develops a complex index (GCI), comprising multiple indicators, some with doubtful connection to the measured phenomenon (Lall 2001)<sup>91</sup>. This inherent shortfall is the reason for us to shift, for the purposes of studying the effect of FDI on national competitiveness, to the macroeconomic concept in search of a suitable and more accurate instrument to measure national competitiveness.

The economic school believes that through applying effective economic measures, each economy can find its internal equilibrium in terms of unemployment and inflation and external equilibrium in terms of balance of the current account. This balance is, in fact, the level of national competitiveness and can be measured by the level of the real effective exchange rate (REER), at which the balances occurred (Wignaraja 2003).

<sup>90</sup> The Global Competitiveness Report 2011-2012, World Economic Forum, Geneva 2011, p. 4

<sup>91</sup> We find the GCI critique of S. Lall valid in terms of questionable assigned weights of certain variables and lack of distinction between tradable and non tradable sector (what he calls "competing" and "noncompeting activities").

The understanding that the measurement of national competitiveness represents the internal and external equilibrium that exist in each and every economy, makes us believe that REER is a better representation of the factor equilibrium than the GCI. The inherent heterogeneity in the productivity of different countries leaves us with the conviction that the only dependable measure for national competitiveness must be the variable, which solves for the momentary internal and external equilibriums of an economy. In this reasoning we depart from Lall's critique of GCI that calls for dividing the economy into tradable and non-tradable sector considering their contribution to national competitiveness and then claims that the measure of national competitiveness must be one which compares only the tradable sectors of different countries. His critique considers the "Competitive Industrial Performance", developed for UNIDO a better measure (Lall 2003).

### 3. The nature of inward FDI

After establishing the reasons behind our decision to use REER as a measure for national competitiveness, we turn to the two equilibriums- internal and external, which define it. To do this we have to consider two facts established. First of all we know that a less developed country should attract Foreign direct investments in order to muster capital accumulation and maintain steady technological progress<sup>92</sup>. The vast volume of research on FDI phenomenon gives us a clear idea that they are an important source of capital stock. Furthermore FDI are a source of technological transfer, usually introduce managerial practices new to the host country economy and cause secondary spillover effects, occurring from backward and forward linkages between a multinational company's subsidiary and local suppliers and customers. And second - it is a fact that the majority of FDI come from heterogeneous, multinational enterprises (Yeaple 2009). Heterogeneity makes the foreign investors fit to bare the additional country risks, namely risk of sovereignty (risk of expropriation and profit restriction) and transfer/convertibility risk (risk of fiat money) (Petrovic, Stancovic 2009). Facing higher risks and because of the risk-return trade-off, Foreign Direct Investments have higher required rate of return, compared to their local competitors. The only way to stay competitive in this situation is for them to have superior technology, organization or other competitive advantage. In other words they exhibit the presence of what Melitz and Redding (2012) call "black box" of productivity of the heterogeneous firms.

So we can safely assume that, given they face similar high risks and they possess some productivity advantage over the local competitors, FDI, in general, are looking for the same or very similar, high enough rate of return on investment. In other words the result, from the investor's point of view, from FDI activities is homogeneous. But the same cannot be said for the result from inward FDI for the host country. We should consider the obvious example of the East Asian countries rapid growth, compared to the much slower economic growth of the Latin American countries, although both regions have attracted vast amounts of FDI. There are plenty of studies (Zhang 2001; Lim 2001; Bitzer & Görg 2008) leaning toward the conclusion that the effect of inward FDI over the host country's economy is differentiated, heterogeneous and depend on the motives of FDI to enter. In the case of the two groups of countries- we have the fast growth the East Asian Tigers helped by export platform manufacturing FDI and the sluggish growth of the Latin American countries, hosting market seeking (import substituting) manufacturing FDI. Both intuition and evidence support the conclusion that, when discussing inward FDI, we can assume a homogeneous result only regarding the investor's profitability. As for the result from FDI activity for the host country or how they are connected to the productivity of the economy – we must assume there is inherent heterogeneity, dependent of the investment motives and the host country itself.

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<sup>92</sup> A review of literature on the impact of FDI on the economic growth of the host country can be found in Neuhaus M. *The Impact of FDI on Economic Growth: An Analysis for the Transition Countries of Central and Eastern Europe*, Physica Verlag, Heidelberg, 2006



Building up on the previous argument we consider that differentiation of FDI, based on their ability to efficiently use production factors and to benefit from economies of scale and externalities is a viable concept. In other words, inward FDI do not simply aim to invest in economies that have high rate of return on investment, but they actively seek and create opportunities to get a certain, high enough required rate of return, based on the risks involved. In this sense, in order to achieve the required rate of return, a FDI can count on its own advantages, combined with the factor productivity of the host economy to generate high rate of return, but it can also exploit the host economy's inability to be Pareto efficient. In other words, there is a group of foreign investors that will aim to use market failures and to offset or internalize pecuniary and real externalities.

Efficiency of the production factors is connected to the tradability of the goods or services produced. This is the reason why Lall separates the tradable from non-tradable sector in order to measure more accurately the national competitiveness. Considering all the above arguments we can assume that FDI in the tradable sector and FDI in the non-tradable sector must have similar required rate of return, but their contribution to national competitiveness of the host country will not be the same. That is why, when discussing their impact on the economic prosperity of the host country, we have to discriminate between the two major groups. In order to make the distinction convincing, we will continue with a recap of some of the major attempts to classify FDI into groups, based on a given indicator.

Let us first look at the FDI in the tradable sector. Tradability of the goods produced relates FDI with international trade. According to the Knowledge-Capital Model (Carr, Markusen & Maskus 2001) there are two primary motives for multinational enterprises to engage in FDI. The first one is market access – duplicate the activities of the parent company in the host country in order to save transportation costs and overcome import restrictions. This type of FDI is known as horizontal. In this situation FDI are a substitute to international trade. The second motive is connected to the existence of competitive advantages in the host economy. It reflects the desire of the multinational firm to improve its production efficiency by exploiting cheaper and more abundant production factors in the host country by moving there some parts or stages of production. Those FDI are referred to as vertical. In this case FDI and international trade are supplemental.

There are reasons to consider that the two types of FDI in the tradable sector are very different in their effect on the welfare of the host economy. There is the proximity- concentration trade-off of horizontal FDI concept (Brainard 1993) that states that horizontal MNE will sacrifice economies of scale due to concentration (plant level returns to scale) in order to increase the volume of sales and have higher corporate level returns of scale. Based on the factor proportions hypothesis<sup>93</sup> vertical FDI, by definition being part of international production and international trade, should not make the same sacrifice – their very existence is subjected to efficient exploitation of production factors (comparative advantages of the host country), thus they try to capitalize on both effects of concentration and proximity. According to the Heckscher-Ohlin theorem we can speculate that in the case of vertical FDI there will be a greater volume of intra-firm trade, which gives prove that there is a possible trade-off between concentration of production and proximity to the customer. But studies show that vertical affiliates of MNE (in this case US MNE) supply unaffiliated parties in the host country and are not engaged in trade within the firm (Ramondo, Rappoport & Ruhl 2011). In a world where the growth of international trade and production is fast and the benefits, according to the New trade theory, incomparable to the domestic trade, MNE need to exploit efficiently all available resources and production factors. Thus trade-offs have to be avoided, so for the tradable sector where, we assume, the Law of one price holds, FDI will concentrate in efficiency rather than sacrificing one type of economy of scale in order to achieve another. In this sense and for the purposes of this study, it is more feasible to assume that the FDI in the tradable sector are predominantly vertical.

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<sup>8</sup> Factor proportions hypothesis and FDI are connected in Brainard 1997.

The case of FDI in non-tradable sector is less researched. Generally, there is the understanding that those are, in the case of the countries of Southeastern Europe and Bulgaria in particular, the predominant type of FDI. The non-tradable FDI (banking, construction, retail, etc.) are associated with a domestic demand boom and consequently with large deficits of the trade balance (Kinoshita 2001). The fact that vertical FDI are, in general, input seeking ( Helpman 1984) and thus move only certain stages of the MNE's production, leaves us with the conclusion that their product should be tradable. This means that the FDI entering the non-tradable sector are mostly horizontal FDI. Furthermore there are studies (Geishecker & Görg 2003) that clearly state that the vertical FDI are mostly manufacturing and horizontal FDI are entering the service sector predominantly.

To wrap up, we are confident there is enough proof to claim that we can divide the inward FDI to FDI in the tradable and FDI in the non-tradable sector. For the purposes of this study<sup>94</sup> under tradable sector we understand the primary and secondary sector of the economy and under non-tradable- the tertiary or service sector. We find it plausible that FDI in the tradable sector are vertical and those in the non-tradable – horizontal. Of course this is a generalization – not all FDI in the primary and secondary sector of the economy are vertical and not all the products are tradable. The same is true for FDI in services- they are not all horizontal and not all their products are non-tradable. But since we are discussing macro- rather than microeconomic issue and the data we use is highly aggregated, we find that the generalization holds – we will expect mostly vertical FDI in agriculture, mining and manufacturing and mostly horizontal FDI in services.

Since we discuss risk and return from capital allocation, it is only natural to resort to the utility theory to model investors' choice. Constructing an utility indifference curve in terms of return on investment for the foreign investor will give us a powerful tool to analyze the effect of inward FDI<sup>95</sup> on the productivity of the host economy:

$$\frac{\Pi_{FDI\ tradable}}{\Pi_{FDI\ non-tradable}} = \frac{r_{FDI\ tradable} \times FDI_{tradable}}{r_{FDI\ non-tradable} \times FDI_{non-tradable}}$$

where:

$\Pi_{FDI\ tradable}$  – Average annual profit of FDI in the tradable sector,

$\Pi_{FDI\ non-tradable}$  – Average annual profit of FDI in the non-tradable sector,

$r_{FDI\ tradable}$  – Annualized rate of return on investment of FDI on the tradable sector,

$r_{FDI\ non-tradable}$  – Annualized rate of return on investment of FDI on the non-tradable sector,

$FDI_{tradable}$  – FDI in the tradable sector,

$FDI_{non-tradable}$  – FDI in the non-tradable sector.

We do not know what the actual amount of profits in reality is, but we can assume that the required rate of return of all the different FDI, invested in tradable and non-tradable sectors of the same host economy is not only high enough but it is similar. And since we accepted that the FDI are capable to reach their required rate of return, especially when discussing aggregated figures by sectors, we can assume that the annualized rate of return of aggregated FDI in both sectors are equal:

<sup>94</sup> The statistical data for Bulgaria, accessible through the webpage of the Bulgarian National Bank [www.bnb.bg](http://www.bnb.bg), complies with the traditional empirical shortcut to label manufactures as “tradable” and services as “non-tradable”. The premise is discussed in De Gregorio, Giovannini and Wolf (1994).

<sup>95</sup> For the purposes of this study we will make the assumption that the required rate of return is always the actual rate of return on investment. This might not be true for individual investments, but given the heterogeneity of MNE, their abilities to generate profit, it is safe to assume the assumption holds for sector aggregates.

$$\frac{\Pi_{FDI\,tradable}}{\Pi_{FDI\,non-tradable}} = 1 \times \frac{FDI_{tradable}}{FDI_{non-tradable}}$$

This means we have a measurable coefficient that gives us information about the ability of each of the two sectors of the host economy to generate the required rate of return from the foreign investors' point of view. The essence of this is that, given the greater abilities of FDI to generate higher return compared to domestic investments, we can see a picture of the structure of the economy, that generates the best possible for the same economy return on investment.

#### 4. A model of the relationship

Looking back to the definition of national competitiveness cited above, the ratio of FDI in the tradable sector to the FDI in the non-tradable represents the optimal structure of investments (and consequently of the economy they create) that can be achieved, given the existing set of institutions, policies and factors. In other words, unlike the domestic investments that might be satisfied with lower rate of return, FDI are always aimed at the best possible return the host economy can generate at the existing level of productivity. The reason this is essential is that it gives us the picture of the economic structure, viewed as a result of profitability- return on investment. As we know, the return on investment defines the economic growth ability of the host economy. The connection in the definition of national competitiveness between level of productivity and higher rate of return of investments gives back the conclusion that we can view national competitiveness as a function of return on investment- profitability of investment and prosperity through productivity. For a measure of profitability of investment we can use the before discussed FDI ratio, which we will call Export potential of FDI- EPFDI. For a measure of welfare we will use "Terms of trade" index (Han & Zhang 2012).

Using Terms of trade as an independent variable for explanation of REER has its justification in the literature (Clarida 1991; Coudert, Couharde & Mignon 2008; Reinsdorf 2010). The role of Terms of trade volatility is to transmit productivity shocks to the REER (Choudhri & Schembri 2009). Furthermore Terms of trade accounts for the external balance of business activity that gives information about increase of product sophistication and export diversification of tradable goods – situation justifying increase of domestic price levels due to increased productivity and shift to higher value added activities to prevent loss of competitiveness. The expected sign of the relationship is positive, according to the sources cited above.

Here we present the functional form of the relationship between the national competitiveness, measured as Real effective exchange rate and its determinants- proxies for the equilibrium investment opportunities and factor productivity. We suppose that there is a lag between cause and effect due to transmission mechanisms. After analyzing the equation with different lag values the one that best fits the data for Bulgaria is:

$$REER = \beta_0 + \beta_1 EPFDI_{t-1} + \beta_2 TOT_{t-1} + \varepsilon$$

The result (Appendix 1) from the regression analysis of the available data (years 2000 to 2012) is that both independent variables are significant for the change of the dependent variable. The numbers support theoretical conclusions that EPFDI (Export potential of FDI) is in inverse relationship with REER – because of the nature of EPFDI higher value shows concentration of FDI in the tradable sector, while increase of REER signifies rise of production factors prices that hurts national competitiveness. TOT is directly related to REER – increase of terms of trade means higher price of exports over imports, but it will result in appreciation of REER and falling export volume if all else is held constant.

## 5. Conclusion

Our conclusions are somewhat expected-according to the Balassa-Samuelson hypothesis increase of the investments in the non-tradable sectors signifies a situation, where there is an opportunity for high return on investment due to pressure over the domestic prices through increase of factor prices, especially labor. In this sense Export potential of FDI captures the tendency for worsening productivity and competitiveness in the case of Bulgaria. On the other hand Terms of trade gives us a picture of the economic development- they directly affect national income (Baldwin & Macdonald 2012) and their level is a result of export sophistication and diversification, in other words of their connection to productivity. Interestingly enough, growth of Terms of trade results in loss of competitiveness measured as REER, at least in the studied case of Bulgaria. The explanation is in the structure of export and import- resource-based, low and medium tech products exports as opposed to high-tech imports (Spatafora, Anand & Mishra 2012) due to consumer sophistication. Thus exports tend to be less value-added and more substitution elastic. In effect attempts to increase prices of tradable goods, because of increase of the domestic price level automatically result in loss of competitiveness.

Altogether, there is evidence that by differentiating between types of inward FDI we can analyze the productivity of the host economy. We demonstrated that Export Potential of FDI ratio is a viable concept for measuring and, better yet, forecasting national competitiveness of a host country. Further research is needed to establish if the observed relationship finds validation in the statistical data of other countries and the biggest obstacle, in this respect, is the limited access to uniform comparable data.

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## Appendix 1

Dependent Variable: REER

Method: Least Squares

Date: 01/13/14 Time: 13:16

Sample (adjusted): 2001 2012

Included observations: 12 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TT(-1)	3.80859	0.566466	6.723416	0.0001
EPFDI(-1)	-16.8372	7.056205	-2.38616	0.0408
C	-235.304	58.99313	-3.98867	0.0032
R-squared	0.846319	Mean dependent var	155.0083	
Adjusted R-squared	0.812167	S.D. dependent var	18.45045	
S.E. of regression	7.996365	Akaike info criterion	7.208169	
Sum squared resid	575.4766	Schwarz criterion	7.329396	
Log likelihood	-40.249	Hannan-Quinn criter.	7.163287	
F-statistic	24.78137	Durbin-Watson stat	1.681844	
Prob(F-statistic)	0.000219			



## GLOBALIZATION IMPACTS ON REPUBLIC OF MACEDONIA

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### Abstract

*The issue of implementation of the values and policies that are required by globalization are mentally distant for the ordinary people in our society. This is because, the gradual joining of Macedonia to the developed world is inevitably linked with the level of development of the economy, the limited available resources, underdeveloped infrastructure, population, strategic positioning, education and degree of specialization, and also industry development. Small societies are limited by their physical, social and economic size, to manage their grounds to incorporate the principles and rules of the global world, it is necessary to offer the world something which could differ them from the others and that would have been recognized. Good strategic partner is another thread that small societies need, so they can be linked to the global world.*

*For Macedonia to become a part of the global world, its economy is necessary to enrich the growing number of foreign investments, through which not only will be transferred financial benefits, but also enrich society experiences, habits and rules of major countries.*

*Macedonia is a multinational society whose history is rich with ethnic conflicts, insecurity of potential investment capital, uncertainty of employee, confidence in the functional monetary and fiscal system, the bureaucratic structure of the administrative system, the uncertainty in the banking and financial institutions and funds, are just some of the reasons to initiate distrust and a sense of uncertainty among potential foreign investors.*

*Analyzing deeper, we come to the conclusion that the local situation is far worst. The aim to the global world on local level, for now is only a well packaged product that practically could not be used, because the reluctance to accept the global challenges now only creates problems.*

**Keywords:** Globalization, Financial institutions, Strategic partners, Economy, Regional security and development

### 1. Introduction

The issue of modernization and gradual joining of Macedonia to the developed world is inevitably linked with the processes of globalization and Euro-Atlantic integration. Possible adverse developments in regard to finding a solution to the unresolved dispute over the country's name already imposes a real danger to the Republic of Macedonia in the lead position as the isola-

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ted state for a longer period of time will be removed from global social trends on the international scene.

The implementation of the Euro-Atlantic aspirations Macedonia guide in stable security positions at national, regional and international levels, thereby enabling conditions for stable long-term economic and social development, as well as capture plug in the processes of globalization and modernization in all spheres of social life .

Global connectivity is internationally known as the world's globalization, which are discussed in broader and narrower sense. Usually the term "globalization" is understood in the narrow sense of the word, and how economic globalization, it is a process that indicates connectivity and interdependence of national economies (which will gradually tend to find their "place in the sun" in the international labor market within the global world economy).

Global economic integration accelerates growth and strengthen the capacity of national economies, however, the creators and instigators of the processes of globalization, still gives no clear answer to the question whether such process will bridge the obvious national, ethnic and other conflicts or contradictions that are occurring in some low developed post-communist countries, given their fragile democracy and instability negative impact on regional security. (Angeleski, 2012, p.73)

Globalization can be understood as a kind of "action at a distance" that transforms all spheres of life and allows operation of the pluralism of values in all social spheres. Macedonia as a country in transition makes evident internationally verified steps to capture the connection processes of globalization and Euro-Atlantic integration, which shows that there is capacity to modernize and join the developed world. Aspirations for membership of the Republic of Macedonia to the EU and NATO is the process of globalization; great desire to attract foreign investment and participation in the world market, also is the process of globalization.

## **2. The impact on Republic of Macedonia**

Balkans during the post-socialist transformation was found torn between past, present and future, between modernization and revival of tradition. Among other Balkan countries, Macedonia and fight for their sovereign nation, but, then early since its independence in 1991 encountered a very difficult transition and face misunderstandings inherited from the past.

Macedonia seeks to preserve the sovereignty and integrity through the processes of globalization and integration of following the example of other countries. However, there is the fact that many contemporary nations increasingly face risks and dangers than open enemies on their borders, so that you can re- fill their identities at the moment when the old forms of geopolitics are becoming obsolete.

Paved roads in both directions (finding a place under security "umbrella" of NATO, joining the family of European nations united) lead to long-term stability, guaranteed national and regional security, and the rapid economic growth that will mean the gradual extraction of our country protracted economic crisis and mass unemployment (unprecedented in the modern history of the Balkans and elsewhere in Europe). The only way for Macedonia to open new horizons and perspectives to strengthen its positions on the Balkans and the European scene. Without long-term consolidation of relations with Balkan countries (and primarily by encouraging the development of democracy, as well as consistent with human rights and freedoms), even illusory is to think of sincere cooperation, mutual respect, and tolerance for diversity in every view.

The only way that leads to certain post-communist transformation of Macedonia and other Balkan countries (which represent the periphery of Europe) is the creation and nurturing concept of modern democratic state and society along the lines of developed democracies. Balkans can be consolidated only if conditions are created for democratic development and if consistently respect human rights and freedoms. We can hardly realize the essential idea of optimal functioning model of regional security if not globally is projected in practice if not breathe life international strategy

to solve the problems that are associated with stability, security, and the future of all countries falling in the region of Southeast Europe.

The purpose of such a strategy would be Southeast Europe to become a region of stability, cooperation and prosperity on the foundational function of joint conflict prevention and crisis management together, and based on the shared aspirations for membership in NATO and integration in the European Union. In this process, potential NATO to preserve security and stability in Southeast Europe would be supplemented with economic "Europeanization" of the region by expanding the monetary and investment arrangements that operate in EU countries.

Experience shows that the spiraling social processes of globalization and integration does not have to run away, since they "produce" long-term security, stability and sustainable economic undoubted social prosperity. Globalization should be understood as a direct generator of development and development directly corresponds to the security of the state. The state should accept the challenges of globalization in all spheres of reproduction, thus de facto strengthens national security.

Because of this ongoing reforms in the country according to the standards of the functioning of the European institutions and Euro - Atlantic structures should continue unabated to further confirming the capacity of the Republic of Macedonia that is able to transform and captures the connection spiraling process of globalization.

You might think that a local store has great importance for the study of sociology; sociologists but thinking about the social world often gains the most unexpected places. The local shop is a place that can tell us much about social phenomena that are the subject of great interest to sociologists of the 21st century. The next time you go to the supermarket note the large range of products on display shelves. If you start to buy at the fresh product department, you will probably find pineapple from Hawaii, grape fruit South Africa and avocados from Spain. But what is important here? We can't separate our local action of broad social impact that stretches across the planet. The sheer variety of products which we are accustomed to seeing in supermarkets reflect the complex array economic and social relationships, which we must admit, we got closer to people thousands of miles distant, much more than before. The globalization should not be seen just as the development of social and economic systems worldwide. Globalization is a phenomenon with a local character - a phenomenon that affects our daily lives. (Gidens, 2007, p.55)

But can we today speak about any equity in the exchange of cultural and spiritual values among the world superpowers and small states? It is true that today there are many objectively better conditions for developing this free exchange of ideas, but unfortunately this is more ideal than a reality. Instead of the free exchange of real values, we now have negative exchange extremism in almost all areas of human activity, phenomenon mostly spread by the mass media. Huge differences arising from economic development and wealth concentrated political power against poverty, political and economic inferiority depending on other settings are sufficient indicator of dominance over the national identity of young nations.

Central place and role in intercultural communication have transnational corporations through which massive exchange of information. They constantly weave a common network, thanks to the common interests of the elite. That this economic capability and power that they possess to lead way flow of information. On the one hand there are forces, financially powerful to allow the spread of "their culture and lifestyle" and the other small states that occur as culturally isolated as they are not able to show their culture and place.

But what is perhaps most disturbing is the development of the global nature of the crime. If you broke the past, today we see everyday criminal organized groups who operate at the level of several states. Modern terrorism is evolving in many directions. Although there are still individuals, fanatics who take Grassroots terrorist activities today are some of his significant other features. But what emerges as the most important feature is its internationalization. Due to their mobility, excellent organization and great material and financial support, they act far beyond the country of origin. Modern technology, mass - media and social networks "help" the realization of

their goal - to attract attention, showing up as "victims of regimes and policies". By attracting attention, they sow fear and thus globalized threat, the threat that every man fears that perhaps he will be the next victim. The second important feature of terrorism gives shape to the "invisible evil" as a silent killer which every day takes new victims. What is expected in the future is the use of means of mass destruction including mostly small nuclear bombs that inflict massive, long-lasting and irreparable damage that humanity has put in a position to fight for their survival (Micovic, 2001, p.160).

The process of globalization has received planetary scale as a general tendency and political strategy. But like any other occurrence, globalization has positive and negative sides. On the one hand, democracy and human rights revive in the places, where they were not in the past. The electronic revolution and its products spread local horizons in terms of cosmopolitan culture. But on the other hand also is globalizing the poverty and exploitation of the Earth's resources. Mankind comes to the stages of demographic explosion in certain regions, and other demographic implosion in which occur large imbalances in the development of the world.

It is much easier country with a developed economy, to implement the rules and policies of the global world than a country such as the Republic of Macedonia.

Small countries with underdeveloped economy, limited available resources, underdeveloped infrastructure, the population in the country (which is quite an important indicator for the development and pursuit of globalization of an economy), further education and the way in certain specialty areas, development of the industry etc. It is necessary to find a strategic partner we were able to manage a much simpler and easier way to promote globally.

Republic of Macedonia is a small country with an underdeveloped economy, and still pass incomplete transition process, as can their "as" to use , and also to affirm their cultural social values , it is necessary to find something that would become a signature of world markets , thus joining its multinational society would become mutual interest .Because of our geographical size, and because we are a country with limited resources, and because of the dangers lurking insecurity (social and economic) as the only "security door" is exactly that strategic partner who would stood behind Republic of Macedonia. Under this seems to be an economy that fails to get out of his bed and recession, and joined the global markets, you must create a "favorable ground" for foreign investors already established in global markets, and that would be potential strategic partners in the process of building a business (global) culture. You need to provide a degree of security and reliability of their capital, and security of existing working capital, to build confidence in the institutions and systems, and therefore trust in true democracy and the rule of law, reasonable working conditions for employees, which means high fees according to their disposable labor provided health care, and pension security and safety in the workplace, and the most important factor to be secured stability of macro and micro economic trends in the overall financial sector, which includes: security in monetary and fiscal system institutions without bureaucracy, relaxed in the functioning of the banking system, the financial stability fund.

### 3. Summary

Analyzing more deeply we come to the conclusion that the situation at the local level, is far worse that reflects the policy that the country lead, striving for a global world. In such cases the tendency towards global world is only well packaged product that practically could not be used. In other words, the implementation of the policies and rules of globalization are still far away from us, as the unwillingness of the system makes them counterproductive and pragmatically none implementing on its own ground, and that once more bear enormous problems.

Basic Commerce and Industry branch in Macedonia's agriculture. The production of agricultural products is done in a specific way that delivers healthy and genetically unmodified production, which currently imposes a trend in global markets. This is needed in this sector to implement part of the world global measures to apply the success stories of the developed agricultural economies

to liberalize the market for agricultural products by establishing agro exchanges, and application of good ideas about free trade. All this will contribute to increased financial power producers, and consequently will implement new technologies that will further contribute to an even better production that will be competitive in the global market, with the ultimate goal of increasing exports and providing input into stable overall economy of the state.

Although Macedonia has a policy of foreign trade, striving for globalization, however stringent criteria and requirements to be met for the state to become part of the global world (not forgetting their capacities and resources) for now influence which reflected negative connotation. It creates a negative impact "on the difficulty gap" which, if not removed in the right way and at the right time and will continue to prevent the country to impose habits of the global world on its soil.

The long-term strategic goal of the Republic of Macedonia to become part of the global world should be facing towards the continued and uncompromising struggle against organized crime and corruption, in order to provide economic and political development, stability and security of the country and its integration into NATO and the EU.

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## THE INFLUENCE OF FOREIGN INVESTMENTS ON EMPLOYMENT AND ECONOMIC GROWTH IN FYROM

Nikolas HOURVOULIADES<sup>101</sup>, Ljupco DAVCEV<sup>102</sup>

### Abstract

*The relationship and influence of foreign direct investment (FDI) on the economic growth and unemployment has been the subject of long debates. In global terms, the relationship between FDI and economic growth has been the subject of many research studies: from purely theoretical analysis of the channels through which this is accomplished, the motives and determinants of investment, to empirical studies on a broad panel of countries. Because of these shared arguments about the impact of foreign direct investments on economic growth and unemployment, as an area of investigation in this paper we took FYROM, a country in transition, which has its own particularities in FDI inflows that uses or wants to use FDI as a form of rapid economic growth.*

*The purpose of this paper is to examine the impact of foreign direct investment (FDI) on economic growth and unemployment in FYROM. The paper examines existing theory to create an analytical framework for the relationship between FDI and economic growth and unemployment, then to quantitatively evaluate the importance of these investments in economic growth and unemployment in FYROM. The theoretical literature, elaborated in this paper suggests that foreign direct investment affect economic growth and unemployment through the following channels: transfer of technology and know-how, upgrading the workforce, integration into the global economy, increasing competition and development in the host-country and reorganization of domestic firms and lowering difficulties in implementing economic policies. Theoretical literature and empirical literature suggest shared thoughts and conclusions on the impact of FDI on economic growth and unemployment.*

*Foreign direct investment (FDI) attract much attention and interest in every country, especially countries in transition. Hence, each host-country stands for promoting and attracting foreign direct investment because of their contribution to the economy by offering affordable fees, taxes and financial incentives to attract FDI. In this context, the efforts that governments do to attract FDI significantly reduce budget revenues (due to the cost of attracting FDI, as well as direct budget subsidies allowed to foreign investors) who otherwise could be used for investments in education and infrastructure, which automatically speeds up the economic growth of the country which becomes attractive for investment in the long run.*

**Keywords:** FDI, GDP, unemployment, economic growth, industrial output

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## 1. Introduction

The connection between foreign direct investment (FDI) on one hand and economic growth and unemployment on the other has been the subject of long debates among the creators and observers of the domestic and international economics. In the literature there are different considerations and conclusions about the impact of FDI on economic growth and unemployment. One group of authors (Ghosh and Wang, 2009; Hetes, 2009, etc.) emphasizes that FDI accelerates economic growth of the host country, while another group of authors consider that FDI have negative effects on economic growth of the host country (Mencinger, 2003; Vissak and Roolah, 2005, etc.). Analyzing both perspective, FDI accelerated economic growth and job creation through increased productivity and competitiveness, industrial specialization, the transfer of sophisticated technology, faster access to the global market. On the other hand, the negative effects are seen through job cuts due to the sophisticated technology, reduced support to the domestic companies, worsening the balance of payments, etc.

In this paper we take FYROM as a country in transition, which has its own peculiarities in the inflow of foreign direct investment and who uses or wants to use foreign direct investment as a form of rapid growth of its economy. Namely, Campos and Kinoshita (2002) considered that countries in transition are suitable for analyzing the effect of FDI on economic growth for the following two advantages: First, at the beginning of the transition (from central planning to a market economy), these economies were far from limits of sophisticated international technology. However, in contrast to developing countries, countries in transition started with a complete industrial structure and relatively educated labor force, which allows the transfer of technology to accelerate economic growth; Second, close position of these countries to European markets.

The positive impact of foreign direct investments on employment and foreign trade, and hence the economic growth of countries is more pronounced in export-oriented countries than in developing countries based on the policy of import substitution. If complementarity is prevailing between foreign direct investment and exports, foreign direct investment will cause an increase in employment and a favorable state of the foreign trade balance. Opposite, if there is substitution element between foreign direct investments and imports, employment in the export oriented sector departs place of employment to economic entities that sell their products exclusively on the domestic market.

There are divided opinions on the impact of FDI on economic growth. Positive effects are mirrored by improving technology, increasing competitiveness and productivity, increasing exports, job creation, transmission and management skills training, better organization of local businesses etc., while the negative effects are mirrored by local firms depending on foreign technology, foreign influence and control, worsening the balance of payments, spreading economic problems in the world, decay and reduced support for local businesses, reduced interest for employment because of the sophisticated technology etc.

## 1. FDI in FYROM

FYROM, as well as other transition countries, from its independence constantly makes efforts to attract most of the foreign capital through foreign direct investment. There are constant measures of economic and legal aspects of creating a favorable international investment climate and achieving a favorable international investment position. In order to increase the interest of foreign investors to invest their capital, the country is committed to range macroeconomic policies and reforms, reform of the tax system, protection of property rights and contract enforcement, and improving efficiency in the functioning of the legislative, judicial and more executive and efficient public administration.

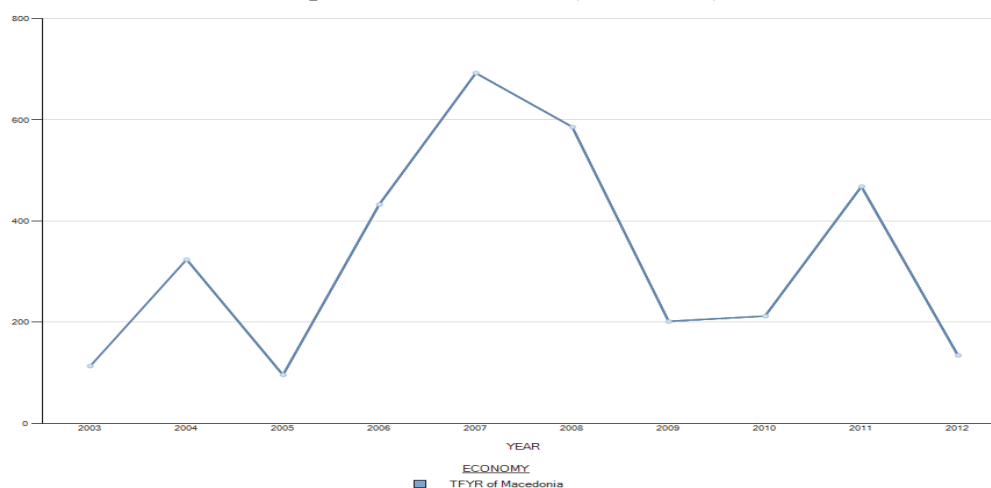
However, foreign investment between 1990 and 1996 was only 64 million U.S. dollars, of which 30 million dollars is generated in the process of privatization. A significant volume of fo-

reign direct investment of approximately 150 million U.S. dollars was recorded in 1998, followed by a further decline - only 88 million U.S. dollars in 1999, mainly due to the increased political risk and the escalation of the crisis in the region. In the next two years the level of foreign direct investment was mainly due to growth in sales of several public companies, sales of “Stopanska bank” - Skopje, “ADOR” - Skopje, “Feni” - Kavadarci, “Bucim” – Radovish, “Mermeren Kombinat” - Prilep, “Learnica” – Ohrid, “Pivara” - Bitola etc. The maximum during this period foreign investments accomplished in 2001, as a result of sales of Macedonian Telecommunications, “EMO” - Ohrid, “Zito Luks” - Skopje, Skopje Fair, etc. In 2001, foreign investments amounted to 447.1 million U.S. dollars and achieved the highest percentage of GDP (13 %). In 2002, again there is a decline in foreign direct investment and they totaled 105.6 million dollars and participate in GDP only for 2.8 %. In the coming years there are oscillating movements of foreign direct investment, mainly retaining the low level of 117.8 million U.S. dollars in 2003, 323.0 million U.S. dollars in 2004 and 97.0 million U.S. dollars in 2005, also with low share of GDP during the same years.

The aggressive policy of the Government to attract foreign investment supported by well-defined and targeted informative advertising, overcome the negative trend in 2006, when a considerable increase of 424.2 million U.S. dollars and 6.5% share in GDP is reported as total FDI in 2006. Its maximum foreign direct investment in the country has reached in 2007 when it was 699.1 million U.S. dollars.

The impact of the global economic crisis in 2008 and 2009 contributed to the trend growth of foreign direct investment to decline significantly in FYROM, as in the other countries in transition. Although in the first year of the crisis there was a slight decline in foreign direct investment of 587 million U.S. dollars, already in 2009 a significant decline of 197.1 million U.S. dollars with a minimum contribution of 2.1 % of GDP. This tendency of decline in foreign direct investment is interrupted with minimal growth of 4.09 % compared to 2009, amounting to 211 million U.S. dollars in 2010, an increase of 11.61 % compared to 2010 or the amount of 463, 30 million U.S. dollars in 2011 and again big decline in 2012 with 98, 9 million US dollars, which amounts are far below the level reached in 2007. The trend of foreign direct investments can be seen from the graph below.

**Graph 1. FDI in FYROM ( 2003-2012)**

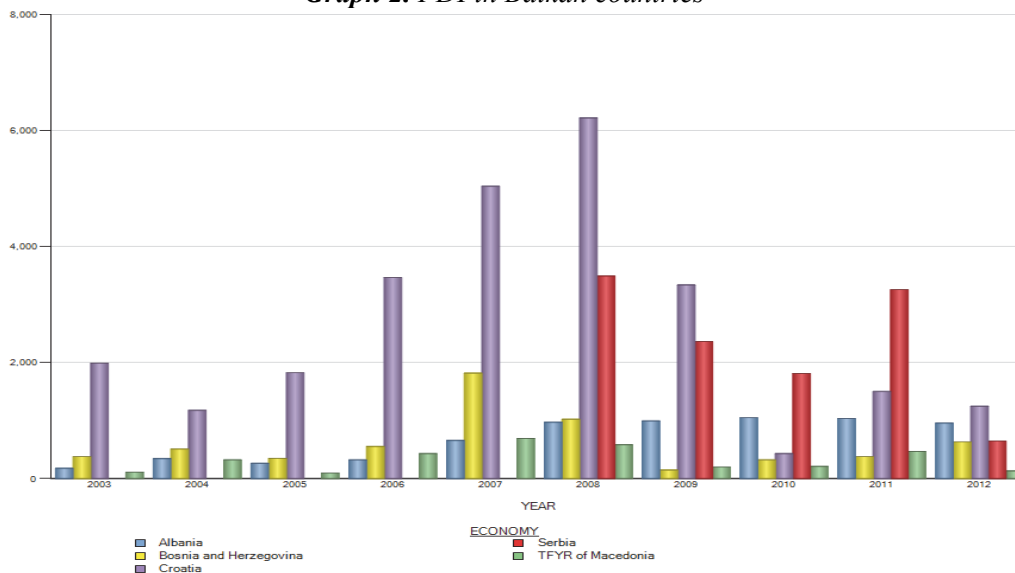


Source: UNCTAD STAT

According to the numbers taken from UNCTAD about foreign direct investments in Balkan countries which are not part of EU, plus Croatia which enter the European Union in July 2013, FYROM is at the bottom, far below Serbia during the years 2008-2012. Taking into consideration Bosnia and Herzegovina, 2007 was also the most important years for foreign direct investments in

this country, same as in FYROM, with the main difference in the amount received, which is almost double. Comparing the FDI of Albania and FYROM, it is noticeable that the direct investments are much bigger for Albania after entering NATO force from 2009. These trends can be seen from the graph below.

**Graph 2. FDI in Balkan countries**



Source: UNCTAD STAT

## 2. Literature review

In global terms, the relationship between FDI and economic growth has been the subject of many research studies: from purely theoretical analysis of the channels through which it is exercised, motives and factors that determine the investment, to empirical studies on a broad panel of countries (in transition). Important works in this context are: Hetes (2009) Xu and Wang (2007); Campos and Kinoshita (2002); Kornecki and Rhoades (2007) etc. Empirical evidence generally suggest a positive and strong relationship between FDI and economic growth in transition countries.

Empirical research from Finndlay (1978) at the end of the 1970s, pointed out that the contribution of FDI to economic growth goes through the "diffusion of knowledge" of domestic firms with advanced technology and better managerial practices from the investment companies, and Blomstorm and Kokko (2002) example of 78 developing countries concluded that technological progress and knowledge transfer are mechanisms through which foreign direct investments are stimulating economic development.

Bogun (2009) argues that greater inflow of FDI is more profitable for the host. He argues that considering the industrial level, FDI creates greater productivity in the industrial branch. Thus, FDI creates cumulative system where the remarkable results of past FDI result in attracting new investments. However, he notified that the impact of FDI will be significantly greater if it is directed in appropriate industry sectors with comparative advantage (higher productivity, employee training, and higher level of marketing activities).

Hetes et al. (2009) develop research on the correlation between FDI and economic growth represented by the GDP in the host country. First, they examined the role of FDI in Central and Eastern Europe, and then consider in more detail the role of FDI in Romania, Bulgaria, Hungary

and Slovenia. Their analysis refers to the period 1994 - 2006. Analyzing the role of FDI in economic growth in the countries of Central and Eastern Europe, Hetes et al. (2009) conclude that there is a positive correlation between FDI and economic growth. Analyzed by years the positive interdependence of FDI and economic growth is noticeable in the period 1994 - 1997. In 1998, the increase in FDI did not lead to an acceleration of economic growth, but otherwise, a significant decrease in GDP in this region. Further increase in FDI has led to the achievement of the maximum level of growth rate of GDP in the year 2000. The positive trend of the impact of FDI on economic growth continued through the years from 2001 – 2006, and the study shows greater stability in this correlation.

Kornecki and Rhoades (2007) conducted research on the relationship between FDI and economic growth (real GDP), based on the correlation coefficient. This research was conducted in Hungary, the Czech Republic, Poland, Slovakia and Slovenia in the period 1990 - 2005. This study, as it is the case with the previous ones, observed a strong positive correlation between FDI and real GDP growth rates.

Brancu and Lucaciu (2009) conducted research on the impact of FDI on employment in Romania. For this purpose, they used data from 62 French companies from various fields who have invested in Romania. In their study, they examined the impact of FDI on employment in terms of the type of FDI (Greenfield and takeover of local firms) and investment motive (market incentives and resource motives).

On the other hand, Vissak and Roolah (2005) suggest that the large inflow of FDI leads to a parallel economy (meaning that foreign companies are stronger, more competitive, grow faster, have higher levels of wages, have no tendency to cooperate with domestic companies, etc.) that may accelerate inflation, lead to political, social and cultural conflicts, destruction of the environment, reduced autonomy of domestic firms, the absence of technological spillover etc. The destructive approach that is especially present in imperfect market structures suggests that FDI lead to bankruptcy of domestic producers, strengthen and expand the power of transnational companies in the domestic market, repatriation of profits and favoring the "elite" of the labor force compared to other employees.

From the literature review can be concluded that in some studies FDI have a positive effect on economic growth through various channels, but on the other hand, notes that in some cases FDI inflows are not statistically significant or have no impact on employment and economic growth.

### 3. Methodology

The effects of foreign direct investments inflows in FYROM is investigated by using an LS regression model where we are analyzing the influence of the foreign direct investments on the gross domestic product, unemployment rate and industrial growth. Here our focus is on the relationship between a dependent variable (FDI) and independent variables (GDP, Unemployment rate, Industrial growth). For these regression models we use quarterly data for GDP growth, FDI, industrial output and unemployment rate for the years 2003-2013.

For the simple regression models we are using the equation:

$$Y = a + bX + e$$

where, respectively, we plug in the independent variables mentioned above.

For the multiple regression model we are using the equation:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_kX_k$$

Analyzing the results, we are focusing on the F-statistics and its overall significance F (its P-value), which estimations of significance level should be less than or equal to 0,05 (or 5%). A low p-value ( $< 0.05$ ) indicates rejection of the null hypothesis of non significance. In other words, a predictor that has a low p-value is likely to be a meaningful addition to our model because changes in the predictor's value are related to changes in the response variable. Conversely, a larger (insignificant) p-value suggests that changes in the predictor are not statistically significant thus not associated with changes in the response.

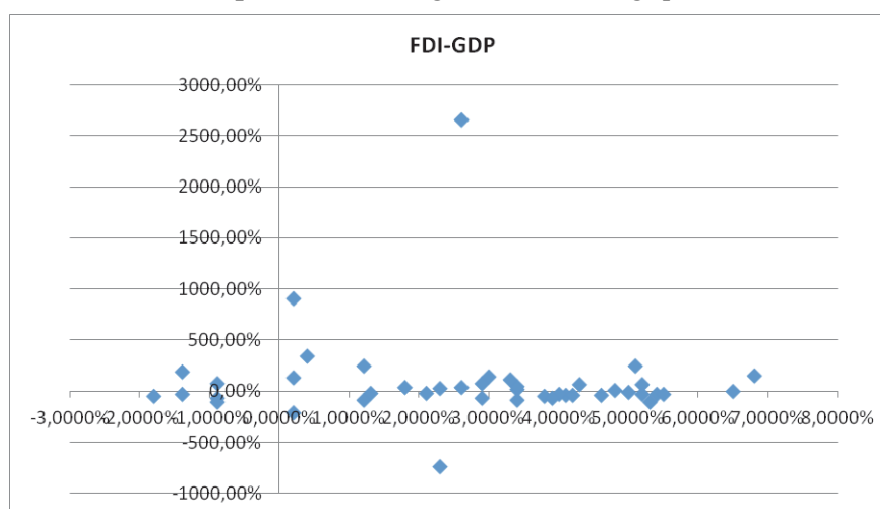
From the models we are also analyzing the R-squared and Adjusted  $R^2$ . R-squared is a statistical measure of how close the data are to the fitted regression line. We are using as the coefficient of determination, or the coefficient of multiple determination for multiple regression. In the simple and multiple regressions, the higher the R-squared, the better the model fits the data.

#### 4. Analysis

The first relationship under examination is the effect of FDI changes on GDP changes. Thus, we estimate the LS regression of

$$GDPchange = a + b FDIchange$$

**Graph 3. GDP change and FDI change plot**



As seen on Table 1, we fail to find any statistically significant relationship between the two variables. It seems that in the period 2003-2013, changes in the FDI do not explain changes in the GDP.

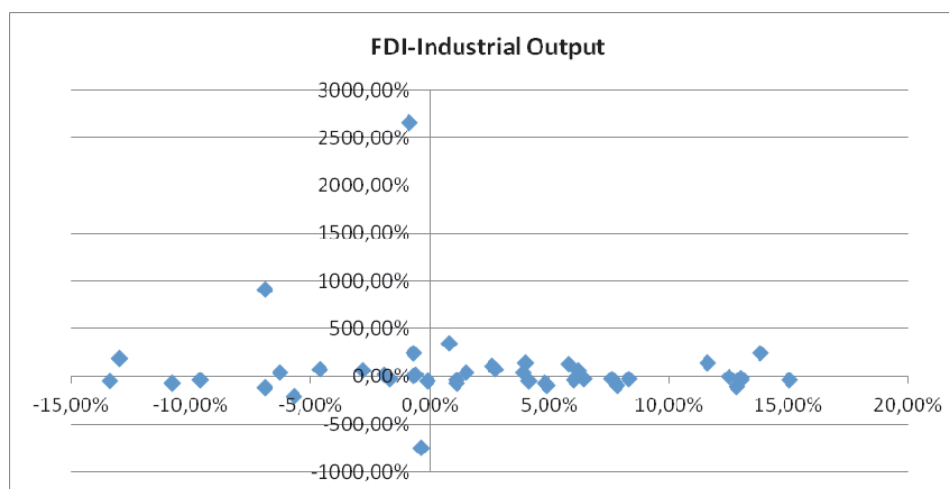
**Table 1.** Regression statistics-FDI change and GDP change

Regression Statistics				
Multiple R	0,059024612			
R Square	0,003483905			
Adjusted R Square	-0,020821366			
Standard Error	0,023257906			
Observations	43			
ANOVA				
	SS	MS	F	Significance F
Regression	7,75367E-05	7,75367E-05	0,143339477	0,706936889
Residual	0,022178138	0,00054093		
Total	0,022255674			
	Coefficients	Standard Error	t Stat	P-value
Intercept	0,027497354	0,003615099	7,60625238	2,32767E-09
FDIchange	-0,000299907	0,000792144	-0,378602003	0,706936889

The table above is showing that there is not any statistical relationship. The R squared is minimal, equal to 0,34%, showing that there is little, if any, significant relationship. The significance of the variable FDI, taking into consideration F-stat and its P-value=0,7069 and t-stat and corresponding P-value, which is 0,7069, is also showing that there is no significance of FDI of GDP in the country. What should be noted here is the sign of the coefficient of FDI which is negative (notwithstanding the non-significance) that reveals an inverse effect of the FDI on GDP in the country, contrary to regular expectations.

The next relationship under investigation is the effect of FDI changes on Industrial Output, thus examining the LS regression of:

$$\text{Industrial Output} = a + b\text{FDI}$$

**Graph 4.** Industrial Output and FDI change plot



In this model, similarly to the previous one, when we analyze the main criteria, there is not any statistical significance of the foreign direct investments on the industrial output in the country. First, the R squared is marginally equal to zero, 0,0088. The significance of the variable FDI, taking into consideration F-stat and t-stat and their corresponding P-value=0,5644 is also showing that there is no significance of FDI on the industrial output in the country during the period 2003-2013.

**Table 2.** Regression statistics-FDI change and industrial output change

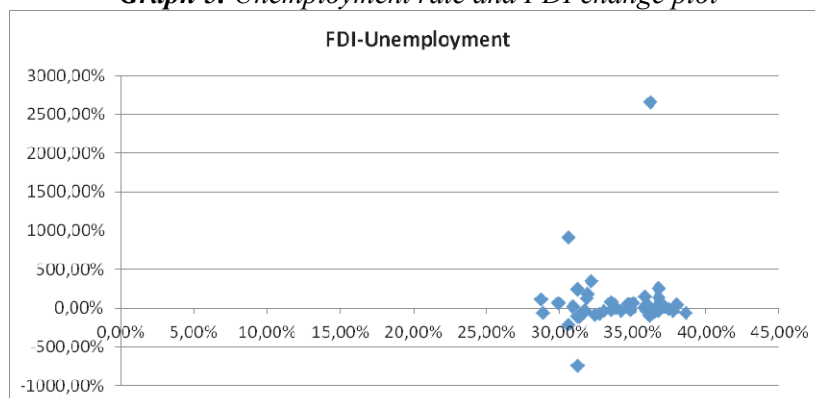
Regression Statistics				
Multiple R	0.090369058			
R Square	0.008166567			
Adjusted R Square	-0.01602449			
Standard Error	0.073880854			
Observations	43			
ANOVA				
	SS	MS	F	Significance F
Regression	0.001842674	0.001842674	0.337586	0.564406389
Residual	0.223793605	0.005458381		
Total	0.225636279			
	Coefficients	Standard Error	t Stat	P-value
Intercept	0.020895522	0.01148369	1.819582	0.07612979
FDIchange	-0.00146203	0.002516317	-0.58102	0.564406389

Surprisingly enough, the FDI changes in FYROM during the last ten years fail to prove influencing the GDP and Industrial Output figures. In addition to the above, if there exists any relationship this appears to have a negative sign, which is against common belief. This could reveal a peculiarity of the domestic economy and its structure, especially taking into consideration the small size of the economy and its structural weaknesses that still remain an obstacle to its future development.

Finally, the last relationship under examination is the effect of FDI changes on the Unemployment rate, thus estimating the following regression:

$$Unemployment = a + bFDI$$

**Graph 5.** Unemployment rate and FDI change plot



As seen on Table 3 below, the LS regression fails to prove any relationship between FDI changes and Unemployment rates during the 2003-2013 period. The R square is again marginally equal to zero, 0,009 and the P value of the coefficient is 0,526 far above the 5% significance level. It appears that in the economy of FYROM FDI changes do not influence any of the three macroeconomic variables under examination during the ten year period.

**Table 3.** Regression statistics-FDI change and unemployment rate

Regression Statistics				
Multiple R	0.099378503			
R Square	0.009876087			
Adjusted R Square	-0.014273277			
Standard Error	0.027304193			
Observations	43			
ANOVA				
	SS	MS	F	Significance F
Regression	0.000304886	0.000304886	0.4089585	0.526055875
Residual	0.030566277	0.000745519		
Total	0.030871163			
	Coefficients	Standard Error	t Stat	P-value
Intercept	0.338335383	0.004244035	79.720223	1.36377E-46
FDIchange	0.000594706	0.000929957	0.6394986	0.526055875

In addition, we have estimated the correlation matrix in order to verify our above mentioned results and examine any other possible relationships between the four macroeconomic variables. The correlation matrix is the following:

**Table 4.** Correlation matrix

	GDP (real growth)	FDIchange	Unemployment rate
GDP (real growth)	1		
FDIchange	-0,059024612	1	
Unemployment rate	0,389267227	0,099378503	1
Industrial production growth	0,781935227	-0,090369058	0,249011557

The results verify our aforementioned findings. It can be seen that the correlation between FDI and GDP in FYROM in the period 2003 -2013 is almost zero. In fact, the correlation has a negative sign, which verifies the fact that there is little or no correlation between these two variables. These results which are showing non-existing relationship are in complete distinction to the overall public opinion about the foreign direct investment inflows and their contribution to the gross domestic product and overall economic growth in the country. There are many factors that can underpin and support these findings. First of all, there is the structure of the domestic economy that cannot benefit from the FDI inflow. Second, the focus of the public policies is mostly oriented to attracting foreign direct investments, while in the meantime, the domestic investments and helping domestic companies is put as secondary importance. Also, this goes in parallel with the fact that the corporate profits mostly are transferred abroad, without strict regulations part of the profit to be reinvested in the country. But, these consequences should be further investigated with more details included in the whole analysis, and with closer attention to

other facts and parameters which we just mention previously, but could be very important for the undersized and small effect of the impact of foreign direct investments to GDP in FYROM.

On the other hand, there are another two relationships that should be brought into attention for future analysis: first, the correlation of industrial output and GDP and second the correlation of industrial output and unemployment rates. Both of them are positive (as expected) and quite high (0,78 and 0,25 respectively) that show that these sets of macroeconomic figures do have an effect on each other.

Another important result from the correlation matrix is the negative (almost zero) correlation of the FDI change on the industrial growth. The similar relations we also have between FDI and the unemployment rate, where there is not statistical significance and the correlation is almost zero. Although we got these results, one important conclusion from the models is that FDI is not giving the expected results to the domestic economy, even though it is advertised and perceived as the main important drive for the economic development and growth for FYROM.

Finally, we run a multiple regression model that examines the effect of FDI and Industrial Growth on GDP, in order to evaluate their potential combined effect. The regression model is:

$$GDPchange = a + b1 FDIchange + b2 Industrial growth$$

The multiple regression model is in complete agreement with our previous results. The overall statistical significance of the regression (P value<5% of F significance) is revealing potential relationships. The coefficients' significance however, show that only industrial production growth (P value<5%) is influencing GDP at a positive rate of 0,2459, while FDI changes prove non-significant (P value 0,90).

**Table 5.** Regression statistics-FDI change and industrial growth on GDP change

Regression Statistics				
Multiple R	0,782022545			
R Square	0,611559261			
Adjusted R Square	0,592137224			
Standard Error	0,014701199			
Observations	43			
ANOVA				
	SS	MS	F	Significance F
Regression	0,013610664	0,006805332	31,48790534	6,11639E-09
Residual	0,008645011	0,000216125		
Total	0,022255674			
	Coefficients	Standard Error	t Stat	P-value
Intercept	0,022358948	0,002375558	9,41208333	1,07595E-11
FDIchange	5,96209E-05	0,000502767	0,118585547	0,906197255
Industrial production growth	0,245909465	0,031076273	7,913093754	1,03726E-09

Form the table above, which is done from the multiple regression model  $GDP change = a + b1 FDI change + b2 Industrial production rate$ , we can see that R square is 61,155%, which means that it is good fitted. The significance of variables, in this case the FDI and Industrial production, are showing different results. From the t-statistics and the corresponding P-value for the first independent variable in the model, which is the FDI, it is obvious that this variable is not significant, with P-value= 90,61%. So, from this model it is noticeable that there is no statistical relationship between the Gross Domestic Product of FYROM and the Foreign Direct Investments in the country. On the other hand, taking into consideration the second variable, the industrial production growth, with P-value= 0,000000001037, which is less than 5%, there is a statistical

relationship and significance concerning the GDP of the country. Concerning the signs of the coefficients, they are positive for FDI and Industrial production ( $5,96209E-05$  and  $0,245909465$ ), which is following the economic theory that FDI and Industrial production growth is provoking the growth of GDP in the country. Concerning the joint significance, which we can see from F-stat and corresponding P-value, it is obvious that there is joint significance of the FDI and Industrial growth, because the P-value is  $0,00000000611639$ , which is less than 5%.

After the regression models, we state the table with coefficients, t-stat, P-value and F-value significance for FDI concerning GDP, Industrial growth and unemployment.

**Table 6:** Coefficients, t-stat, P-value and F-value significance

Variable	Coefficient	t-stat	P-value	F-value sign.
<b>FDI(regarding GDP)</b>	-0,000299907	-0,378602003	0,706936889	0,706936889
<b>FDI (regarding industrial output)</b>	-0.00146203	-0.58102	0.564406389	0.564406389
<b>FDI (regarding unemployment)</b>	0.000594706	0.6394986	0.526055875	0.526055875

From the table, comparing together the three correlations (FDI and GDP, FDI and industrial output, FDI and unemployment) we can see the same trends and results as previously concluded, that there is no significant relationship and influence of the FDI for the overall economy growth and employment in the country.

## 5. Conclusion

The purpose of this paper was to analyze the impact of foreign direct investments of the overall economic growth, presented by GDP growth, industrial output growth and unemployment rate. For the analysis we use the regression models where we analyze the influence of the foreign direct investments on the gross domestic product, unemployment rate and industrial growth separately, and the influence of GDP growth and industrial output on the GDP change.

The main conclusion of the empirical analysis is that the relationship between the rate of growth of FDI and the rate of real GDP growth is statistically insignificant, and that there is no significant relationship between these variables. The same conclusion has brought and the relationship between the growth rate of FDI and unemployment, and also the relationship between the FDI growth rate and industrial output.

This result for insignificant impact of the FDI growth rate on the real GDP growth may be due to: the time lag effect on FDI, large fluctuations in the growth rate of FDI over time series, small share that FDI has in GDP in FYROM compared to other countries in transition, the large share of FDI in terms of privatization of state monopolies.

These observations may be a good indicator for future research on this topic. In this context, we emphasize the need to reconstruct the policy to attract FDI and to create a macroeconomic environment in which FDI will not be directed only to the manufacturing industry (which so far is the practice), but also in agriculture, IT and tourism sector, which means that there is a need for industrial diversification of FDI. Also, there is a need to consider geographical diversification for attracting FDI because current statistical results indicate that the major sources of FDI in Macedonia are EU countries, so the country should work on attracting new foreign partners as investors.

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## INTRA-REGIONAL TRADE PERFORMANCES OF BOSNIA AND HERZEGOVINA

Snježana BRKIĆ<sup>103</sup>

### Abstract

*How a country performs in different markets is among others based on its product specialization. This holds particularly in the case of countries and regions with which the country trades most intensively. It is equally important in that respect how successful certain industries of that country are in the foreign markets, on the one hand, and on the other, how well they perform in their domestic market against their foreign competitors. Comparative advantages reflect country's inter-industry specialization and performance in its inter-industry trade i.e. in foreign markets, while intensity of intra-industry trade indicates its intra-industry specialization and thus performance both in exports and domestic markets. Differentiating between the two types of foreign trade – inter- and intra-industry trade – thus contribute to the insight into the level of the country's and its individual industries' competitive ability.*

*Recognizing that more than one third of foreign trade of Bosnia and Herzegovina (BiH) relates to the Western Balkans countries as well as the fact that two countries of that region are among its most significant trade partners, the research here focuses on analyzing BiH intra-regional trade. In order to assess the country's trade specialization and performance more fully, the paper analyzes both the inter-industry and intra-industry components of its trade with the region.*

*The research aims to discover patterns and variations in BiH intra-regional trade during the five-year time frame (2008-2012), with special regard to identifying industries with revealed comparative advantages and industries with dominance of intra-industry trade. In addition to the simple trade indicators that reflect trade trends and structure, the research employs the concept of the so-called revealed comparative advantages (RCA) by using two different indices (sectoral trade intensity in export and net-export index) adjusted to application in regional trade. Shares of IIT have been measured by using the standard uncorrected Grubel-Lloyd index, while the dominant IIT type from the standpoint of product differentiation (vertical or horizontal) have been established using relative unit values of export and import by industries. Trade specialization of Bosnia and Herzegovina expressed by RCA and IIT indices have been investigated in 64 industries that registered exports and/or imports with the Western Balkans, defined as SITC rev. 4 divisions (two-digit level) out of total 67 at the given aggregation level.*

*The responses deriving from the analysis should indicate the convergence of Bosnia and Herzegovina economy with the region, and contribute to determining the level of country's performance in regional trade relations.*

**Keywords:** Bosnia and Herzegovina (BiH), the Western Balkans (WB), revealed comparative advantages (RCA), intra-industry trade (IIT)

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## 1. Introduction

Determining a country's trade performance and specialization is primarily related to its position in the trade with its most significant partners. For a number of countries, these are mostly neighboring countries, i.e. countries of the region they gravitate to, and therefore the analysis of intra-regional trade is unavoidable part of such a study.

The ultimate aim of the paper is gaining an insight into position of Bosnia and Herzegovina (BiH) in the regional market – the Western Balkans region, as one of the country's most important markets. Besides BiH, Western Balkans region includes six more countries – Albania, Montenegro, Croatia, Kosovo<sup>104</sup>, Macedonia and Serbia. The paper is focused on studying characteristics, mainly in terms of patterns and variations, of the trade between BiH and the Western Balkans (WB), a region the country gravitates to in geographical, economic and political terms.

The research attempts to detect patterns and variations in the BiH intra-regional trade over a five-year period, 2008-2012, from the standpoint of differentiating between inter- and intra-industry trade. The analysis is focused on identifying industries where BiH performance has already existed and where it could be improved. For this purpose, different trade indicators have been employed – indicators of trade dependence and indicators of international specialization. Besides the simpler trade indicators that point to the volume, structure and trend of intra-regional trade, the study used the concept of revealed comparative advantages (RCA) and the analysis of intra-industry trade (IIT) at the regional and bilateral level.

In the first part, the analysis aims to discover industries with revealed comparative advantages of BiH in its trade with the WB, using the index of sectoral trade intensity in exports adjusted for the application on regional trade and net-export index. The second part of the analysis pertains to measuring and comparing intensity of BiH IIT with the WB, by industries and by countries, using Grubel-Lloyd index in the standard and aggregate form, and establishing the dominant IIT type from the standpoint of product differentiation (vertical or horizontal), using relative unit values of export and import by industries. The values of different indices were calculated, presented and interpreted either for each year of the period and/or as the average for the entire observed period.

Analysis has used annual trade data of the Agency for Statistics of BiH (data on values and quantities of exports and imports), classified by industries defined as SITC rev. 4 divisions (64 out of total 67 possible industries at two-digit aggregation level), for the period 2008-2012.

## 2. Theoretical Considerations

Studying countries' trade performances and specialization is still frequently identified with determining their comparative advantages. This simplified view has its roots in the conventional international trade theories, which were the prevailing explanation of the foreign-trade impulse over the most part of the 19<sup>th</sup> and 20<sup>th</sup> centuries. Conventional theories believe that the fundamental reason for international trade are comparative advantages, whether they derive from differences in relative labor productivity – D. Ricardo's comparative advantages theory), or differences in national supply conditions, especially production factors endowments – E. Heckscher's and B. Ohlin's factor endowment theory.

According to David Ricardo, in international trade, products are exchanged based on the ratios between unit production costs i.e. comparative costs. Comparative costs in the pre-trade situation determine a country's comparative advantages and the international trade structure. A country has

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<sup>104</sup> For the sole purpose of this research, without prejudice concerning its state and political status, Kosovo is treated as a separate customs territory, and thus the trade between BiH and Kosovo is presented separately from the trade between BiH and Serbia.

a comparative advantage in production and export a product with lower comparative pre-trade costs compared to another country.

The law of comparative advantages itself, which Ricardo put forward as early as in 1817, exceeded the significance of the very theory within which it was created and which experienced numerous criticisms because of series of unrealistic assumptions<sup>105</sup> it was based on. The thesis on the foreign-trade impulse based on the comparative advantages principle has appeared in many theories that followed, such as in the neoclassical Heckscher-Ohlin (H-O) theory, the another well-known conventional trade theory. However, H-O theory went a step further than Ricardo's model and partly clarified the causes of comparative advantages of nations. According to B. Ohlin, the theory of the international trade springs from the theory of location: the usual question, why do countries exchange certain goods among themselves, is replaced by the question why is production (which the exchange stems from) "divided" among the countries in a certain way. (Ohlin, 1968, p. 307). The answer lies in the differences in relative factor endowment of countries (and relative factor intensity of products) which lead to the differences in relative costs among the countries, and thus result in the international trade. A country will hold comparative advantages in those goods for which the required factors of production are relatively abundant locally. As the abundant factor is also relatively cheaper, it will be possible to make the product more efficiently. The country will import goods the production of which requires an intensive use of the factor which is relatively scarce locally and therefore expensive.

Despite their downsides, theories based on the concept of comparative advantages can explain a part of the international trade flows. Comparative advantages are the reason for the so-called inter-industry trade – trade in products belonging to different industries. Inter-industry trade is based on inter-industry specialization – each country specializes in the production and exports of goods where it has the comparative advantage (i.e. lower relative unit production costs compared to another country), and import other products it needs. In this way, specialization creates a different export and import structure of a country.

However, in reality a country's export and import structures include goods of the same classification, which cannot be explained by the traditional concept of comparative advantages. It is the result of intra-industry specialization which, as opposed to inter-industry one, is a more narrow variety of specialization. Indeed, it implies focusing on the production of individual kinds of goods or group of goods within the same industry. Intra-industry specialization forms the basis for the intra-industry trade (IIT) – international trade in products within the industry. These are products that are closely related either in supply (the production of which uses approximately same or similar resources or same technology), or in demand (which are close substitutes in consumption), and that are consequently classified into the same industry.

The explanation of the IIT phenomenon is based on a few theoretical concepts and models, primarily those that belong to the modern theory of international trade and are founded on imperfect competition, increasing returns and product differentiation. Germs of the contemporary explanation for IIT can be found as early as in the first modern international trade theories – Linder's theory of overlapping demands (1961) and Vernon's product life-cycle theory (1966). The first "real" IIT models based on increasing returns and product differentiation were developed by Paul Krugman (1979) and Kevin Lancaster (1980).

IIT modelling also includes differentiation between its horizontal and vertical component, which arises from the existence of two types of product differentiation. It is conventionally thought that horizontal differentiation is based on the real or perceived differences in the product's characteristics which do not cause systematic variation in prices, while vertical differentiation is defined in relation to the varieties which offer different quality levels, which will make their

<sup>105</sup> In explaining his hypothesis, Ricardo construed an international trade model based on a few simplified and abstract assumptions: 2x2x1 model dimensions, labor theory of value, free trade, perfect competition, full employment, constant returns, homogenous labor, perfect labor mobility within the country and its immobility between countries, fixed technology different across countries, zero transport costs, identical consumer tastes.

prices different. Horizontally differentiated products are actually different varieties of a single product, and vertically differentiated products reflect different qualities of the same variety. (Greenaway and Milner, 2003).

Horizontal IIT is mostly defined as the trade of products which used to be substitutes and in the production of which similar production factors and similar technology are used. The theoretical basis of such a trade was developed in models by Dixit and Norman (1980), Lancaster (1980), Krugman (1981), Helpman (1981, 1987), Eaton and Kierzkowsky (1984), Helpman and Krugman (1985). In theoretical literature on horizontal IIT, there are two basic approaches in horizontal differentiation modeling: ideal variety approach (according to K. Lancaster) which stems from the assumption that consumers look for a special combination of characteristics in the preferred variety, and love variety approach (according to E. Chamberline, developed in Krugman's model) which is based on the assumption that consumers will use as many different varieties of the same product as possible.

Vertical IIT models are based on the vertical product differentiation, which in turn refers to quality preferences – in the vertical differentiation it is assumed that consumers rank alternative varieties according to product quality. In some vertical IIT models, demand for the vertically differentiated products is defined by relative income – consumers with higher income demand high-quality product varieties. Some vertical IIT models incorporate the re-defined traditional concept of comparative advantages based on relative factor endowments. In those models, vertical differentiation is based on quality differences among varieties which stem from differences in production processes, that is, from differences in factor endowment and differences in proportions of the factor's usage. Higher quality of the variety is usually related to bigger requests for capital and more advanced technology<sup>106</sup>. A country with a higher income, relatively capital-abundant, usually becomes specialised in production and export of high-quality varieties intensive by (physical and human) capital, while a country with a lower income, relatively more labor-abundant, becomes specialised in production and export of lower quality varieties, intensive by non-qualified work.

The development of theoretical basis for the vertical IIT rests on the papers published by Falvey (1981), Shaked and Sutton (1984), Falvey and Kierzkowski (1985), and Flam and Helpman (1987).

### 3. Measurement of Comparative Advantages and Intra-Industry Trade

It follows from the theoretical considerations that the inter-industry trade rests on comparative advantages, while the intra-industry trade mostly relies on the so-called competitive advantages.

Measuring the comparative advantages based on differences in relative prices that would be fully theoretically based is not possible. A widely accepted alternative solution includes the concept of the so-called "revealed comparative advantages" (RCA), which implies the identification of comparative advantages through determining a country's trade pattern.<sup>107</sup> The credit for designing this concept is attributed to B. Balassa (1965).

The original Balassa index is usually called the "export index of revealed comparative advantages", since all the variables in the formula pertain to exports. It reflects the relative export structure, and is calculated as a ratio of the share of a given product exports within the country's total

<sup>106</sup> Falvey (1981) and Falvey and Kierzkowski (1987) set a thesis on positive correlation between quality and capital intensity – quality is determined by a relative capital intensity in the sense that a better-quality product is the one which requires greater capital intensity in production (larger ratio capital/work).

<sup>107</sup> „Comparative advantage underlies economists' explanations for the observed pattern of inter-industry trade... Revealed comparative advantage indices (RCA) use the trade pattern to identify the sectors in which an economy has a comparative advantage, by comparing the country of interests' trade profile with the world average.“ (Mikić, Gilbert, 2009, p.72)

exports to the share of the product's world exports in the total world exports (Balassa, 1989). When the share of a product in the national export is bigger than its share in the world export (for values  $RCA > 1$ ), a country has comparative advantage in the given product. Conversely, if the value RCA for a product is lower than 1 ( $RCA < 1$ ), a country has a comparative disadvantage. The original Balassa index is the most commonly used index of revealed comparative advantages, especially in researches which aim at identifying comparative advantages on the global level. The original index has been modified in different ways, depending on the aims of certain researches, and different alternative indices have been developed as well. There are a number of indices that, although primarily created for other purposes, also serve for measuring inter-industry specialization or revealed comparative advantages, such as net-export index, relative export/import coverage, and indices developed by Michaely (1962), Vollrath (1991), Lafay (1992), and others. According to the variables included in the formula, those indices can be classified into three groups: export-based indices (X), import-based indices (M), and indices based on net-trade (X-M). (De Benedictis, Tamberi, 2001)

National competitive advantages are also measured and expressed in different ways. One of these ways pertains to measuring the IIT intensity and determining its structure. Intra-industry trade is taken as a measure of diversification, degree of specialization and the level of technological sophistication of a given industry, which means that it can indicate a country's capacity to compete in the changing environment. Differentiation between intra- and inter-industry trade, and establishing the intra-industry trade structure (a structure of dominantly horizontal or vertical type) contribute to the determination of production structure of individual countries (whether it is a structure where sophisticated industrial products prevail or not), and also contribute to gaining an insight into the level and trends of competitive advantages of countries and their individual industries. (Brkić, 2012). Further, the characteristics of patterns of trade flows of certain industry products speak of the (non)convergence of a given economy's industry structure and the structure of its trade partners (Murshed, 2001).

IIT measurement does not pertain to calculating the absolute IIT level, but rather to calculating the IIT share or intensity in a given industry trade or trade of all industries of a country. A number of authors proposed different measures of IIT intensity, change and structure: Balassa (1965), Grubel and Lloyd (1971, 1975), Aquino (1978), Loertscher and Wolter (1980), Glejser (1982), Bergstrand (1983), Hamilton and Kniest (1991), Brühlhart (1994), etc.

Balassa (1965) defined an index which shows the extent to which the inter-industry trade is present in the overall trade, and therefore it is actually inverse to indices that would follow and that would primarily be intended for measuring IIT intensity. Loertscher and Wolter (1980) proposed using the index representing the logarithmic value of the relationship between the exports and imports of the given industry between two countries. Glejser (1983) constructed comparative specialization indices intended for measuring the intra-industry specialization, i.e. for comparing changes in the degree of intra-industry specialization in different countries over time. The intra-industry specialization is tested based on the calculation of variances of export (import) specialization. Aquino (1978) proposed an index for measuring IIT corrected for the trade balance impact at the industry level (instead of the aggregate level) using the estimate of "theoretical" level at which exports and imports would be in the situation when the overall trade as well as trade of each industry is balanced.

One of the first indices for measuring IIT, and also the most commonly used index, is a standard – uncorrected and unweighted – Grubel-Lloyd index (Gruber and Lloyd, 1975). From empirical literature it is evident that almost all usable measures of IIT are based on the G-L index. The index measures the share of IIT in the overall trade of the given industry between two countries or between a country and a group of countries per a year. The standard G-L index can also be used, with a certain precaution, for measuring and comparison of the IIT intensity within the same industry in two time periods and for comparison of IIT intensity in different industries. Higher value of the standard G-L index, if used as the indicator of international competitiveness, maintains the domination of a two-way trade and points to the openness and competitiveness of

individual sectors. Gruber-Lloyd index can be expressed as a sum total, that is, all industrial indices can be summed-up, and in this way, G-L index can be calculated for a whole country, the so-called summary or aggregate G-L index<sup>108</sup>.

#### 4. Applied Methodology

For the purpose of this research in the part consists of a comparative advantages analysis, two alternative RCA indices have been employed. One of them is considered a modification of original Balassa RCA index – it is also based only on exports, but focuses on a specific (bilateral or regional) market, rather than on the global level as is the case with the original index. Some authors name this index, adjusted for the bilateral trade, the “Sectoral-Bilateral Trade Intensity in Exports” – SBTX (Seymen, Gümüstekin, 2012). When applied to measuring the revealed comparative advantages, or the sectoral trade intensity in exports to the regional market, the index actually reflects the importance of a given product exports to the region compared to the importance of the given product exports in the country’s overall trade with the world.

$$SRTX_{ij} = \frac{\frac{X_{ijR}}{X_{jR}}}{\frac{X_{ij}}{X_j}}$$

$SRTX_{ij}$  – index of revealed comparative advantage of country  $j$  in product/industry  $i$  in trade with the region;

$X_{ijR}$  – export of product/industry  $i$  country  $j$  to the region;

$X_{jR}$  – total export of country  $j$  to the region;

$X_{ij}$  – export of product/industry  $i$  of country  $j$ ;

$X_j$  – total export of country  $j$ .

The index has a non-negative value within the interval from 0 to  $+\infty$ . The neutral “point” is the index value of 1. For index values  $SRTX > 1$ , a country has revealed comparative advantage in a given product/industry in the regional market. The higher the index value, the stronger the advantage, and vice versa. For index values  $0 \leq SRTX < 1$ , a country has comparative disadvantage.

The analysis of the revealed comparative advantages of BiH also uses the net-export index; the fact that the index takes into account imports, besides the exports of a given industry, provides additional information in studying trade specialization and performance. The net-export index for a given industry is very similar to Balassa index of inter-industry specialization<sup>109</sup>. It is also called the index of relative trade balance, since it is calculated as the foreign-trade balance (exports less imports) in a given industry as fraction of total trade within a given industry (exports plus imports).

$$NX_{ijR} = \frac{(X_{ijR} - M_{ijR})}{(X_{ijR} + M_{ijR})}$$

<sup>108</sup> The aggregate G-L index is calculated as a weighted average of industrial indices, which implies multiplying the G-L index for each industry by the share of that industry trade in the overall trade (weighted by trade share), and then summing-up the results.

<sup>109</sup> The difference is in that Balassa index uses the absolute value of difference between exports and imports in its numerator, and consequently the index cannot have negative values.



The index values range within the interval [-1; 1]; positive index values indicate the country's comparative advantage in the given industry in the regional market, and vice versa.

For the purpose of IIT analysis, share of IIT by industries has been measured using the standard uncorrected Grubel-Lloyd index (Grubel and Lloyd, 1975), while share of IIT by country groups or by individual countries has been expressed by using the aggregate G-L index, in its uncorrected form.

$$GL_i = \frac{(X_i + M_i) - |X_i - M_i|}{X_i + M_i} \quad 0 \leq GL_i \leq 1$$

$GL_i$  – standard G-L index (IIT share) for the given industry  $i$ ;

$X_i$  – exports of industry  $i$  from the given country to another country or region;

$M_i$  – imports of industry  $i$  from the given country to another country or region;

$$GL_j = \frac{\sum_i (X_i + M_i) - \sum_i |X_i - M_i|}{\sum_i (X_i + M_i)} \quad 0 \leq GL_j \leq 1$$

$GL_j$  – aggregate G-L index (IIT share) for all industries of country  $j$ ;

Index value 0 indicates the existence of purely inter-industry trade, while index value 1 means that the total trade is of intra-industry type. In most cases, value of G-L index is between these two extreme values.

Identification of industries where vertical or horizontal IIT respectively prevails is based on the assumption that the relative gap between unit value of exports and unit value of imports reflects the difference in the quality of products that are exported and imported in the mutual trade between two countries.<sup>110</sup>

$$RUV_i = \frac{UV^X}{UV^M}$$

$$HIIT : RUV_i \in [(1 - \alpha), (1 + \alpha)]$$

$$VIIT : RUV_i \in [(1 + \alpha), +\infty] \text{ or } RUV_i \in [0, (1 - \alpha)]$$

$RUV_i$  – ratio between exports and imports unit value for industry  $i$ ;

$UV^X$  – unit value of exports;  $UV^M$  – unit value of imports;

$HIIT$  – horizontal IIT;  $VIIT$  – vertical IIT;

$\alpha$  – arbitrarily fixed dispersion factor ( $\pm 0.15$ ).

Horizontal IIT is identified in industries where unit values of exports and imports range in the interval from 0.85 to 1.15. Trade in products whose unit values are beyond this interval is identified as vertical IIT:

- if ratio exceeds 1.15, it means that quality of exports is higher than that of imports;
- if unit value of exports is low compared to the unit value of imports, so that the ratio is below 0.85, it means that quality exports is lower than that of imports.

Owing to this information, vertical IIT can be classified into the vertical IIT in higher-quality products and vertical IIT in lower-quality products.

<sup>110</sup> According to Greenaway-Hine-Milner methodology (Greenaway, Hine and Milner, 1995).



## 5. Trend and Structure of BiH Trade with the Western Balkans

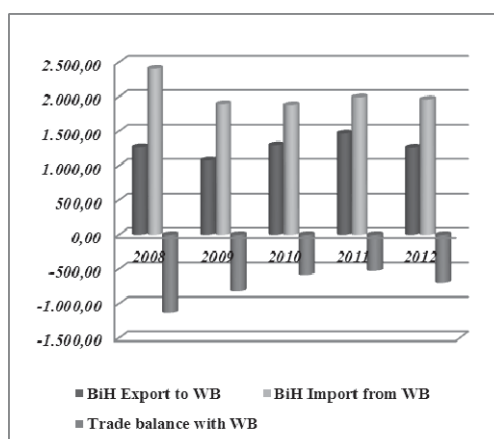
BiH has been conducting particularly significant merchandise trade with two groups of countries – the group of the Western Balkans (WB) countries and the European Union (EU). In the 2008-2012 period, BiH achieved about 91% of its exports, and about 74% of its imports in these two groups' markets, viewed in total. Out of these figures, the Western Balkans accounts for an average of about 35% of BiH merchandise exports and 27% of BiH imports.

Viewed at the bilateral level, two countries of the region – Croatia and Serbia – have been among the three most significant BiH trade partners; their total share has accounted for an average of about 28.1% of total BiH merchandise exports and 26% of its total merchandise imports. In the observed period Croatia was the first trade partner for BiH, with an average share of 15.8% in BiH total exports, and 15.9% share in its total imports. Serbia ranked third (behind Germany), with an average share of 12.3% in BiH exports and 10.1% share in its imports. The value of imports from these countries permanently exceeded the value of exports, due to which BiH trade balance with the observed countries was negative every year. Export/import coverage with Serbia ranges in the interval from 62 to 68%, and with Croatia within 52-55%.<sup>111</sup>

Data on the Western Balkans shares in BiH export-import trends suggest the conclusion that BiH foreign trade in the observed period is inter- rather than intra-regional. However, if we have in mind the fact that BiH trade with the region amounts to about one third of its overall foreign trade, and that the Western Balkans includes almost five times fewer countries than the European Union, which is the partner for almost about half of BiH merchandise trade, and that it is a far smaller market, as well as the fact that countries beyond the WB and EU amount to somewhat over 10% BiH trade on average, we can claim that in 2012, BiH foreign trade was considerably intra-regionally oriented.

Merchandise trade with the region was gradually increasing over most part of the observed period (except for a sharp fall in 2009, which is attributed to the global recession), mostly due to the growth in exports. In 2012, a slight decrease was registered, due to the change in export trends, since imports registered only slight changes over the past four years. Faster growth of exports than imports also resulted in the increase in export/import coverage, from the level of 56.7% in 2009 to 73.6% in 2011, which is the highest percentage of coverage ever registered in BiH trade with the region. Trade deficit with the region was gradually decreasing until 2012, when a slight increase was again registered.

**Figure 1.** *BiH Merchandise Trade with the Western Balkans*<sup>112</sup>



<sup>111</sup> Author's own calculation based on data by the Agency of Statistics of BiH.

<sup>112</sup> Author's own contribution based on data by the Agency of Statistics of BiH.

With three countries of the region – Albania, Montenegro and Kosovo – BiH achieved trade surplus over the entire observed period<sup>113</sup>; however, these countries' respective shares in BiH merchandise trade with the WB is very low (Albania's average share is lower than 1%, Montenegro's around 5%, and Kosovo's around 2%). On the other hand, BiH average imports from Croatia and Serbia were twice as high as BiH average exports to these countries, while these countries' shares in BiH intra-regional trade amounted to 53% and 36% respectively.<sup>114</sup>

With respect to the merchandise structure of trade with the region, a considerable degree of export concentration is evident, primarily to raw materials, ores, semi-manufactured products and power sources. Six products groups account for around half (49.8%) exports in the observed period: 1. 35-Electric current (10.3%); 2. 67-Iron and steel; 3. 68-Non-ferrous metals; 4. 33-Petroleum and petroleum products; 5. 32-Coal, coke and briquettes; 6. 69-Manufactures of metals, n.e.c. The ten most exported products, the average share of which in BiH exports to the WB amounted to 65.3% mostly include those of SITC sections 6 (67, 68, 69, 64), 3 (35, 33, 32) and 2 (24, 28). In accordance with theoretical presumptions, imports are less merchandise-concentrated than exports. In the ten product groups with the highest average share in BiH imports from the region SITC sections 6 and 3 prevail as well. The top five imported products account for around 40% of BiH imports from the WB on average, with the greatest share of group 33-Petroleum and petroleum products (16.9%), followed by 11-Beverages (6.4%), 04-Cereals and cereal preparations, 66-Non-metallic mineral manufactures, and 69-Manufactures of metals, n.e.c. BiH trade deficits over the observed period are the highest in product groups 41-Animal oils and fats; 43-Animal and vegetable oils and fats; 34-Gas, natural and manufactured; 22-Oil seeds and oleaginous fruits; and 00-Live animals.

## **6. Revealed Comparative Advantages of BiH with the Western Balkans**

Use of the modified RCA index based only on exports (SRTX) discovered revealed comparative advantages in around half of the total number of product groups where intra-regional trade was registered – in 34 product groups on average. The number of product groups with comparative advantages was mostly stable and ranged in the 34-36 interval (except in 2010, when it decreased to 30). Out of this number, 26 product groups appeared over all five years, and four more groups over four years, which leads to the conclusion that the comparative advantage pattern in BiH trade with the region did not change significantly within the observed period.

The most prominent comparative advantages were mostly observed in SITC section 0-Food and live animals (in almost all SITC divisions within the section), section 1-Beverages and tobacco (in all divisions: 11, 12), section 2-Crude materials, inedible, except fuels (22, 25, 27) and section 3-Mineral fuels, lubricants and related materials (in all divisions), while somewhat less prominent comparative advantages were observed in SITC section 5-Chemicals and related products (in divisions 53, 54, 55, 57, 58, 59) and 6 (in divisions 62, 64, 66, 67, 68). In the product groups within sections 7-Machinery and transport equipment and 8-Miscellaneous manufactured articles, BiH registers comparative disadvantages in its trade with the region.

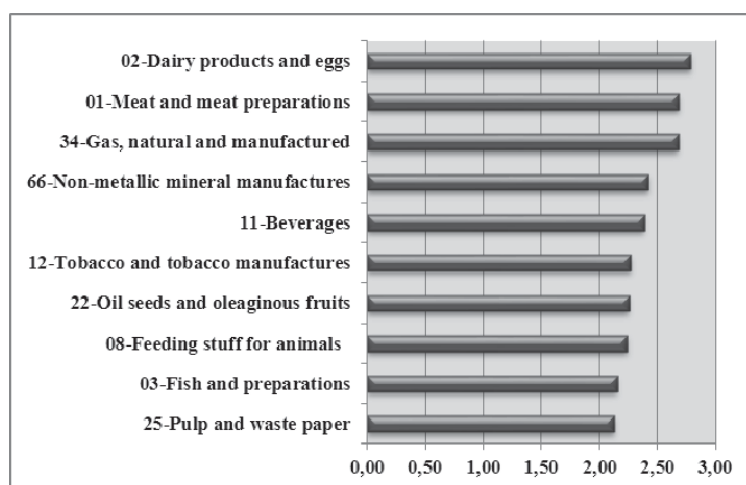
Groups with the highest average SRTX are mostly in SITC sections 0, 1 and 3, which include agricultural products, food products, raw materials and power sources. Six out of ten commodity groups with the highest SRTX appeared every year: 01-Meat and meat preparations; 02-Dairy products and eggs; 11-Beverages; 12-Tobacco and tobacco manufactures; 34-Gas, natural and

<sup>113</sup> For instance, in 2012 BiH exports to Montenegro was about 5 times higher than its imports from the country, exports to Albania as much as 11 times higher, while exports to Kosovo were over 40 times higher than imports.

<sup>114</sup> Author's own calculation.

manufactured; 66-Non-metallic mineral manufactures; while 41-Animal oils and fats, and 04-Cereals and cereal preparations appeared in three years of the observed period.

**Figure 2.** *Top 10 BiH Industries by Average SRTX in Trade with the WB*



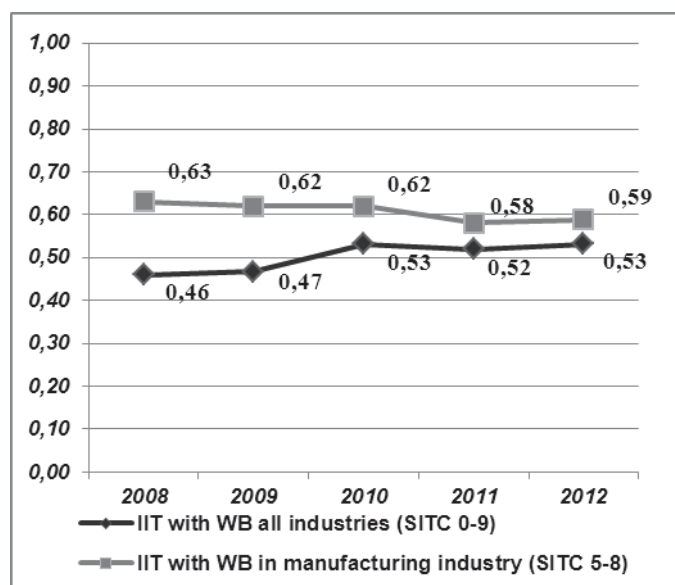
Research results obtained using the net-export index (NX), which takes into account both exports and imports within the same sectors, indicate revealed comparative advantages in 13-14 product groups, which is as low as 21% of the total number of groups that registered trade with WB. The positive average index values over the observed period were primarily registered in product groups of SITC sections 2, 3 and 6, as follows (from highest to lowest index value): 32-Coal, coke and briquettes; 24-Cork and wood; 68-Non-ferrous metals; 25-Pulp and waste paper; 28-Metalliferous ores and metal scrap; 27-Crude fertilizers and crude minerals; 35-Electric current; 67-Iron and steel; 82-Furniture and parts thereof; 73-Metal working machinery; 64-Paper, paperboard and articles of paper pulp; and 06-Sugars, sugar preparations and honey. By comparing NX values by years for each industry, it was established that 9 out of 13 (14) groups with comparative advantages appeared every year. Research results obtained using the NX index lead to the conclusion that in its trade with the region BiH registered a steady pattern of comparative advantages, though in a small number of product groups (1/5 of the total number), in lower added-value products (mostly in raw materials, semi-manufactured products and electrical power).

## 7. Intra-Industry Trade of BiH with the Western Balkans

Measured in total, by all industries, the trend of the IIT intensity shows very small differences between the years. Share of IIT was increasing from the level of 0.46 in 2008 to the level of 0.53 in 2012. In 2010 for the first time the index exceeded the demarcation threshold and entered the zone of weak but dominant IIT. Although there was an about-turn in the trading pattern, indicating the slightly dominance of intra-industry trade, the measured IIT intensity in trade with the region is still at the very low level.

Share of IIT is greater in the manufacturing industry (SITC sections 5-8) than in the overall trade in all industries – 0.61 on average, which is consistent with the theoretical presumptions and empirical findings on IIT trends.<sup>115</sup>

<sup>115</sup> The view that greater IIT is present in the trade in more differentiated products, and that a higher degree of product differentiation is a feature of manufacturing industry has been generally accepted.

**Figure 3. Intra-industry Trade of BiH with the WB (2008-2012)**

Viewed by countries of the WB region, there are significant differences in IIT intensity between two groups: in the group that consists of Croatia, Serbia and Macedonia the average IIT intensity in the period 2008-2012 for each of them amounted to 0.40; in another group, which includes Albania, Kosovo and Montenegro trade was almost entirely of inter-industry character - the average intensity of BiH IIT with Albania amounted to 0.02 (twenty times lower compared to the IIT share in the first group), with Kosovo 0.03 and with Montenegro 0.16. However, regardless of the IIT share and the increase in IIT compared to the beginning of the observed period (particularly in trade with Croatia and Macedonia), it is a fact that in the trade between BiH and all countries of the region the inter-industry trade prevailed.

Analysis of sectoral distribution has indicated an almost equal number of industries with dominant inter-industry trade and industries with dominant intra-industry trade in last two years. The number of groups with dominant IIT ( $GL > 0.50$ ) increased from 27 in 2008 to 31 in 2012 (32 in 2011) out of total 64 groups, while the number of product groups where trade pattern is of dominantly inter-industry character fell from 37 to 32. However, only about 1/5 of the total number of industries belong to the high-intensity IIT category ( $0.76 \leq GL \leq 1.0$ ).

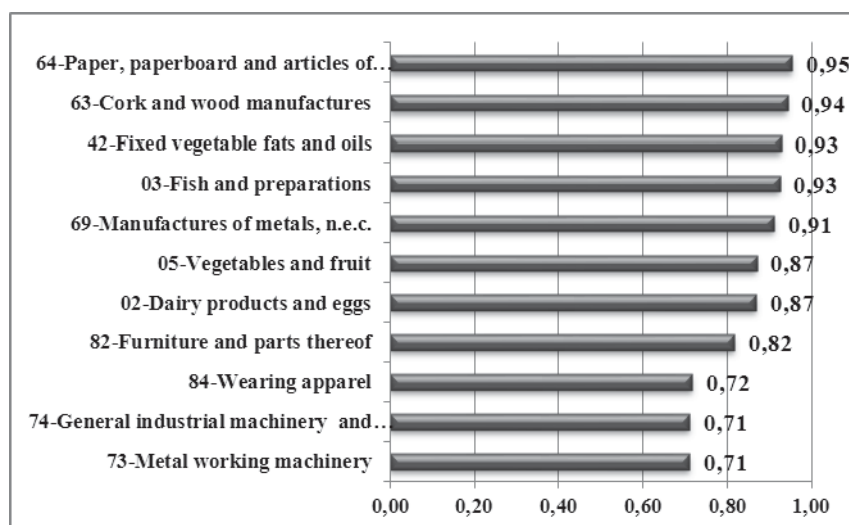
**Table 1. Number of Product Groups, by G-L Index (2008-2012)**

Rank $GL_i$	Number of Product Groups				
	2008	2009	2010	2011	2012
<b>0.00 - 0.25</b>	24	17	17	20	18
<b>0.26 - 0.50</b>	13	21	20	12	15
<b>0.51 - 0.75</b>	12	15	16	22	19
<b>0.76 - 1.00</b>	15	11	11	10	12

Source: Author's own calculation based on data by Agency for Statistics of BiH.

A total of eight (out of the average of 12) product groups appear every year in the category of high-intensity IIT. These are groups with the highest average G-L indices in the observed period.

**Figure 4: Top Average Values of G-L Indices, by Product Groups (2008-2012)**



Viewed at the level of SITC sections and divisions, G-L indices which point to the prevalence of intra-industry trade were observed in sections 6–Manufactured goods, classified chiefly by material (divisions 63, 64, 69), 8–Miscellaneous manufactured articles (divisions 82, 84), 7–Machinery and transport equipment (divisions 73, 74) and 0–Food and live animals (divisions 02, 03, 05). Thus, intra-industry trade is significantly present in traditional, relatively declining (labor-intensive and resource-based) industries within section 6, in labor-intensive and a couple of technology-intensive industries of section 8, in a few expanding, knowledge-based activities of section 7, and in agricultural products.

From the viewpoint of the BiH IIT composition, the prevalence of vertical IIT with BiH exports of low-quality products is evident. In the category with average  $G-L > 0.50$ , low-quality vertical IIT (VIITl) was registered in 17 groups (01, 02, 06, 26, 27, 52, 59, 64, 67, 69, 72, 74, 73, 77, 81, 84, 88), high-quality vertical IIT (VIITh) only in three groups – 05, 35, 63, and horizontal IIT (HIIT) in five groups – 03, 42, 82, 89, 66. In two groups (51, 52) a change from VIITh or HIIT to VIITl was registered over the observed period, while one group (78) underwent the change from VIITh to HIIT, and then to VIITl. In every year of the observed period, most industries registered the prevalence of VIITl – whether we view all the industries (VIITl in over 50% of the total number of industries), or only industries with IIT prevalence, i.e. with  $G-L > 0.50$  (VIITl was registered in about 60% industries), or industries with the highest G-L indices, i.e.  $G-L > 0.75$  (VIITl was registered in around 55% of these industries). Horizontal IIT was present only in about  $\frac{1}{4}$  of the total number of industries, as well as in  $\frac{1}{4}$  of industries in the categories with the highest G-L indices.

## 8. Conclusion

The research suggested that considerable part of BiH foreign trade has been of intra-regional character for a number of years – BiH has been conducting about one third of its overall merchandise trade with the world with the Western Balkans countries. It was also revealed that the region is more significant for BiH exports than for imports, although the country was steadily registering trade deficit in its trade with the region. The trade deficit stems from a prominent imbalance in the trade with the two most significant regional partners – Croatia and Serbia, which are also among the three most significant partners in BiH overall trade with the world. Due to the

faster growth of exports than of imports over the past few years, trade deficit started decreasing gradually. The research also pointed to the BiH export dependence on the region, which stems from a high degree of geographic and merchandise concentration of exports. Exports are mainly directed to Croatia and Serbia, and concentrated on small number of product groups, primarily those of resource-based and traditional capital-intensive industries.

BiH comparative advantages, measured with the index based only on relative export structure, were revealed in a significant number of product groups (around half of the total number), but are the most prominent primarily in agricultural and food products. Research results obtained using the other RCA index – net-export index, which includes both exports and imports in the analysis, identify BiH comparative advantages in a far smaller number of product groups (1/5 of the total number), mainly in lower value-added products such as raw material and semi-manufactured goods, labor-intensive goods, as well as electrical energy. Regardless of the used index, a steady pattern of BiH comparative advantages was registered over the observed period – variations in terms of the number and type of industries with comparative advantages are minor, which leads to the conclusion on the country's stagnant inter-industry specialization in intra-regional terms.

Viewed at the aggregate level (SITC 0-9), the intensity of BiH intra-industry trade with the region as a whole and with the most important regional trading partners increased compared to the beginning of the given period. Three years ago, the share of IIT with the region increased even to the point that an about-turn in the trading pattern appeared, indicating slight prevalence of IIT in BiH intra-regional trade. Analysis by countries, however, discovered the dominance of inter-industry trade in BiH trade with each country of the region. Despite the growth of IIT intensity, it is still fairly weak both at regional and bilateral level. IIT intensity in manufacturing industry (SITC sections 5-8) was slightly falling through most part of the period. Analysis by industries identified the greatest IIT intensity in traditional – labor-intensive and resource-intensive industries, i.e. generally in the sectors of lower technological level, with the dominance of low-quality vertical IIT type.

The research generally suggested that BiH trade with the region still finds its theoretical explanation in traditional international trade theories, rather than in modern ones. This statement derives from the fact that research mostly identified BiH intra-regional trade as inter-industry more than intra-industry trade, driven by comparative advantages based on relative factor endowment. Increasing but still not high intensity of IIT with the region, coupled with prevalently vertical-type IIT, speaks in favor of H-O theory explanation as well.

Characteristics of BiH intra-regional trade indicate the stagnant comparative advantage patterns based on traditional factor endowment, and not sufficient convergence of BiH economy with the region's economies. Having in mind the region's significance for BiH foreign trade, it leads to the conclusion that the country's position in regional trade relations should be ultimately improved.

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## DETERMINANTS OF TRADE IN THE WESTERN BALKANS: A GRAVITY APPROACH

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### Abstract

*The purpose of this study is to identify region-specific trade determinants for the countries of the Western Balkans. The scope of the potential factors determining the intra-regional trade is set wide – we estimate six groups of variables describing the bilateral “distance” of the trading countries: physical, political, economic, cultural, communicational and historical. For the cultural and communicational groups we use measures of religious and language similarities respectively, whereas for the historical “distance” we estimate both the war and the post-war effects. The other variables represent: border effect, minorities, difference in factor endowments, free trade areas and FDI stock.*

*The econometric tool employed is the gravity model of international trade. The panel data encompass bilateral trade of the five Western Balkan countries in years 1995 – 2007. The parameters are estimated as pooled data with OLS, as well as fixed and random effects models, in order to check for the robustness of the results.*

*The outcome of the research shows that there are many determinants of trade specific for this region, which need to be included in the gravity model in order to make it well suited to the data. The strongest influence is shown by communicational, cultural and historical factors, such as similarities in language and religious structures, wars and the first year of the post-war periods. All of them appear to have a statistically important influence on the value of trade of the Western Balkan countries.*

**Keywords:** gravity model, international trade, trade determinants, Western Balkans.

### 1. Introduction

Why do countries trade with one another? Answers to this fundamental question are numerous, starting from the absolute advantage and comparative advantage theory to the factor endowment and the New Trade Theory, just to appoint the milestones. With this study we attempt to answer a more narrowed question: why do the countries of the Western Balkan region trade with one another? This relatively small part of the World, inhabited by ca. 22 million people, is so internally diversified, that it focuses like in a lens many of the problems that business people may encounter worldwide while establishing trade relations<sup>118</sup>.

First of all, the region of the Western Balkans is situated in the joint of three big religions: Catholicism, Orthodoxy and Islam. This brings upon a question, if faith matters when it comes to business and trade (to find answers see Helble 2007, Guiso 2004, Lewer i van der Berg 2007,

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<sup>118</sup> Those obstacles, further referred to as a “distance”, comprise of physical, political, economic, cultural, communicational and historical barriers to trade.

Melitz, Toubal 2012). Secondly, the people in the region speak mostly similar, though not the same languages (except Albania)<sup>119</sup>. Recent studies on the influence of language similarity on trade show its very important role, especially as a mean of communication (to compare different measures of the language similarity see Boisso and Ferrantino 1997, Fearon 2003, Guido et al. 2004, Laitin 2000, Melitz 2007, Melitz & Toubal 2012). Thirdly, in the 1990ies there used to be unstable periods, including wars and conflicts among the Balkan countries<sup>120</sup>. Apart from few studies (i.a. Guiso et al. 2004, Martin et al. 2005, Melitz, Toubal 2012, Sarkees, Wayman 2010), this issue seems to be neglected in the empirical research concerning trade. Fourthly, there is a significant difference in the economic welfare among the countries of the region<sup>121</sup>. Contemporary findings show that countries on a similar level of development tend to trade more with each other. Thus, we attempt to answer a question, which cultural, historical, economic, political and communicational factors determine trade relations among the Western Balkan countries.

The study employs the gravity model of trade augmented for a number of factors. Estimation of their parameters is supposed to bring an answer to the question of region-specific determinants of trade. The gravity model has been widely used as a method of an empirical research related to various aspects of international trade. In its standard form, the model was set to explain bilateral trade (or alternatively exports or imports) with “mass” of the trading countries and “distance” between them, which was a parallel to the Newtonian gravity equation (see Tinbergen, 1962, Pöyhönen, 1963 and Linneman, 1966). The “mass” was usually proxied by GDP and/or population of the trading partners, whereas the “distance” by a physical distance between their capital cities or main economic regions (see Kandogan 2009, Wydymus 2012). As the gravity model of trade turned out to be a successful tool in explaining determinants of international trade, its econometric versions have evolved by numerous new potential variables being added to the standard model. In this study we categorize all measures of “distance” into groups representing its physical, political, economic, cultural, communicational and historical aspects. This should bring a better understanding of their nature and effects. In literature similar categorizations were presented i.a. by Zeliaś (1991), Anderson and van Wincoop (2004) and most recently by Melitz (2007) and Melitz and Toubal (2012), who cast a light on cultural and communicational aspects of “distance” in trade.

In the second part of this paper we make a review of the studies presenting trade among the Western Balkan countries, with a special emphasis on the ones which use the gravity model of trade. It is followed by the econometric specification of the model of trade in the Western Balkans, which includes also a brief description of the used “distance” variables, categorized into six sections. Then the results are presented and interpreted. A concluding part with main findings and recommendations for further research finishes the paper.

## 2. Foreign trade in the Western Balkans: literary review

Dagutinovic-Mitrovic (2005) analyzed some limitations and problems of econometric modelling of bilateral trade flows based on gravity model on cross-section data where empirical researches consisted of estimating bilateral trade potentials using gravity model and analysis of differences between the observed and predicted (potential) trade flows. In her work, she considered

<sup>119</sup> Serbian, Croatian and Bosnian belong to South-Western Slavic and Macedonian to South-Eastern Slavic languages (www.ethnologue.com, accessed: 30.09.2013)

<sup>120</sup> Since 1995, the region experience war conflicts between Bosnia and Serbia (1995), Croatia and Serbia (1995), Kosovo and Serbia (1998,1999) and Kosovo and Macedonia (2001) (Department of Piece and Conflict Research, Uppsala University, [http://www.pcr.uu.se/research/ucdp/datasets/ucdp\\_prio\\_armed\\_conflict\\_dataset](http://www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset), accessed: 30.09.2013). In this research, conflicts with Kosovo as one of the parts are attributed to Albania, due to ethnical closeness of those two entities.

<sup>121</sup> In 2007, Albania had the lowest level of GDP per capita in all the region - 3,376 USD, whereas Croatia had the highest - 13,406 USD (UNCTAD STAT).

alternative gravity model specifications with panel data and estimating procedures, as appropriate base for more precise estimates and conclusions. This paper proposed considerable econometric improvements for future analyses of bilateral trade flows between countries but concrete analyses on trade flows left out.

Bjelic and Dragutinovic-Mitrovic (2012) using gravity model with bilateral and time effects, estimated by Hausman-Taylor AR(1) instrumental variable estimator, and using a panel data on bilateral trade between Serbia and its main trade partners during the period 2001-2010, estimated the effects of competing trade regimes on Serbian trade with its most significant (traditional) partners, like European Union and CEFTA 2006 signatories, and other untraditional trade partners with favourable trade regime, like the USA. Authors tested three hypotheses. The first hypothesis that overall GDP and difference in factor endowments increases Serbia's bilateral exports is confirmed. This is consistent with theoretical foundations that in less developed countries inter-industry trade is predominant and factors of production play significant role in exports. The second hypothesis that liberal trade regimes play significant role in stimulating Serbia's bilateral trade flows is also confirmed as asymmetric trade preferences granted by the EU, as well as trade integration within CEFTA 2006, are positively associated with Serbia's exports. The third hypothesis that geographical proximity plays more prominent role in bilateral trade than the degree of liberalization of trade regimes in case of Serbia is also confirmed. Their analysis showed that trade concessions to Serbia granted by the USA cannot divert trade flows from traditional partners in the long-run. As authors conclude (Bjelic, Dragutinovic-Mitrovic, 2012: 289) "trade regimes set the conditions for foreign trade between countries and sometime can have greater significance in directing trade than basic factors of trade, like distance, factor endowment etc". This is the main contribution of the paper even authors admitted themselves that similar analysis could be done also for other Western Balkan countries and not on a single country.

In Vlahovic et al. (2011) the subject of an analysis was bilateral trade of agro industrial product between Serbia and Croatia in the framework of the signed CEFTA agreement, and in accordance with the agreement on free trade. Their analyses showed that Serbia had a constant negative balance in trade with Croatia. If Serbia has aspirations to become a leader in CEFTA market for the production and export of agricultural products, it should not underestimate importance of certain agricultural product which can be effectively produced in Serbia. The main conclusion in the paper is that production structure should go in favor of intensive production for export, production of high-quality products, with higher stages of production. This could be the common conclusion for all goods exported from all Western Balkans countries.

In their paper Mehic and Babic-Hodovic (2011) analyzed the impact of FDI on trade flows in the SEE countries. They applied gravity model with cross data ("podaci presjeka") for bilateral trade flows and FDI. Gravity model was also used to test the hypothesis if the trade flows and FDI are complements or substitutes in the countries of South East Europe. The results indicate that FDIs have a positive and statistically significant impact on exports of SEE countries. In addition, a significant impact on exports has also the size of economies and the size of their trading partners. But, results of the assessment in gravity model of imports also suggest that FDI has a positive and significant impact on imports. In addition to significant impact of FDI on exports and imports, important conclusion of this paper is that between trade and FDI there is a complementary relationship in Southeast Europe. This means that foreign direct investment can be viewed as a source of exports and imports in the SEE region (Mehic, Babic-Hodovic, 2011: 153).

Bilas (2007) analyzed foreign trade of Croatia with EU25 in order to conclude how important "bilateral" trade is for the level of economic integration of Croatia with the EU. Her assumption was based on the following: the greater trade between Croatia and EU leads to the more benefits for Croatian of its membership in EU. For Croatia, EU represents the main trading partner with the share of Croatian foreign trade around 60%. In the paper gravity model tried to explain bilateral trade between Croatia and EU. The following variables were used: GDP of exporting and importing country, GDP per capita of exporting and importing country, distance between capitals



of exporting and importing country and population of exporting and importing country. Analysis of export of Croatia showed that population and distance were significant factors statistically significant predictors of bilateral trade flows. Earlier assumptions that increase of population has a positive while distance has a negative impact were confirmed. Analysis of export of Croatia showed that all variables are statistically significant, GDP pc, population and distance.

World Bank (2008) in their study analyzed the level of integration by various factors among Western Balkans plus Bulgaria and Romania, i.e. in South-Eastern Europe comparing these countries with Slovakia. As the main macroeconomic problem they state wide and sustainable current account deficits among the countries which widened substantially since 2000. Huge external balances represent the main source and indicator as well of the vulnerabilities in these countries. Behind these current account deficits are relatively low levels of exports of goods and nonfactor services (World Bank, 2008: 14). Comparison of five countries (Albania, Bosnia and Herzegovina, Macedonia, Serbia and Montenegro) with Slovakia showed that overall export and trade volumes fall short of their potential based upon Slovakia's performance and the need for export-led growth. They conclude that these five countries must cross some distance in order to reach their export potential and match the performance of countries such as Slovakia. In 2008 SEE countries didn't even reach Slovakia's potential of export eight years before it entered the EU. A strong rate of growth in net exports is a prerequisite for overall economic growth and this didn't occur even until now.

Cejvanovic and Zafic (2011) analyzed foreign trade of Bosnia and Herzegovina and other members of CEFTA 2006 agreement in the period from 2006-2010. Current account deficit of each country is a picture of its inside problems in economy – productivity and consumption. Thus, authors conclude that the state of BiH economy compared by foreign trade to other CEFTA countries is alarming as BiH is the biggest net importer in CEFTA. But there are improving signs as the relative current account deficit reduced in the period after signing the CEFTA.

For our knowledge, there are no analyses on bilateral trade among all Western Balkans. Most of the studies analyzed one certain country and its trade with its most important trading partners. The focus of our study is bilateral foreign trade among all Western Balkans, using the gravity model in which we specified variables of our interest explained further.

### 3. The model of trade in the region of the Western Balkans

The survey encompasses bilateral trade of the five Western Balkan countries: Albania, Bosnia & Herzegovina, Croatia, Serbia & Montenegro and Macedonia, in years 1995 – 2007. Only the bilateral trade within the region was examined, which was supposed to provide information on intra-regional determinants of trade<sup>122</sup>. The beginning of the analysed period is connected with the data availability and its end with the time when Montenegro split from Serbia, which would make further econometrical analysis biased.

The model was specified threefold: as pooled data by OLS, as fixed effects model and as random effects model. In the model the dependent variable was the value of export of a country *i* to a country *j* in a year *t*. It was specified as a power function, which allows the parameters to be interpreted as elasticities of the variables. For the purpose of simplicity, the model was computed as a log-linear function.

In the standard gravity model presented in Equation 1 (see Tinbergen, 1962, Pöyhönen, 1963 and Linneman, 1966), the bilateral trade was explained by GDP and population of both countries, which served as a representation of their “mass”, and a physical distance between their capital cities, which proxied the “distance” as a whole.

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<sup>122</sup> Such way of trade analysis is rather rare, as one of the early examples see (Zeliaš 1988).



$$EXP_{ijt} = a_0 GDP_{it}^{a_1} GDP_{jt}^{a_2} POP_{it}^{a_3} POP_{jt}^{a_4} DIST_{ij}^{a_5} e^{\delta_{ijt}} \quad (1)$$

where:

$EXP_{ijt}$  – export from country i to country j in year t

$GDP_{it}$  - country's i GDP in year t

$GDP_{jt}$  - country's j GDP in year t

$POP_{it}$  - country's i population in year t

$POP_{jt}$  - country's j population in year t

$a_0$  – constant

$a_1 - a_5$  – parameters

$\delta_{ijt}$  – error term

Although the so-called standard model was very directly referring to the Newtonian gravity concept, in past forty years numerous variations of it were tested, in order to capture different trade determinants. This process showed clearly that “distance” in trade is something more than just a geographical one. One of the earliest attempts to categorize “distance” was made by Zeliaś et al. (1991). Over a decade later Anderson & van Wincoop (2004) started a broad discussion on the role of what they called “cost” of trade. The authors proposed a distinction for three types of “cost” or “distance”: policy barrier, transport costs and wholesale and retail distribution costs. With this paper we aim to cover recent findings in trade analysis, which show a significant influence of cultural, communicational and historical issues on trade (see for instance Guiso et al. 2009, Helble 2007, Kandogan 2009, Lewer and van der Berg 2007, Melitz 2008, Melitz and Toubal 2012). Thus, we propose a division of “distance” into six categories: physical, political, economic, cultural, communicational, historical.

As mentioned in the Introduction part of this paper, the region of the Western Balkans seems to be a sound example of the socio-cultural factors come into meaning. Table 1. includes a description of certain variables representing “distance” which are tested in the model presented further. They are classified into groups according to the division of types of “distance”.

**Table 1.** Variables representing “distance” in the augmented model

Variable	Type of „distance”	Description of variable	Data source
<b>DIST</b>	Physical	Great circle distance between capital cities	CEPII
<b>BORDER</b>	Physical	Takes value of “1” when countries have a common border	Geographical atlas
<b>FTA</b>	Political	Takes value of “1” when countries signed a FTA	Various sources
<b>PERCAP_DIFF</b>	Economic	Difference in GDP per capita	UNCTAD
<b>MINOR</b>	Cultural	Minority of exporting in importing country	Various sources
<b>RELIG</b>	Cultural	Sum of differences of shares of three main religions	www.worldmapper.org
<b>LANG</b>	Communicational	Index representing probability that two randomly chosen persons will be able to communicate, weighted by similarity of languages	www.ethnologue.com
<b>WAR</b>	Historical	Takes value of “1” if countries were in state of war in the given year (in case of the Kosovo war, the index concerns Albania)	Uppsala University
<b>WAR+X</b> (“X” taking values 1-5)	Historical	Takes value of “1” if countries had been in state of war x years before the given year (in case of the Kosovo war, the index concerns Albania)	Uppsala University

Source: Own concept. For the detailed description of the RELIG and LANG variables see Klimczak (2013).

In order to clearly present a large number of variables, Equation 2. was constructed in a vector notation. The first two vectors encompass variables which characterize “masses” of exporting and importing countries. On the other hand, the following six vectors represent variables of six types of “distance”: physical, political, economic, cultural, communicational, historical.

$$EXP_{ijt} = a_0 x_{it}^{\beta 1} m_{jt}^{\beta 2} df_{ijt}^{\beta 3} dp_{ijt}^{\beta 4} de_{ijt}^{\beta 5} dku_{ijt}^{\beta 6} dko_{ijt}^{\beta 7} dh_{ijt}^{\beta 8} e^{\delta_{ijt}} \quad (2)$$

where:

$EXP_{ijt}$  – export from country i to country j in year t

$x_{it}^{\beta 1}$  – vector of variables representing “mass” of the exporting country (i)

$m_{jt}^{\beta 2}$  – vector of variables representing “mass” of the importing country (j)

$df_{ijt}^{\beta 3}$  – vector of variables representing physical “distance” between countries i and j

$dp_{ijt}^{\beta 4}$  – vector of variables representing political “distance” between countries i and j

$de_{ijt}^{\beta 5}$  – vector of variables representing economical “distance” between countries i and j

$dku_{ijt}^{\beta 6}$  – vector of variables representing cultural “distance” between countries i and j

$dko_{ijt}^{\beta 7}$  – vector of variables representing communicational “distance” between i and j

$dh_{ijt}^{\beta 8}$  – vector of variables representing historical “distance” between countries i and j

$a_0$  – constant

$\beta 1 - \beta 8$  – vectors of parameters

$\delta_{ijt}$  – error term

There are eight binary variables (BORDER, FTA, WAR, WAR+1, WAR+2, WAR+3, WAR+4, WAR+5), three variables being natural logarithms of the nominal values (DIST, PERCAP\_DIFF, MINOR) and two indexes which follow specifications presented by Klimczak (2013), namely RELIG and LANG.

#### 4. Regression results

The results of the model which included additional variables proved to be well-fitted to data, with the adjusted R-square values in pooled and fixed effects specifications 0.74 and 0.87 respectively<sup>123</sup>. Furthermore, only 0.13 pp difference between the two specifications (pooled and fixed) suggests a significant part of the bilateral effects (meaning “distance”) to be covered by the proposed explanatory variables.

*Table 2. Regression results*

	POOLED - OLS			FIXED			RANDOM		
	parameter	p-value		parameter	p-value		parameter	p-value	
<b>const</b>	-4.77	0.2266		6.61	0.8780		-7.48	0.2789	
<b>GDP exp</b>	0.99	0.0006	***	0.79	0.0086	***	0.89	0.0004	***
<b>POP exp</b>	-2.72	<0.00001	***	1.45	0.6491		-3.02	0.0001	***
<b>GDP imp</b>	0.04	0.8486		0.18	0.5936		0.17	0.4344	
<b>POP imp</b>	-1.44	0.0014	***	-2.33	0.4742		-1.91	0.0100	***
<b>DIST</b>	5.70	<0.00001	***	n/a	n/a		6.68	0.0016	***
<b>BORDER</b>	5.53	<0.00001	***	n/a	n/a		6.13	0.0004	***
<b>WAR</b>	-1.97	0.0007	***	-1.29	0.0021	***	-1.37	0.0018	***
<b>WAR+1</b>	-3.55	<0.00001	***	-2.45	<0.00001	***	-2.61	<0.00001	***
<b>WAR+2</b>	-0.62	0.1939		-0.07	0.8348		-0.17	0.6417	
<b>WAR+3</b>	-0.64	0.1754		-0.18	0.5914		-0.25	0.4890	
<b>WAR+4</b>	-0.89	0.0672	*	-0.23	0.5071		-0.33	0.3597	
<b>WAR+5</b>	-0.27	0.5701		0.24	0.4867		0.19	0.6023	
<b>MINOR</b>	0.06	0.0560	*	n/a			0.07	0.2668	
<b>PERCAP_DIFF</b>	-0.13	0.2329		0.02	0.8131		-0.03	0.7650	
<b>RELIG</b>	3.16	0.0046	***	n/a	n/a		4.52	0.0039	***
<b>LANG</b>	8.16	<0.00001	***	n/a	n/a		9.19	<0.00001	***
<b>FTA</b>	0.94	0.0008	***	0.32	0.1327		0.46	0.0364	**
<b>FDI</b>	0.01	0.9472		0.24	0.0440	**	0.17	0.1225	

*Source: Own calculations*

In order to evaluate which model specification (pooled, fixed or random effects) was the best suited to the empirical data, a series of three tests was conducted. At first, a test was run on differing group intercepts. According to the null hypothesis that groups have a common intercept. The test statistics provided:  $F(19, 204) = 12.3651$  with  $p\text{-value} = P(F(19, 204) > 12.3651) =$

<sup>123</sup> Regressions were computed with use of the GRETL 1.9.6. cvs software.

8.81944e-025. This brought a conclusion that the null hypothesis was rejected, which meant the fixed effects model was more appropriate than the pooled one.

In the next step, the Breusch-Pagan test was run to verify a hypothesis, that variance of the unit-specific error = 0. Test results showed asymptotic test statistic: Chi-square(1) = 219.833 with p-value = 9.83455e-050, proving that the random effects model suited data better than the pooled one.

At the end, the Hausman test was carried out to see if the fixed effects is more appropriate than the random effects model. The null hypothesis suggested that the GLS estimates used in the random effects model are consistent. Asymptotic test statistic: Chi-square(13) = 38.8818 with p-value = 0.000208813 showed that the null hypothesis should be rejected and thus the fixed effects model would be more appropriate than the random effects one.

As for the interpretation of the variables, we would concentrate on the ones augmenting the standard model, because the influence of GDP, population and distance between main cities on trade between countries is widely known. The first additional variable, and the second representing the physical “distance”, was BORDER. This binary variable took value of “1” in instances when the countries are adjacent. As this variable was time-invariant, it was not possible to estimate it in the fixed-effects model. For the other two models, it showed statistical importance at  $p < 0.01$  and a positive influence on export (5.53 and 6.13 for pooled and random effects models respectively). For the sake of a high correlation coefficient between BORDER and DIST (-0.81), the parameter standing by the latter one took a negative value.

The further potential determinants of export were six binary variables describing a state of war between countries (WAR) or following years after its end (WAR+1, WAR+2, WAR+3, WAR+4, WAR+5). As expected, in all three models the parameters standing by them had negative signs, and their highest values were recorded by WAR+11 (-3.55, -2.45, -2.61 for *pooled*, *fixed* and *random* models respectively) and by WAR (-1.97, -1.29, -1.37). Both those variables appeared to be statistically important by  $p < 0.01$ . Those results could be interpreted in a way that warfare influences trade relations between countries with a little delay, due to their long-term character<sup>124</sup>. On the other hand, low values and statistical non-importance of variables WAR+2, WAR+3, WAR+4 and WAR+5 suggest that though warfare brings negative effect on trade relations, when possibilities of its revival are seen, entrepreneurs tend to overcome mutual animosities.

From the two variables constituting the cultural “distance”, the first one (MINOR) is a natural logarithm from the number of exporter’s diaspora in the importer’s country. As expected, the sign of the parameter is positive in both pooled and fixed-effects models<sup>125</sup>, though its values being very small (0.06 and 0.07 respectively) and only in the pooled model statistically important (by  $p < 0.1$ ). However, one should take into account the shortcomings of this measure. Firstly, the data are estimated, which questions their accuracy. Secondly, the data on migration comes most often from the year 2008, whereas the migration itself is a very dynamic process.

As a representative of the economic “distance”, the absolute value of the difference in GDP per capita of trading partners was chosen. This measure is supposed to describe not only the difference in their welfare, but also in the stage of development and factor endowments (labor or capital). According to the New Trade Theory assumptions, richer countries should trade more with one another, then with the others. The regression results do not clearly support or reject this thesis. In neither of the three models the variable is statistically important. Its parameter value fluctuates around zero, with positive values for the fixed-effects model (0.02) and negative for pooled and random (-0.13 and -0.03). Those results are the more surprising, that the variability coefficient of this variable takes the value of 1.573, which is quite high.

The second of the cultural “distance” measures – RELIG – presented similarity of religious structures. As time-invariant, it couldn’t be estimated in the fixed effects model. In the pooled and

<sup>124</sup> Due to lack of data, the study period covers years 1995 – 2007, so it doesn’t cover most of the Bosnia War (1992 – 1995), which can have an influence on the results.

<sup>125</sup> In the fixed-effects model this variable could not be estimated due to being time-invariant.

random effects models this variable appeared to have a very strong (3.16 and 4.52 respectively) and statistically important (by  $p < 0.01$ ) influence on exports. The interpretation of these results is that similarity in religious structures is one of the key determinants of trade in the region of the Western Balkans. As mentioned before, the region lies in the joint of the three big religions: Catholicism, Orthodoxy and Islam. So the high value of the parameter standing by the REGIG variable indicates problems faced by exporters who want to compete successfully on a market that is different in terms of dominant religion.

Another variable important for the purpose of this research – similarity of the language structures (LANG) – is the sole representative of the communicational “distance”. Its quite complex structure aims to present possibly exact the possibilities to communicate between people of the given two Balkan countries. In the research, this variable appeared to be statistically important by  $p < 0.01$ , and the parameter took the highest values of all the examined variables (8.16 in the pooled and 9.19 in the random effects model). It means that communicational barriers belong to the most important obstacles in trade

The political “distance” was represented in the research by the binary variable FTA. It took the value of “1” in instances when the countries had signed a Free Trade Agreement<sup>126</sup>. It proxies trade liberalisation, which is one of the most common potential trade determinants in the literature. In this paper, the parameter takes positive values regardless of the type of the model, 0.94, 0.32 and 0.46 for pooled, fixed and random effects respectively. In the pooled and random effects models it is statistically important (by  $p < 0.01$  and  $p < 0.05$ ), whereas in the fixed effects model it is not. Those results show that the trade liberalisation process, expressed by signing of the bilateral Free Trade Agreements, had a little positive influence in trade values. However, when taking in account all bilateral effects for country-pairs, it wasn’t statistically important.

The last variable augmenting the model was stock of the Foreign Direct Investments (FDI) in the exporters country. It is a variable proxying it’s “mass”, as a “technology” potential. The results showed that it takes values between 0.01 (in the pooled model) and 0.24 (in the fixed effects model) and that only in this last case its parameter is statistically important (by  $p < 0.05$ ).

## 5. Conclusions

From the econometrical side, the fixed effects model proved to be the best suited to data, followed by the random effects model. It means that even after controlling for a wide range of country-pair-specific factors, still unobserved bilateral effects determine the trade between the countries of the Western Balkan region.

The study shows that not only the standard trade determinants included in the gravity model of trade should be taken into account. In the case of the Western Balkan countries, far more important seem to be cultural, communicational and historical factors. In our study they were represented by the similarity of the religious and language structures, war conflicts and post-war periods. Also contiguity proved to be one of the most important factors, although the region is geographically not very extensive. On the other hand, minorities and differences in economic development seem not to play any major role in determining the trade patterns within the region.

Our recommendation for further research is to test the same set of variables on a wider sample of countries. What proved to be important in the small, internally diversified region, may not necessarily be so in a bigger scale.

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<sup>126</sup> Note that the research covers a period before signing of the CEFTA-2006 agreement.

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## EMERGING TRADE PARTNERS OF GERMANY – COMPARISON OF ECONOMIC COOPERATION WITH POLAND AND RUSSIA

Konrad POPLAWSKI<sup>127</sup>

### Abstract

*Poland and Russia are the most important trade and investment partners for Germany in Central and Eastern Europe. The role of these countries has greatly increased since the collapse of the Soviet Union, when they started programs of liberalization and opened their markets to the world. However, both of them chose different strategies. Poland decided to closely integrate with western economies by signing free trade agreements, entering such western institutions as NATO, OECD and WTO and getting finally 2004 an accession to the European Union (EU). In the same time Russia after the period of chaotic market reforms in the 90s and the 1998 currency crisis started to consolidate its economy by focusing on exports of mineral resources and refusing to integrate rapidly with western structures. These decisions had important influence on the economic relations with Germany. German companies have eagerly entered the Polish market by taking part in the privatization programs, realizing there their investments and developing trade relations since the beginning of the transition. The German government was the main advocate of the Polish accession to the EU. Though, the German enterprises engaged on the Russian market much more reluctantly, although the German economy has become already in the 90s starkly dependent on supplies of Russian mineral resources. Thus the aim of this paper is to investigate trade and investment relations of Germany with Russia and Poland, analyzing, what are business conditions prevailing on both markets from the point of view of the German companies. The main question asked in the paper is why Poland is more important export market for Germany than Russia is. The main method used in the paper is an economic analysis based on the data drawn from the German Federal Statistical Office and the Bundesbank. The research is supplemented by examination of business conditions on Polish and Russian markets by comparing assessment of them by German business organizations such as trade chambers. The author finds that better institutional conditions and closer geographical location helped Germany to develop relatively better economic ties with Poland than with Russia.*

**Keywords:** Germany, Poland, Russia, trade, investment

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## 1. Introduction

Germany has been the largest trade and investment partner of Poland since the beginning of transition from command to free market economy. The largest EU country has developed not only strong economic ties with Poland, but it has been also a strong supporter of the eastern enlargement of the European Union. Currently, it seems that Poland after joining the community has become strongly integrated into the value chain of Germany, offering cheap labor force, stable political and investment climate and constantly improving infrastructure.

From that point of view it is interesting to examine the tendencies in economic cooperation between Germany and Poland in comparison with German economic relations with Russia, which is the largest country in the Central and Eastern Europe. Russia, which is the most important supplier of resources such as gas and oil to Germany, offers a large and interesting export market for German key industries such as automobiles, machine construction, chemical industry or banking sector. Germany and Russia have been building strong political and economic ties, especially after the unification of Germany. One of the crucial investments to prove that fact was a construction of the Nord Stream pipeline, which started 2011 to deliver gas directly from Russia to Germany below the Baltic Sea.

Analysis of market potentials of Poland and Russia seems to prove that from the German perspective Russia should constitute much more important export market as the Russian economy produces annually fourfold more and the country is three times more populous than Poland. However, that is not the fact and Poland receives more goods from Germany than Russia does. Therefore, the aim of the article is to examine factors, which led to such a situation and assess the prospects of the Germany's economic relations with Poland and Russia.

## 2. Literature review

From a historical point of view Germany became highly involved in the investments in Central and Eastern Europe already after the unification of Eastern and Western Germany, when post-socialistic states started to be open and liberalize their markets. In the short time frame of 1992-1996 the value of German investments in Central and Eastern Europe countries (CEEC) rose fourfold to 4,4 bn German marks (DM). This process was strongly supported by public authorities, who offered financial guarantees to insure risk taken by the German investors, although the state institution had to finance large investments projects for reconstruction of Eastern Germany (Meissner, 1997, pp. 4-6). German companies were aware of the market potential of Central and Eastern Europe and they wanted to take advantage of the need for reforms in those countries in the fields such as: reconstruction of the infrastructure, elimination of environmental damages, building up distribution capacities, limiting inflation and conducting privatization to balance budget deficit and capitalize companies (Tietz, 1991, p. 3). The transition processes in the CEEC did not start from a scratch economic engagement of German companies in this region, as such a cooperation had existed even before the fall of the USSR in the fields of agriculture, heavy industry or technology. However, the reforms in the post-socialistic states towards capitalistic systems stimulated the German companies also from the more significant industries such as retail sales, banking and insurance industry, electricity, sewage and transportation sector to expand on eastern markets in search of higher returns than on the domestic market (Heinrichs, 1992, p. 476). Moreover, the producers from Germany became entitled to export to the CEEC also technology-intensive goods, what was not allowed during the Cold War (Lücke, 1996, p. 172).

In the period between the fall of the USSR and the 2004 EU enlargement German companies were able to gain strong market position in the CEEC. In the end of the 1990s their share in direct investment flowing to Central and Eastern Europe maintained stable around the rate of 10% and they employed almost 600 thousand employees in this region. Their main motive for expanding

there their production facilities was eagerness to decrease the labor costs (Dietz, Protsenko and Vincentz, 2001, pp. 7-8).

There were various expectations concerning consequences of the EU enlargement for the economic cooperation of Germany with Poland and Russia. Some researchers expected that an accession to the EU would not bring many changes in development of trade, as the results found using gravity models projections suggested that GDP growth and trade expansion would not grant new significant welfare gains (Brenton and Gros, 1997; Brenton and di Mauro, 1998). The other expected minor gains resulting from partial elimination of remaining non-tariff barriers and lower risk premiums for investment what should lead to better allocation of resources (Quaisser and Hall, 2002). These conclusions assumed that trade between Poland and the EU should exhibit tendency of stable growth and the pace of its growth should not accelerate. It turned out that the forecasts were quite close to the reality and the trade relations were continuously developed at a stable rate and were relatively to the lesser extent affected by the global economic crisis (Olszyński, 2012).

After quite unstable period of economic disturbances in the 90s connected with the USSR dissolution, the transition processes and the ruble crisis of 1998, in the new century the Russian economy started to revive. The German government noticed those changes and decided to facilitate trade with Russia for German companies by expanding trade guarantee schemes, which were suspended in the end of the 90s. Germany was one of the main country, which supported financially the Russian transition and both countries have developed after 2000 strategic relations based on the formula German investments and technology for Russian resources (Götz, 2007). This model of relations was continuation of cooperation during the Soviet times, though when Russia started to record more stable economic indicators, when Vladimir Putin became a president of Russia, it created even better conditions for development of economic ties (Adomeit, 2012).

### **3. Institutional conditions for economic cooperation**

Poland and Russia are connected with Germany with different legal framework as both countries decided to choose different ways of transition. Poland decided to closely integrate with western economic communities and to coordinate its economic policy with the European Union and other organization such as Organization for Economic Cooperation and Development and World Trade Organization, whereas Russia preferred to maintain stronger surveillance over its economic policy and reluctantly agreed for joining just some organizations limiting surveillance over its economy.

In case of German trade with Poland most legal grounds are specified by European treaties and commitments resulting from membership in various international organizations. Poland (and some other CEEC) has signed already 1989 the agreement for trade and economic cooperation with the European Community. The document assumed abandonment trade discrimination, which was levied by the European Economic Community (predecessor of the EU) on the CEEC. Western Europe decided also to create a special fund (so called PHARE) to help the CEEC in transition of their economies. Poland as part of this agreement decided to abolish state monopoly for foreign trade and to repeal most instruments of direct and indirect imports control leaving just such measures as control over the exchange rates, custom duties and taxes (Zielinska-Glebocka 1995). The agreement for trade and trade cooperation became a basis for the Europe Agreement that came into force 1992. The document constituted legal grounds for political, economic, scientific and cultural relations of Poland and the EU. It also set a scheme of full abolishment tariffs for industrial goods until 1999, partial abandoning of restriction on trade with agricultural products with exception for quotas which were mostly maintained. 1995 Poland became one of the founding countries of the World Trade Organization, what was important for promoting recognition of the Polish economy as a free market economy. 1996 Poland accessed the OECD, what helped the country to introduce international standards in international business, financial transactions, cor-

porate governance, bribery or quality of public governance or government export promotion schemes.

However, one of the most important changes for the Polish economy and a sign of appreciation of Polish efforts for liberal reforms was a 2004 accession of Poland to the European Union. The EU enlargement meant that the reliability and stability of the Polish economy was recognized by the other countries of the EU. The accession has not brought many improvements for the foreign trade, as most changes had been introduced already in the 1990s. The most important modifications embraced elimination of border controls for trade, abolishment of some remaining tariff and non-tariff barriers (for instance quotas, antidumping measures) and introducing recognition of the European Union standards of norms (Molendowski, 2007, p.177). Until today Poland has not decided to enter the eurozone, although the country is obliged to access it in the accession treaty to the EU.

In case of Russia the situation is very different as the country is a member of just few international organizations. Therefore, much more important role in the German-Russian trade play such institutions as the European Commission and the federal government of Germany. As the legal grounds are not stable, in the mutual goods exchange there are cases of discretionary measures.

The EU signed 1999 with Russia a partnership and cooperation agreement, which until today creates legal framework for political, economic and cultural relations. The document described 4 areas of cooperation, one of which accounted for a common economic space. The main aim in these areas was to improve conditions for trade and investments and promote reforms and competitiveness by introduction of non-discrimination, transparency and good governance.

2012 Russia entered the World Trade Organization. That led to decrease of import tariffs and export duty levels. Average duties for all products were cut on average from 8,4% to 6,2%. From German point of view it was a significant improvement as the tariffs for electrical machinery were lowered from 15% to 5%. Also reduction in export duties for raw materials was favorable for German economy, which is the largest importer of such goods from Russia.

German governments tried also on their own to develop strong political relations to stabilize economic relations with Russia. Since 2000 Germany and Russia have been organizing annually the Petersburg Dialogue, which embraces meetings of business and political elites of both countries to discuss the most important topics. 2005 the federal government of Germany signed with Russia contract for supporting German and Russian companies to build new gas pipeline under the Baltic Sea to connect both countries directly. The deal assured more secure supplies of gas to Germany and it lowered a risk of cuts in supplies caused by political conflicts between Russia and the gas transit countries such as Belarus, Ukraine or Poland.

2010 from initiative of the German government the EU signed with Russia a partnership for modernization. This concept assumed reforms undertaken in Russia to improve business climate for foreign investors in exchange for better access of Russian companies to EU technology and know-how. The German government hoped that this agreement could stimulate Russia to unify norms and standards with the EU in a hope for attracting more foreign direct investments from the EU. However, the whole partnership failed to bring any significant changes in business climate.

Development of close political ties has protected German producers from significant trade conflicts with Russia. The Russian government, who often used instruments of embargo to influence policies of such countries as USA 2002, Poland 2005, Latvia 2006, the Netherlands 2007, Finland 2007, Belarus 2009 or Ukraine 2011, did not use this measures against German companies (Wisniewska, 2011). However, good relations did not restrain Russia from levying targeted trade measures such as tariffs increase, sudden changes of excise duty procedures or imposing some new charges or restrictions against German car maker 2012-2013.

Short analysis of institutional conditions in German economic relations with Poland and Russia shows that the Polish market offers much safer prospects of growth as business activities of German companies are secured by numerous institutions and reliable legal arrangements. In case of Russia economic relations are prone to changes in the political climate between Germany and

Russia and strongly exposed to discretionary measures imposed by the Russian government and Russian public institutions.

#### 4. Comparison of economic potentials of Russia and Poland

Before analyzing data concerning economic cooperation of Germany with Poland and with Russia it is interesting to compare economic potentials of those three countries, which are important indicators for trade and investment attractiveness.

*Table 2. Comparison of Basic economic data for Germany, Russia and Poland  
(rank in the world in brackets)*

Indicator	Germany	Russia	Poland
Gross Domestic Product (2012, \$)	3 426 bn (4)	2 026 bn (8)	489 bn (24)
GDP per capita (2012, \$)	41 900 (21)	14 300 (47)	12 700 (55)
Accumulated GDP growth 2007-2012	3,8%	9,4%	18,3%
Unemployment rate (2012)	5,2%	5,2%	10,6%
Public debt to GDP ratio (2012)	82%	12%	54%
Exports to GDP ratio (2012)	52%	29%	46%
Current account balance to GDP ratio (2012)	7%	3,7%	-3,5%

*Source: OECD, IMF, World Bank*

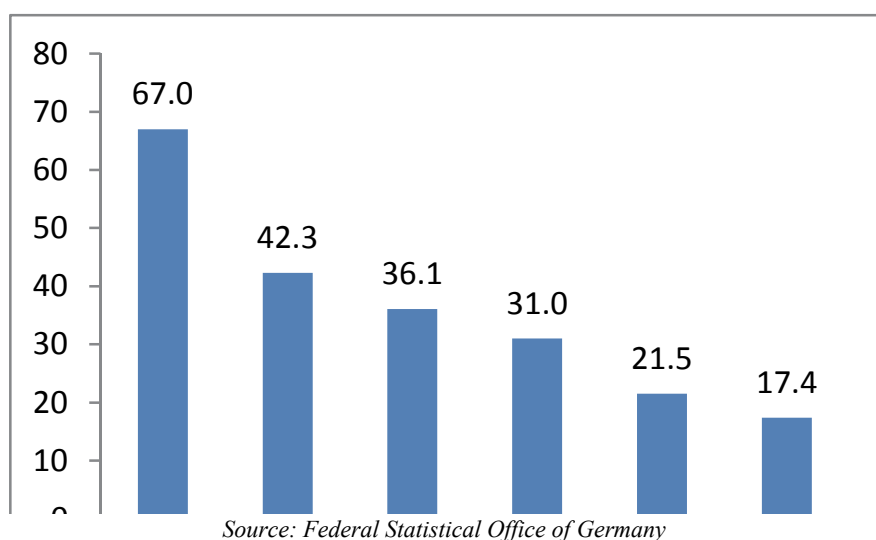
From the German point of view Russia and Poland constitute much smaller economies. Russia exhibits 30% lower nominal GDP (8<sup>th</sup> economy of the world) than Germany (rank 4<sup>th</sup> in the world), whereas annual production of the Polish economy (24<sup>th</sup>) constitutes only slightly more than 14% of the German economy. That means that Russia offers potentially much better opportunities for exporting with on of the largest markets in Europe. Comparing GDP per capita indicates that German citizens have on average about 3 times higher productivity than Poles and Russians. Thanks to resources exports GDP per capita is in Russia slightly higher than in Poland. However, the Polish economy showed in the recent 6 years the fastest growth. Poland exhibited 4,5 times higher growth than in Germany and 2 times higher growth than in case of Russia. Unemployment rate was very low in case of Germany and Russia and twice higher in case of Poland. Though, the Russian economy was characterized by higher rate of hidden unemployment and companies preferred in a crisis mode to reduce wages instead of making employees redundant, therefore in fact the unemployment rate can be higher (Ohtsu, 1998, Treisman, 2012). The three countries exhibit various level of indebtedness. The Russian state is the least indebted with 12% of public debt to GDP ratio. Poland shows higher level of public debt in relation to size of the economy, whereas in case of Germany this indicator reaches the highest value. Trade has also different influence on the three economies. Germany displays important role of trade resulting in positive wealth effect for the economy. More than a half of the production of the country goes for exports and the export level exceeds the import level by 7% of GDP, what it one of the highest rates in the world. In case of Poland slightly less than a half of production goes beyond the country, though the Polish economy imports by 3,5% of GDP more than it exports. The reason for that is strong inflow of capital for investments as Poland still displays strong need for capital to modernize the economy. On the other hand Russia exports just 1/3 of its production, but the country records moderate current-account surplus thanks to high demand especially in Europe for its mineral resources such as oil and gas.



## 5. Analysis of trade relations of Germany with Russia and Poland

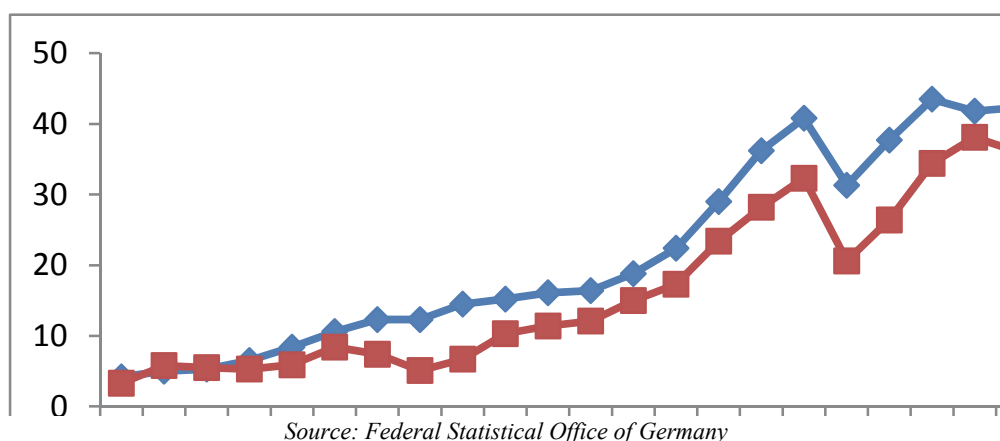
One of the most important indicators of economic relations between countries are trade flow. Thus it is useful to analyze trade changes of Germany with Poland and Russia to examine economic relations between these countries.

**Figure 1.** The largest export markets of Germany taking into account low and middle income countries 2013 (in billion euro)



From the broader perspective there are no top leading emerging markets for German goods beyond China. China has recently been growing massively and it constituted 2013 the fifth largest export market. Taking all the countries into account Poland was on 9<sup>th</sup> place and Russian on 11<sup>th</sup>. However, focus on the just middle and low income countries shows that in such rank Poland is the second market with the value of 42 billion euro and Russia accounts for the third market with the value of 36 billion euro, what is not much more than the fourth Czech Republic with the value of 31 billion euro. That means that not only Poland, but generally most Central Europe countries, which entered the EU, exhibit quite high level of imports from Germany.

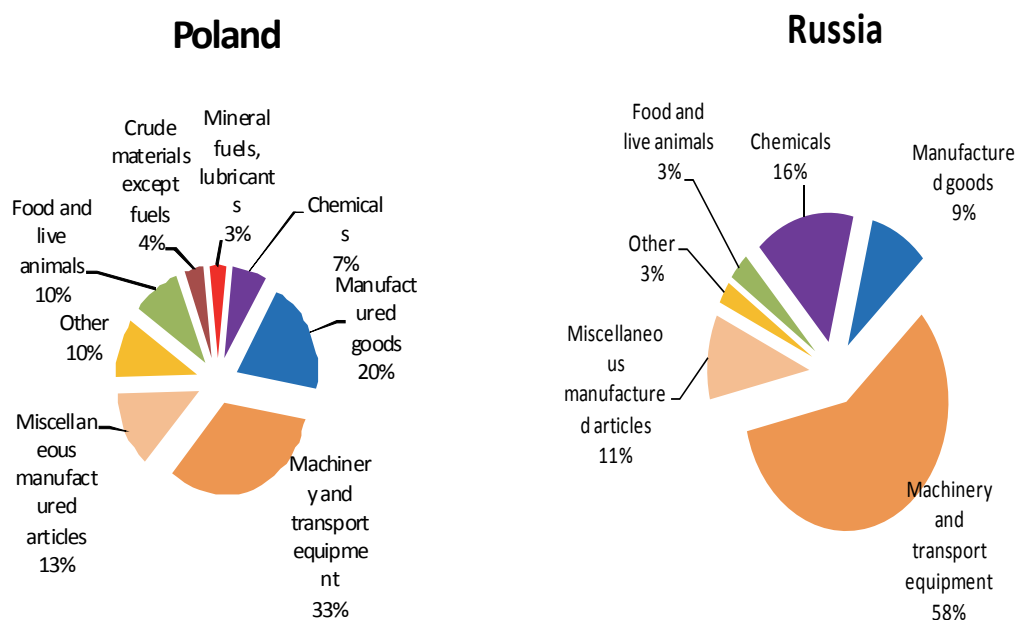
**Figure 2.** Exports from Germany to Poland and Russia (in billion euro)



Taking into account the significance of Poland and Russia as export markets for German goods from the historical perspective it is visible that Poland overtook Russia already 1995 and since that time constantly has constituted more important market for Germany. It is interesting to notice

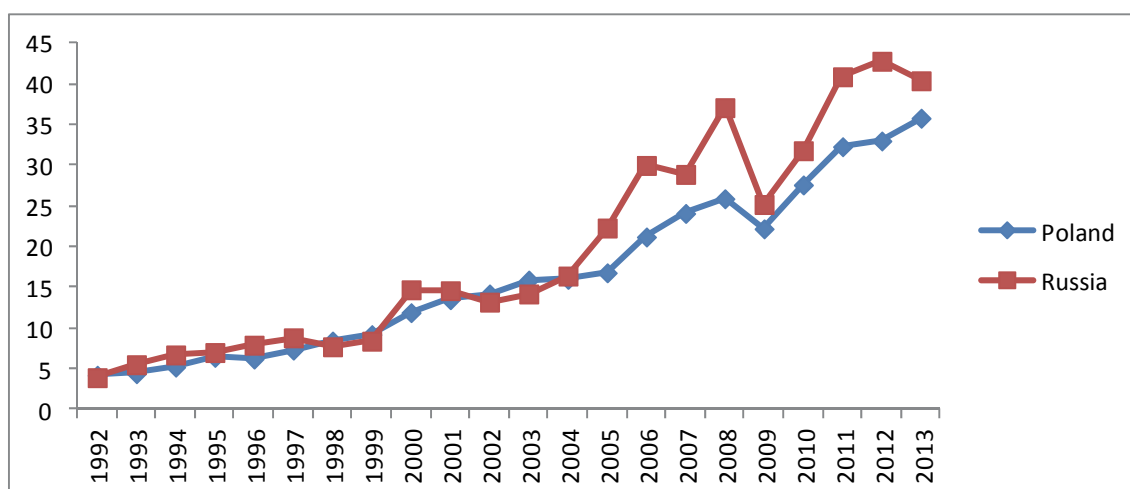
that the difference became tighter between 2001 and 2006, so in the period before and after the accession of Poland to the EU, and between 2010 and 2012, when Russia started to recover after the sharp recession 2009. The fetch between Poland and Russia was growing in the period 1997-2000, when Russia was coping with the currency crisis and in the period 2007-2010, when Poland got accession to the EU and during the 2009 crisis year in Europe, when all the European economies except Poland fell into recession. In total in the time frame 1992-2013 German companies sold by 31% more goods in Poland than in Russia. It is important to underline that German exports to Poland is stimulated by the EU regional funds, which Poland got to facilitate poorer countries to catch up with productivity level to the EU average. The assessments of the Ministry of Regional Development of Poland show that the German companies will have benefitted 30 billion euro in the period of 2004-2015 thanks to additional exports as a result of realizing the contracts from the regional funds.

**Figure 3.** Structure of German exports to Poland and to Russia based on SITC classification



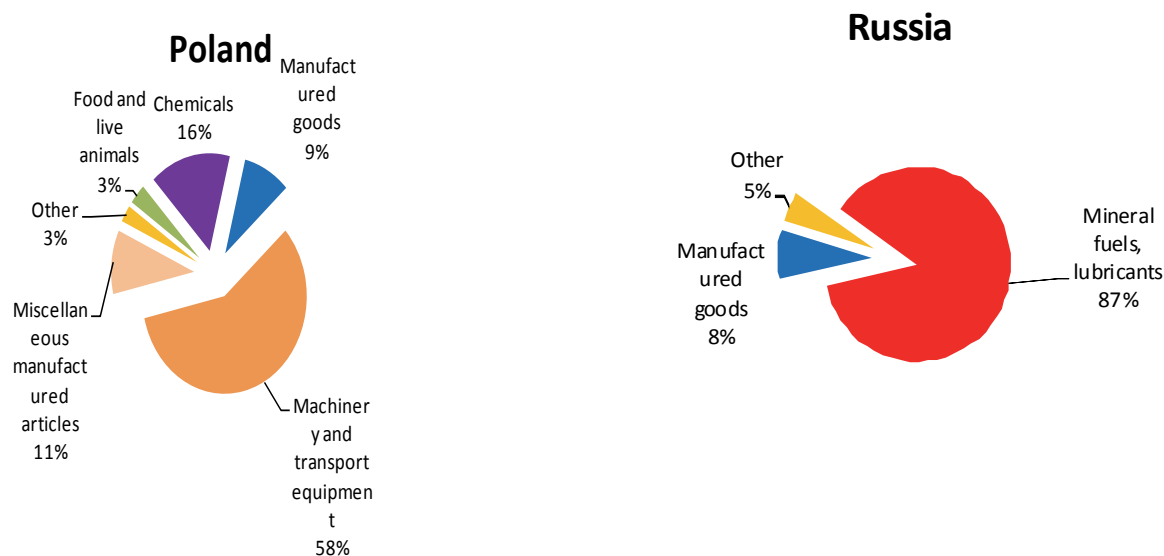
Source: Federal Statistical Office of Germany

The structure of German exports is different in case of Poland and Russia, though the differences are not very striking. German companies sell on the Russian market mostly machinery and transport equipment which accounts for 58%. The other important goods are chemicals (16%), miscellaneous manufactured articles (11%) and manufactured goods (9%). German exports to Poland are much more diverse. Machinery and transport equipment constitute also significant share of 33%. Chemicals have lower importance (7%) than in case of Russia, whereas manufactured goods play more important role (20%). German companies sell also in Poland miscellaneous manufactured articles (13%), food and live animals (10%), but also mineral fuels and crude materials (3%). The exports to Russia is dominated by large German corporations especially automobile or machinery producers such as BMW, Mercedes, Volkswagen or Siemens. Different structure of exports to Poland suggests that apart from large industrial groups also small and medium companies are active there and therefore they also have significant share in exports of companies from not the strongest German industries.

**Figure 4. Imports of Germany from Poland and Russia (in billion euro)**

Source: Federal Statistical Office of Germany

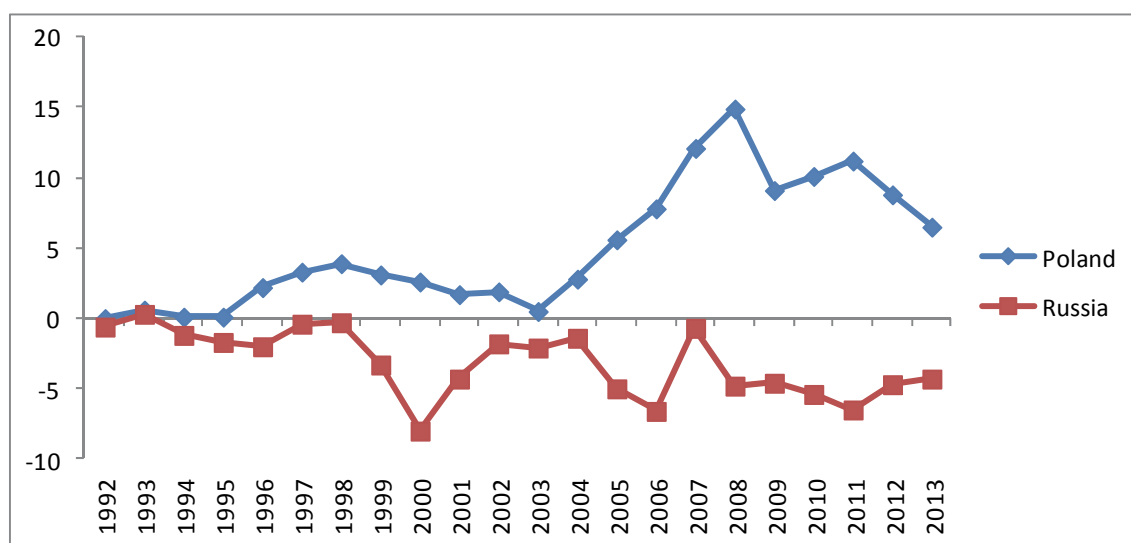
Significance of imports from Poland and Russia is from the German perspective on the contrary in comparison to exports. Poland was more important supplier of goods on the German market just 1998-1999 and 2002-2003, though in the period of 1992-2004 the import figures from Poland and Russia to Germany were quite similar. What is quite amazing, just after 2004 the fetch between Poland and Russia started to increase. It seems that an impulse for the German import growth from Poland as a result of the EU accession was unable to ensure such strong upswing as higher demand for resources driven import growth from Russia. Between 2002 and 2008 prices of crude oil rose by more than 2.5 times and of gas by 6 times. Therefore, the strong growth of value of German imports of the Russian resources was determined by changes in price terms-of-trade as Germany did not increase so dynamically demand for these resources as the tendencies in imports show.

**Figure 5. Structure of German imports from Poland from Russia 2012 based on the SITC classification**

Source: Federal Statistical Office of Germany

The German imports from Poland and Russia exhibit very different structure. The imports from Russia are strongly dominated by supplies of oil and gas to the German markets. These resources constitute 87% of total imports. The Russian companies sell in Germany also manufactured goods (8%). The imports from Poland are dominated by supplies of machinery and transport equipment accounting for 58%. The other important imported goods are chemicals (16%), miscellaneous manufactured articles (11%) and manufactured goods (9%). Different structure of imports indicates diverse economic relations of Germany with Poland and with Russia. Germany imports from Russia mainly unprocessed resources, which are important for the German industry. Poland sells to Germany mostly manufactured goods, which are often produced in subsidiaries and factories of German investors. That makes Poland an important location for direct investments, what helps the German companies to lower manufacturing costs thanks to much cheaper labor cost in Poland.

**Figure 6.** Trade Balance of Germany against Poland and Russia (in billion euro)



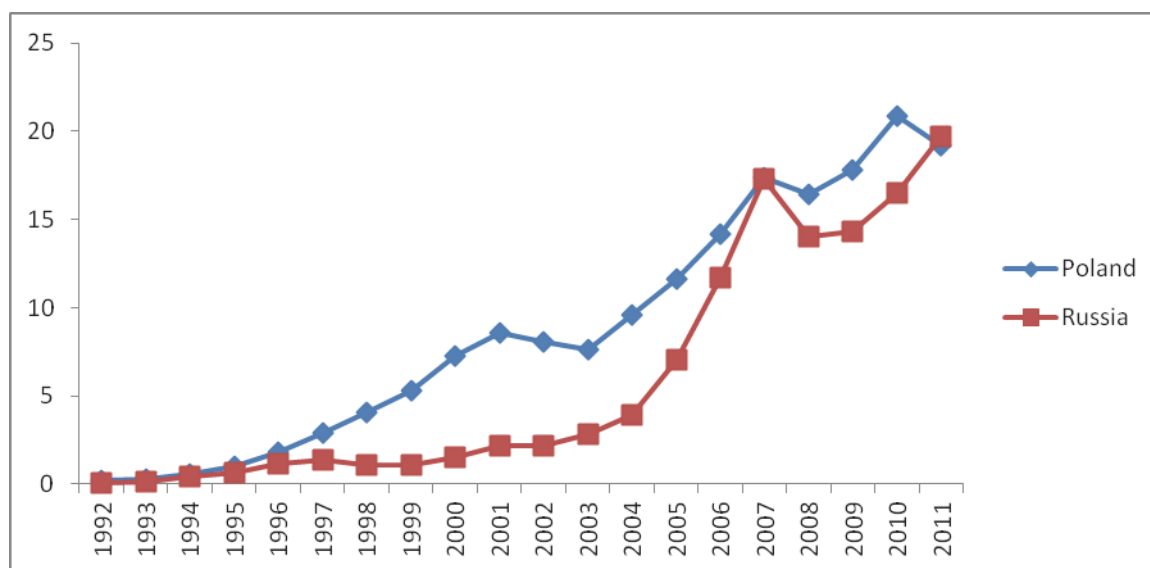
Source: Federal Statistical Office of Germany

Also comparison of German trade balances against Poland and Russia shows diverse tendencies. Since 1993 Germany has been recording trade surplus in relation to Poland and this surplus was growing in the period 1995-1998, then it was almost brought back to balanced situation 2003. Though, since that time the surplus of Germany reached high levels of several billion euro. In relation to Russian a situation is almost the opposite. Since 1994 Germany has been recording trade deficit with Russia. The deficit reached low values in the period of 1994-1998 and 2002-2004 and 2007. In the remaining years Germany registered significant trade deficit. Such an analysis suggests that situation of Russia is much more conducive in relation to Germany and thanks to resources it earns net income on trade with Germany. Though, the situation is more complicated as the data concerning German trade with Poland registered by the Federal Statistical Office of Germany are not precise. The German statistical methodology accounts goods, which are only transited through the territory of Germany, as German imports and exports. Thus, the goods transported from China to Poland as a final destination through German territory from German or Dutch harbours, are firstly accounted as German imports from China and then as German exports to Poland. That means that the Polish trade deficit against Germany is significantly lower. The Polish Statistical Office assess that Poland registers with Germany trade surplus with a value of 3,2 billion euro. Apart from that it is important to notice that trade deficit can be a result of inflow of direct investments from Germany. German companies firstly build new facilities to export some goods from Polish factories, what increases at the first stage trade flow from Germany to Poland.

## 6. Analysis of investment position of Germany towards Poland and Russia

Companies mostly decide to begin firstly trade activities on the foreign markets. If they feel more self-confident on the new market and see significant and stable growth prospect or they notice better conditions for production of goods locally they start to invest their capital. Thus an analysis of capital flows from Germany to Poland and Russia helps to define the maturity of economic relationship of those countries.

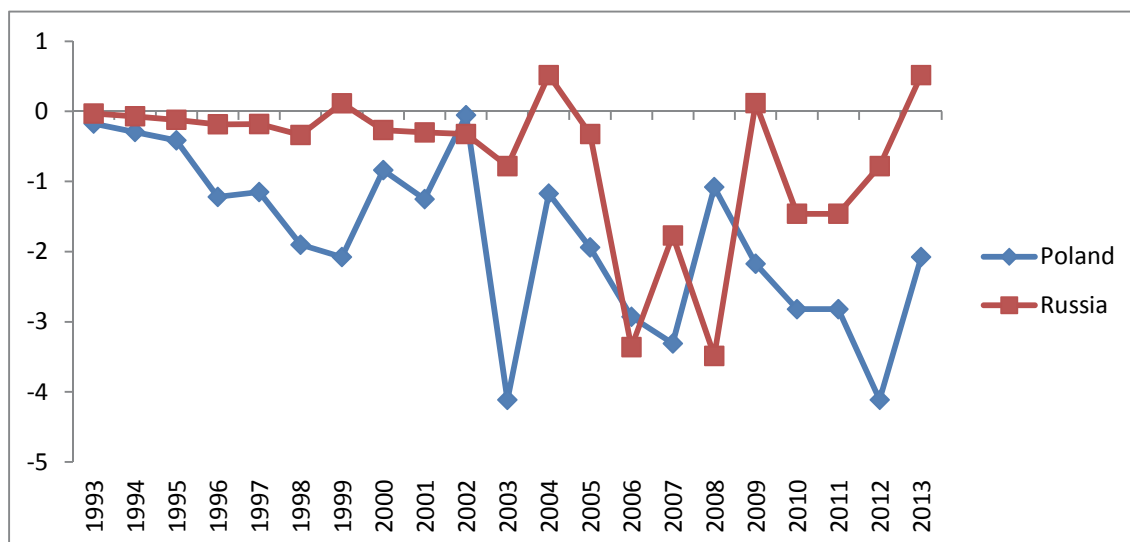
**Figure 7.** *Changes in a stock of German direct investments in Poland and in Russia (in billion euro)*



Source: Bundesbank

In an analysis of stocks of German direct investments in Poland and Russia it draws attention that both countries started from the same level of German investments and until 2011 they registered similar value of accumulated German capital inflow. However, a pace of growth was very different. In case of Poland the German investments have been inflowing quite steadily and the trend was almost continuously upward. Just in the periods 2001-2003 and 2008 there was negative growth of investment stocks. In case of Russia the pace of inflow was very diverse. Until 2004 there was a slow inflow of investments and after this year the growth accelerated quite rapidly until 2007. Then the stock of German investments declined severely 2008 to register slow recovery in the years 2009-2011. The explanation behind high pace of investment growth in Russia in the period 2004-2008 could be good momentum for resources, which improved prospects of the Russian economy and attracted German investors.

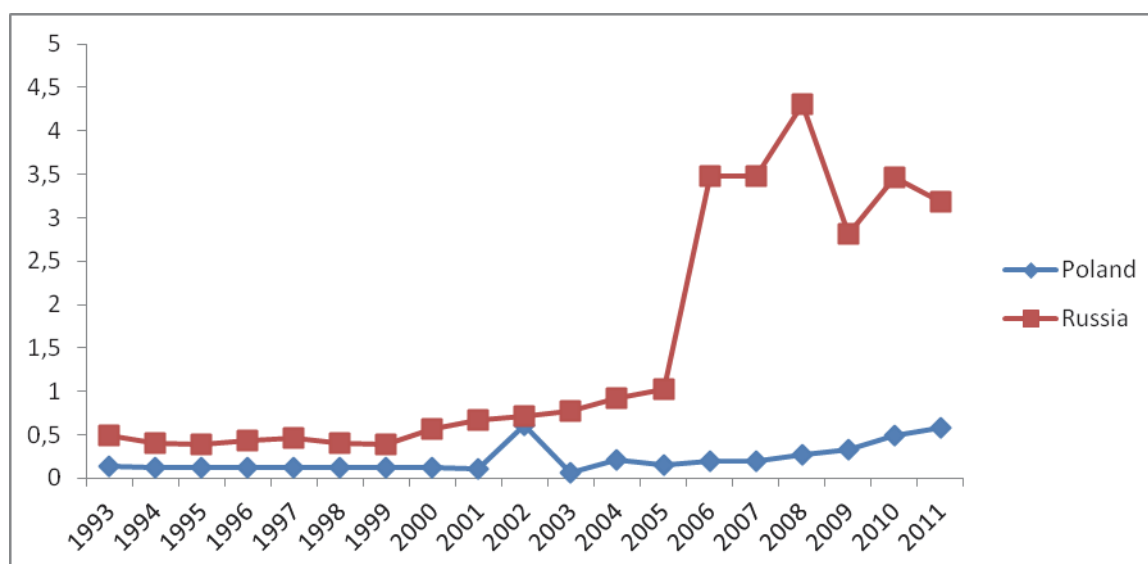
**Figure 8.** German investment net flows to Poland and to Russia  
(‘-’ means outflow, in billion euro)



Source: Bundesbank

Taking into account annual flows of investments it is visible that for the whole period of 1993-2013 an inflow of German investments to Poland has been surpassing an outflow. In case of Russia the situation was more complicated as in some periods such as 1999, 2004, 2009 and 2013 German investors preferred to withdraw more investments than to invest on the Russian market.

**Figure 9.** Polish and Russian direct investment stocks in Germany (in billion euro)



Source: Bundesbank

It is also interesting to examine how active were investors from Poland and Russia on a German market. The comparison shows that Russian companies have been more involved as regards capital on the German market than Polish firms since the beginning of transition. The Polish enterprises reluctantly invested in Germany and they probably had a potential to invest more, because a growth of investment on the German market did not follow economic or trade



figures and maintained relatively constant. Some upward tendency has been visible only since 2007. The Russian investors worked in a different manner. The investment value started growing steadily 2000, but 2006 the value of investments increased 3,5 times as compared to 2005 and this new higher figure of investments have been remained.

This difference in activities of Polish and Russian investors is probably a result of diverse structures of both economies. The Polish economy is dominated by small and medium enterprises (SMEs), which produce 67% of GDP and employ 70% of all the employees. In Russia the situation is almost reversed as the economy is strongly dominated by large state-owned companies. The SMEs in Russia create just 21% of GDP and employ 25% of the country's employees. The Russian state-owned companies earn high profits on sales of resources in Germany and they have high capabilities to invest. Apart from that the Russian large companies are often owned by the people connected with the government, who might easily lose their business in case of some quarrels in the ruling elite as it was the case of Mikhail Khodorkovsky. Moreover, Russia constitutes much more volatile market. These factors stimulate the Russian companies to invest in Germany, which thanks to stable economy and good political relations with Russia is treated as a safe haven for investments.

**Table 3.** Rank 2014 of Poland and Russia in the rankings: World Bank Doing Business Report and its categories, Transparency international Corruption Perception Index and Heritage Foundation Index of Economic Freedom (in brackets 2007 rank)

Doing Business Report Category	Poland	Russia
Starting Business	116(114)	88(33)
Dealing with Construction Permits	88	178
Getting Electricity	137	117
Registering Property	54	17
Getting Credit	3(65)	109(159)
Protecting Investors	52(33)	115(60)
Paying Taxes	113(71)	56(98)
Trading Across Borders	49(102)	157(143)
Enforcing Contracts	55(112)	10(25)
Resolving Insolvency	37(85)	55(81)
Doing Business Rank	45(75)	92(96)
Corruption Perception Rank	38(61)	127(143)
Index of Economic Freedom Rank	50(86)	140(132)

Source: World Bank, Transparency International, Heritage Foundation

In an analysis of reasons for relatively better economic cooperation of Germany with Poland than with Russia the institutional properties of both countries cannot be omitted. Comparing results achieved by Poland and Russia in main international rankings of ease of investing and conducting economic activities for foreign investors it is visible that Poland achieves much better scores. In all the reports taken into account Poland occupies position medium position of all the countries, whereas Russia records low scores (not far from the end of the rankings). In all of them Poland has greatly improved its rank and in case of Russia there was just a minor upswing. Focus on specific categories of Doing Business Report exhibits that the results are more ambivalent. Poland notes higher results in such areas as: dealing with construction permits, getting credit, protecting investors, trading across borders, or resolving insolvency. On the other hand Russia is better in such categories as: getting electricity, paying taxes and enforcing contracts.

## 7. Conclusions

*Table 4. Assessment of properties of the Polish and Russian economy from the German perspective*

Factor	Poland	Russia
<b>Geography</b>	Cultural and geographical proximity Central location in Europe Good infrastructure connection with Germany	Moderate cultural and geographical distance Peripheral location in Europe Moderate infrastructure connections with Germany
<b>Properties of the market</b>	Moderate size of the market with 38 million inhabitants Need for modernization of infrastructure Demand stimulated by the EU structural funds Large meaning of SMEs making cooperation easier with the German SMEs	Large market with 144 million inhabitants Need for modernization of infrastructure High yields from resources stimulating demand High inequality and large number of rich people stimulating demand for high quality goods
<b>Investment attractiveness</b>	Qualified workers abundance Competitive wages Moderate bureaucracy Moderate corporate tax rates Easiness to export from Poland thanks to access to the EU market	Difficult access to labour force Control of the state over most profitable sectors Extensive bureaucracy Low corporate tax rates High corruption
<b>Legal procedures</b>	Similar institutional framework and common judicial norms thanks to membership in the EU	Different institutional framework and different judicial norms
<b>Macroeconomic stability</b>	Low inflation rates Less volatile exchange rate of the national currency to the euro (5% deviation from the average for the period 2000-2013) More stable growth thanks to balanced economy	High inflation rates More volatile exchange rate of the national currency to the euro (12% deviation from the average for the period 2000-2013) Instability of the economy dependent on resources

The above table summarizes the analysis conducted in the paper. Comparing properties of Poland and Russia confirms that the Polish economy thanks to intensive reform efforts undertaken since the beginning of the transition period offers better institutional conditions for trade and investments than Russia. In such areas legal procedures, macroeconomic stability and investment attractiveness Poland overtakes the Russian market constituting one of the most attractive markets in the Central and Eastern Europe. The favourable condition which meaning is difficult to assess precisely is geographical and cultural proximity, which makes conducting business easier especially for the German SMEs. However, it cannot be omitted that Russia constitutes much larger market and offers broad prospects for high yields in the sectors of mineral resources, automobile or machinery as it earns high profits of exports of mineral resources and exhibits high demand for import of technology.

It is important to underline that Poland and Russia offer different opportunities from the German point of view. Poland thanks to close integration with the EU, low labour costs and central location in Europe can account for an interesting destination for relocation of production from Germany. Russia, which is much more separated from Europe by different legal regime, custom duties, lack of qualified workers, offers opportunities for investment in production facilities to saturate demand of the domestic markets, as it cannot be treated as the good location for expanding production abroad.

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## PART FIVE:

*Business Strategy, Corporate Governance,  
Competitiveness*

## BOARDS OF DIRECTORS AND DOMESTIC VENTURING: A MULTI- THEORETICAL PERSPECTIVE

Huong Thi My NGUYEN<sup>128</sup>

### Abstract

*This paper contributes to the understanding of how corporate governance influences domestic venturing in transition economies by employing a multi- theoretical perspective. The governance of board of directors is the main internal monitoring mechanism in this study where four variables on board structure and characteristics are addressed: (1) the combined role of chairman and CEO, (2) the ratio between TMT members and boards of directors, (3) the representation of outside members on the boards, and (4) the size of the boards. Stewardship and resourced- based theory are integrated with agency theory to provide more explanatory power to the relationship between board structure and characteristics and domestic venturing. The theoretical arguments were tested using a cross- sectional sample of privatised Vietnamese firms. The results show the dynamic and different roles of board structure and characteristics on domestic venturing. Specifically, the results indicate that combined role of Chief- Executive- Officer and chairman is significantly and positively associated with domestic venturing but Top- Management- Team's board membership has no association with domestic venturing. These findings partly support stewardship theory. The results show that representation of outside directors on the boards has positive effects on domestic venturing. However, the size of the board does not contribute for entrepreneurial activities of the firms. Accordingly, resource- based perspective is partly supported. Because factor analysis does not yield data analogous to domestic venturing, a one- item variable was used to measure this activity. The results contradict with the findings from prior researches, advocating for some studies that call for integrating multiple theories in investigating the context- dependent phenomenon such as corporate governance.*

**Keywords:** domestic venturing, board of directors, transitional economies, multiple theories

### 1. Introduction

A substantial number of studies have examined the relationships between governance characteristics and domestic venturing, which were carried out mostly in developed economies, with the main finding being that board composition and characteristics have significant influences (S. A. Zahra, 1996; S.A. Zahra *et al.*, 2000). However, the question of which mechanism relating to the boards most significantly drives domestic venturing is still underexplored (Phan *et al.*, 2009).

Agency theory is the most dominant perspective in research about the link between corporate governance and entrepreneurship. However, Dharwadkar *et al.* (2000) suggested that traditional agency theory is not sufficient in explaining these relationships in the context where institutional infrastructure is underdeveloped. It is suggested that one unique theory is not adequate to explore and explain the phenomenon happening in non- Western economies. Stewardship and resource-

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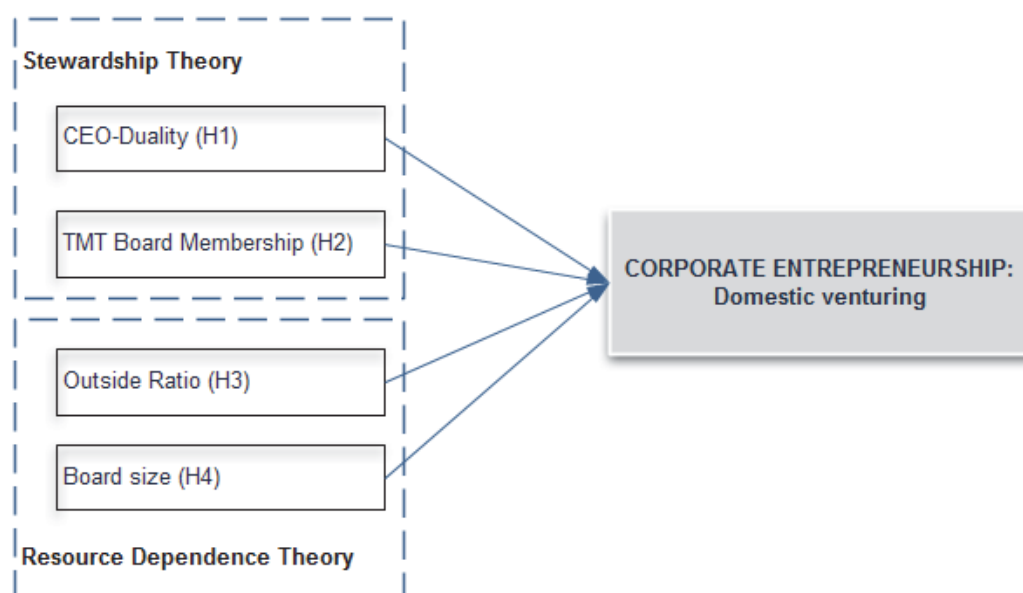
based theories might be employed in order to increase the explanatory power for the relationships between board variables and domestic venturing.

The focus of this study is on transition economies. The influences of boards of directors in such countries have not yet been examined systematically, in particularly only few have been conducted in non- Western economies such as China (e.g., Lau *et al.*, 2007; M.W. Peng, 2004; M.W. Peng *et al.*, 2003; Mike W. Peng *et al.*, 2010). Taking the context of Vietnam as a research setting, this study aims to understand how board structure and characteristics influence domestic venturing in a transition economy. Vietnam is chosen because Vietnam is a transitioning economy that has just experienced a decade of policy- driven privatisation with a large number of SOEs privatised, creating several forms and structures of corporate governance (Hoskisson *et al.*, 2000).

## 2. Theoretical framework and hypotheses

There are a wide range of mechanisms that help to govern or control the behaviours of managers. Within a firm, the primary mechanisms that affect the degree to which management represents the interests of shareholders include the board of directors, the firm's ownership, the compensation plans, and debt structures (Denis, 2001). This research focuses on the role of board of directors in leveraging entrepreneurial activities so that (1) the combined role of chairman and CEO, referred as Duality (2) the ratio between Top management team (TMT) members and boards of directors, here referred as TMT members' board membership (3) the representation of outside members on the boards, here referred as outside ratio and (4) the size of the boards, are the key internal control mechanisms. Figure 10 presents the research model that examines the relationship between above four characteristics of the board of directors and domestic venturing.

**Figure 10.** *Research Model of Relationship between Board Characteristics and Domestic Venturing*



## 3. Agency versus Stewardship Theory

The assumption behind agency theory is that individuals are self- interested and risk- averse (Eisenhardt, 1989). Thus, to control managers' decisions, the board of directors must be independent of management (Fama, 1980; Mallette & Fowler, 1992). Agency theorists assert that the



separation of the CEO and chair positions allows more objective assessment of the performance of the CEO and thus more effective monitoring by the board (Boyd, 1994).

Contrary to traditional agency theory arguments, stewardship theorists argue that individuals are motivated not only by self-interest and economic returns, but also by self-actualisation through intrinsic reward they receive from work and the achievement of personal values and goals (J.H. Davis *et al.*, 1997; Donaldson, 1990). Under stewardship theory, the board acts as a part of a collective with the management, in the ways that empower management to enhance a firm's outcomes.

Moreover, stewardship theory is more applicable to organizations where the weak control systems endorse trust as the basis for collective and collaborative work. Vietnam is a country strongly embedded in East Asian culture, where collectivism is prevalent (Hofstede & Bond, 1988). Given the underdeveloped nature of market institutions, the agents in transition economies such as Vietnam tend to exert trust in business relationships (Nguyen & Rose, 2009). Trusting climates settled in these organizations create opportunities for managers to behave as stewards (James H. Davis *et al.*, 1997).

In addition, due to the background of previous government staff, executives of privatised firms, when sitting on the board of directors tend to act collectively and cooperatively rather than implementing their controlling and monitoring functions. Further, because these executives have a long tenure at their firm, they may have a strong attachment to it. When their organization is transformed into a privatised firm, they still perceive their duty towards their firm as collective organization.

In line with the reasoning given above, I argue that privatised firms in Vietnam tend to be less control-oriented than their counterparts in developed countries and that CEOs and executives are likely to behave like stewards rather than agents. I contend that the assumptions of agency theory have a poor fit in Vietnamese context; stewardship theory is more applicable. CEO-board chairs and executive boards will be more confident in making risky, long-term decisions and therefore they may create more values for shareholders. Hence, I propose:

Hypothesis 1: In newly privatised firms in transitional economies, CEO duality is positively associated with domestic venturing.

Hypothesis 2: In newly privatised firms in transitional economies, TMT members' board membership is positively associated with domestic venturing.

#### 4. Agency versus Resource-based Theory

Some studies examine the influence of boards of directors on domestic venturing employing an agency view (e.g., S. A. Zahra, 1996). However, Hillman and Dalziel (2003) have emphasized the limitations of agency theory and suggested enhancing it by integrating it with a resource-based logic (Pfeffer & Salancik, 1978).

Resource-based theory considers a firm as an open system, dependent on the external environment (Pfeffer & Salancik, 1978). Resource-based theorists have thus extended agency research by suggesting that behaviour by non-executive directors depends not only on the degree of board independence, but also on the strategic perspective and experience non-executive directors bring to the organization (Beatty & Zajac, 1994; Carpenter & Fredrickson, 2001).

In Vietnam, given the weak legal protection system, outside directors normally lack information so that they have difficulties in monitoring and controlling managers and influencing firm decisions. The control function therefore is not effectively implemented. Further, whereas inside directors, who previously were managers of the SOEs, are burdened by other objectives such as social security and stable profits, outside investors who have more market experience, can provide the firms with advanced technology, sophisticated managerial know-how, and help approaching new markets and industries. Also, boards of directors in privatised firms consist of representatives or government officials and other state enterprises, people who have political

connections which help the firms to gain preferential access to non– tradable resources (Claessens *et al.*, 2008).

This leads me to my next hypothesis:

Hypothesis 3: In newly privatised firms in transitional economies, outside ratio is positively associated with domestic venturing

The size of the boards of directors is also a relevant consideration. Agency theory advocates assert that the incremental costs of poorer communication and decision– making arising from the larger boards outweigh benefits. In contrast, resource– based theorists argue that large boards increase the diversity of skills, experience, knowledge and style of management, providing firms with more and better advice and ideas (Dalton *et al.*, 1999). That, in turn, improves the quality of their strategic decision– making and increases their performance (Van den Berghe & Levrau, 2004).

In the context of privatised firms in transition economies, I argue that large boards encourage risk taking. First, because privatised firms are new players, bringing valuable resources to the firms is more important for survival and success. Second, in an environment where a firm's success relies heavily on relationships, a large board plays an important role in expanding linkages with outside organizations. Third, given the highly uncertain and risky environments, and given the challenging transformation process into market– oriented mechanisms, more board members help privatised firms to gain preferential access to scarce resources.

Hypothesis 4: In newly privatised firms in transitional economies, board size is positively associated with domestic venturing.

## 5. Research design and methods

The study design involves analysing the direction and magnitude of relationships between board structure and domestic venturing for a sample of privatised Vietnamese firms for a single point in time. The study population includes companies that were either sold to the public through a share issue or sold to individual and/ or organizational investors.

The study utilised survey methods, necessary because data on corporate strategy are unavailable or very difficult to obtain from secondary sources in Vietnam. The structured questionnaire survey, which collected data on three dimensions of domestic venturing, was supplemented with archival data on boards' characteristics. A firm's proxy statements were used to collect detailed information about CEOs, chairmen and board composition. Because mail and telephone surveys for this type of data often have poor response rates, and face– to– face collection increases face validity (Patton & Baker, 1987), I conducted personal interviews to gather the data. There are about 4,000 privatised firms spread over the whole of Vietnam and across all types of industries. In principle, probability sampling is preferred in order to ensure the sample is representative. However, due to the complexity of the questionnaire, the need to conduct face– to– face interviews and the practical difficulty of reaching and convincing firms to participate, convenience sampling was necessary.

The survey targeted the CEOs because they could provide unique knowledge, a comprehensive view of domestic venturing activities (Kuratko *et al.*, 1997; S. A. Zahra, 1991) and perspective on the overall performance of their firms. I interviewed 130 firms and was able to assemble to complete board structure and characteristics data for 115 of these. Thus, 115 firms are used in the final analysis.

To avoid possible bias generated by retrospective data, the questions referred to the last three years of activity, in order to ensure that managers remembered precise information. A six-point Likert scale was used for CEOs to express their agreement or their rating on the item. Following Podsakoff *et al.* (2003), I told the respondents that “there are no right or wrong answers” and that the data would be kept confidential and would be used in aggregate form. These procedures would help to reduce evaluation apprehension and “make them less likely to edit their responses to be

more socially desirable, lenient, acquiescent, and consistent with how they think the researcher wants them to answer.” Also, as suggested by Podsakoff et al. (2003), I had a short introduction and informal conversation to make them less sceptical about the coming interview and feel more comfortable about answering the questions. Wording was carefully checked through pilot test, back translation and expert review, which is presented in the following section.

## 6. Measures

**Domestic venturing variable.** This study employs the measure of domestic venturing developed and refined by S. A. Zahra (1991) and S. A. Zahra (1996). The respondent was asked: “To what extent your organisation established or invested in several new ventures?”

**Governance characteristics.** CEO duality is evident if and only if the CEO also serves as board chairpersons. This is a dichotomous variable that takes the value of zero if the CEO and board chair were separate individuals and one if the CEO also serves as the company's board chair. TMT members' board membership is the percentage of TMT members sitting in the board. The outside ratio is measured by dividing the number of outside directors by the total number of directors on a company's board. Board size is the total number of directors on the board.

**Control variables.** In the light of previous studies on corporate governance and corporate entrepreneurship (e.g., S. A. Zahra, 1996; S.A. Zahra *et al.*, 2000), this research will include control variables such as trading on stock exchange, firm size, firm assets, leverage, state-ownership, managerial ownership, institutional ownership, foreign ownership, ownership concentration, CEO's age, location and industries.

## 7. Models

Since the distribution of the dependent variable was left skewed, I transformed this variable into dichotomous variable, where 0 indicates no venturing and 1 indicates otherwise. Consequently, I employed logistic regression for the estimation of the model. Given the fact that domestic venturing and international expansion are limited dependent variables, analysis and interpretation is based on the guidance by Bowen and Wiersema (2004) and Wiersema and Bowen (2009). Unstandardized regression coefficients and changes in the amount of explained variance were examined for each model. White's (1980) test did not show evidence of heteroskedasticity problems.

## 8. Results

Descriptive statistics are presented in

Table 5. The first column shows the mean values for sample of 115 firms, while the next column shows the standard deviation. The minimum and maximum values for firms in this sample are presented in the last two columns. Intercorrelations among all study variables are presented in Table 6. Examination of the correlation table indicated that some correlations are statistically significant and some variables have moderately high correlations (i.e. CEO– board collaboration and board independence with 0.55). The correlations among the independent variables are relatively low, suggesting that multicollinearity is not a major issue. The data sets were also screened to ensure that assumptions of normality were not violated.

*Table 5. Descriptive Statistics*

Variables	Mean	s.d.	Minimum	Maximum
1. Domestic venturing	0.47	0.50	0	1
2. Duality	0.56	0.50	0	1
3. TMT board membership	0.46	0.20	0	1
4. Outside ratio	0.32	0.25	0	1
5. Board size	5.02	1.40	3	11
6. Listed firm	0.32	0.47	0	1
7. Firm size (log)	2.30	0.59	1.11	3.79
8. Firm assets (log)	11.04	0.83	9.00	12.83
9. Leverage	2.57	3.31	-1.88	21.06
10. Sale growth	3.54	1.19	1	6
11. State ownership	28.74	25.44	0	94
12. Managerial ownership	12.38	17.64	0	98
13. Institutional ownership	0.59	0.49	0	1
14. Foreign ownership	0.29	0.49	0	51
15. Ownership concentration	60.92	19.99	13	100
16. CEO age	51.71	7.51	35	65
17. Hanoi & HCM	0.23	0.42	0	1
18. Central- belonging cities	0.40	0.49	0	1
19. Type- II cities	0.16	0.37	0	1
20. Typ- III cities	0.21	0.41	0	1
21. Manufacturing	0.29	0.46	0	1
22. Service	0.24	0.43	0	1
23. Wholesale and retail	0.17	0.37	0	1
24. Finance and real estate	0.09	0.28	0	1
25. Utility service and construction	0.13	0.34	0	1
26. Conglomerate	0.09	0.28	0	1

Hypothesis 1 was developed drawn on stewardship theory, arguing that CEO- duality is positively related to domestic venturing. Hypothesis 1 is supported ( $\beta = 1.31$ ,  $z = 2.28$ ). The parameter estimate for the variable Duality in model 2 of Table 7 is the log- odds estimate of comparing the duality to the non- duality of having domestic venturing, given that the other variables are held constant in the model. The coefficient for Duality is 1.31. This means that, for a one- unit increase in duality (in other words, going from non- duality to duality), we expect a 1.31 increase in the log- odds of domestic venturing, holding all other independent variables constant.

Following stewardship theory, hypothesis 2 argues that more TMT members sitting on the board promote the privatised firms' entrepreneurial activities. The result provides no support for this hypothesis. As such, presentation of TMT on the board is not necessarily important for domestic venturing activities.

Drawing from resource dependence theory, Hypothesis 3 predicted that firms that have more outside directors would be more likely to be entrepreneurial. The results show that relationship between the external ratio and domestic venturing is statistically significant. The magnitude of the effects of CEO- duality on domestic venturing is positive ( $\beta = 3.96$ ,  $z = 2.80$ ).

In the same vein, using resource dependence theory, Hypothesis 4 posits that board size has a positive effect on domestic venturing. The firms with large boards are expected to have more resources brought by more board members, therefore having more entrepreneurial opportunities and more resources to engage in venturing activities. However, the models show no support for this hypothesis.

Table 6. Correlations between variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Domestic Venturing													
2. Duality	− 0.12												
3. TMT board membership	− 0.07	0.22*											
4. Outside ratio	0.20**	− 0.35***	− 0.54***										
5. Board size	0.29***	− 0.09	− 0.17**	0.04									
6. Listed firms	0.38***	− 0.24**	0.10	0.01	0.41***								
7. Firm size (log)	0.39***	− 0.15	− 0.00	0.06	0.39***	0.28***							
8. Firm assets (log)	0.57***	− 0.30***	− 0.12	0.07	0.52***	0.41***	0.70***						
9. Leverage	− 0.14	0.06	0.06	− 0.18*	− 0.10	− 0.23**	0.00	0.01					
10. Sale growth	0.28***	− 0.12	− 0.02	0.13	0.16*	0.01	0.28***	0.24***	− 0.11				
11. State− ownership	0.13	− 0.13	0.15	0.02	0.07	0.29***	0.18*	0.20**	− 0.15	0.09			
12. Managerial ownership	− 0.28***	0.36***	0.16*	− 0.26***	− 0.25***	− 0.37***	− 0.28***	− 0.33***	0.23**	− 0.22**	− 0.46***		
13. Institutional ownership	0.26***	− 0.17*	− 0.23**	0.21**	0.33***	0.22*	0.17	0.32***	− 0.19*	0.17*	0.01	− 0.34**	
14. Foreign ownership	0.32***	− 0.29***	− 0.08	0.00	0.32***	0.57***	0.19**	0.42***	− 0.09	0.07	0.14	− 0.30***	0.50***
15. Ownership concentration	− 0.17*	− 0.05	− 0.07	0.17*	− 0.23**	− 0.19**	− 0.11	− 0.14*	− 0.11	0.10	0.40***	0.22**	0.00
16. CEO age	− 0.27***	0.30***	0.25***	− 0.21**	− 0.05	0.08	− 0.26***	− 0.30***	− 0.14	− 0.08	0.10	0.09	− 0.21*
17. Hanoi & HCM	0.20**	− 0.07	− 0.05	− 0.02	0.01	− 0.05	0.27***	0.23**	0.01	0.05	− 0.02	0.01	0.16*
18. Central− belonging cities	0.12	− 0.07	− 0.04	0.05	0.11	0.17*	− 0.04	0.04	− 0.04	0.10	− 0.11	− 0.02	0.11
19. Type− II cities	0.02	0.14	0.20**	− 0.16*	0.05	0.02	− 0.03	0.02	0.08	0.01	0.27***	− 0.08	− 0.08
20. Type− III cities	− 0.36***	0.02	− 0.18**	0.11	− 0.17*	− 0.17*	− 0.20**	− 0.31***	− 0.03	− 0.18*	− 0.09	− 0.20*	− 0.31*
21. Manufacturing	− 0.06	− 0.25***	− 0.02	0.08	0.03	0.11	0.25***	0.17*	− 0.07	0.09	0.11	− 0.07	− 0.02
22. Service	− 0.16*	0.24***	0.07	− 0.10	− 0.02	− 0.16*	− 0.20**	− 0.30***	− 0.01	0.04	− 0.10	0.04	0.05
23. Whole sale and retail	− 0.09	− 0.03	− 0.03	0.07	0.01	0.00	− 0.09	− 0.11	0.06	− 0.06	− 0.05	0.01	0.04
24. Finance and real estate	0.14	0.02	− 0.13	0.01	− 0.09	− 0.08	− 0.08	0.19**	0.05	− 0.14	0.04	− 0.09	0.01
25. Utility service, construction	0.05	0.03	0.08	− 0.13	− 0.14	− 0.10	− 0.02	0.03	0.13	− 0.00	− 0.12	0.21**	− 0.10
26. Conglomerate	0.20**	0.02	− 0.07	0.04	0.26***	0.32***	0.06	0.12	− 0.14	− 0.01	0.12	− 0.12	0.01



Variable	14	15	16	17	18	19	20	21	22	23	24	25
12. Managerial ownership												
13. Institutional ownership												
14. Foreign ownership												
15. Ownership concentration	− 0.15											
16. CEO age	− 0.11	0.10										
17. Hanoi & HCM	− 0.02	− 0.02	− 0.24***									
18. Central– belonging cities	0.22*	− 0.17*	0.03	− 0.45***								
19. Type– II cities	− 0.06	0.13	0.24***	− 0.24**	− 0.36***							
20. Type– III cities	− 0.03	− 0.18*	− 0.00	− 0.28***	− 0.42***	− 0.23**						
21. Manufacturing	0.10	0.06	− 0.03	− 0.12	0.11	− 0.06	0.05					
22. Service	− 0.13	− 0.03	0.10	0.09	0.17*	− 0.07	− 0.24**	− 0.36***				
23. Whole sale and retail	− 0.03	0.03	− 0.07	− 0.07	− 0.08	− 0.06	0.23**	− 0.29***	− 0.25***			
24. Finance and real estate	− 0.06	− 0.03	− 0.17*	0.05	− 0.19**	0.04	0.14	− 0.20**	− 0.17*	− 0.14*		
25. Utility service and construction	− 0.08	0.01	0.07	0.16*	− 0.16*	0.12	− 0.07	− 0.25***	− 0.22**	− 0.17*	− 0.12	
26. Conglomerate	0.21*	− 0.10	0.07	− 0.09	0.12	0.03	− 0.08	− 0.13	− 0.17*	− 0.14	− 0.10	− 0.12

<sup>a</sup> Firm size was logged. Ownership is expressed as a percentage.  
 \*  $p \leq .10$     \*\*  $p \leq .05$     \*\*\*  $p \leq .01$

**Table 7.** Maximum– likelihood estimation of logistic regression: domestic venturing

Variables	Model 1			Model 2		
	Coef	s.e.	P– Value	Coef	s.e.	P– Value
<b>Intercept</b>	– 4.69	16.74	0.779	– 9.96	9.84	0.321
<b>Control</b>						
Traded on stock exchange	0.79	1.93	0.439			
Firm size (log employees)	0.23	1.07	0.833			
Firm assets (log)	2.33	0.88	0.008	2.37	0.64	0.000
Leverage	– 0.46	0.18	0.012	– 0.35	0.114	0.002
Sales growth	0.55	0.46	0.228			
State ownership	0.00	0.02	0.998			
Managerial ownership	0.02	0.04	0.592			
Institutional ownership	– 0.39	1.06	0.711			
Foreign ownership	1.22	1.01	0.226			
Ownership concentration	– 0.04	0.03	0.134			
CEO age	– 13.88	6.98	0.047	– 10.25	5.12	0.045
Central– belonging cities	– 0.24	0.95	0.797			
Type– II cities	– 0.67	1.22	0.582			
Type– III cities	– 3.72	1.42	0.009	– 0.61	0.59	0.306
Service	– 0.13	0.94	0.892			
Wholesale and retail	0.72	0.88	0.414			
Finance and real estate	2.35	1.41	0.097	0.80	1.03	0.437
Utility service and construction	1.02	1.64	0.533			
Conglomerate	3.42	2.37	0.150			
<b>Board Governance</b>						
Duality	1.92	0.89	0.030	1.31	0.58	0.023
TMT board membership	2.33	3.06	0.446	1.43	1.71	0.404
Outside ratio	6.00	2.11	0.004	3.96	1.41	0.005
Board size	– 0.19	0.26	0.465	– 0.08	0.24	0.727
Pseudo R <sup>2</sup>	0.57***			0.47***		
Wald chi2	59.47			32.01		
n	114			114		

## 9. Discussions

Some scholars have argued that agency theory is not applicable in transitional economies (M.W. Peng, 2004), this study employs stewardship and to examine the influence of CEO duality on four variables related to domestic venturing. The positive association between CEO duality and domestic venturing is consistent with the study by S.A. Zahra *et al.* (2000), who find that non–duality in medium– sized firms promotes domestic venturing. On the other hand, it reinforces studies on other emerging markets (Lau *et al.*, 2007; M.W. Peng *et al.*, 2007) who advocate the role of CEO duality in a transitional context. There are some possible explanations. Firstly, it may be that creating a new venture in transitional economies largely depends on the managerial ties of the managers with other firms and government staff (M. K. Peng & Luo, 2000), so that the combined role of the CEO and chairman could better help the managers to exploit effectively managerial ties and thus promote venture creation. Secondly, because venturing is a long– term investment that takes many years to get returns, this activity requires a strong commitment by the CEO to the firm. As such, CEO duality can provide enough incentives for this post to take risks and act on domestic venturing activities. TMT board membership in turn has no impact on

domestic venturing. Probably, the combined role of chairman and CEO has a sufficient incentive to promote domestic venturing. In addition, there is the fact that, in the firms where CEO is also the chairman, the power of this position is so strong that the other executive directors may not have enough power to implement their monitoring activities, unlike their counterparts in other firms.

Outside director representation is the most important determinant of domestic venturing. Not surprisingly, given the fact that many outside directors of privatised firms are members of SCIC or representatives of the government in ministries or local government, having more outside directors brings more connections with governments and affiliated agencies. This in turn provides firms with important information about industry and therefore creates more opportunities for new venture creation. Although this result is not consistent with the findings of S.A. Zahra *et al.* (2000), it could be explained by differences in institutional contexts, as mentioned above.

However, the current evidence does not support the argument that the firms with more board members will be more likely to have new business in domestic markets, due to more resources being brought about by the firms. Probably, for long– term decisions, such as venturing, there needs to be high commitment and cohesion among the board members. Also, creating new businesses depends on how the firms exploit the opportunities. Therefore, time for decision– making is an important fact, so that smaller boards may react more quickly to opportunities.

## 10. Contribution, Limitations, Future Research Directions

This study makes important contributions to both theory and practice. It expands the current theoretical understanding of the complicated relationships between issues related to board of directors and domestic venturing through the integration of multiple perspectives. The results contradict the findings provided in the studies of Zahra in S. A. Zahra (1996) and S.A. Zahra *et al.* (2000), two among the very limited empirical studies examining the relationships between board characteristics and domestic venturing.

This study has some limitations. The number of samples is limited at 115 privatised firms, which is quite small, resulting in a narrow range of comparisons between the groups. The lack of concrete information about relational dynamics of CEO– TMT– board and inside– outside relationships hinders the opportunity for multi– level of analysis (Young *et al.*, 2001). Therefore, a large sample with detailed information of boards of directors is a potential area for future research. Further, this study employs cross– sectional data, but it takes a long time for corporate governance factors to have an effect on entrepreneurial activities. Longitudinal surveys might better solve this problem.

Also, the firms sampled in this study are only privatised firms, and the results could not be generalizable to other types of firms, such as join– stock companies. A study of join– stock companies will enable us to make wider comparisons, and therefore obtain a more comprehensive view of corporate governance in institutional transition.

## 11. Policy implications

In Vietnam, CEO duality is seen by policy-makers to be a hurdle to effective corporate governance. Recently, the government issued circular No. 121/2012/TT-BTC, on June 16, 2012, by which public companies must adopt independent leadership structures. Nonetheless, a combined role is still allowed, if this consolidation is passed at the annual shareholder meeting. Before that, although the government has not issued any similar regulations, the government, through the Ministry of Finance, had encouraged the privatised firms to employ an independent leadership structure. However, the result suggests that separation is not necessary for the firms to be more entrepreneurial. The executive chairman could be more inclined to risky long-term

projects since they consider themselves as stewards who act and behave for the sake of shareholders' interests.

It asserts that policy-makers should concentrate on board composition. Indeed, during the privatisation process in Vietnam, the government have encouraged public firms to appoint outside directors onto boards and, on June 17 2012, the Ministry of Finance issued the circular No. 121/2012/TT-BTC of June 16, 2012 to require at least one third of people on boards of directors to be non-executive directors. Although the circular was issued recently, many privatised firms have tried to appoint outside directors before this. In particular, listed firms are more likely to appoint outside directors to increase the independence of the board. The result confirms this policy as a driver for the growth of the firms. However, it should be noted that the concern of the governance is to increase the independence of the board whereas this research is argued based on Resource Dependence Theory. As such, the government should look more closely into the details of the characteristics of the outside directors. Independent and affiliated outside directors should be separated from the view of the policy-makers.

## 12. Conclusions

This study adds to the limited empirical studies that simultaneously look at different aspects of the board of directors, providing a comprehensive view of how boards of directors influence domestic venturing. Clearly, this study highlights that the relationships between corporate governance and domestic venturing is complex, and may be contingent on many contextual factors. There needs to be more research investigating the relationships between board structure and characteristics and domestic venturing as well as other variables of corporate entrepreneurship. Further, since the survey method has limitation in understanding the insights of the phenomenon, in-depth studies are critical to enhance the knowledge of the dynamics underlying corporate governance in under-researched context as of transitional economies. The findings also corroborate the view that it is important to achieve the integration of multiple theories in examining the dynamic relationships between corporate governance and its outputs. This integration is important in advancing an integrated and dynamic view of corporate governance, especially in the context of non-Western economies.

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## THE NICHE MARKETING STRATEGIES FOR PERIODS OF RECESSION

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### Abstract

*The recession, coupled with the crisis events, does not have to result in a significant diminishment of the company's market share. One of the possibilities for maintaining the market share is to adjust the marketing strategy. The guidelines for adapting marketing strategies are based on the predictable behaviour patterns of target customers. The marketing planning is one of the prerequisites for determining profitable market niches, with regard to the quality standards, product recognisability and the required customer satisfaction. The current market practice inside the Republic of Croatia provides a basis for examining the relevant expert sample, thus elaborating the proposed model of forming an efficient niche marketing strategies during recession. The starting hypothesis is as follows: The marketing strategy of a market niche, adjusted to the predictable behaviour patterns of the customers, enables the preservation of the market share during recession. Hypothesis has tested by the comparative analysis of the frequently used marketing niche strategies and their repercussions on the underlying market share. With regard to the research findings, it is quite clear that companies doing business in certain sectors are able to maintain and enlarge market share. Redefining and adjusting the marketing strategy is a prerequisite for sale increase on chosen niche markets. Marketing strategies modified for the use in niche markets also require a variation of the marketing mix. The adjustment is achieved by alterations done to the assortment, price, promotional and the logistical mix. This research aims at providing the proposition of a model for the formation of a niche marketing strategy that preserves the market share during recession. The market research which ultimately aims at determining a desirable niche market should be supported by the activities contributing to the increased customer loyalty. Depositioning and repositioning efforts done by competing companies is effectively countered by a practice of continuous creation of new products. Also, the strategy of relaunching existing products when offering them to new segments is quite useful. The prediction of target customer behaviour during recession is greater as the ability of niche market positioning increases. With regard to the obtained research results, the work hypothesis has been tested, so it is possible to assert that the Marketing strategy for niche market, adjusted to the anticipatory customer behaviour enables the market share conservation during recession.*

**Key words:** marketing strategy, market niche, recession

### 1. Introduction

The market survival during the times of recession implies the keen insight into the causalities that govern the business environment of a particular company (Meža, Šerić, 2009). Sporadic practical examples point that doing business during the times of recession does not necessarily

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result in the diminishment of the market share. Those examples of business practice have in common the characteristic of modifying the focused marketing segments (Adair, 2007). Some researchers report the more pronounced importance of increasing perception of product desirability for the focused segment (Denny, 2006). The possibility of maintaining the market position at times lies in one of the existing market niches (Kotler, 2003). Modifying the marketing strategy to the new marked segment and the newly formed company image is an imperative during periods of recession (Šerić, 2003). Some researches suggest it is passivity (Meža, Šerić, 2009). Focusing the business's interests on one or several market niches makes the supply differentiation an absolute necessity. During this process, modifying one's marketing strategy is also crucial (Adair, 2007). Is it thus possible to propose a framework for the formation of efficient marketing strategies during the times of recession? The planned research will indicate whether it is possible to generalise the results of individual case studies, in order to reach a general implementation for the business practice.

### *1.1. Research goals*

During the periods of recession, each research with results pointing to the specific abilities needed for maintaining the market share of a particular company is useful. The gathered data is able to indicate what the advisable method for the formation of an effective marketing strategy to secure the market share for a company is. Based on such specific considerations, the basic goal of the planned research is to explore the practice of forming a company's marketing strategy for the market niches operating with profit. Particular focus will be on the marketing strategies developed by companies inside the Republic of Croatia, ones that have maintained or even increased their market share during the times of recession. Guidelines for establishing an efficient marketing strategy for niche markets during periods of recession represents the expected contribution of this research.

### *1.2. Research subject and methods*

The planned primary research will be carried out by using an expert sample consisting of various industries. Research will gather relevant data concerning the practical experiences of doing business in market niches. The basic research hypothesis is as follows: during the recession periods, in order to maintain the market share, it is necessary to reposition using an innovated marketing strategy aimed at market niches. The research subject consists of marketing strategies for companies operating on the market of the Republic of Croatia. This approach also assumes the modification of marketing strategies, in order to match the altered customer behaviour. The research methods used in this paper are: inductive and deductive method (the monitoring of trends and market share variations of the sampled companies); the method of causal induction (the analysis of sample variation and the resulting change in market share); classification method (sorting the research results); comparative method (the analysis of market niche particularities sampled companies do business in); descriptive statistics (survey data analysis). Pretesting was used to determine the criteria companies must match in order to be sampled (operating with profit during the recession period), as well as the criteria needed for a separate, special analysis (the companies maintaining or even increasing their market share during recession). Considering the fact that research deals with trade secrets, the names of particular businesses will not be disclosed. Only information given will be particular industry sectors each business operates in, which will be used to determine sectors better resisting the influence of recession.

## **2. Recession repercussion on the business activities inside the Republic of Croatia**

The repercussions of a global recession are transferred to national markets. Republic of Croatia did not manage to avoid such a fate. The transitional consequences (privatization, the change of the financial institution's proprietary structure, et al.) have added to the difficult conditions of business dealings. In order to find means for market survival, the companies modified their existing portfolio structure supply range, marketing communication, et al. Often it is necessary to modify the marketing strategy to new business conditions and especially the newly emerging market segments that companies want to target (Meža, Šerić, 2009). The consequence is the companies' reduced market share (Adair, 2007). Market developments during recession are quite hard to anticipate when one uses neo-Marxist or neo-liberal economic theories. The standardised instruments of crisis management and financial restructuring are insufficient when maintain the companies' market share (Ang, 2001). The additional problem for the market of Republic of Croatia is that current fiscal policy does not provide expansive and anti-cyclic influence (the use of financial repression, by enacting increased taxes and increase in number of those affected by those taxes only serves to additionally decrease the spending). Is redefining the companies' market strategy and niche positioning able to diminish the risk of market share diminishment? The decreased foreign demand additionally complicates the already complex existing conditions influencing the national market. The possibilities of domestic and foreign borrowing are diminished, whilst the costs of borrowing are on the constant rise, which limits the capabilities of managing the supply range. The individual domestic business cases nevertheless imply that maintaining market share is a possibility. Managers on the market of the Republic of Croatia are primarily focused on decreasing the costs and implementing a more stringent financial control. The sectors most severely impacted by recession are construction and commerce. The Programme of Economical Recovery, adopted by the Government of Croatia in the April of 2010, defined the scope of much needed proactive measures: modifying the role of the state, supporting the recovery and the economic growth, as well as responsible operations on the larger, national level. The governing political change that transpired in the mean time has slowed the planned measures. Because of the mentioned conditions, the terms of doing business in the Republic of Croatia's market are still quite complex, and are not inducing the desired interest of foreign investors. Aside from business rationalization and decrease of research costs, the business experiences on the Croatia's market show it is advisable to evaluate the company's market position and to accordingly redefine the marketing strategy, in order to adequately position inside a niche market.

### ***2.1. The status of individual business sectors in the Republic of Croatia***

Domestically, the food industry has annual revenue of over 4 billion Euros. This sector has significant number of companies operating in it because of the fact that the EU market annually spends approximately 900 billion Euros on the products of the sector. Market trends also point to the ever more prevalent domestic food preparation, therefore it is recommended to adjust the product range accordingly. Within the Republic of Croatia, the food sector generates the biggest profits, whilst employing the largest number of workers. Food production and processing is the business activity of over 2800 business entities. The liberalization of food imports from other EU members represents a threat, but also a challenge to strengthen competitiveness. Niche positioning within the domestic market is also utilizable for the entire EU market. The carried exploratory research has pointed out the importance of managing new product development, improving technological procedures, rationalising the manufacturing costs, establishing strategic partnerships, modifying the product range, whilst acknowledging the subsegmentation peculiarities of an advis-

able positioning niche marketing strategy when doing business inside this particular industrial sector.

The trade services also represent a significant sector within the Republic of Croatia's economy. Recession consequences for this particular sector manifest as diminished purchasing power, purchasing rationalization and optimisation. The Croatia's business experiences reveal that loyalty of a certain segment during periods of recession is obtained by strengthening the companies' image and its trustworthiness. In practice, this is achieved by differentiating presale and post-sale services, as well as other marketing activities. The companies marketing fast-moving consumer goods are less exposed to the effects of diminished private consumption. The increased competitiveness within the sector affects the reduction of market share. When considering the products meant to fulfil secondary and tertiary needs, the business risks are even greater, thus the competition diminishes. Because of the growing unemployment and lower purchasing power, the level of consumer optimism is also reduced. Therefore, it is imperative to redefine and reposition the marketing strategy, in order to correspond to the acceptable niche market. The exploratory research done by the author (Šerić, Uglešić, 2013) indicates to the various efforts at modifying the marketing strategies, in order to position one's company on the chosen niche market. Apart from the strategy consisting of adjusting the prices to the chosen marketing segment, the following measures are also needed: the implementation of strategies adjusting the promotional mix to the targeted segment, the increase in the range of branded products, mergers and acquisitions in order to redefine the market image, etc.

During the periods of recession, the construction industry within the Republic of Croatia suffers because of reduced demand and investments. The national implementing measures have been enacted only recently, so the companies tried to ensure market survival using market repositioning, while some small and middle-sized businesses attempted to modify the marketing strategy and reposition on the chosen market niches. The exploratory research discovered the measures of implementing product innovation, strengthening the company's image and quality management, equipping the newly built flats with basic amenities, et al.

The companies operating within the IT industry have also suffered significant consequences in the primary phase of the recession. Significant amounts of outgoing invoices remained outstanding, because of the financial difficulties that have befallen on the customers buying IT solutions and applications. Another consequence was also the bankruptcy of some small companies within the industry. A modest incentive to the remaining IT companies came in the form of recently adopted legal provisions, which prescribe the total informatization of business operations within the Republic of Croatia. During recession, the managers became increasingly aware that modified IT tools are the precondition for effective business management operations, which also positively reflect on this entire industrial sector. The prevailing marketing strategies mostly deal with product development and the modification of new products, as well as the specialisation and differentiation, in order to market in certain market niches.

The tourism is qualified as a strategic sector of the Republic of Croatia's economy. Despite the outcomes of the global recession, this industry exhibits the increase in profits, coupled with the extension of the tourist season. It is a consequence of a more effective promotion of valuable tourism resources, which consequentially changes the national tourist structure within the Republic of Croatia. Thus redefining the marketing strategy for tourism destinations, as well as the entire national tourism, represents an imperative. The implemented marketing strategies observed within the scope of the carried exploratory research deal with the following: repositioning of the enriched tourism services, subsegmentation, branding of a particular tourism resource, subject, destination and tourist manifestation, implementing the differentiation strategy by introducing premium prices and the corresponding levels of supply, et. al.

## ***2.2. Conclusion of the exploratory research***

The following structural factors – labour market regulation, tax policy, subsidising policies, trade restrictions, etc., will continue to influence the economy of Republic of Croatia. International cooperation and business integration are therefore imperative. This, in turn, can strengthen the competitive position on the global market. The experiences of numerous companies point to the advantage of repositioning in a niche market, a feat conditioned on the ability of modifying the marketing strategy. The diminishing of the demand on both the domestic and foreign markets can be offsetted by increasing the competitiveness of the product range. The same outcome can be achieved by implementing differentiation, specialisation and other strategies. Subsegmentation is also a viable and advisable strategy, as well as modifying the marketing communication to correspond to the targeted segment of a chosen market niche. Unless no effort is done to offset the crisis effects, the lowering of market share is unavoidable because of high unemployment, loan restrictions and the diminished purchasing power. Although the central bank of the Republic of Croatia lowered the reserve requirements for the secondary banks, it is necessary to implement further measures to abate the effects of recession. In the mean time, it is advisable for companies to reevaluate their market position and redefine their market approach and marketing strategy. Positive business practices determined by this exploratory research present a sound basis for redefining the marketing strategy and niche market positioning.

## **3. The marketing strategies for market niches**

The market segments have been narrowing during the last decades, both in terms of characteristics, as well as preferences (Kotler, 2003). The particularities of the targeted segment are the acceptable starting point when redefining the niche marketing strategy. The increased niche market differentiation serves to strengthen competitiveness (Ang, 2001). When making a decision considering the redefining of a particular niche marketing strategy, it is crucial to take into consideration the current attitudes of the targeted marketing segment. The process of marketing products on a particular market niche assumes adjusting the product range and the promotional mix. On this implemental level, it is possible to address this using the umbrella term of micro-marketing. When considering price management, marketing a product on a particular niche market yields exact additional value because it signifies increased competitive advantage on a particular market segment. Before the marketing strategy is redefined, market segmentation has to be carried out, target segments and subsegments defined and thus a single or more acceptable market niches selected.

### ***3.1. Theoretical approaches***

The niche marketing strategies mentioned in theory should not be generalised and applied to the present business conditions because of the narrowing market segments. When deciding on positioning within a particular niche market, the business should take into account perceptions and the prevalent system of values of that specific market segment. The approach to differentiation remains the cornerstone of strengthening competitiveness. This way, the company strengthens the specialisation of serving the chosen segment, which can ensure the preservation of the market share, as well as ensuring the market share growth and the rise in business activity. By ensuring a prominent position within the consciousness of target customers, the company ensures continuous sales growth. The competitive advantage should be achieved with long-term goals in mind. One should ensure the constant customer exposure to aggressive promotion, therefore managing the promotional mix, tailoring it to the values held by the targeted market segment (Murray, 2004). The basis of redefining the marketing strategy is an advisable method of developing specific



customer needs. This approach represents the fastest means of determining a lasting market niche, one where not only preservation, but also the expansion of market share is possible. The postulate for an effective market niche positioning (Kotler, 2003) can be operationalised in the following manner:

1. *Monosegment positioning* – involves developing a product-and-marketing program tailored to the preferences of a single market segment;
2. *Multisegment positioning* – implemented by using the commercialization strategy and adequate promotion mix, with the goal of attracting consumers from different segments.
3. *Standby positioning* – implementing the product management strategy and the corresponding promotional strategy in order to ensure the maintenance of the existing product, brand and company image;
4. *Imitative positioning* – a strategy where a new brand targets a position similar to that of an existing, successful one, produced by the competitor;
5. *Anticipatory positioning* – the repositioning marketing strategy is based on anticipation of the evolution of a segment's needs;
6. *Adaptive positioning* – consists of periodically repositioning a brand to correspond with the evolution of the segment's needs;
7. *Defensive positioning* – consists of redefining the current marketing strategy, with the goal of protecting a potentially vulnerable market position, due to the possible competitive positioning in the same market niche with the use of similar, imitator products.

It is useful to also present the approach suggested by Ries & Trout (Kotler, 2003):

- Strengthening the current brand position within the customer's consciousness, regardless of the companies' position (whether it is the one of leader or challenger).
- Finding an unoccupied market niche, one holding a sufficient number of customers, whose loyalty may also be preserved in the future.
- Competitive depositioning and repositioning, using adequate promotional activities (by accenting the relevant information that influences the customer perceptions).

### ***3.2. Suggestions concerning the various theoretical approaches***

The act of redefining the marketing strategy should be supported by the modifications in product range, chosen brand management activities, change in prices, packaging modifications, pre-sale and post-sale services, etc. The modifications should be based on the peculiarities of the targeted segment, as well as the characteristics of the marketed product, its category and range. When considering the technical products, post-sale services are of the utmost importance. With the products of large sale volumes, delivery is crucial. The niche marketing strategy may be also based on secondary and tertiary product characteristics, as well as the existing complementary products. Special serviceability features, as well as specificities of product extensions contribute to the ability of the company to differentiate, thus indirectly strengthening the company's competitiveness. These all constitute options which may contribute to the preservation and / or increase of the market share during recession periods. The effectiveness of a particular repositioning marketing strategy may be assessed on the product category level, the brand level, etc. Customer perception, substitute risks and various other factors are analysed. The final selection and modification of the niche marketing strategy is done with regard to long-term product strategy and brand management, as well as the business environment analysis. Thus redefined, the marketing strategy should match the preferences of the target segment, all the while considering all the relationships governing the market's state.



## 4. Sample research and results

### 4.1. Research sample and general results

The research was done on the sample of 89 companies in Croatia. The pre-test determined which companies should be included into the research (those that: operate with profit, modify and remodel their marketing strategies to target specific market segments, do business in specific market niches, etc). Survey questionnaire was completed by authorised managers. The following tables depict the structure and type of companies contained within the sample.

*Table 1. The sampled companies by sector*

INDUSTRY SECTOR	NO. OF COMPANIES
FOOD INDUSTRY	22
COMMERCE	28
CONSTRUCTION	10
IT INDUSTRY	14
TOURISM	15

*Source: Author research, 2013.*

*Table 2. The companies' business experience (in years)*

Years in business	Food Industry	Commerce	Construction	IT Industry	Tourism
0-3	0	0	0	3	0
4-7	2	3	0	5	6
8-11	3	5	3	3	4
12-15	10	16	4	2	5
16-19	7	4	3	1	0
20 and more	0	0	0	0	0

*Source: Author research, 2013.*

The answers obtained by the survey point that the food industry companies readily meet new market demands. Those focused on narrower segments base their business practices on the strategy of developing new categories of products, the growth of product range and the strengthening of image using product branding. The commerce companies sampled are mostly small and middle-sized. They are characterised by degrading sale capacities and business processes. The factors limiting expansion are lower turnovers and a lower gross margin per each employee. The strategies proving to be effective for the commercial sector are based on employee education and specialization, finding narrow niche markets, where the company offers a deeper assortment of products, when compared to large retail chains. The change of customer behaviour in the construction sector is caused by the general state of the economy, the diminishment of personal income and the increase in unemployment. The customers are quite aware of the existing condition, so they strive to invest into real estate optimally. The strategies enabling the preservation of the market share are based on the basic or very basic amenities, specialization of the offer in order to meet the needs of particular age groups, by ensuring more economic costs of living (building constructions with high energy class characteristics, etc.). The recession also influenced the IT sector, by lowering demand, which sampled companies tried to offset by modifying and adjusting the offered product assortment. Strategies proving to be effective when maintaining the market share are specialization (which ensures the production of very specific IT products, which ensure immediate benefits for the customer, quite often lowering overhead costs), as well as the low pricing strategy (especially for the products required by the recently adopted regulation). The projects of developing new products are continuously being set in motion, even during the recession.

During the periods of recession, the tourism sector exhibits continuous growth, thanks to the adjustment and specialization of supply to specific markets, the broadening of assortment, the integration of individual tourism products, and the activities aimed at strengthening the tourism brand, etc. With regard to the option of repositioning to some other segment, the officials of 80 companies deem managing internal assets, education investing and improving business functions as measures able to ensure market survival. The representatives of 9 companies regard the latter activities as insufficient at guaranteeing the market survival. The diminishment of market share is an unavoidable occurrence during recession for 85 managers. Only 4 people think that it is possible for a company operating during recession to maintain the existing market share or to even expand it. In spite of profitable business dealings, 80 companies experience the diminishment of market share during recession. From the sampled companies, 26 officials think that focusing on the market niches during recession is neither recommended nor profitable, 10 managers are ambiguous, and 43 people partially agrees with the assertion that focusing the niche market is not significantly profitable. The officials from remaining 10 companies think that niche market positioning is extremely profitable. From the sampled 89 companies, 11 managers have constantly introduced new products and services in the last few years. Among these 11 companies, 9 companies managed to maintain or increase market share. During the recession period, 78 companies narrowed the product assortment and all of them have also reduced their market share. The prevalent number of managers of the sampled companies strives to abandon the low-profitability segments, with the goal of adjusting the supply to a narrower market segment, one characterised by less competitors. The research also indicates that 9 of 89 companies sampled are positioned in the profitable market niches, thus maintaining or increasing their market share. The following chapter concentrates on the business experiences of these 9 companies, which are crucial for the stated research problem.

#### *4.2. Useful research results of the 9 exceptionally successful sampled companies*

Within this group, characterised by the ability to maintain or expand the market share, 6 are doing business in the tourism sector, the rest in the IT sector. All of them have changed target segments during the last years. The remaining 80 companies, which have evidently lowered their market share recently, have also serviced mostly the same market segments. From 9 sampled companies that maintained or increased their market share, 6 have obtained one or more new segments, focusing the market niche by relaunching an existing product to another niche. The experiences submitted by the research results indicate that the most advisable market niches are: medical tourism, counselling, software creation, ship repair and expert maintenance. From the 9 companies expanding their market share, 6 deem elimination of insufficiently profitable products and the importance of introducing new companies imperative. There are 3 companies basing their market share growth primarily on the innovative approach to marketing strategy. From the 9 mentioned companies, 5 of them identified new niche markets by using benchmarking tools on the foreign market and the 4 remaining companies monitored the domestic market trends and competition.

The research results point that 5 of 9 companies gaining in market share deem additional investments into business operation necessary. The remaining 4 companies think new investments are unnecessary. With regard to redefining the marketing mix, 4 companies hold identical approaches to all the markets they do business on and 3 companies continuously improve their product management activities. There are 2 companies continuously adapting their assortment, price and distribution to the target segments. With regard to the characteristics of targeted segments, from the 9 companies experiencing market share growth, 7 are focused on the segments characterised by price elasticity and 2 have focused their business offer on the more opulent segments. With regard to the supply quality, from 9 companies, 6 offer products that are of a higher average quality than their competition, while 3 remaining companies have products of lower quality and price

in terms of market average. With regard to product price, 7 companies base their supply on pricing lower than that of the competition, 2 companies on higher prices. When considering promotional activities, 5 companies primarily use the Internet (web page and social networks), 3 companies primarily make use of PR through specialised magazines. A single company uses electronic media as the main means of communicating with target segments. The distribution on the domestic and foreign markets is based on agents and representatives for 5 companies, while the remaining 4 companies rely solely on e-commerce tools.

## 5. Conclusion

The profitability of a particular niche market during recession depends on its size and the segment's price elasticity. It is obvious that managers of most companies have not completely comprehended the importance of standards governing the niches they serve. By continuous monitoring and segmentation, it is possible to find a desirable niche, one not perceived by the competition. The marketing planning is one of the prerequisites for determining profitable market niches, with regard to the quality standards, product recognisability and the required customer satisfaction. With regard to the obtained research results, the work hypothesis has been tested, so it is possible to assert that the marketing strategy for niche market, adjusted to the anticipatory customer behaviour enables the market share conservation during recession. It is quite clear that companies doing business in certain sectors are able to maintain and enlarge market share. Redefining and adjusting the marketing strategy is a prerequisite for sale increase on chosen niche markets. Operational experiences point to the importance of strategic approach of monosegment positioning and imitational positioning combined with the anticipatory positioning. The market research which ultimately aims at determining a desirable niche market should be supported by the activities contributing to the increased customer loyalty. Depositioning and repositioning efforts done by competing companies is effectively countered by a practice of continuous creation of new products. The prediction of target customer behaviour during recession is greater as the ability of niche market positioning increases. The marketing strategy modified for a niche market also assumes a marketing mix in tune with the expectations of the target segments. Based on the experiences of sampled companies, which managed to preserve or expand market share, redefining the marketing mix assumes assortment modifications, change in price policy (lowering price), as well as promotional and logistical mix (this remains especially advisable when dealing with e-marketing and e-commerce).

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## THE APPLICATION OF BENCHMARKING BY LOCAL GOVERNMENTS TO INCREASE THE CAPACITY FOR STRATEGIC PLANNING OF LOCAL DEVELOPMENT

Željka PEJIĆ<sup>131</sup>

### Abstract

*The impact of the environment on local government is also evident in the way in which the local government adopts or rejects actions and reactions of its external environment. Benchmarking in this sense enables strategic defining of important feedback from the environment on which the local government depends. The external environment of local government implies the effects on social and business plan. Benchmarking in this role may also be applicable as a business and as a social tool, but the optimal application is a strategic approach by which, based on benchmarking, both business and social effects are achieved. For a local government, benchmarking as a strategic tool has importance because of the necessity of the accomplishment of public interest and the implementation of projects on which economy of the local government depends, as well as the development of the local community. In Bosnia and Herzegovina, only 17% of local governments apply a model of benchmarking in the processes of strategic planning. Regional centers lead in the benchmarking application, but the study shows that 30% of the local communities which population is up to 20 000 have local governments which apply good practices of local governments from European countries. That percentage is significantly lower for the project implementation processes defined in the strategies of the integrated local development. Benchmarking, as an effective model of learning from better ones is applied in the area of town planning, administrative services and information technologies. As the study, which has been conducted for the purposes of this paper, shows, the development of a local community, and at the same time the development of the local government, directly affects the applicability of benchmarking. It is interesting that benchmarking, as a model of learning, is more applied by civil servants within municipal services, whereas the local government top management, in other words, municipal mayors and their assistants use benchmarking as a strategic tool in just 6% of the local governments. Local communities in which benchmarking is not applied have significantly lower rate of development, as well as a smaller number of implemented projects from the strategic documents at an annual level. The conducted study is quite relevant, as it shows the extent of the idle capacities and resources in the local governments in Bosnia and Herzegovina, by which employment strategic planning becomes effective, which is particularly noticeable in the development of local economy.*

**Keywords:** benchmarking model, local government, strategic planning, local development, local community

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## 1. Introduction

Applicability of benchmarking is particularly significant in crises, whether a communication crisis or even the global economic crisis. Adaptability when local self-government needs a ready and an already tested solution for a problem is critical for the future survival, development and accomplishment of strategic goals. Traditionally, Bosnia and Herzegovina was able to balance between two models. One model that promotes single solution for management (at the state level) introduced everywhere in order to ensure consistency and efficacy in implementation, and the other model according to which local self-governments would be allowed to manage within the generic framework that would enable each self-government to choose its self-governing reform tools and decide how and when to apply them. The latter model has the advantage to maximize the ownership of staff over the changes, but it can also result in a very uneven situation in which some organizations have moved off much further than the others have. Therefore, the situation in Bosnia and Herzegovina obviously favors the single model at the state level. *“The state level for the introduction of a single model for all local self-governments would be the only sensible solution as, if it is implemented from a lower level, coordination problem and other related problems (a lack of resources, time or funds) would increase.”* (Draganić, 2004, p.21)

Theoreticians of local self-government management therefore impose the necessity for adoption of a benchmarking model. However, if benchmarking was customized for the needs of a state in order to solve problems and essential issues of local self-governments, then we would get a standardized model of learning and adjustment to practices that are more successful than ours are. Nevertheless, if we look at the development of local communities in Bosnia and Herzegovina, we can see that the local communities do not have the identical degree of development and that the priorities differ. For example, the priority of the Dobož Istok Municipality is establishment of adequate social infrastructure, or to be more precise a construction of a sewage system, whereas the priority of the Tuzla Municipality is activation of entrepreneurship. If we had a standardized model of benchmarking, there would be misbalance in the development of individual local communities. Development should be adjusted to the capacities of a local community, just as the benchmarking.

## 2. The theoretical bases of benchmarking

Benchmarking “implies learning, information exchange and adoption of the best practices in order to achieve gradual changes in performances”. Moreover, the same author states: “benchmarking is a principle according to which competitiveness increases.” “A benchmarking approach has become established in successful companies as an instrument for finding out an innovation outside the paradigm of the industry.” (Draganić, 2004, p.21). To make it simple, benchmarking represents “Personal improvement according to learning from others”. In practice, it includes identification of differences in performances, looking for adequate solutions for improvement, implementation of the solutions and process of monitoring as well as the benefit analysis. In the wider sense, benchmarking represents a comparative assessment of performances. In the narrower sense, benchmarking represents a process of identification and application of the best practices to improve performances. For many organizations, benchmarking and the best practices have become the foundation stone of their success, which has lead to even more interest in these processes.

In practice, benchmarking includes (Draganić, 2004, pp.21-26):

- Regular comparison of performance aspects (functions, processes or results) with the holders of best practices;
- Identification of gaps in performances;
- Finding fresh approaches that would lead to improvement of performances;



- Implementation along with introduction of improvements; and
- Monitoring by supervising progress and reviewing benefits

The above reports have shown that benchmarking is the third most frequently used tool of the management (Serge, 2002, p.37) in local self-governments in the world. Therefore, the definition of benchmarking from the context of management would be the most appropriate. As Vidović (2004) has said in his master's thesis "*Qualitative Analyses and Benchmarking in the Function of Sales Improvement*" (Vidović, 2004, p.85) "*Benchmarking is one of the new tools in the field of quality (...) an effort to be the best of the best*". Observed from the point of view of local self-government a necessity to be the best of the best is not related to the competition as seen in classical market, but it is primarily related to the increase in competitiveness in providing public services. Therefore, benchmarking is a coupling of local self-government and public sector in general. For the last few years, the organizations from public sector in the world have been gradually turning towards benchmarking of their public services. In the public sector in Great Britain, for example, benchmarking is recognized as a powerful tool for improvement and introduction of those changes that are necessary for provision of contemporary public services (Draganić, 2004, p.14). It is also being recognized that efficient and effective public services play a vital role in the improvement of private sector competitiveness, reducing the burden of business cost and following rules. Benchmarking is one of the ways to provide necessary stimulus for the change in the implementation of the main and supporting activities and for raising standards of public services spreading good practices. Encouraging widely present and systematic usage of benchmarking in public sector may help improve the performances as well as individual and organized learning (Serge, 2002, p.42).

*The form of learning from each other* is the main determinant of benchmarking. Benchmarking is the foundation according to which organizations learn about each other, from each other and towards each other (Peters, 2006, p.19). Such relationship between learning and local self-government, applicable through benchmarking is also the basis for the process of reform in which local self-government faces a number of new and unfamiliar situations. Learning implies continuity and applicability, practicality of knowledge in the full meaning of the word. Benchmarking provides that to local self-government, because knowledge as such, is useless if its principles cannot be applied to concrete solutions for the issues that are important for local community. The practice of others is an optimal solution for local self-governments that are unable to invest capacities, funds and time to gain experience and develop the practice into a concrete solution or a model. Although many authors equate benchmarking with quality management, it is important to emphasize that the purpose of benchmarking is not to improve quality of a service, process or conduct of local self-government. The goal of benchmarking is immediate fulfillment of the need for concrete, practical, tested and successful solution to a problem according to experiences of others. Practical knowledge in this sense does not have to increase the quality, but that may be a consequence of the benchmarking solution efficacy.

Pavičić and Renko (1999, p.99) stated "Benchmarking is defined as a search for people and organizations that are the best in the activities they do and putting their knowledge, adjusted and enriched, in the function of our successful conduct". According to these authors, local self-government should have the initiative for benchmarking process, and not the state as it used to be the practice. Local self-governments are unique; therefore, the management of local self-government can best detect issues for which different or better practice would give results. "Benchmarking is a method of creating values by local self-government according to mistakes made by others" (Mark, 2002, p.76). This is how he has defined benchmarking, emphasizing that local self-governments, besides learning from good practices of other local self-governments, notice at the same time possible mistakes and correct them creating benchmarking chain and improving solutions. An interesting definition of benchmarking is given in a book *Performance Evaluation and Benchmarking*: "that is a model defined according to the real situation, evaluated at the given moment and applicable to the same or similar situations, but at another location" (Eechkout and



Kurian, 2006, p.20). Finally, benchmarking may be defined as an applicable model, developed in the practice of one local self-government as the result of attempts to find the optimal solution to a certain problem. Benchmarking model makes sense only when some other local self-government uses it, enhances it and improves it through learning processes of observation and adaptation to other local self-government and new conditions in the environment that have caused a new and unknown situation.

### ***2.1. Division of benchmarking and the application of the optimal model in local self-governments***

Most theoreticians distinguish only internal and external benchmarking. However, benchmarking is a complex concept and therefore it is necessary to consider a more complex differentiation of benchmarking. Classifications of benchmarking differ by the object of analysis – whether an entire organization or just certain processes are being benchmarked. In an article *Benchmarking as an Instrument of Contemporary Controlling* authors stated “when differentiating benchmarking according to kinds, it is important to start with the question what is the organization compared to and what it is being compared” (Osmanagić-Bedenik and Ivezić, 2006, p.334). Benchmarking is a very flexible tool that may be applied in several ways in order to fulfill a number of requests for improvement (Alkier Radnić, and Vizjak, 2006, p.176). Standard classification of benchmarking includes:

1. Strategic benchmarking is used where organizations attempt to improve their total performance examining long-term strategies and general approaches according to which those with high performance have succeeded. It implies consideration of aspects at high level such as the main competence, development of new products and services; change in the activity balance; and improvement of the abilities to be engaged in changes in certain environment.
2. Benchmarking performances, competitive benchmarking or benchmarking of the results is used where organizations consider their positions with regard to performance characteristics of key products and services.
3. Process benchmarking is used when the focus is on the improvement of specific critical processes and operations. Benchmarking partners are looked for in organizations with the best practice that are engaged in the same business or provide similar services.
4. Functional benchmarking or generic benchmarking is used when organizations want to compare themselves with their partners that operate in different business sectors or areas of activity in order to find out a way to improve similar functions or work processes. This kind of benchmarking may lead to innovation and dramatic improvements.
5. Internal benchmarking implies searching for partners within the same organization, for example, in the business units that are located in different places. The main advantages of the internal benchmarking are those that the approach to confidential information and data is easier, standardized information is usually instantly available, and usually request less time and fund.
6. External benchmarking implies searching for external organizations that are known as the best in class. External benchmarking provides opportunities for learning from those who are leading in the field, although, we have to remember that not every solution from good practice can be applied to others.
7. International benchmarking is a benchmarking where partners are searched for in other countries, because the best practitioners are located somewhere in the world and/or there are not enough 'benchmarking' partners in the same country to obtain valid results.

### 3. Application of benchmarking in local self-governments in Bosnia and Herzegovina

The impact of the environment on local self-government is also evident in the way in which the local self-government adopts or rejects the actions and reactions of its external environment. Benchmarking in this sense enables strategic defining of important feedback from the environment on which the local self-government depends. However, the primary environment of the local self-government is the local community itself, with all its subjects. However, benchmarking implies a wide spectrum of impacts and potential partners for implementation and learning from good practices. (Stapenhurst, 2009, pp.14-19) The external environment of the local self-government implies impacts upon social and business plan. Benchmarking in this role may be applicable as a business as well as a social tool, but the optimal application is the strategic approach in which, according to benchmarking, both business and social effects are achieved. For local self-government, benchmarking as a strategic tool has importance because of the need to fulfill public interest and implementation of projects on which the business activity of the local self-government depends, as well as the development of the local community. The scheme presented is adjusted for a company, but the principles are applied to local self-government, too. It is easy to notice the relationship between local self-government as a company and the environment and the need to use benchmarking. The strategic approach and the answer to the question whether local self-government should use practices of others and apply benchmarking in concrete issues are seen in the following four elements:

1. *Scanning of general or social environment* – local self-government is obliged as the management of the local community to identify, scan and consider public interests and needs of the social environment in which it exists. The importance of certain issue is the first step towards deciding whether or which benchmarking to apply.
2. *Analysis and evaluation of vulnerability* – even though benchmarking has mainly positive effects, the evaluation of vulnerability of possible crises for local self-government is unquestionable. Benchmarking is a strategic tool in solving and implementation of new solutions, but the preparatory phase of the implementation and the application of benchmarking imply usage of strategic tools.
3. *Analysis and evaluation of technology* – local self-governments at every moment, just as companies do, have to know what resources they have at their disposal. Criticism and objectivity are key determinants in the selection of the kind of benchmarking.
4. *Analysis and prognosis of the degree of the development of local self-government* – benchmarking needs to bring a shift towards the development of local self-government and local community, but by the strategic approach the local self-government should foresee the degree of the development and contribution.

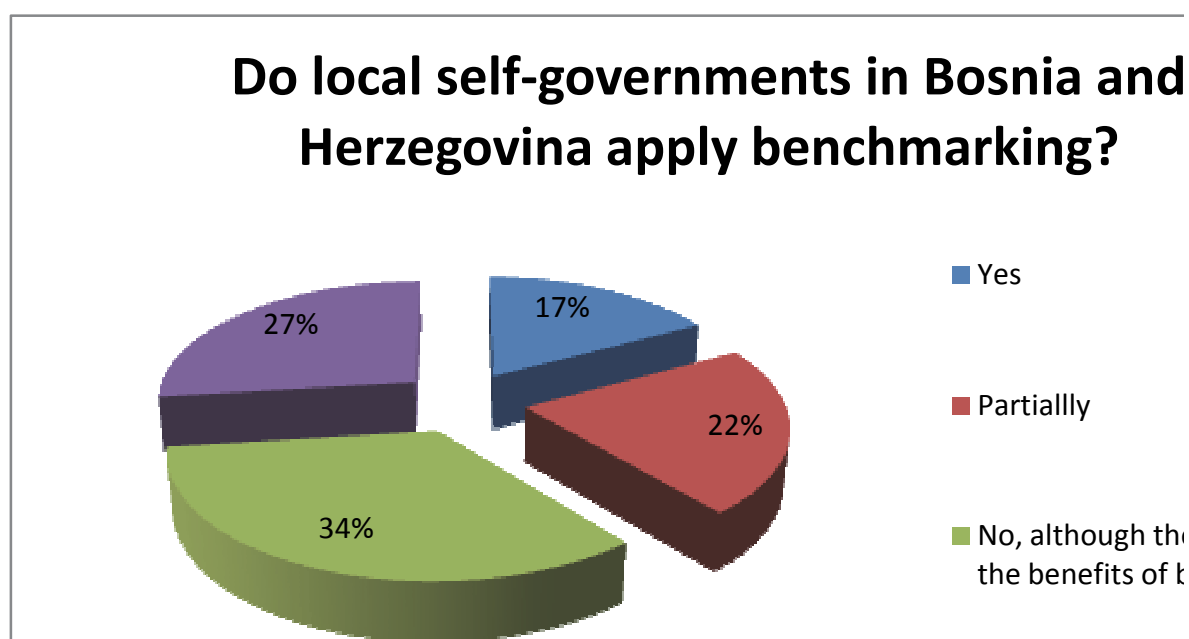
After the SWOT analysis, local self-government target the benchmarking partners with concrete good practices related to particular field or problem. The freedom of choice of benchmarking partners creates an advantage for local self-government that specialized profit organizations and companies do not have. (Wadden 2009, p.27) *“The strategic planning is a way to define priorities and decisions about the future. All companies and nonprofit organizations as well as local self-governments, in other words cities regardless their current state, have to develop a long-term strategy to respond to shifting conditions in their activity. They have to develop a procedure plan to achieve their long-term goals. There is not just one strategy that would be optimal for all companies, all firms or all cities.”*

Bosnia and Herzegovina officially has 142 local communities, of which 79 in the Federation of Bosnia and Herzegovina and 62 in the Republic of Srpska. The Brčko district is an administrative unit on its own. For the purpose of the research, the municipalities have been divided into three groups, depending on the number of citizens or the size of the municipality. The sample on which

the research has been conducted is 24.6% of the total number of all the municipalities in Bosnia and Herzegovina. Group 1 includes the municipalities with the population of up to 20 000, Group 2 includes more than 50% of the municipalities in Bosnia and Herzegovina with the population between 20 000 and 50 000, whereas in the Group 3 were the municipalities with the population from 50 000 to 100 000. Regional centers (6) have the population over 100 000. According to the population criteria, medium developed local communities, which have between 50 000 and 100 000 citizens, make only 9.8% of the total number of all local communities in Bosnia and Herzegovina. If we accept the OECD's criteria for the development, according to which the highest growth rate is reached by local communities and regions with the population between 20 000 and 50 000, then we can conclude that Bosnia and Herzegovina should direct its development at local level at the development of local communities which population is up to 50 000.

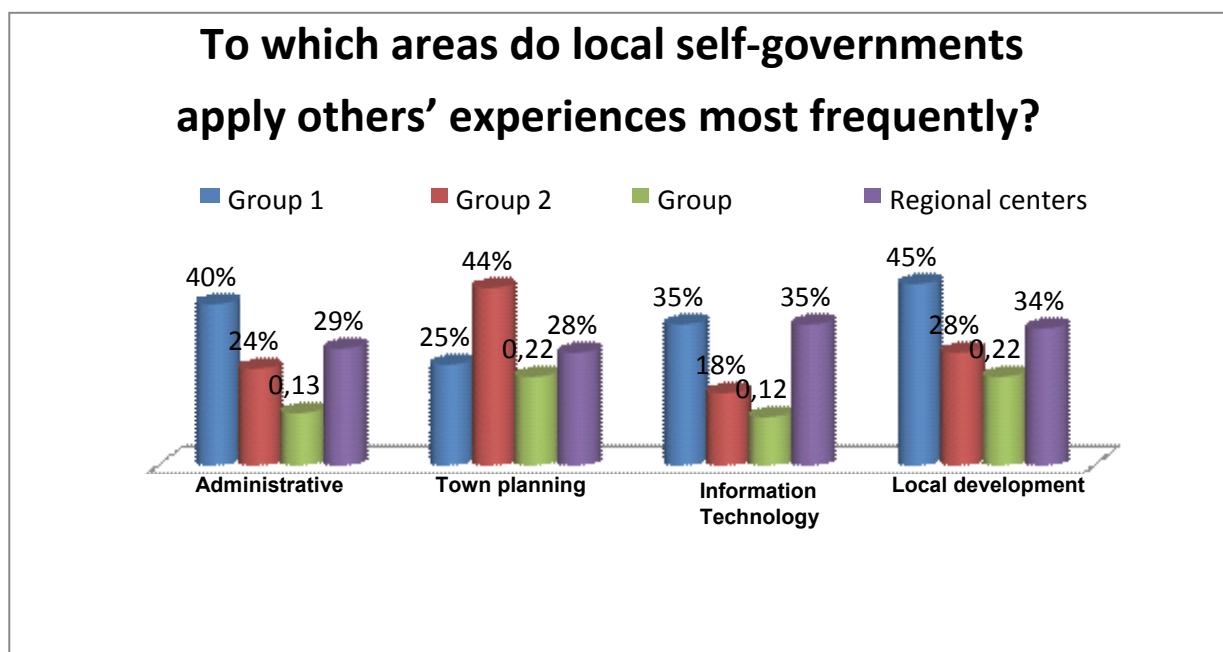
The survey conducted for the purpose of this paper shows that only 17% of the local self-governments apply benchmarking as a model of learning, whereas 27% of the local self-governments does not apply benchmarking at all (Chart 1). It is also interesting that benchmarking is mostly applied in the field of town planning and spatial planning, then in information technologies and administrative solutions. The research also shows that the regional centers lead in the benchmarking application, whereas the local communities with the population of up to 10 000 take the last place when considering learning from others. (Chart 2)

*Chart 1. Do local self-governments use benchmarking?*



From the above said, it can be concluded that benchmarking as a strategic tool should be part of management of local self-governments and its application should be adjusted and followed by other management tools that will reduce the risks of benchmarking application. Benchmarking, as a model that enables concrete, real, objective and successful learning from the experiences of other local self-governments enables application in other aspects of social activity, too, not just at the level of local self-government.

*Chart 2. To which areas do local self-governments apply benchmarking most frequently?*



#### **4. The suggestion of measures for the application of benchmarking in local self-governments in Bosnia and Herzegovina**

The transitional and reform processes in local self-governments in Bosnia and Herzegovina have opened some possibilities for application of brand new models of management, adaptation, application of innovative processes and processes of strategic decision-making. Benchmarking as a model is applicable in local self-governments, thanks to the reform and reconstruction of public self-government and the change in the concept of activity and goal accomplishments. The reform implies application of new principles of good management, thanks to which local self-government becomes an adequate benchmarking subject.

The strategic approach to decision-making, planning, but also innovative processes in local self-government is based on management, but the optimum of the application of such models is implementation of the models of benchmarking. The best practices of the bodies of self-government, but also business subjects in the world show that benchmarking gives results, thanks to ability of an organization to notice its weaknesses, detect important elements of good practices of the organizations in the same field and the ability to adapt to and apply the same models and processes. Certainly, the environment in which the organization acts has the main role in the degree of the applicability of the benchmarking model.

The environment of the local self-governments in Bosnia and Herzegovina, unfortunately, does not provide stimulating impulses for the application of new, acceptable, economical and effective models of management; therefore, benchmarking is still almost unknown to local self-governments. Reform principles have imposed the need to consider benchmarking as an option at least, but the researches show that local self-governments in Bosnia and Herzegovina still do not have a notion of the necessity to learn from the experiences of others.

Several important restrictions have been noticed about the application of benchmarking:

- Local self-governments, especially small local communities arisen after the Dayton Peace Agreement, are burdened with political past, which prevents an objective approach to acceptance of good practices; national anti-marketing has had an impact on ranking of

local self-governments in Bosnia and Herzegovina according to political correctness, and not according to the experience that had been gained,

- Such approach complicates further transitional changes and complete application of benchmarking that even more complicates the situation in local communities,
- Local public do not tolerate any more the mistakes of local self-governments; therefore, the management of local self-government more reluctantly decides to take a risk that benchmarking carries in the first phases of its activity,
- Closeness of local self-governments in Bosnia and Herzegovina has led to the fact that successful local self-governments from the region do not want to establish benchmarking partnership, which also makes finding partners more difficult,
- Local self-governments in Bosnia and Herzegovina do not have enough knowledge or information about positive sides of benchmarking.

The model of benchmarking is applicable in local self-governments in Bosnia and Herzegovina in almost every aspect of business processes. Possibility of application of benchmarking is especially evident in the processes of strategic planning; therefore, it is necessary to take measures to have benchmarking accepted and implemented in local self-governments. The measures may be defined in the following way:

- At the state level, develop a strategy for benchmarking applicability on local self-governments, and ensure the funds for information and help for local self-governments in the first phases of the implementation of this model,
- The League of Cities and Municipalities should continuously organize training for local self-governments about the importance and the ways of implementation and usage of benchmarking in local self-governments,
- The League of Cities and Municipalities should continuously lobby higher instances of self-government, but also benchmarking partners in order to improve the image of local self-governments in Bosnia and Herzegovina, which would increase the potential for benchmarking,
- Define the priorities of the development in which benchmarking may give positive results, and make programs for the application of benchmarking in the concrete situations,
- Organize an informative campaign for potential benchmarking partners of local self-governments in Bosnia and Herzegovina, so local self-governments in the region or Europe receive enough information on the local self-governments in Bosnia and Herzegovina,
- Inspire local self-governments in Bosnia and Herzegovina to start applying benchmarking on their own,
- Include the model of benchmarking as a strategic tool in all the strategic development documents, from local to state level,
- Organize a fund with municipal participation from which incentive projects that apply model of benchmarking would be financed.

However, application of these measures depends on the interest of all the levels of self-government, but also from lobbying by local self-governments to have benchmarking involved as a stimulus to the strategic development of local communities.

## 5. Conclusion

Certainly, benchmarking has many positive effects on strategic development and operative work of local self-governments in Bosnia and Herzegovina. Unfortunately, the awareness of the benchmarking effect in local self-governments in Bosnia and Herzegovina is insignificant; therefore, application of benchmarking in business processes of local self-government is reduced.

The analysis of positive effects is based on the accomplishment of the strategic goals of local self-governments, and they may be defined in the following way:

- Benchmarking will enable easier implementation of complex projects from strategic documents,
- Thanks to efficient benchmarking, local self-governments will develop positive image as a resource and a precondition for further application of benchmarking and strategic development,
- Local self-governments will become more independent in solving specific issues related to the strategic development,
- Solving of problems at local level will become more efficient and faster thanks to benchmarking, because the solutions will be instantly available and already tested for local self-governments.

Benchmarking may also positively affect the aspects that are required to support continuous improvement. This includes raising awareness about participation in decision-making processes and greater openness regarding relative strengths and weaknesses. This also includes learning from others and more trust in development and application on new approaches, more involvement and motivation of the staff in programs of change. There is also bigger readiness to exchange solutions to usual problems and reach agreement on what it is necessary to do to implement the changes. Moreover, this includes better understanding of broader picture and gaining wider perspective of interaction of factors (or parties) that enable implementation of good practice. There is also better cooperation and understanding of interactions within and between organizations, as well as more satisfaction for citizens with regard to public services.

The benefits of benchmarking for local self-government are unquestionable. Implementing measures that will enable local self-governments to develop capacities and prepare for application of benchmarking will help strategic development to run continuously and consume less time because of the application of solutions that already exist and that have already been tried. Thanks to such approach, the effects of benchmarking application will be visible, and at the same time, this model will become a strategic tool of local self-governments for solving the most complex issues.

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## THE GLOBAL FINANCIAL CRISIS AND LEASING MARKET IN B&H

Slaven GRIZELJ<sup>132</sup>

### Abstract

*Leasing as a model of financing is quite new and has been applied in B&H for a relatively short period of time. This funding model is very practical for small, medium and large enterprises to raise production funds and other assets without spending their own funds and without borrowing from banks in financial markets (the need for additional collateral). By collapse of the U.S. financial system, it has been proven that the polycentric financial structure, which is believed to be the characteristic of the most developed and risk resistant system, is actually fragile and vulnerable. On the global level, it is evident that both the European and Japanese financial system are bank-based and much more stable and resilient to risks in a crisis. This paper will explore the impact of the global financial crisis on the B&H financial sector, the leasing market in particular. The aim is to determine how the financial sector is stricken by financial crisis. Furthermore, the paper will show that in B&H there is an insufficient degree of use of leasing as a financing model, and fundamental problems that leasing sector faces will be identified. Results out of this research had shown the impact of financial crisis in the leasing sector in at least two parts. First, the financial crisis has led to a reduction in lending activity and as a source of financing for leasing companies directly out of the loan (no deposits) which decreased funding opportunities due to lack of resources. Secondly, the financial crisis and recession led to a sharp reduction in demand for leasing arrangements so a large drop in activity in the market is noticeable. There is a trend of change in credit policy of leasing companies - orientation from corporate to retail.*

*Slušajte*

*Pročitajte fonetski*

*Keywords: financial system, global financial crisis, leasing market, B&H*

### 1. Introduction

American financial crisis has evolved into global economic crisis. The thesis of America as the global economical leader has been actualized, since intense destabilization of American economy lead to destructive destabilization of the world and its constituent national economies. Although causes of this crisis can be found in complex disproportions and imbalances of trade exchange between developed and undeveloped countries, and as such should be a challenge to scientists and researchers, the consequences of global crisis, which have demolished the financial system of USA to a drastic extent, impose explanation of the phenomenon of vulnerability of financial institutions and market into public focus.

Financialization of economy, obvious trend in the last twenty years, has been launched and designed in American laboratories of financial structure. Multitude of financial innovations

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offered in americanized financial markets around the world were supposed to attract social accumulation, internationalize and mobilize savings in economy and population and direct it towards financial markets. In this process marketing of expected and promised high income rates played the decisive role. However, with all complexity of global crisis regarding its causes and consequences, the hypothesis of financial markets as addition to real economy has been fully confirmed. Moreover, financial system cannot survive or create additional value within itself, but its multidimensional merging with real economy is necessary. Functionality and stability of financial economy is determined by stability and support of the real sector, so it can be concluded that the cyclic growth of economy is a permanent source of the gap between real and financial economy. The longer the time of this situations is, and its deepening is bigger, the crisis gets stronger and lasts longer (Minsky 1996).

Leasing industry is a special link in the financial system for servicing the real sector. Leasing companies take over financing risks to which economical entities, population and the state are exposed, they finance them, and in return demand payment of installments (principal and interest in a certain period).

Overflowing of crisis focuses from the global financial to the real sector and vice versa, affects the leasing industry in the world. Since B&H leasing industry is globalized, consequences of the crisis have affected the business of leasing companies in B&H. Therefore the goal of this paper's research is to identify indicators and reflections of crisis in the world financial markets, notice consequential specific trends in the financial markets and leasing industry in B&H, and quantify recession effects to investment portfolios and asset structure of leasing companies in B&H.

## 2. Reflection of Global Crisis

Crisis of second rate mortgage loans has reflected itself firstly as liquidity crisis in financial markets of USA during 2007. Liquidity interruptions could have been noticed even at the end of last and beginning of 21<sup>st</sup> century when payment and collection of mortgage loans were seriously behind or missing. Multiplication of liquidity issues and existence of crisis focuses in the real estate and other markets, of which American expert public had knowledge, could not stay hidden from the rest of the world when during 2008 there were massive bankruptcies, especially of several well known financial institutions, such as Lehman Brothers and Bear Stearns.

That this was a tectonic instability in the world, it only became obvious on 7<sup>th</sup> September 2008 when Federal Housing Finance Agency – FHFA published the nationalization of Federal National Mortgage Association, known in public as Fannie Mae, and Federal Home Loan Mortgage Corporation, known as Freddie Mac, two of the largest state supported financial corporations (Government Sponsored Enterprises – GSE). (Poirier, John; Patric Rucker, 2008).

Bankruptcy of these two large investment banks, for which it is estimated have given warranty for 40% of uncovered mortgage claims in the USA market, have announced the deepening and extension of the crisis.

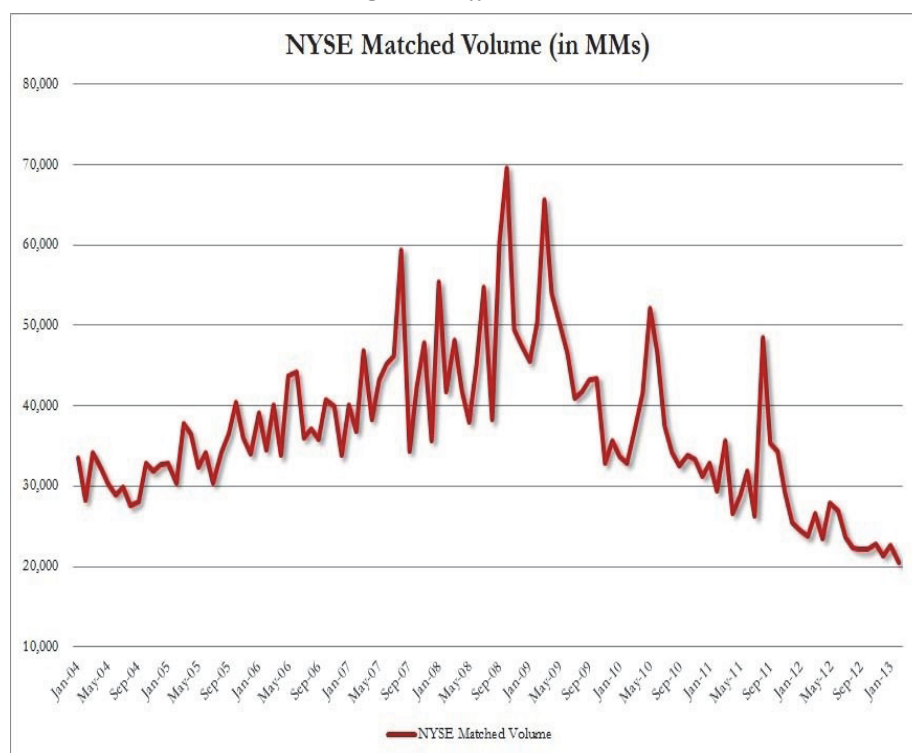
Completely missed business politics, moral hazard and illegal transactions, are most likely the reason of suicide of one of the directors of Freddie Mac. The most famous and biggest financial institutions of the world, faced with unprecedented global crisis so far, started to declare write-offs of their assets and enormous losses requesting financial aid from monetary government. The case of American International Group (AIG), one of the largest insurance companies in the world, according to extent of losses and potential effect on deepening the global crisis, deserves special attention for studying. AIG provides insurance and other financial services in over 130 countries, employs 116.000 employees, half of which, 62.000, are employed in Asia where the company was founded. It provides services to both legal and private persons, which resulted with the number of 30 million insurance policy holders and 100.000 insured companies (Jakočević, 2009).

This company was declared as 18th largest shareholder company in 2008 according to Forbes Global 2000 list. But, after that came the liquidity crisis which led to the largest quarterly loss in

history in amount of 61,7 billion dollars in the final quarter of 2008, and 99,3 billion dollars for the whole 2008.

Contamination of the insurance market has been initiated by the London subsidiary of AIG that sold complex financial contracts, "credit default swaps" (CDS), or a kind of insurance policy in case of default of securities resting on mortgage loans. The origin of the problem lies in the structural financing or securitization. Securitization of credit claims by issuing bonds whose collection is guaranteed by mortgages on the purchased credit claims is the first derivative of credit risk and its transformation into market risk. "Credit default swaps" (CDS) is the second derivative of credit and market risk that enables policy holders to charge the difference between the nominal value of the bond, and its actual market value. By decrease in the value of mortgaged property, and later complete collapse of the U.S. real estate market, the market of mortgage loans and its derivative bonds collapsed. Such an expansion of the crisis forced the portfolio investors who protected themselves by buying "CDS" to activate insurance policies by AIG. In order to prevent the collapse of AIG and the financial contagion of other financial institutions, the U.S. government, despite opposition from members of Congress, expanded the aid package to \$ 150 billion, but by reducing initial loan of \$ 85 billion to \$ 60 billion, with the purchase of preferred shares of AIG worth 40 billion dollars and taking over 52.5 billion dollars of mortgage securities owned by AIG. This loan of \$ 60 billion AIG would have to pay back over a period of five years at an interest rate of 3 percent. However, in the beginning of March 2009 AIG received an additional \$ 30 billion in government aid. Namely, according to estimates by the U.S. Treasury and the Federal Reserve, it would have caused greater damage if nothing had been done because AIG actively insures more than 100,000 companies, municipalities and pension funds. In this way this American insurance house received more than \$ 183 billion of government aid in the first six months (Jakočević, 2009).

*Image 1. Traffic in NYSE*



Source: NYSE volumes, 2004-2013 - Source: ZeroHedge

It's plain to see, stock exchange prices have completely disconnected from the real economy and thus aren't a relevant indicator any more. It's illustrative to see that the distortion is the largest

in the United States, whereas in Europe the Euro Stoxx 50 Index has stagnated since 2009 like many other European national indices (the CAC40 for example) and that the SSE Composite Index has been falling for more than two years (!) in spite of Chinese dynamism. This indicator's lack of relevance is further illustrated by the Nikkei's sudden rise (+40% in less than 4 months) at the time when Japan is at its worst with insupportable debts and a steep trade deficit these last two years. Stock exchange prices, if an indication of anything, is of the degree of the economy's virtualisation, the speculative phenomenon's extent, and the degree of a country's debt. The LEAP team has never attached anything other than very little importance to stock exchange price moves; however, in a certain manner, we could legitimately read their moves contrary to what they are supposed to say: the higher the stock markets, the more catastrophic the true economic situation, and conversely.

### **3. Crisis shock impact on value of financial institution in B&H**

In short, it can now safely be said that the first wave of the financial crisis passed without a direct impact on the banking sector in B&H. B&H banks have responded well to all the challenges ahead, and none has faced liquidity problems. What is already known is the fact that there occurred indirect consequences in terms of problems with access to international monetary markets, which has already led to a slight rising of interest rates and tightening of credit conditions (Kozarić, 2009).

Unfortunately, it is sure that the change in loan terms will affect the real sector of the economy the most, which will certainly reflect through the reduced growth forecasts, which is already evident in the announced layoffs and reduction in the number of jobs and investments. Withdrawing deposits from banks creates an additional problem in terms of the reduction of funds for loans and increase in the price of capital. All of this will affect the living standards, and difficulties will be felt by the economy as well. For example, among transition economies, we can give examples of economies of Estonia and Latvia, which have for years been considered the most successful examples of countries in transition, and which are now officially in recession, to which Poland is rapidly slipping as well. Hungary, Bulgaria, Romania and Serbia are also viewed as states located on the edge of stability, and it is worth to mention that some of them have already requested assistance from international financial institutions such as the IMF and the EBRD.

Regarding the banking sector itself, the impact of the financial crisis is limited, and it is credited to several factors. First of all, it is worth to mention better capitalization than in Western Europe. Banks in B&H, due to rigorous requirements, have more favorable indicators of capitalization. B&H indicators that measure the relationship between the amount of capital and assets are significantly higher than in Western European countries and in B&H amount to about 16%, whereas it is common in Western European countries to amount to about 11% or 12%, 9% in the EU. This is the result of more stringent requirements in terms of the amount of capital, which were introduced precisely in order to provide additional resilience of the banking system.

Due to the global crisis there was a disturbance, which means that the banks did not have such a strong expansion as up to 2008. But the problems are not fundamentally related to B&H and therefore our banks can still suffer consequences from the outside, which can affect the availability of credit, but in no case will it affect our depositors and their deposits. It is very important to note that the founding banks can easily help their subsidiaries. Share of B&H banks within the foreign banking groups is very small and is about 3-5%. Therefore, large foreign groups will easily help their banks B&H subsidiaries and can easily intervene, if necessary. Due to the fact that within these groups significant disruptions have not yet been noticed, we can expect that foreign groups are ready and willing to help if needed. A similar conclusion could not be made in case of their subsidiaries in Russia or the Ukraine, where there is a much higher

exposure. Of course, today after five years of crisis, groups are trying to create independent subsidiaries in the countries and it is the same in B&H.

**Table 1.** *The movement of assets and the relative importance of financial institutions in B&H in the period 2008-2012 (000 BAM)*

FINANCIAL INSTITUTIONS	2008		2009		2010		2011		2012	
	assets	share	assets	share	assets	share	assets	share	assets	share
<b>BANKS</b>	21.118,3	79,3	21.009,6	81,7	21.117,6	83,5	21.898,1	85,4	22.329,6	85,80
<b>MICROCREDIT INSTITUTIONS</b>	1.246,6	4,7	1.160,8	4,5	918,8	3,6	822,0	3,2	745,6	2,86
<b>LEASING COMPANIES</b>	1.994,3	7,5	1.582,3	6,2	1.255,1	5,0	943,7	3,7	911,7	3,50
<b>INVESTMENT FUNDS</b>	1.246,4	4,7	884,9	3,4	910,6	3,6	827,6	3,2	811,2	3,12
<b>INSURANCE COMPANIES</b>	1.016,5	3,8	1.074,2	4,2	1.080,5	4,3	1.145,4	4,5	1.227,8	4,72
<b>SUM</b>	26.622,1	100,0	25.711,8	100,0	25.282,6	100,0	25.636,8	100,0	26.025,9	100,00

Source: CBBiH

If we look at Table 1 we see that the financial system in B&H is bank-centric and that the banks since the beginning of the crisis until the end of 2012 had predominant assets in the total assets of the financial system and that this share from 79.3% in 2008 increased to 85.80% in 2012. Tabulation asset value shows relatively the same value of the assets of the financial system in the observed period, provided that the system has kept its bank-centric orientation and has even increased it (increase of the share of bank assets in relation to the non-banking sector in the observed period).

If we look at microcredit organizations we can notice their decline from 4.7% in 2008 to slightly less than 3% in 2012. Likewise, investment funds pressed by developments in the capital markets and, of course, the financial crisis with 4.7% in 2008 have fallen to just over 3% in 2012. Unfortunately, it may be noted that there is further decline in the share of assets of investment funds in the overall structure of the financial system in B&H. The insurance companies had a share of 3.8% in 2008 and through the period until 2012, they increased that share to 4.72%, primarily because the stakes of other participants except banks have fallen. In this way the value of the assets of insurance companies has slightly increased, but in any case it grew.

#### 4. Implication of financial crisis on leasing sector in B&H

The negative effects of the global economic and financial crisis in the late 2008 stopped the expansion of the growth of leasing companies, which reached its peak during the period from 2006 to 2008. In relation to 2009, there was a slight increase in business activity in 2010, which continues into the first quarter of 2011, but the level of funding amount is far below the value of the period of maximum expansion of the leasing industry in the Federation of B&H (2006-2008). Tabulation (Table 1), still shows a sharp decline in the share of assets of leasing companies in the total assets of the financial system in B&H. So in 2008, the leasing companies had a share of 7.5% in total assets of the financial system and in 2012 it decreased to 4.5% of share.



## **5. Reduction of credit growth**

Up to 2009 the leasing sector operated beyond the regulators of the financial system (the Central Bank and the Banking Agency of FB&H and RS), when the Law on leasing was implemented and leasing companies are placed under the control of regulator i.e. Leasing agency. After that leasing is placed under supervision and a series of decisions were implemented thus reducing the possibility of expanding this business. The greatest impact on the growth of this business were decisions related to reservations for doubtful claims where for all claims that had delays in payment of more than 180 days must be 100% reserved. This led to the creation of huge losses in the leasing sector and thereby to reduction of expansion of this business. On the other hand, the main source of financing of leasing sector are loans and by decline in business indicators leasing companies were not able to arrange refinancing of future placements. Of course, this was contributed by the financial crisis in the region and the possibility of the mother companies to refinance their subsidiary companies when they themselves had problems with capital and adequacy of capital in relation to assets.

Nine leasing companies had work permits during the year, seven in the Federation and two in RS. In relation to the end of 2011, the total balance sum of leasing companies amounted to 911.7 million BAM, which is lower by about 3.4%. Total loans, which are the main source of financing for leasing companies, amounted to 643.7 million BAM and they were decreased by 6.9%. Loans that have been placed by leasing companies decreased by 4.6% and amounted to 716.2 million BAM.

## **6. Decline of investments and efficiency**

As in the previous part of the text there was more discussion about the regulation of leasing business in B&H, by 2009 this regulation is reduced to the level of limited liability companies and, as such, under the control of tax instances. It should be noted that the first leasing company began operations in 2001 when this business in B&H has not yet been regulated by law. After that it comes to extensive growth in the balance sheets of leasing companies in B&H, which is experiencing major expansion in the period of 2005-2008. This is followed by the adoption of the law on leasing and together with the financial crisis brings strong reduction of activities in the market for this sector.

These occurrences led to disappearance of some leasing companies from the market, there was decrease in assets of companies and reduction in the number of employees.

If we looked at the efficiency of employees when evaluating the performance of leasing companies, it is measured by the ratio of assets and number of employees (assets per employee). On 30<sup>th</sup> September 2013 at the sector level for each employee there is 3.913 thousand BAM of assets (with 31<sup>th</sup> December 2012 it was 4,183 thousand BAM per employee). Analytical data for individual companies ranged from 2,340 to 5,514 thousand BAM of assets per employee. At the same time, on 30<sup>th</sup> September 2013, in the sector of leasing, microcredit institutions and foundations this indicator was at 333 thousand BAM, and in the banking sector it was 2135 thousand BAM of assets per employee.

**Table 2.** Review of balance sheets of leasing companies in B&H in the period 2008-2012 (mill BAM)

			2008	2009	2010	2011	2012
<b>Assets</b>							
Currency and deposits			97,50	77,00	22,10	30,70	29,40
Securities other than shares			-	-	-	-	-
Loans			1.660,50	1.316,10	996,90	751,10	716,20
Shares and other equity			0,30	-	0,10	0,10	0,10
Other accounts and claims			57,70	28,50	41,80	21,00	21,70
Non-financial assets			178,40	160,60	194,20	140,70	144,30
<b>Total assets</b>			<b>1.994,30</b>	<b>1.582,30</b>	<b>1.255,10</b>	<b>943,70</b>	<b>911,70</b>
<b>Liabilities</b>							
Loans			1.478,80	1.328,70	1.106,60	691,60	643,70
Other accounts payable			479,10	204,90	167,50	196,90	218,10
Shares and other equity			27,40	48,70	- 19,30	55,30	49,90
<b>Total liabilities</b>			<b>1.994,30</b>	<b>1.582,30</b>	<b>1.255,10</b>	<b>943,70</b>	<b>911,70</b>

Source: CBBIH, FBA

As previously mentioned, the main source of financing for leasing companies are loans and in the financial crisis it comes to reduction of this source in this form, which denied leasing companies from further expansion activities. Loans in 2008 were valued at 1478.8 thousand BAM while in 2012 amounted to 643.7 thousand BAM which is a decrease of 57%. Other and the only additional source of funding is capital which increased mainly as a result of the Agencies for Supervision of leasing companies in order to cover losses.<sup>133</sup>

## 7. Methodology and research results

This research was done through a questionnaire which was conducted in all leasing companies in B&H<sup>134</sup> and the collected data are processed by conventional statistical method.

Within the study a survey was prepared with two groups of questions:

- Measuring the performance of certain refinancing opportunities,
- Measuring the performance of the applicant for refinancing - legal and natural persons, the public sector, and measuring the model of loan approval and forecasting trends in the leasing sector in B&H

The analysis of the survey responses in this research with all leasing companies in B&H led to the following conclusions:

- All leasing companies are present in the market for more than 7 years and some for 13 years; they are mostly owned by foreign investors directly or indirectly
- The most important source of financing are loans and equity

<sup>133</sup> Leasing agency of Republic Srpska and Leasing agency of FB&H

<sup>134</sup> The sample were all leasing companies in B&H and in 2013 there were 9. Two leasing companies lost their licenses – HYPO ALPE-ADRIA-LEASING Ltd. And EUROLEASING Ltd.

- In the period since the arrival of financial crisis, equity of leasing companies has increased primarily because of loss covering
- Credit lines for refinancing were more accessible before the crisis
- Leasing companies have limitations on the maturity of funding sources
- The cost of refinancing is high and has increased significantly at the beginning of the crisis
- Weak demand for this model of financing
- By 2008, financing of real estate had considerable participation in the financing volume
- Most leasing companies are not satisfied with the creditworthiness of clients
- Since 2008, the approval criteria of leasing arrangements have become higher
- After 2008, the funding structure is dominated by movable property (vehicles)
- Financial crisis has significantly jeopardized collection of loans
- Leasing companies record a significant increase in non-performing arrangements and the related growth of reservations
- In 2014 forecasts show further decline in assets of leasing companies

In 22% of the leasing companies capital increased to enable further growth of the balance sheet (new placements), but for the others the reason for this increase is to cover losses and liabilities ordered by the regulator. For all the companies refinancing capital was much more available before the crisis. For 89% of the leasing companies there were limitations in terms of the maturity of funding sources. For all leasing companies cost of refinancing has increased significantly at the beginning of the crisis. Today, the cost is significantly reduced due to historically low benchmark interest rates (EURIBOR primarily). Also, it should be noted that refinancing in the domestic market is significantly expensive.

Leasing financing in B&H is subject to taxation, so this form of financing is significantly more expensive than a loan. What would be interesting for companies is the operative leasing<sup>135</sup>. However, this model of leasing is not yet fully regulated by law and not harmonized with other laws (transport etc). What is worrying is that 89% of the leasing companies are not satisfied with the creditworthiness rating of financing applicants. Leasing financing, by approval of the Law on Leasing in 2009 and subsequent placement of leasing companies under the supervision of the Banking Agency, is equalized by criteria to financing in banks. There is no justification for this since the object of leasing in economically owned by leasing company until repayment of arrangement<sup>136</sup>.

What is worrying for the leasing companies is the situation that Banking Agency imposes regarding the structure of people and departments therein whereby they are starting to look like banks. In the last two years it happens that banks which are mothers to leasing companies are starting to build models that integrate the operations of leasing companies in the banks. This would significantly reduce operating costs (through a system of joint services) and leasing companies could focus on the sales team.

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<sup>135</sup> Operative leasing is pure renting and is not accounted for in the balance sheets as a liability, which significantly relieves the balance sheet of companies that would consider using this model of financing of movables.

<sup>136</sup> This facilitates coming into possession of leasing object and collect by selling it, while the banks are not economical owners and collection of the claim is less certain. Another mistake of the Banking Agency is determining provisions for defaulted loans in the same way as for the banks – which should not be the case because of the mentioned reason.

## 8. Conclusion

The global financial crisis which began in 2007-2008 had a strong impact on the economies of developed and transition countries. Although all analysts thought it would not last long comparing it with the preceding crises, this financial crisis has lasted and will leave enormous long-term consequences. Some countries have lost huge amounts of GDP. Their fiscal account is shaken, indebtedness has increased and in some cases national currencies are also shattered. Recovery of their economies will not be easy at all and it will take time.

What is clear, after reversing the sign and the economies start to rise, there will be a price increase in funding. Loans will be more expensive and less available to the private sector. Throughout the crisis, there has been tightening of credit policies in the financial sector and this further complicates the reversal of economies.

This all shows that the "golden age" of rapid and immense economic growth (provided it would not require serious economic policy) will not come quickly. Of course, higher growth will occur in developing economies, but in order for global shift to occur it will require economic reform at the country level (individually), but also globally. At the national level, the economic reforms depend on the country and the individual characteristics of the country. However, there are some common measures between the countries, and also steps can and must be the same.

Firstly, strong growth of public debt in most countries must urgently stop. This will require fiscal adjustments and it will be difficult, but also impossible unless the costs are revised. Health care reform and regulation of labor law is very important not only for balancing the government's account, but also to create a more flexible labor market.

Many developing countries, including Bosnia and Herzegovina, will have a lot of work to do to improve business and investment environment, build its legal and public administration system, fight against corruption, etc. Many countries will have to continue with privatization and especially financial institutions that have taken large amounts of money for aid in times of crisis.

Surveyed leasing companies do not expect significant changes in their credit policies in 2014. Therefore, in terms of easy access to leasing products, major changes should not be expected. Average growth expectation in leasing arrangements in 2014 ranges between 3% and 5%, depending on the market segment, but only for two leasing companies, while others predict a decline in new financing. Accordingly, in this year we could expect slight growth in leasing arrangements to private sector, and slightly slower growth of leasing arrangements for companies than in recent years.

The global financial crisis has affected all financial systems of the world including B&H. This crisis has spilled over to the economic sector which has become significantly insolvent, which threatened payment of obligations including the operations of the financial sector. Financial system of Bosnia and Herzegovina is less exposed to the crisis stresses, primarily because it is a bank-based financial structure, and the banks have not polluted their assets by buying toxic bonds of U.S. investment banks and other speculators. The banking sector and the financial system as a whole are stable and there are no shocks that would indicate instability or invalidity of the system.

The main two conclusions can be drawn based on the analysis of business and survey which was conducted for the purposes of this study. The first conclusion is that the financial crisis has led to a significant drop in refinancing opportunities for all leasing companies which led to a significant drop in the volume of new financing. Also, the crisis has impacted claims collection significantly and significant increase in reservations, which led to decline of profitability of the sector.

The second conclusion is that there is significant decline in interest for this type of financing and a significant drop in applying for financing. When it comes to sectors that are represented in financing, here, same as in the banks, there is relocation to legal entities and not private (it comes to deleveraging of private individuals).

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## THE ROLE OF OUTSOURCING IN THE RESTRUCTURING OF SMALL COMPANIES IN CONDITIONS OF CRISIS - CASE STUDY

Goran VUČUR<sup>137</sup>

### Abstract

*Today's business conditions, which are largely dictated by the global crisis, forced the companies to fully adapt to market conditions and find acceptable solutions that will result in business savings. Changing market conditions require a quick reaction to the changes from a company, which is not possible if the company is not flexible. Improvement in flexibility and competitive advantage is achieved by structural changes in the business activities of the company, where outsourcing is offered as one of the options. Outsourcing means leaving certain activities, functions or processes to external specialized companies that will perform allocated duties on behalf of the parent company. When it comes to small companies, outsourcing is most commonly applied to the activities related to logistics, IT technology, legal and accounting jobs, human resources, etc. The purpose of this paper is to explore the role of outsourcing in restructuring of small companies in crisis conditions. The aim is to show the possibilities of applying outsourcing in small companies to help reduce operating costs and establish a business network of associates, increase the flexibility and achieve competitiveness in the market. On a concrete practical example will be examined savings that are achieved by turning a part of fixed costs into variable, which depend solely on the business volume of the companies. The companies, in conditions of reduced demand for goods and services, do not have to pay expensive fixed costs, so-called "permanent costs", but the company cost structure is largely dependent on the dynamics of performing certain activities. The most significant elements of cost structure of the companies which transform into variable costs are labor costs, which in unfavorable market situations for the company are a burden, and whose transition to variable cost increases business flexibility. Also, the impact of expansion of network of associates on access to new knowledge and skills will be analyzed. For a concrete example it was found that access to new markets can be achieved through a network of external business partners that a company can use to establish business cooperation with business associates of external partners, in a way that all participants in the business network benefit from it. Namely, companies that have small market shares are weaker than other market participants and through the business network they can gain access to new markets and further strengthen their positions. Achieving additional benefits provided by outsourcing, besides savings in overall operating costs, is expressed through easier access to information and funding sources, as well as new ways of procurement, distribution and sale of certain products or services.*

**Keywords:** outsourcing, small companies, costs, activities, business improvement

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## 1. Introduction

In very uncertain business conditions, which are generated by crisis in the market, small companies resort to various forms of restructuring to adapt to market situation. To protect themselves from external influences and improve internal performance, small companies are taking various steps aimed at maintaining the competitiveness and enhancing security of operations, and reducing risks. In conditions of reduced liquidity in the market, companies are forced to borrow additionally in order to maintain the current level of liquidity which causes a further increase in the price of business because of expensive interest rates. In parallel with this, companies are faced with a decline in demand or decrease in business volume, which leads to difficulties in servicing their commitments, which do not depend solely on the level of business activity of the company. Small companies can look for exit from this new situation in different options that are provided, and their choice depends on the capabilities of company management to implement best solutions, that will ensure survival and reduce vulnerability and dependence of companies to fluctuations in the market. As one of possible solutions outsourcing is offered.

The purpose of this paper is to point out the possibility of applying outsourcing to small companies in a way that change in the cost structure and expansion of network of business associates raises the level of competitiveness and achieves a better position in the market. The aim is to investigate if the use of outsourcing leads to changes in the cost structure of business and if there is change in the relation between fixed and variable costs. Also this paper aims to determine the association between the use of outsourcing and expanding the network of business associates. For a concrete example will be determined whether the expansion of the business network through outsourcing further increases the range of business opportunities resulting in the realization of additional benefits which would not be available when acting independently on the market.

In accordance with the previously mentioned facts, the following hypotheses are set in the report:

*H1: Application of outsourcing in small companies has positive effect to company cost structure.*

Since fixed costs do not change with the changing of level of company's business activity, allocating part of company resources can reduce the level of fixed costs. In parallel with the above mentioned, allocation of certain company activities leads to an increase in variable costs. If we look at the overall cost structure, we come to a realization that by the use of outsourcing fixed costs are converted to variable which, by reduced business activity of the company in crisis conditions, can be further reduced which ultimately leads to savings. Significant savings can be realized by eliminating fixed costs related to depreciation costs, maintenance, insurance, rent, salaries, etc. It is fixed costs that represent the greatest burden for small companies in crisis conditions when they are, along with the increased cost of capital, very difficult to settle. Therefore, small companies resort to a maximum reduction of fixed costs in order to maintain an acceptable rate of liquidity and settle due obligations regularly.

*H2: Application of outsourcing in small companies contributes to establishing and expanding of business associates network.*

Application of outsourcing should contribute to achieving business relationship with other business subjects (competitors, suppliers, customers, etc.) which on the basis of comparative advantages and powers of individual partners, enables realization of additional benefits that networking provides. Namely, it is about achieving synergy effects that are manifested through reducing business risk, possession and use of resources that partners could not develop on their own, better access to markets, access to new knowledge and skills, increase of business flexibility, saving time and lowering costs. Also research aims to determine the characteristics of connecting companies relating to certain criteria and direction of networking and intensity of connecting.

When it comes to the paper structure it is necessary to point out that the first part of the paper presents the subject of research and sets hypotheses, followed by a theoretical consideration of issues of outsourcing where the emphasis is placed on the cost structure of companies and establishing business networks of associates. The second part presents results of research, conducted on small companies, which are related to the issues considered in the first part of the paper. At the end of the paper are the conclusive considerations, recommendations for future research and limitations that have had an impact on the observed research.

## **2. Outsourcing in small companies**

Restructuring of companies, viewed from the aspect of business conduct in companies in crisis conditions, can be considered as defensive and strategic. Defensive restructuring relates to staff reductions and financial rehabilitation measures while strategic restructuring is carried out aiming to long-term viability of the business (Benaković, 2012, pp. 114). When considering outsourcing as a strategic tool, it can be concluded that the application of outsourcing affects the financial, operational and strategic business of companies. The financial impact is reflected in the change of structure: balance (which includes changes in the structure of assets and short-term and long-term liabilities), income statement (in relation of gross operating profit - GOP and net profit of companies), plan of cash flow (in the structure of expenditure for costs), etc. Changes that occur by application of outsourcing in operative-organizational sense, largely relate to management and organization of business, which includes processes, activities and tasks, and their allocation. The shift in business strategy of the company includes identification of additional profit areas, innovation in business, focusing on the most profitable elements of value chain and new models of connecting companies at strategic level.

Advantages that application of outsourcing in small companies may bring relate to costs control, increase of operational efficiency, reduction of labor costs, flexibility in starting new business, reduction of business risk and achieving economies of scale.<sup>138</sup>

In comparison with large enterprises, small companies are faced with a number of issues that affect innovation, financial capital, personnel disposition and other company resources. Universality of staff in small companies allows employees to perform multiple activities at the same time which in certain cases represents an advantage for the company. However, if these activities represent secondary business activities, it would be better to extract them from the company and to focus company business on their core business activities in which the company achieves competitive advantage in the market.

## **3. Fixed in relation to variable costs of company business**

One of the basic functions of company management is managing costs that directly affect the global competitiveness of the company and continuous business improvement. Cost management requires involvement of all levels of management and other employees as well as introduction of control system (Agrawal et al., 1998). This will help improve activities that contribute to creating additional value and reduce those activities of the company that do not contribute to it, with the aim to achieve lower costs (Hilton et al., 2000). Managers must have the ability to establish the cause of generation of costs in certain activities, and be familiar with possibilities of cost management and savings achievement (Mikić, 2009).

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<sup>138</sup> The Benefits of Outsourcing for Small Businesses: <http://www.allbusiness.com/human-resources/workforce-management-hiring/1084-1.html> (accessed 21.02.2014.)

If costs are considered through business activity, it is possible to make a *comparison of fixed and variable costs*. Regarding the change in the scope of activities of the company, costs can be divided into: fixed, variable, mixed and discretionary. Fixed costs include those costs that do not change when activity level of the company is changed. These types of costs are: rent, taxes, depreciation, investment maintenance, etc. Variable costs change depending on company levels of business activity, and as an example we could mention consumption of materials in production. Mixed costs up to a certain level of company activity act as fixed, and then as variable, or vice versa. As an example of these types of expenses could be mentioned cost of telephone in the company for which the fixed subscription includes a number of free impulses, which after bonus is spent, company pays and the bill is increased for the additional amount of spent impulses. Discretionary costs occur as a result of discretionary management decisions. As an example of these types of costs may be mentioned advertising costs, staff training, etc. These costs managers may decrease or increase depending on their preference and as such are independent on the level of activity of company (Belak, 1995).

Since the problematic of this paper focuses on reducing fixed costs, it is necessary to pay attention to the structure of fixed costs. After determining the contribution coverage generated as the difference between revenues and variable costs, the emphasis is on distinguishing fixed costs by specific hierarchical levels.

Observing fixed costs by specific hierarchical level they can be distinguished to:

- Fixed costs of products,
- Fixed costs of product groups,
- Fixed costs of cost location,
- Fixed costs of organization units,
- Fixed costs of system as a whole.<sup>139</sup>

This approach in considering fixed cost structure enables successful control of fixed costs and connecting individual fixed costs with hierarchical level of occurrence. The transparency of this method of calculation allows precise definition of costs which by separation of certain activities from the company are eliminated or converted into variable. By converting fixed costs into variable a part of capital assets are freed, needed for new investments as well as development and growth of new products and services. Instead of secondary activities, company performs direct penetration of capital into activities which bring income and allow growth and survival in the market. Savings can be achieved at all hierarchical levels, so in initial stages of strategic analysis for application of outsourcing, attention should be directed to the financial analysis of company business and on the current and future operating costs assessment, which can be made on the basis of the previously described facts. By calculation of future costs it is certainly necessary to determine which costs are eliminated, which costs remain present and which new costs incur by application of outsourcing.

Costs which are mostly not eliminated by outsourcing relate to:

- Unused building parts,
- Unused equipment parts,
- Unused manager possibilities,
- Unused material parts,
- Costs of capital invested into capital funds,
- Other general costs.<sup>140</sup>

<sup>139</sup> Gulin, D. et al. (2011). Upravljačko računovodstvo (Management accounting). Rif, Zagreb. pp. 235.

<sup>140</sup> Greaver II, M. F. (1999). Strategic Outsourcing: A Structured Approach to Outsourcing Decisions and Initiatives. AMACOM. New York. pp. 162

In accordance with previously mentioned facts it is necessary to find a solution for the previously mentioned unused capacities that can be partially or completely left to an external executor of outsourcing and in this way partially or completely eliminate them. If the specificity of the situation dictates that the mentioned capacities cannot extract, it is necessary to find a solution that will place the unused resources in function and generate income that will eliminate the negative effects of application of outsourcing.

#### **4. Expansion of business associates network as outsourcing factor**

Success of business and company development is reflected in finding new strategically important solutions that will ensure the company maintaining and improving of competitiveness in the market, which is especially evident in crisis conditions. Networking is a specific set of connections and relations between the companies in which the parties seek to improve their own market position (Pivčević, 2006). Global crisis has led to an increase in riskiness of independent appearance on the market which had the most impact on small companies that are faced with a series of problems such as managerial inexperience and incompetence of the owner, reduced business financing possibilities, great impact of seasonal fluctuations and increased illiquidity (Netahli, 2008). In such circumstances, recognizing the benefits of collaboration and connectivity becomes necessary in order to maintain or increase competitive advantage and achieve strategic goals. Through strategic partnerships and creating a network of business associates, companies achieve much better results in strengthening the market position than through individual performance in the market. As basic motives for establishing business cooperation and networking are mentioned globalization of markets, uncertainty and volatility of the business environment, development of information technology, high costs of independent investments, access to new markets, protection from competition, and lack of specific resources. Connecting and networking between compatible companies becomes increasingly common form of cooperation between suppliers and customers, yesterday's competitors and companies from various sectors. These facts have special importance for small companies that see opportunity in connecting for narrower specialization in performing certain activities within an established network of business associates.

*Vertical integration of companies* refers to connection of companies at different stages of the value chain, meaning companies who are each other's suppliers and/or customers, and who thus seek to improve market position and competitiveness in the market. Vertical integration differs from the standard supplier-buyer relationships in the fact that the purchaser by entering into partnership with the selected supplier creates an exclusive business arrangement which increases the safety of both business partners and provides greater access to the end user (Tipurić and Markulin, 2002). In many countries mediators trade with various competing brands of the same product. Since they do not depend on either brand, they put in foreground brands which sell well and are more profitable. Weak competitive advantage of distributors and retailers does not allow an increase in market share, which causes accumulation of inventories and insufficient capacity utilization. In such cases, agents are advised to connect into distributional wholesale or retail chain, which can lead to reduction in distribution costs, lower prices of products and increase of sales (Thompson et al., 2008).

*Horizontal integration of companies* is a strategic connectivity between competitors who see a chance in mutual cooperation to build competitive advantage. It is assumable that partners eliminate competition with each other and jointly strengthen their powers in relation to other market participants. As an example of this kind of cooperation may be the establishment of strategic retail chains composed of individual companies in the retail sector, and whose main purpose is joint procurement of goods and services. There is another theory that competition within the horizontally affiliated companies is not eliminated but in some degree modified, in a way that realization of benefits for one partner indicates loss to another. The mentioned example is usually a result of unclear and non-transparent relations between the partners which can

ultimately result in extremely unfavorable outcome for one of the partners, which can lead to acquisition by the other partner (Tipurić and Markulin, 2002).

*Diagonal integration of companies* involves cooperation between companies from different sectors, with the aim of achieving common strategic objectives such as entrance of one of the partners in other types of activities, acquisition of new competencies or creating entirely new markets. The mentioned type of networking offers expansion of assortment of products and services, coming up with new technologies or using brands to achieve the set goals.

Considering the intensity of connectivity, networking activities in companies range from informal and short-term to formal and long-term, so there are:

- Business association without contract (informal),
- Partially contracted business cooperation (without connecting capital),
- Franchise,
- Network with joint company,
- Holding (joint company with connected capital),
- Fusion (Frey, 2002).

By expanding the network of business associates, company comes to possibility to create financial stability and balance disposition of resources that will enable improvement of products and services and build trust among business associates. Joint advertising of business associates can contribute to reducing costs, and easier and faster access to financial funds.

In contrast to the above, relationship between business partners in a network may require additional efforts that can deplete resources of companies which can ultimately produce negative consequences. Networking without a clear set of goals and inadequate assessment of the strategic relations between the companies may negatively affect all participants in the network.

## 5. Research

### 5.1. Research methodology

According to the Croatian Chamber of Economy<sup>141</sup> in the area of Dubrovnik-Neretva County in wholesale and retail trade there are 566 active companies that have regularly submitted financial statements for 2012. Of this number, 88.4% of companies have less than 10 employees, and as such represent micro companies which are not relevant for this research because of the small number of employees and a small number of activities that their business includes. For medium-sized companies goes 0.4% of the companies, while the percentage of large companies amounts to only 0.2%<sup>142</sup>. From this base in a basic set of studies are included 63 (11%) small companies that have between 10 and 50 employees. In order to investigate the role of outsourcing in restructuring of small companies in crisis conditions, a questionnaire has been used that was sent to e-mail addresses of 63 small companies in the Dubrovnik-Neretva County whose primary activity is wholesale and retail. The questionnaire was filled out by 19 small companies, which represents 33.2% of the companies from the basic set.

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<sup>141</sup> Croatian Chamber of Economy–Dubrovnik County Chamber: <http://www.hgk.hr/category/zk/dubrovnik> (accessed 27.02.2014.)

<sup>142</sup> Classification of the companies is done on the basis of main activity code G and national activity classification G and it is compliant with FINA dana: [www.fina.hr/lgs.axd?t=16&id=11528](http://www.fina.hr/lgs.axd?t=16&id=11528) (accessed 04.03.2014.)



## 5.2. Research results

Research results showed that from the total number of companies that have filled out the questionnaire 42.1% of companies use outsourcing, while 57.9% of companies do not use it. Of the total number of companies that do not use outsourcing 36.4% of companies intend to start using it, while 63.6% of companies do not intend to use it in their business at all. Also, it should be emphasized that there is not one company that, according to this study, stopped using outsourcing.

**Table 1.** Main reasons for not using outsourcing in small companies

Reasons for not using outsourcing	Number of companies
We feel it's best to perform all activities within our own company	5
Fear of losing control over the allocated activities	0
Concern for jobs of own staff	1
We feel there are no sufficiently qualified outsourcing partners in the market	1
We have managed to satisfy our own needs so far	1
We have never considered the possibility of applying outsourcing	3
<b>Total</b>	<b>11</b>

*Source: Research findings*

According to Table 1, 46% of companies that do not use outsourcing, as the main reason, quote the position that it is best for all activities to be conducted within their own companies, 27% of companies had not considered the possibility of application of outsourcing in their business, while the remaining 9% of companies believe that there are not enough quality outsourcing partners, while the same percentage said the company does not use outsourcing for the sake of concern for jobs of their own staff, or that they are currently able to cover their own business needs. It is interesting to point out that no company has indicated fear of losing control over the allocated activities as the main reason for not using outsourcing.

If we take as a criterion the number of allocated activities, research results in the observed sample show that 62.5% of companies that use outsourcing, allocate three or more business activities, 25% of the companies allocate two business activities, while only 12.5% of the companies allocate only one activity.

**Table 2.** Activities which are subject of outsourcing in small companies

Activities	Number of companies
Procurement	0
Sale	0
Delivery of goods	2
Shipping of goods	1
Warehousing of goods	1
Cleaning	1
Accounting jobs	4
Management	0
Education	1
Financing	1
Labor	3
Legal affairs	5
Marketing	2
Information and computer systems	4
Security and surveillance	1
<b>Total</b>	<b>26</b>

*Source: Research findings*

The survey shows that 62.5% of the companies allocate activities related to legal affairs, 50% of the companies allocate accounting jobs and information and computer systems, 38% of companies



use labor services outside the company, 25% of companies use external executor to carry out transportation of goods, while 12.5% of the companies allocate shipment of goods, warehousing, cleaning, education, financing, security and surveillance. None of the respondents allocate activities related to management, procurement and sales (Table 2).

**Table 3.** *Distribution of change in cost structure of small companies by allocated activities*

Activities	Number of companies					
	Significant reduction	Partial reduction	Costs are the same	Partial increase	Significant increase	Number of companies
Procurement	0	0	0	0	0	0
Sale	0	0	0	0	0	0
Delivery of goods	0	1	1	0	0	2
Shipping of goods	0	0	1	0	0	1
Warehousing of goods	0	1	0	0	0	1
Cleaning	0	1	0	0	0	1
Accounting jobs	0	2	2	0	0	4
Management	0	0	0	0	0	0
Education	0	1	0	0	0	1
Financing	0	0	1	0	0	1
Labor	0	2	0	1	0	3
Legal affairs	0	2	3	0	0	5
Marketing	0	1	0	1	0	2
Information and computer systems	1	1	2	0	0	4
Security and surveillance	0	1	0	0	0	1
<b>Total</b>	<b>1</b>	<b>13</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>26</b>

*Source: Research findings*

According to data presented in Table 3, it is evident that in 4% of allocated activities it was recorded significant reduction in costs, in 50% of allocated activities partial reduction of costs, in 38% of allocated activities costs have remained at the same level, while in 8% of activities it was recorded partial increase of operating costs. For not even one allocated activity was recorded significant increase in operating costs.

**Table 4.** *Measuring the affect of outsourcing application in small companies to converting fixed costs into variable*

Activities	Completely negative	Partially negative	Costs are the same	Partially positive	Completely positive	Number of companies
Procurement	0	0	0	0	0	0
Sale	0	0	0	0	0	0
Delivery of goods	0	0	1	1	0	2
Shipping of goods	0	0	1	0	0	1
Warehousing of goods	0	0	0	0	1	1
Cleaning	0	0	0	1	0	1
Accounting jobs	0	0	2	2	0	4
Management	0	0	0	0	0	0
Education	0	0	1	0	0	1
Financing	0	0	1	0	0	1
Labor	0	0	0	3	0	3
Legal affairs	0	0	3	1	1	5
Marketing	0	0	1	1	0	2
Information and computer systems	0	0	2	2	0	4
Security and surveillance	0	0	1	0	0	1

<b>Total</b>	0	0	13	11	2	26
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*Source: Research findings*

Results shown in Table 4 are illustrative of the impact of application of outsourcing in small companies to converting fixed costs into variable, and thus by allocating 50% of activities ratio between fixed and variable costs remained unchanged, allocating 42.3% of activities partly influenced the conversion of fixed costs into variable, while allocation of 7.7% of activities significantly affected the conversion of fixed costs into variable.

**Table 5.** *Measuring the affect of outsourcing application in small companies*

Indicators	Completely negative	Partially negative	The same	Partially positive	Completely positive	Number of companies
<b>Total costs</b>	0	0	3	4	1	8
<b>Fixed costs</b>	0	0	3	4	1	8
<b>Variable costs</b>	0	1	5	2	0	8
<b>Availability of funding</b>	0	1	6	1	0	8
<b>Competitiveness in the market</b>	0	0	6	2	0	8
<b>Flexibility of business</b>	0	0	3	4	1	8
<b>Risk of business</b>	0	1	5	2	0	8
<b>Expansion of business associates network</b>	0	0	3	5	0	8
<b>Improvement of market position</b>	0	0	6	2	0	8
<b>Total</b>	0	3	40	26	3	72

*Source: Research findings*

If we consider the impact of outsourcing on overall operating costs, 37.5% of the companies claimed that the total costs remained the same and that outsourcing did not affect the level of total costs, in 50% of the company's application of outsourcing had partially positive impact on total costs, while 12.5% of the companies recorded significant positive effects of outsourcing application on overall operating costs (Table 5). The same indicators also apply to fixed costs, while for variable costs 12.5% of the companies stated that the use of outsourcing had partially negative impact, which means that there has been some increase in variable costs, in 62.5% of the companies outsourcing application had no effect on variable costs, while in 25% of cases application of outsourcing partially contributed to a decrease in variable costs. Application of outsourcing had no significant impact on the availability of funding. In 25% of the companies outsourcing application partly influenced increasing competitiveness. Significant impact of outsourcing application on the flexibility of business was recorded in 12.5% of the companies; partly positive impact in 50% of the companies, while in 37.5% of the companies influence was not recorded. Application of outsourcing in 12.5% of cases partly contributed to increase in the riskiness of business, while a partial reduction in the risk of business was recorded in 25% of the cases. Partly positive impact of outsourcing on the expansion of business associates network was recorded in 62.5% of the companies, while in the rest of the companies influence remained unchanged. Partial improvement of market position of the company was recorded in 25% of the companies, while in the rest of the company's market position remained unchanged.

Research results have shown that most of the companies which allocate their activities confirmed that the application of outsourcing has partially contributed to expansion of business associates network. In 40% of mentioned companies contribution is visible through vertical integration, meaning cooperation on relation supplier – customer, while in the rest of the companies there was diagonal cooperation with business associates from other sectors. Realized business cooperation in 60% of cases resulted in non-contracted business cooperation based on the exchange of knowledge and experience in business, and the rest of the companies based their business cooperation on the basis of purchase agreements.

**Table 6.** *Expansion of business associates network in small companies considering expansion affects by specific indicators*

Indicators	Completely negative	Partially negative	The same	Partially positive	Completely positive	Number of companies
Usage of resources	0	1	3	1	0	5
Access to new markets	0	0	3	1	1	5
Market share	0	0	3	1	1	5
Usage of new knowledge and skills	0	0	1	3	1	5
Flexibility of business	0	0	0	3	2	5
Riskiness of business	0	1	2	1	1	5
Time saving	0	0	2	2	1	5
Operating costs	0	1	1	2	1	5
<b>Total</b>	<b>0</b>	<b>3</b>	<b>15</b>	<b>14</b>	<b>8</b>	<b>40</b>

*Source: Research findings*

In 20% of the company's expansion of business cooperation partially enabled access to new markets, while the same percentage of companies stated that this influence was entirely positive, while in other cases remained at the same level (Table 6). The same ratios apply to market share as well. The positive impact was noted in the use of new knowledge and skills in 80% of cases, while in the rest of the companies influence was not recorded. Partially positive or completely positive impact has reflected on the flexibility of operating in all companies, while in 60% of the company's expansion of business associates network partially or completely affected time savings.

## 6. Conclusion

Due to the expressed changes occurring in the market, small companies are forced to look for new business solutions to achieve and maintain competitiveness. Wholesale and retail trade is a particular crisis affected activity in which application of outsourcing is offered as the possibility of restructuring for small companies.

Research has shown that less than half of small companies in wholesale and retail applies outsourcing, with an average of three allocated business activities. Activities that were subjects to outsourcing the most are related to accounting and legal affairs, and information and computer systems. The largest number of companies that do not apply outsourcing as the main reason stated the position that all activities are best performed within their own companies, while a significant part of the companies has not even considered the possibility of application of outsourcing.

In most of the observed cases, the application of outsourcing resulted in the reduction of costs of allocated activities. Observation of the cost structure on the level of activities has shown that the application of outsourcing in half of the companies resulted in the conversion of fixed costs into variable. If you take into consideration the costs at the company level, it can be concluded that in most companies there was a reduction of total, but also fixed operating costs, while in most cases variable costs remained unchanged. According to the previously mentioned, the first research hypothesis is confirmed, in which it was proven that the application of outsourcing to small companies has a positive effect on the cost structure of a company.

Besides the above mentioned, application of outsourcing also recorded a significant positive impact on the expansion of business associates network and business flexibility, while in a lesser degree had a positive impact on the competitiveness in the market and improvement of market position. When it comes to the expansion of business associates network, most companies confirmed that the use of outsourcing influenced the expansion of business associates network in a way that

they established cooperation with partners from other activities, while a smaller part of the companies established a vertical cooperation based on relation supplier-buyer. Considering the intensity of cooperation most of the companies focused on informal cooperation based on the exchange of knowledge and experience that enables improvement of business. A smaller part of the companies devised a contractual relationship with other business partners. Expanding business associates network largely positively affected the flexibility of operations, use of new knowledge and skills, and time savings. A somewhat less positive impact was reflected in the increase of market share and access to new markets. Negative impact in individual cases was recorded only in increase of costs and risk of business. In accordance with the above mentioned facts, it can be concluded that the application of outsourcing contributes to the establishment and expansion of business associates network, thereby accepting the second hypothesis.

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## MAPPING TV NETWORKS' COMPETITIVE STRATEGIES IN AN ERA OF TURBULENCE

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### Abstract

*In the age of rapid technological change, commoditization of media products, unification and increased fickleness of the consumers' tastes and the appearance of "long tail" niche markets, the death of television as a media outlet has been hailed for quite some time. Although the fall in TV ratings has not been as significant as previously thought, and the average time spent watching television has even increased in recent years, TV networks are faced with increasing competitive pressures both from the existing competitors, as well as from new media and new forms of entertainment whose entry into the competitive landscape has been spurred by the rapid proliferation of more accessible and cheaper production and communication technologies. For these new competitors, television is sometimes seen as the proverbial Goliath that must be taken down. Thus, serious strategic thinking, an acute awareness of the environment, and a diligent application of the tools of strategic management is becoming an imperative for TV networks, if they are to ensure their long-term survival in the turbulent landscape they have found themselves in. The Balanced Scorecards and strategy maps are two tools that can be of great help for the networks' strategists. Developed in the beginning of the 1990s by Harvard Business School professor Robert S. Kaplan, and management consultant David P. Norton in a series of articles in the "Harvard Business Review", as well as several best-selling books ("The Balanced Scorecard", "The Strategy-Focused Organization", "Strategy Maps"), the tools have seen rapid acceptance in the US and the UK, the Scandinavian countries, as well as in the rest of the world in the following years. In the "Management Tools and Trends", an annual survey conducted by the management consultancy Bain & Co, both tools have consistently found themselves in the top 10, both globally and across continents. We believe that more than 20 years of usage in various industries has shown that they are an excellent fit for the needs of today's TV networks' strategists - the reconsideration and realignment of the existing competitive strategies, the formulation and implementation of new ones, as well as the measurement of strategic performance.*

**Keywords:** television networks, strategy formulation, performance measurement, strategy maps, Balanced Scorecard

### 1. Introduction

Since appearing in the 1920s, television has become, by far, the dominant medium of the 20th century, and the go-to medium for news, entertainment, as well as for education. Although its business model has been threatened several times by new technologies (VCRs, cable television, TiVo), network television has stood the test of time, and turned those technologies into complements, rather than having them as substitutes or competitors. Although network television has

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seen a certain fall in audience ratings in recent years, the decrease has been less significant than previously projected, with average time spent watching television steadily increasing over the past several years.

On the other hand, television, as most other media, has existed for decades in a relatively serene competitive environment, only occasionally being challenged by upstart technologies that were easily co-opted and assimilated into the dominant business model. This has, in a sense, stifled the need for serious strategic analysis and planning, as well as the manager's strategic thinking, as opposed to other, much more turbulent and competitive industries. Apart from taking part in the so-called "merger mania" of the past two decades, TV networks have been spared from the need to strategize and proactively manage their external environment.

Unfortunately for network executives (and may we say, fortunately for media management researchers), this is starting to change. New content delivery channels (Hulu, iTunes), as well as the non-traditional competitors (the latest being Netflix and its internally produced series "House of Cards") threaten to chip away at TV networks' revenue streams. And these new competitors aren't going away any time soon. The Internet has profoundly affected the business models and the practice of doing business in a host of industries, and it would be irresponsible and dangerous to believe that network television will be an exception. Although it is true that a new medium has never completely displaced an old one (the example of Encyclopedia Britannica notwithstanding), television faces a strategic challenge from these upstart competitors like never before.

To further prove this point, let us turn to Küng (2008) and Ferguson (2006), who point out several strategic threats, no less serious than the ones already discussed: the cost of conversion to HDTV, loss of revenue streams, direct content delivery, the demise of traditional television news, and loss of viewing primacy and audience fragmentation. Thus, we believe that the time is ripe for the application of proven strategic management frameworks, in order to meet these challenges head on, and ensure, as painless as possible, a transition of business models, as well as the TV managers' mental models, into an era of increased turbulence and competition.

## **1. Balanced scorecard and strategy maps – tools for managing intangible assets**

The strategic and operative management require the application of such performance standards enabling the insight into the level of the firm's long-term and short-term goals. The traditional system of the performances standards includes a number of the key performance indicators (KPIs) and as such they are not an innovation in the strategic and operative management process. The problem of those indicators is in their disconnection. Namely the KPIs are often considered separately by themselves, and the managers lack the presentation of a total realization of all the objectives, and particularly of the essential ones.

The problem of following – up the objectives realization becomes more complex with changing the structure of the resources used in the business processes. Previously the most important in the creation of value were the tangible assets, while now those are the intangible ones. Now in a number of firms the intangible assets produce over three quarters of their market value. Accordingly, the knowledge of the managers and the staff is the key element of the intangible assets.

The intangible assets may be presented in several ways. For example, according to a classification (Kaplan, Norton, 1996), the intangible assets may be divided into the human, the organizational and the information capital. According to another division (Mard et al., 2007, pp. 27-29), it may be classified into five categories:

1. Marketing-related intangible assets (for example, trademarks, trade dress)
2. Customer-related intangible assets (for example, customer lists, customer contracts, related customer relationships)

3. Artistic-related intangible assets (for example, plays, magazines, pictures, musical works)
4. Contract-based intangible assets (for example, licensing, lease agreements, franchise agreements)
5. Technology-based intangible assets (for example, patented technology, computer software, trade secrets).

The intangible assets are the dominant kind of assets used in the TV networks business processes, in all its categories. Due to such a kind of assets, it is logical and necessary to apply in those processes the techniques and instruments of the strategic management that were created in such an environment and for that purpose, this being the Balanced Scorecard and the strategy maps.

In their 2006 book, *"Alignment"*, Harvard Business School professor Robert Kaplan and management consultant David Norton identified several conceptual limitations that illustrate a lack of connection between the long-term goals and business strategy on one hand, and short-term goals and operational activities on the other. These limitations were observed in more than 200 US-based large enterprises that were part of the authors' study, belonging to different industries, but are, in our opinion, symptomatic in the media industry: (1) lack of clarity of vision, (2) lack of balance between long term goals and managers' compensation schemes, (3) inadequate resource allocation, and (4) lack of strategic feedback.

The management practice has shown that managing a business strategically is impossible if an operational management framework is used (something that TV network executives are prone to do, as they are not accustomed to doing business in a turbulent environment). It has also shown that corporations operating in highly competitive industries cannot rely solely on accounting and financial indicators, as they do not illustrate the efficiency of the managing processes that improve a firm's competitive position, only the end results of these processes. Thus a new framework for navigating the turbulent strategic conditions and measuring performance was required.

The authors Kaplan and Norton, starting with several articles in the *Harvard Business Review* (1992, 2000, 2006) and continuing with a series of best-selling books (1996, 2000, 2004, 2006, 2008) have introduced a strategic planning, the management and performance measurement system, entailing Balanced Scorecards and strategy maps, that have seen widespread adoption (primarily through their management consulting firm, *The Palladium Group*) worldwide, from the industrial sector, through non-profits, to government and educational institutions. The framework is consistently ranked in the top 10 strategy tools in Bain & Co.'s annual survey "Management Tools and Trends".

The crux of the Balanced Scorecard concept is the realization that an enterprise's goals and processes that lead to achieving these goals cannot be effectively managed if they are not properly measured. As previously stated, the financial indicators cannot paint a complete picture for business strategists, as they: (1) are lagging indicators, by nature, and (2) only reflect the success of the enterprise as a whole, abstracting the processes that lead to value creation. Thus, the Balanced Scorecard comprises of four dimensions (or perspectives, as the authors call them), each consisting of a number of process-relevant goals (i.e. objectives), and respective measures (performance indicators):

1. *Financial perspective.* The financial perspective describes tangible strategic results as measured by the traditional financial performance indicators - return on investment, economic value added, revenue growth, cost per unit, total profitability.

2. *Customer perspective.* The customer (or marketing) perspective defines the value proposition for the targeted customer segment. This value proposition gives context to value creation through intangible assets. If customers value consistent quality and on-time delivery, then skills, systems and processes that deliver high quality goods and services are important. If the customers prefer innovation and high performance, a different set of skills and processes, the ones that create new products and services with superior functionality, will be required. The key to successful

strategy implementation is a constant alignment and realignment of an enterprise's competences with its value proposition.

3. *Internal Business Process perspective.* The internal perspective identifies several critical business processes that are expected to have the biggest effect on the corporate strategy. For example, one corporation may invest in R&D efforts and restructure its product development process in order to create innovative products with increased performance. A different corporation, with the same value proposition, may develop new products and offerings through joint ventures or M&A.

4. *Learning and Growth perspective.* This perspective identifies intangible assets of the highest importance for the chosen strategy. The goals and measures in this perspective identify the human, information and organizational capital required to support the value-creation process. These assets must be grouped together and aligned with the critical internal processes.

As its name suggests, the Balanced Scorecard provides a balance in three aspects: (1) between external performance measures pertaining to shareholders and customers, and internal measures pertaining to internal business processes and learning and growth; (2) between performance measures, as a result of previous actions and decisions, and measures of future performance, and (3) between the quantifiable performance measures and subjective, qualitative measures.

The Balanced Scorecard presents a consistent framework for analyzing and formulating a strategy. A strategy that is not easily described cannot be effectively implemented. A visualization tool for strategic cause and effect relationships is the strategy map. The strategy maps are used in conjunction with Balanced Scorecards, and are created using a top-down approach. The development of a strategy map begins with defining long term goals for shareholders, as well as other stakeholders (most notably, customers), continues with the definition of the key strategic initiatives, and ends with the identification of values drivers for the four different perspectives.

The strategy maps and the Balanced Scorecard enable the connection of the strategy, the financial measures, the critical success factors and the key performance indicators. The critical success factors are the pillars or the cornerstones of the business strategy. The key performance indicators enable the follow-up of the performances being in harmony with the organizational goals. Only due to the developed performance measurement system integrating goals, measures, tasks and initiatives, a high – quality insight into the efficiency of the process of the business strategy implementation and the basis for its new formulation are achieved.

Just due to a huge potential of the mentioned instruments, we became aware of a need to examine the possibilities of their application in the area of the strategic management in the TV networks business.

A case study of the application of the Balanced Scorecard and the strategy maps in the Serbian commercial TV network is described in the next section.

## **2. Goals setting, performance measurement, and mapping corporate strategy: a case of Serbia**

Starting from the theoretical assumptions of the presented techniques of the strategic mapping (the strategic maps construction) and the Balanced Scorecard construction, we started the creation of the generic, non – specific strategic maps of the commercial TV networks on the territory of the Republic of Serbia. Therein, we applied the principle of the maps creation upside – down, first defining the goals in the financial perspective, then those in the customer perspective. We were aware about a relation of cause and effect between those goals – the marketing goals achievement and the creation of a unique supply for the customers should enable the financial goals achievement. This is not achieved by itself, but during the internal business processes performing. Such processes were identified in the internal perspective. The resources are spent, i.e. applied in the processes. The most valuable resources enabling the creation of the highest value for the consumers are the intangible ones. Those resources were identified in the perspective of learning

and growth. The potential of creating values in the internal business processes is increased through their advancement.

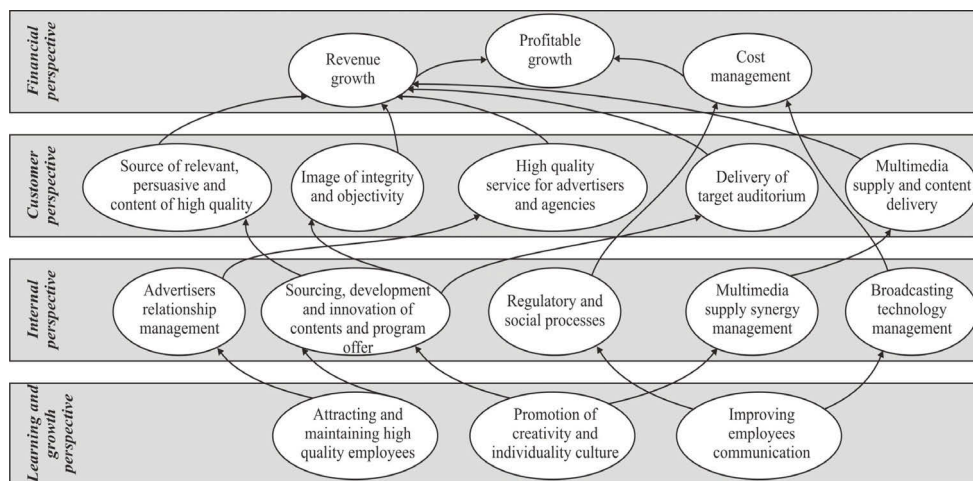
Accordingly, the logic of the strategy map construction is: an efficient realization of the effectively selected business processes is enabled through the advancement of the intangible assets. It leads to an increased value for the consumers, and to a final positive effect to the achievement of the financial goals, dominantly interesting for the owners. Such a constructed strategy map was a basis for the construction of the Balanced Scorecard. The construction of the Balanced Scorecard requires defining for the set goals from the strategy map the measures of their realization and then the tasks (targets), as well as the initiatives in the form of the projects and actions enabling the tasks realization. Following our decision of creating the generic maps and the Balanced Scorecard, in this paper we pursued the definition of their goals and measures of their realization. The tasks quantification is specific for each separate firm, as well as the number of possible initiatives for their realization, so we left those elements of the Balanced Scorecard to the TV networks managers.

At the time of writing, there are 4 commercial TV networks in Serbia (Pink TV, Prva TV, Happy TV, B-92), whose broadcast signals provide the national coverage, under license by the Republic of Serbia Broadcasting Agency. Apart from these 4 channels, the public broadcasting service, Radio-television of Serbia (RTS) broadcasts 2 channels with national coverage. The licenses for national broadcasting (as well as for regional and local) are assigned as a result of a public tender, by the already mentioned regulatory body for a period of eight years. Apart from the 6 total channels with the national terrestrial signal coverage, there are a multitude of regional and local terrestrial channels, as the well as domestic and foreign cable-only channels, thus numbering more than 200 channels on the Serbian television market.

The commercial terrestrial television networks are allowed, by law, 12 minutes of advertising time per hour (excluding the self-promotional spots), while the public broadcasting service's channels are allowed 6 minutes per hour. No such restrictions apply to channels that are broadcast only through cable and satellite services.

A commercial TV network's strategy map is shown in the picture below:

**Figure 1.** Strategy map of a terrestrial TV network



Except for the 2 channels of the national broadcasting service, all 4 TV networks with national coverage operate on a for-profit business model. Their primary goal is, thus, profit maximization and sustainable growth. This goal can be achieved through cost management, from labor costs, through content acquisition and creation costs, to better management of broadcasting processes, and the reduction of penalties paid under the relevant legal acts. On the other hand, revenue growth can be achieved through increased ratings and audience shares on the existing advertisers'

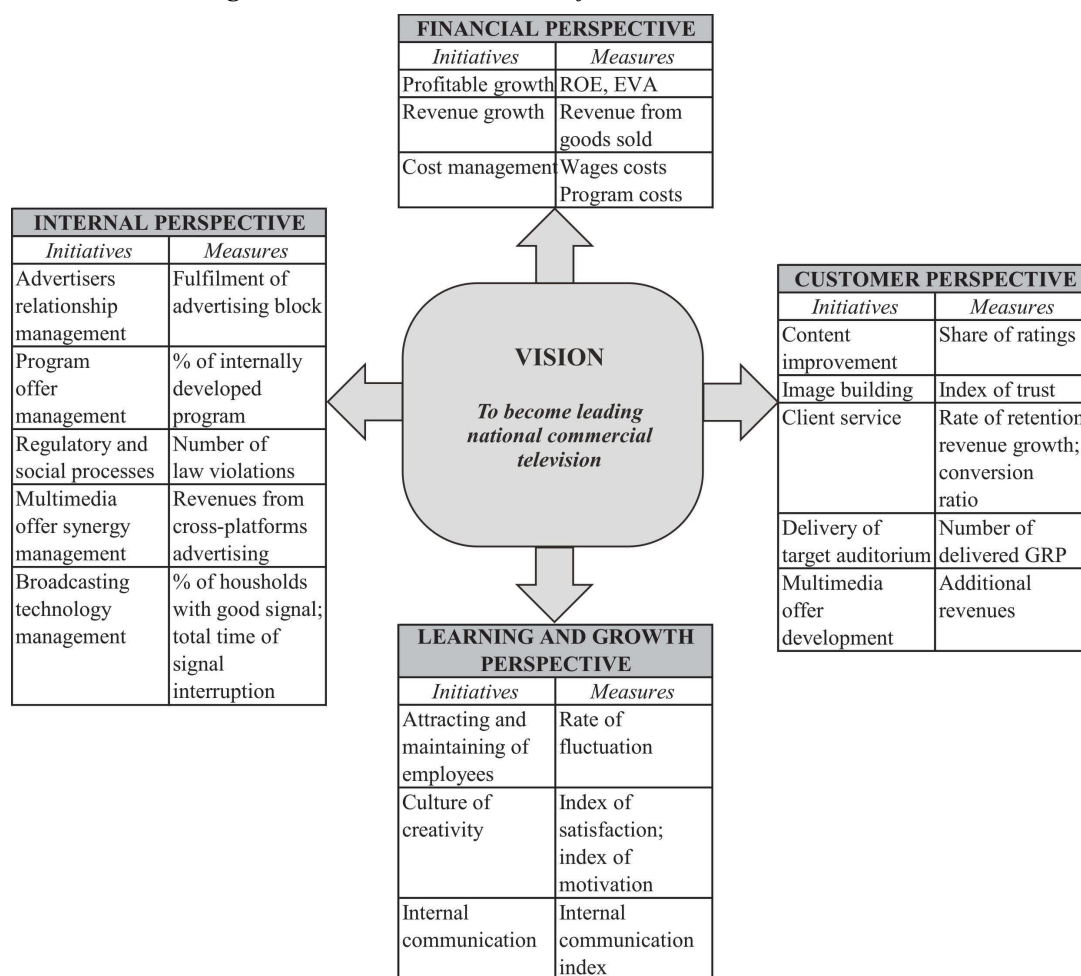
relevant demographic targets, as well as through enticing new advertisers by creating contents that appeal to other demographics.

To increase the program ratings, and attract additional audiences, a TV network must offer quality, contemporary, relevant and persuasive entertainment content, as well as trustworthy and objective news. Through adequate programming, a network can increase its audience share and appeal to audiences whose demographic characteristics appeal to advertisers and their media agencies. By "delivering" target audiences to their clients, TV networks can ensure successful long term client relationships. By broadening their program offerings, and gaining a presence amidst different audiences (for example, by broadcasting shows that cater more to women, or broadcasting sports events of national or international importance), a network can attract new advertisers that weren't interested in its current audience profile. Also, for expanding the client relations, a network can introduce new content distribution channels and supplementary content - its website, or special mobile phone services - that provide its clients with additional opportunities for advertising, and provides the cross-platform revenue for the network.

Building a TV network's image as a media that audiences can turn to for news and entertainment is based on a complicated programming and scheduling process, that is both strategic and tactical in nature. The decisions on content acquisition from external sources, both international and domestic, can have long term consequences on a network's market positioning and financial health. By carefully choosing programs and time slots, a balance can be made with audiences' increasingly fickle tastes. Of course, this process takes place in a dynamic environment, and schedulers must mind competing networks' program offerings. To maximize the effect of careful planning and program scheduling, good management of the broadcasting processes is required, to ensure as few interruptions in emissions as possible (due to, for example, technical difficulties with terrestrial transmitters), as the well as presence in all relevant cable and satellite distributional systems. Finally, the program packaging process must be efficient, in order to minimize audience migration due to excessive advertising break length, as well as to avoid breaking rules on maximum advertising time per hour and program length between two advertising breaks.

For television networks, as well as any other media, the employee's creativity is a key resource. The reporters, anchors, editors, hosts - all take part in creating in-house content. Thus, it is highly important to attract the key human resources, and nurture a level of motivation, creative independence, and open communication that will encourage a culture of creativity and innovation, as the media business model is based mainly on these two elements.



**Figure 2. Balanced Scorecard of a terrestrial TV network**

Increasing a network's revenue is primarily based on increasing the audience ratings, due to the dominant business model of charging advertising time by its performance on the relevant demographic target group. The networks negotiate CPP (cost-per-point) contracts with their clients (advertisers and media buyers), that entail forming the price of advertising time according to the audience ratings of advertising breaks, measured in GRPs (gross rating points). A gross rating point shows the percentage of the demographic target groups that watched the broadcasted commercial spot. CPP prices are defined in advance (with discounts for certain predetermined advertising budgets), thus tying the networks' revenues directly to the audience ratings.

On the other hand, cost management is extremely important, as there exists a constant need for acquisition and production of a new, and improvement of the existing content, needed for increasing the audience ratings. The investments in quality in-house production can be very high, and purchasing the international content is expensive as well, and is often bundled (as is the case with movies, for example)

Thus, the *financial perspective* in a network's Balanced Scorecard can contain the usual financial measures, such as the revenue increase, EBIT increase, and return on equity (ROE).

The commercial television networks have a need for profiling their program offering in order to stand out, although this is in contrast to their exclusive licenses for broadcasting on national frequencies, which makes them general-purpose TV stations that can target broad audiences. Only Happy TV has a mandated morning to early afternoon segment devoted to children's programming, which is a consequence of its acquisition of a children-themed TV network it shared the same frequency with after the original 2006 tender. On the other side are cable and satellite-only



channels that are very specialized. Still, terrestrial networks schedule their program offerings in order to target narrower demographic profiles that are considered more commercially viable (the 18-49 demographic is a prime example). A frequent case is that of advertisers that have special requirements (cosmetics manufacturers target primarily women of a certain age bracket), and the commercial terrestrial networks produce shows that such audiences will find interesting, as CPP deals are negotiated on these specialized demographic profiles.

The usual performance indicators in the *customer perspective* are a network's price of advertising time compared to the competitors' prices, acquisition rates of new clients, and revenue growth from the existing clients. Other, more specialized indicators are: (1) the number of "delivered" GRPs, (2) the usage percentage of allotted advertising time per hour (the 12 minutes per hour are never fully used, as clients are rarely interested in advertising during the night, and it is not always technically feasible to broadcast exactly 12 minutes when packing shows and advertising breaks together), and (3) the conversion ratio.

The conversion ratio (Webster et al. 2006) is calculated as the relationship between the network's advertising revenue share in the total market advertising revenue, and the network's audience share. This ratio represents the relationship between the achieved revenue and the potential revenue. It shows the percentage change in revenue for a percentage change in audience share. The audience share is based on the electronic television audience measurement (i.e. peplemeter) data provided by Nielsen Audience Measurement. The first part of the equation is not, unfortunately, as exact. The networks cannot easily obtain data on competitors' revenue. The global providers of such data are agencies such as TNS Media Intelligence/CMR and Nielsen Monitor Plus. But, this data is prone to error, as it is based on surveys of the networks' sales department and media buyers, who both have incentive to give skewed data.

In managing their *internal business processes*, TV networks take special care in three elements: (1) programming/scheduling, (2) acquisition and development of content and (3) uninterrupted broadcasting.

For a terrestrial network, the technical aspect of the signal broadcasting and reception are of utmost importance. Good programming is of no use if the audience does not receive a quality signal, or there are interruptions or problems with broadcasting. Thus, indicators such as percentage of TV households that have good reception, or total disrupted emission time, are relevant.

The commercial stations find it important to balance their program offering with their target audiences' tastes, as well as balancing them with the requirements of advertisers and their media agencies. By carefully choosing the content, these interests can be aligned, and networks can garner larger advertising budgets from the existing clients, as well as to attract new ones. The networks constantly acquire new content - whether developing it in-house, purchasing it from domestic production houses, and even buying shows on the international market. They also license proven international formats (such as quiz programs and reality shows) and produce local versions. Those that do well are kept on the air, those that do not, are replaced. Thus there is a constant need for cost-benefit analysis, and comparing the investments into content with its ratings and revenue.

The terrestrial TV network business in Serbia is regulated by Broadcasting Act and the Advertising Act, and is supervised by the Republic of Serbia Broadcasting Agency. In this sense, it is extremely important that regulations are conformed to, especially those pertaining to total allowed advertising time per hour, as well as the program time between two advertising breaks, as penalties are very steep, and are enforced efficiently. Thus, a metric describing the number of violations is important to monitor.

The *learning and growth perspective* of the Balanced Scorecard describes intangible assets of an organization and their role in strategy implementation. Intangible assets can be divided into three groups:

- (1) *human capital*: skills, talents and tacit knowledge required to support the strategy;
- (2) *information capital*: information systems, networks and knowledge infrastructure;

(3) *organizational capital*: the capability to begin and sustain the process of change needed for implementing the strategy.

Although all organizations believe they are committed to developing their people, technology and culture, most of them do not succeed in aligning these assets properly with their strategy. The key to ensuring alignment is granularity - overcoming commonplace initiatives such as "people development" and "being true to core business values", and focusing on specific competencies and attributes required to implement critical internal strategic processes. A good strategy map, with a synergistic Balanced scorecard, can allow managers to identify intangible assets needed by the strategy.

Some of the typical performance indicators used in this perspective (that can be applied successfully to a TV network) are the fluctuation rates (especially for "star employees" such as popular news anchors and talk show hosts), an employee satisfaction index, a motivation index, and internal communication ratings (Niven 2006).

### 3. Conclusion

The application of modern techniques of strategic management - strategy map and Balanced Scorecard for the formulation and implementation of strategies TV networks has a greater number of benefits.

A sound process of strategy mapping provides the following:

- stronger focus on financial goals and precise measures of their achievement (profitable growth, revenue growth, cost management);
- testing the hypothesis that the success regarding customers (by content improvement, image building, delivery of target auditorium and multimedia offer development) leads to healthy financial outcomes;
- a clear link between internal business processes (advertisers relationship management, program offer management, regulatory and social processes, multimedia offer synergy management and broadcasting technology management) and marketing achievements;
- awareness about the importance of enhancement of intangible assets (attracting and maintaining of employees, culture of creativity, internal communications) for the effective implementation of business processes.

Now, such a clearly defined map of a TV network strategy is a basis for its operationalization in the form of Balanced Scorecard where the goals, measures, the tasks and initiatives are defined.

The strategy maps and the Balanced Scorecard described in this paper are the propositions for generic types of these instruments in the TV industry. Since each TV network differs according to its financial position, market position, its business processes development level and the quality of the tangible and intangible resources, the concrete specific strategy map and the Balanced Scorecard will differ also for each TV network.

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## USE BENCHMARKING DON'T JUST BENCHMARK

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### Abstract

*Today enterprises compete among themselves in very small things that can contribute to increase the company's performances compared to the others. According to a research made among businesses in USA, published by Harvard Business Review, one of the most important aspects the enterprises need to pay attention to when they speak about the success is the quality. This requires from companies to define their quality programs, and find out which are their most important elements related to quality improvement. In this paper when we discuss quality we discuss the Total Quality Management, or quality in all aspects inside the organization. One of the best techniques for improving quality or the best technique of Total Quality Management is Benchmarking. Benchmarking has been the best competitive advantage of Japanese enterprises which it has a great impact on their performances. Japanese enterprises without inventing almost anything with the use of benchmarking became major player in technology, car industry etc. In this paper we will try to help enterprises to understand what is benchmarking, how it works and how it can gain competitive advantage to enterprises. The objective of this text is to point the differences that exist among benchmarking and benchmark and that benchmarking is the technique that enterprises should use. The research results in this paper show that companies usually think that they implement benchmarking but actually what they use are only benchmark. Benchmark is used only to compare company's performance, but benchmarking besides company comparison offers information on how the company which is best in the industry has achieved those results, and continues with the knowledge, adjustments and improvements needed to be implemented it in the enterprise.*

**Keywords:** benchmarking, benchmark, total quality management, internal benchmarking, external benchmarking

### 1. Introduction

Every company has its strengths and weaknesses, by using the concept of the techniques of Total Quality Management (TQM) in organization they can eliminate their weakness and use their strength. Benchmarking in the past four decades has been one of the most popular techniques of TQM, the implementation of which is continuously increasing. Let's try to explain benchmarking in our everyday life. As children we constantly want to become something, some want to be the best basketball players, some others football players and so on. After every game we went out and try to do the same movements as our Heroes in the TV did, we always tried to replicate their games, but none of us become a great sportiest. Where we did do wrong? As children we were concentrated in players game which is the final result, but not in the way through which every great player had to pass (all of those hard training that each great player did). Another thing that

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we need to understand is that children use a great approach in trying to achieve a great result and that is by analyzing the game of the best players in the specific sport. This logic is used in benchmarking as a technique, where enterprises in their efforts to be the best, need to learn from the best.

## 2. What is benchmarking and benchmark?

Benchmarking is a technique in which management analyzes and uses the best practices of competitors, in formulation of goals in order to advance the implementation in the enterprise (Shuklev, 2003, p.33). Benchmarking uses external comparison, so it can make possible to enable better valuation of its performance (Shermerhorn and David, 2000, p.148). According to the American center for productivity and quality *“benchmarking is seen as process of identifying, understanding and adapting outstanding practices of other organizations throughout the world, in order to help your company improve its performance”*. Analyzing these and other definition we can conclude that *“Benchmarking is the technique of Total Quality Management, which makes continuous comparison between departments inside the enterprise or comparisons with other companies in order to use best practices, adapts them to existing enterprise and improves them.”*

Usually people in the everyday life use the term benchmark and benchmarking as one, even though that there is a big difference. Benchmark measures the enterprise performance and it is used mainly for comparing the enterprise results or something else with other enterprises, but benchmarking as we can see from the definition is much broader concept.

Benchmarking for the first time was used by Japanese enterprises, where after the excellent results it began to be used in the U.S.A and Europe. Many experts think that the main reason for excellent results achieved by the Japanese economy lies precisely in the use of benchmarking. Japanese economy is known for being one of the best industries in producing product electronic devices and car industry. But television or automobiles were not discovered in Japan, and still Japanese companies are the leading manufacturer in the world. Japanese enterprises didn't invent most of their product but they had excellent skills to learn from the best, take their knowledge, adapt it and improve it. Japanese enterprises surprised the whole world with their achievements. Benchmarking is used by many world leading companies among which Ford Motor, Xerox, AT & T, Motorola, Du Pont etc. In the U.S.A the first benchmarking was used in 1979 by Xerox Company (Jeremy, 1992, p.1-5). This company showed its interest for this technique when manufacturers from Japan began to sell coping machines at a price of U.S. \$ 9600, a price which has been lower than producing costs for production of the copying machines by Xerox company in the USA. At first the Xerox Company in the U.S.A thought that Xerox is using dumping, but still they decided to analyze it. After the analysis Xerox company leaders were surprised that the Japanese company managed to produce the copy machine with much lower price than the USA Company did. From this moment benchmarking has been part of this company.

Benchmarking can be used for any problem in the organization which doesn't only compare but also analyze what made the competition better; it tries to understand the knowledge that made them better. It is not a technique which shows that others do something better (benchmark), but also shows the way how can and should be done a certain job.

## 3. How to use benchmarking

Benchmarking sometime is understood as imitation of the way how other companies perform. However, benchmarking is not so simple. Benchmarking measures the performances of the company that is best in the class, observes how they do everything they do the best and then uses this information for the next steps in adopting, improving and adjusting them, so the new knowledge can be implemented in the enterprise (Leibfried, 1992, p.208).

The author Rudyard Kipling is found of putting the six questions that need to be answered in order to understand one issue, in our case benchmarking (Leibfried, 1992, p.25-33). In order to understand the process how to best use benchmarking we will try to answer them one by one, let start with the first question, when?

**1. When benchmarking is used** – benchmarking is mostly used in obtaining information regarding the needs of enterprises, which often has to do with a project, for example:

- Quality programs,
- Cost reduction,
- Efforts to improve operations,
- Changes in management,
- New operations/new investments ,
- Re-thinking of existing strategies,
- Competitive crises etc.

Benchmarking is used when the company develops new products; they are setting new goals and creating new measures for performance measurement and many other activities in enterprises.

**2. Why should companies use benchmarking?** There are many reasons why companies should use benchmarking, among which as most common are:

- Receiving signals from the employees so that managers can continue with the philosophy of proactive thinking, which promotes changes,
- Formulation of important goals and measuring performance,
- Promotes teamwork that comes from competition and from the data, not intuition,
- Leads enterprises to continuously improvements.

**3. What do you use as a benchmark** - There are four types of benchmark which can be further exploited as benchmarking:

- *Internal benchmarking* - that means analyzing existing work practices in sectors or divisions within the company itself, seeking best practice and identify amplifiers and basic activities. Within the company itself in some often we have department, sector etc. that is more efficient than others, before going enterprises should be oriented in learning from itself.
- *Competitive Benchmarking* - organizations analyze their competition in order to see their strengths and weaknesses. Companies in this way tend to use its advantage and further invest in this advantage.
- *Industrial Benchmarking* - is individual comparing with its competitor in the same industry that they operate.
- *Best in class* – companies should always search for who is best in the field in doing something that we are facing difficulties. This doesn't mean that companies should search for best in class only in the same industry but in all industries. Those IBM can be best in class for maintaining, Volvo for safety, Toyota for loyalty, GM for organization etc. First, we need to know who is the best performer of an activity that we are interested on improving, we take that knowledge and implement in the company. After that we go on and analyze another enterprise for other activities where they are best in class, and so on.
- *Functional Benchmarking* – incorporates the comparison with similar processes in various industries in operating some function and learn from them (Donald, 2000).
- *Generated Benchmarking* - makes comparisons between business operations that are not connected among them (Donald, 2000).



**4. What do you use as a benchmark?** The answer to this question would be, everything else that others do better, but this is very hard to be realized. Enterprises, before deciding what to use as a benchmark, they should analyze which sectors showed weaker results compared with the competition (best in class). Depending on the need, we can use different benchmarking (vertical and horizontal). Vertical benchmarking, which means analysis of units or subunits, and horizontal benchmarking, which means analysis of any specific process or activity.

**5. From where the information for benchmarking will be obtained?** Information that are needed for benchmarking can be obtained from printed materials by enterprises, materials gathered during meetings, discussion with the industry experts, web-pages, case studies, conversation with customers etc. There are also databases such as LEXIS/NEXIS, where data can be obtained very quickly at a lower price. But many times these data are very old and may not be used much. Recently companies in the USA have taken the initiative to create a database for benchmark, from where companies can provide a large number of information for just a few minutes. The speed of information collection enables your enterprise to be compared with all enterprises in different fields (Maureen, 2003, p.14). Many companies have similar requirements during the engagement and progress of their employees, as for example NASA and American Express. British Telecom has similar requirements in satisfying customers, with Brooklyn Union Gas. Although from different industries, however, some aspects are the same and can be used as a benchmark (Donald, 2000).

**6. How will enterprise use benchmarking?** -the use of benchmarking depends on many factors, such as timeline, the needed resources and the number of alternative information sources that are available.

#### 4. Types of Benchmarking in small and medium enterprises

Benchmarking was initially used only in manufacturing enterprises, but over time it is used also in service enterprises, education, health and also governments. In public sector there is also another method - customers/supplier, where the employee satisfaction is measured by the number of complaints received. With the use of these methods in the UK the savings have increased to 4.6 billion pounds just in the last six years (Stiv, 2005, p.17). There are three types of benchmarking, which are divided according to the information they want to receive. They are (Shuklev, 2003, p.34):

1. Strategic benchmarking, which incorporates comparison of different strategies in order to identify the elements for building successful strategies and create competitive advantage.
2. Operational Benchmarking - focuses on relative costs, product characteristics and product positioning in order to find ways that will improve the cost position or deepen products differences.
3. Managerial Benchmarking – is achieved through the analysis of auxiliary functions, such as: marketing planning, management information system etc.

Benchmarking has been used also by the European Commission to improve the competitiveness of small and medium enterprises; they used three types of benchmarking which are (1996, p1-5):

- *Enterprise benchmarking* - in past several years the European Commission showed increased interest in benchmarking of small and medium enterprises. Large funds are provided due to lack of resources that small and medium enterprises face in using benchmarking. In the UK there national scheme for benchmarking from where enterprises share statistical data and identify national best practice? Similar to the UK practice in the USA there is

national center for science and production that exists from 1992 and which provides various tools and data for benchmarking (Rothman, 1992)

- *Benchmarking of sectors* - The European Commission formed special units for benchmarking for some sectors, that is believed to have the largest difference among competitors. Such is the electronics sector, which tries to analyze the best practice of Japanese companies, with whom European enterprises are competing. Other sectors were industry, chemistry, and information technology.
- *Framework condition benchmarking* - it can be used by governments for key sectors.

The European Commission in past several years had devoted serious attention to these sectors, but other sectors as well.

## 5. Implementation of benchmarking

In searching the answer for the steps of implementing benchmarking we need to understand that they are different for different companies. IBM uses four; Xerox uses ten while T & T uses nine steps in the implementation of benchmarking. The use of benchmarking as technique for improving enterprise quality firstly starts with analyzing of own organizational results, which will be used for ongoing comparison with the competition. The implementation process of benchmarking follows these stages (Leibfried, 1992, p. 34-49):

1. Identify the main subject,
2. Collecting data from internal basis,
3. Gathering information from the outside,
4. Analysis, and
5. Change (adaptation and improvement) and implementation.

As main sequences that appear during the implementation of benchmarking are (Leibfried, 1992, p. 49-50):

- *Initial solution of the problem* - establishes team, which analyze the problem and creates a preliminary list of possible steps, which will undertake the company.
- *Development of communication* – offers different alternatives for problems.
- *Analysis and justification* - getting priority placement of alternatives.
- *Communication and education* – it is done in cases where we have already reached the action plan, enterprises should organize meetings and training that will provide consensus regarding changes.
- *Pilot test* - makes continuous monitoring of progress and problems that arise in the beginning.
- *Develop detailed plans* – for the implementation process and provide all necessary resources.
- *Developing new measures* - for measuring the performance of change.
- *Rounding out again* – continue to use benchmarking with the aim of determining the priority and superiority.

During the collection of information from competitors, enterprises should look at code of conduct related with information. The code of conduct is designed by international clearing houses for benchmarking, and they propose that enterprises should take care of these aspects:

- *Legalism* - the discussion should be done in a legal manner, for example it is not allowed to talk directly for costs or prices, but it is allowed to talk about the process of the formation of prices.
- *Exchange* - do not ask questions to which you won't be willing to answer.
- *Confidences* – Obtained information should not be given to others.
- *Use of information* - the information should not be used for purposes other than which it is contracted.
- *Contact* - communication of data is taken from the benchmarks and their acceptance.
- *Prepare* - Get ready for meetings.
- *Entirety* - do not give promises that you cannot obey.
- *Understanding* - the golden rules for benchmarking is that deal with the information that you have received for others in the same way as you would wanted the others to treat your information.

## 6. Research Methodology

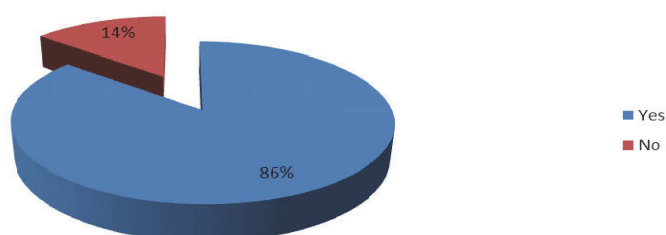
Beside the theoretical analysis presented within this research, we have also conducted an empirical research which was carried out in several ways. First phase was the telephone interview where 50 middle and big companies were called in order to see if they use benchmarking as a technique and what do they understand with benchmarking. After the telephone interview we started the second phase where we analyzed two companies T-Mobile Macedonia and Alkaloid, as companies who had a separate sector that deals with the technique benchmarking. The research was conducted using qualitative methods by using interview, which was conducted with some managers in T- Mobile Macedonia and Alkaloid who were responsible for the implementation of this technique. Except qualitative research we used also a secondary data which were distributed to us by the managers with whom the interviews were conducted.

Subject of analysis in this research was the use of the benchmarking technique or their usage of the benchmark technique, and the company understands of the difference between the benchmark and benchmarking. Also in the process of interview and analyzing the secondary data we managed to see if there was any positive effect from the implementation of the benchmarking technique.

## 7. Research results

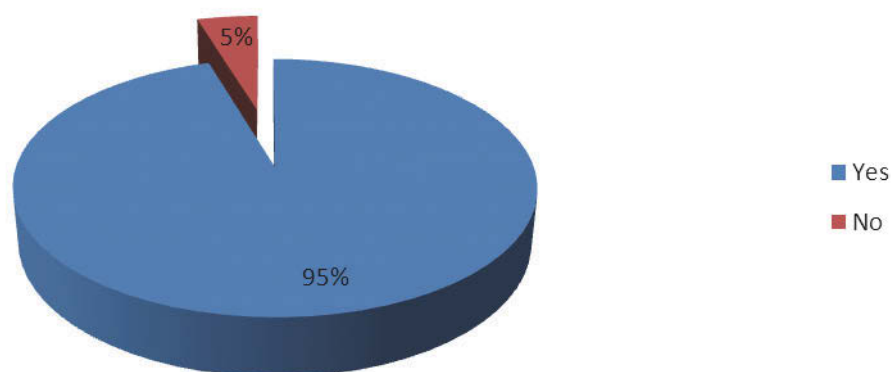
According to the research done with the telephone interview in order to see if companies in Macedonia use benchmarking, we can see from figure one that 86% of companies used benchmarking and only 14% didn't.

**Figure 1.** Percentage of companies using benchmarking



In order to see if the companies use benchmarking in the proper way we also analyzed how many from the companies that use benchmarking, use it for learning and not only for comparison with others. The result was shocking as 95 % of the companies that used benchmarking used it only to compare themselves with the competition and only 5% or two companies used the benchmarking to learn from others and implement that knowledge in their own companies (Figure 2).

**Figure 2.** Companies that use benchmarking to learn from others



In continuation we will reveal the results from the analyzing the two companies that used benchmarking for learning and not only for comparing.

### **7.1. T-Mobile**

T-Mobile is a group of corporative subsidiary from mobile industry that operates in Europe and USA. All of these groups are in ownership of Deutsche Telecom. It was established in December 1999 when Deutsche Telecom was the biggest company in the telecommunication industry in Europe. T-Mobile Macedonia has about 450 employees and yearly income of about 140 millions of euros. T-Mobile Macedonia is one of very rear companies that has department for Total Quality Management (TQM) this was a requirement from DT and is established in 2002. During the interview that we had with the manager of this sector on the implementation of the TQM technique benchmarking the answer was that they use benchmarking in their company. According to the representatives this technique was used mainly for comparing but also for learning from the others and implementing that knowledge in the company. The comparing was done in all sectors and also inside the sectors with some companies (main competitors) all around the world. The comparing is done only with companies in the same industry and not with other companies and they don't use internal benchmarking.

There are several advantages that we can conclude from the interview and analyses of the secondary data:

- The company had achieve to achieve higher customer satisfaction,
- Continuous increase of number of users every year(three time more users than in 2002),
- Increase of the financial performances of the company which came as a result of the decrease of the expenses for each employee,
- Increase of the performance of the network (decrease on the number of defects and interruptions,

It is interesting to point out that majority of pointed advantages came after 18 month of use of benchmarking and not immediately. The use of this technique helped this company to successfully compete with the main competitor One (Cosmofon) from the year 2003. Even though the technique of benchmarking influence the performance of this company still it isn't use in its full capacity and in a proper way. In the theoretical part we numbered some types of benchmarking and also the proper way of its implementation. Still these two companies proved that proper way of implementation of benchmarking can lead into increase of the performance of the companies.

## 7.2. A.D Alkaloid

Alkaloid is established in 12.07.1935 its activity is spread in pharmaceutical industry, chemical and cosmetic industry and has more than 1000 employees. The product produced by Alkaloid are registered and sold in Macedonia, Slovenia, Croatia, Serbia, Kosovo, Monte Negro, Bulgaria, Albania, Russia, Armenia, Ukraine, Gruzia, Moldova, Romania etc. Even though that in the organizational structure of Alkaloid there is no separate department for TQM its role in some way is done the sector quality control. This sector which has seven employees in total exists from the year 2000 and this sector includes the TQM techniques among which benchmarking.

Benchmarking in the company Alkaloid was one of the techniques that are used in almost all sectors inside the company but mainly for comparing and very little for learning from others on how to do the job best. The comparing is usually done with the most successful companies in the world in the same industry and not with other companies in different industries. Also and Alkaloid is not using the internal benchmarking because according to the manager of this sector this is very hard to be done.

## 8. Conclusion

Based on the theoretical and practical research we can conclude that companies don't really use the full capacity of benchmarking as a technique which can increase company's performance in almost all areas. According to the research, 84% of the companies use benchmarking but they don't make the difference between benchmark and benchmarking. Their orientation is mainly on benchmark which is used for comparison. The results showed that 95% of companies that used benchmarking used it only to compare with other in the industry. The research done in the first company T-Mobile showed that benchmarking has been used mainly for comparing but also for learning, and is the only company in Macedonia that has a department for TQM. According to our research during the interview it was obvious that they use benchmarking as a tool to compare with other companies in all industries, not only in their own one.. T-Mobile showed an increase in the performances in many areas by using benchmarking. Very similar picture was with the second analyzed company Alkaloid, which showed to have positive impact from the benchmarking or new knowledge usage inside the company. Analyzing the results it can be concluded that companies mainly use benchmark rather than benchmarking, which won't bring them an expansion of their competitive advantage.

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## MIDDLE MANAGEMENT INVOLVEMENT IN THE PROCESS OF STRATEGIC DECISION MAKING IN MIDDLE ENTERPRISES IN FEDERATION OF BOSNIA AND HERZEGOVINA

Nedim ČELEBIĆ<sup>148</sup>, Aziz ŠUNJE<sup>149</sup>, Ermin CERO<sup>150</sup>

### Abstract

*Strategic decisions are of crucial importance for any company since they determine direction of its development and growth. Strategic decisions determine the direction of the company and are made by high-ranking managers in the organization. From the point of view of the importance and complexity, these decisions are crucial for the success of the organization. Although strategic decisions are generally associated with top management, middle management plays serious role in some phases of strategic decision making. Therefore, adequate cooperation between the middle and top management in strategic decision-making process becomes very important in order to make the right decisions*

*Purpose of this paper is to test theoretical model of strategic decision making which defines and involves middle management roles in the process of decision making in emerging markets such as Federation of Bosnia and Herzegovina. The goal is to research in which extent middle managers participate in different phases of strategic decision making. We used "management science" method of decision making which has seven phases among which three are considered as strategic role of middle management.*

*Those phases are implementation of decisions, synthesizing information from environment and adoption of alternatives for decision making. For the purpose of empirical model testing, we surveyed 135 middle and top managers from 30 middle enterprises in Federation of Bosnia and Herzegovina. Correlation and regression are used as statistical methods. Based on the model, research revealed that middle managers only participate in phases of defining the problem, implementation of decisions and analysis of results while other four phases are generally associated with top management. Analysis of results confirmed that characteristics of middle managers do not correlate with the degree of their involvement in the process of decision making.*

**Keywords:** strategic decision making, middle management, middle enterprises

**JEL Classification:** D70 - Analysis of Collective Decision-Making - General

### 1. Introduction

Strategic decisions are made by highly positioned leaders of organization and determine the direction of the company. Based on many definitions of strategic decision making it follows that it is a process of making important and complex decisions which takes a high degree of uncertainty and a critical impact on success and the survival of organizations. Mintzberg, Raisinghani and Theoret (1976) defined strategic decisions as important from the standpoint of the undertaken

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actions and allocated resources. A question that is often related to strategic decisions is which level of management and to what extent they participate in their making. Although strategic decisions are usually related to top management, in a number of international companies middle managers play a strategic role in this process. Therefore, adequate cooperation between the middle and top management in strategic decision-making process becomes very important to make the right decisions. According to Bower (1970), middle managers are the only people in the organization who are in position to judge whether the strategic issues are discussed in proper context.

Many authors in the past few years dealt with roles of middle managers in the strategic decision-making process. Middle managers act directly below top management and above supervisors both in the formulation and implementation of strategies (Dutton and Ashford, 1993; Wooldridge, 2008). Raes, Heijltjes, Glunk and Roe (2011) defined the basic functions of joint action of top and middle management as: *detecting discrepancies in the environment and managing the forces of stability and change*.

## 2. Middle management

Middle managers play a coordinating role in which they mediate, negotiate and interpret the links between organizational strategic and operational levels. In the other words, middle managers connect vertically related groups (Pugh, 1968). Middle managers used to be exclusively managers who exercise supervision of lower hierarchical levels, but today a lot of literature highlights the great importance of middle management in the strategic decision-making process.

Table below depicts (Floyd and Wooldridge, 1992) influence that middle managers exercise at higher and lower levels of the organization. When it comes to "upward" influence, middle managers have the potential to change the strategic course of organization interpreting changes that occur in the environment and proposing new initiatives for changes. Synthesis of information is the second "upward" influence which is defined as the interpretation and evaluation of information and it affects the perceptions of top management (Dutton and Jackson, 1987). In the battle for new initiatives, middle managers are in a position to redefine the strategic context (Bower, 1970). When we talk about "downward" influences, middle managers become agent of changes, encourage adaptability and implement strategies (Floyd and Wooldridge, 1997).

**Table 1.** *Forms of middle management's strategic impact*

SYNTHESIS OF INFORMATION	
Gathering information on feasibility of new programs	
Communicating on the activities of competitors, suppliers, etc.	
Rating changes in the external environment	
Upward influence	PROPOSING NEW INITIATIVES
	Justification and defining new programs
	Evaluation of new proposals
	Searching for new opportunities
	Proposing new programs or projects to higher levels of management
Downward influence	FACILITATING ADAPTABILITY
	Relaxation of regulations for starting new projects
	"Buying time" for experimental programs
	Locating and providing resources for pilot projects
	Encouragement of informal discussion and sharing of information
	IMPLEMENTATION OF STRATEGY
	Monitoring activities to support the goals of top management
	Translating goals into action plans
	Translating goals into individual goals
	"Selling" of top management's initiatives to lower levels

Source: Floyd and Wooldridge, 1997

Wooldridge and Floyd presented a typology of four strategic roles of middle management and connected them to the strategy (1992). Typology is based on view that was posted by Mintzberg and Waters (1985), who claim that the strategy is pattern in a series of undertaken actions. It is previously mentioned that middle managers influence strategic decision-making process at higher and lower levels of management. When it comes to "upward" influence, top management has possibility to see the situation in the entire organization and to perceive alternative strategies. On the other hand, middle managers are the ones who ensure that organizational arrangements are in line with the strategy. In this context, synthesis of information and proposing new initiatives represent the role of middle management on higher levels of management, while facilitating adaptability and implementation of strategy are roles that create impact on lower levels. (Wooldridge and Floyd, 1990)

### 3. Definition of small and medium enterprises in federation of Bosnia and Herzegovina

Small and medium enterprises in FBiH are defined by Act on the Promotion of Small Business. (Official Gazette FBiH, 2006)

Below are tables of classification of small and medium enterprises in FBiH as well as a comparison with the criteria for the definition of small and medium enterprises in EU:

**Table 2.** *Classification of small and medium enterprises in FBiH*

Category of enterprise	Number of employees	Annual Turnover (KM)	Annual balance sheet (KM)
<b>Micro</b>	<10	≤ 400.000	≤400.000
<b>Small</b>	<50	≤ 4.000.000	≤4.000.000
<b>Medium</b>	<250	≤40.000.000	≤30.000.000

*Source: Official Gazette FBiH, 2006*

**Table 3.** *Comparison of the classification criteria of small business enterprises in EU and FBiH (Exchange rate 1 EUR = 1,95 KM)*

Category of enterprise	Number of employees		Annual Turnover (EUR)		Balance sheet/Assets (EUR)	
	EU	FBiH	EU	FBiH	EU	FBiH
<b>Micro</b>	0-9	0-9	2.000.000	205.128	2.000.000	205.128
<b>Small</b>	10-49	10-49	10.000.000	2.051.282	10.000.000	2.051.282
<b>Medium</b>	50-249	50-249	50.000.000	20.512.820	43.000.000	15.384.615

### 4. Role of middle management in strategic decision making

For a long time it was thought that the role of middle management in the strategic decision-making process is providing basic information and implementation of decisions. However, significant number of the world's authors recently emphasized their importance in the creation of strategies (Mintzberg and Waters, 1985). Although there are no developed theories about the strategic role of middle management, contemporary authors emphasize that their role goes beyond just implementation.

Wooldridge and Floyd presented a typology of four strategic roles of middle management and connected them to strategy (1992). It is previously mentioned that middle managers have influence in strategic decision-making process at higher and lower levels of management.

#### ***4.1. Synthesis of information***

With regard to their position, middle managers are able to combine strategic and operational information and present them to the top management. Synthesis of information involves interpretation and evaluation of information which are usually presented in the form of opportunities and threats, as well as the strengths and weaknesses of the organization.

#### ***4.2. Proposing a new initiatives***

Unlike proposing new products, proposing new initiatives focuses on influencing changes or adjustments of existing strategies. Bower (1970) points out that middle managers choose specific projects, test them, and when successful, present them as new business opportunities. Proposing new initiatives as convincing way of communication with the top management about strategically important issues is a very important role of middle management in strategic decision making.

#### ***4.3. Facilitating adaptability***

Bower (1970) in his research indicated that middle managers influence flexibility of an organization. Their position within the organization enables them to encourage employees to understand changes that are happening and to experiment with new approaches. Middle managers have a duty to clarify strategies that come from top management and ensure they are accepted by all employees. (Chakravarthy, 1982).

#### ***4.4. Implementation of strategy***

Implementation of strategy is most commonly associated with middle management and is their most important role. Implementation of strategy is related to interventions carried out by managers to align actions to strategic goals set by top management.

### **5. Processes of strategic decision making**

Decision making is a key focus of many researches on strategic management in the last several decades. Strategic decisions determine the direction of the company and are made by highly positioned managers in the organization. A large number of researchers and scientists defined the strategic decision-making, but certainly one of the most notable definitions was given by Mintzberg, Raisinghani and Theoret (1976). In their opinion, strategic decisions are important from two aspects - actions selected and taken in order to ensure the success of the organization, and the resources allocated for their execution.

There are several different models and methods for decision making in the world. Similarly, Loewenstein (2001) created concept of decision making in accordance with the paradigms that dictate the orientation of decision-makers. Thus, decision making models represent a unique set of assumptions that affect the analytical and executive orientation of decision-makers.

The following table shows the relationship between models and methods of strategic decision-making in relation to the complexity and time pressure (Rahman, De Feis, 2009).

**Table 4.** *Analytical platform for models and methods of strategic decision making*

<b>Model and method</b>	<b>Complexity (number of variables included)</b>	<b>Time pressure</b>
<b>Rational model and "Management Science" method</b>	Low	Low
<b>Limited rational model and method of nominal group</b>	Low	High
<b>Incremental model and Delphi method</b>	High	Low
<b>"Trash can" model and method of scanning the environment</b>	High	High

*Source: Rahman, De Feis, 2009*

Complexity affects the decision-making because of cases with a large number of outstanding issues with uncertain outcomes that lead to complex and precarious conclusions (Siggelkow and Rivkin, 2005). Theorists who deal with the complexity, claim that the correlation between multiple inputs for decision-making increases the level of complexity (Mischen and Jackson, 2008).

### **5.1. Strategic decision making methods**

Parallel to the research that was done for the last decade in strategic decision-making models, strategic decision-making methods have been developed. Methods for strategic decision making, such as Delphi technique, nominal group technique, scanning environments and management science attracted considerable attention from academics and practitioners (Dean and Sharfman, 1996).

#### **5.1.1. Delphi method**

Delphi method is an iterative decision-making process in which each decision was made under the influence of earlier decisions. In this method, the decision-making process is channeled through a certain point, which may be the person who suggests changes that are placed in the next round of decision making process. The procedure is structured to obtain information from a group of experts through a specific set of well-controlled questionnaires and interviews (Adler and Ziglio, 1996). However, problem with this approach is that it may take long time for the group to reach consensus. This method is most commonly used for technological forecasting and education (Cornish, 1977). In cases of high complexity and loose time limitations, this method is considered appropriate for decision-making (Rahman, De Feis, 2009).

#### **5.1.2. Nominal group method**

Nominal group method is often used by groups of different sizes. In these cases it is important to make a quick decision, often through the voting process, while taking into consideration all opinions (DeSanctis and Gallupe, 1987). What makes this process different from the classical voting is the fact that it takes into consideration not only the largest group, but opinion of each group. The process begins with listening to the opinions of each member of the group for a possible solution to the problem. Duplicate solutions are eliminated from the list of all solutions, and then duplicated solutions are ranked by eligibility. All numbers are added, and the solution with the largest sum is selected as the final decision (Rahman, De Feis, 2009).

### 5.1.3. Method of scanning environments

The method of scanning environments is basically collecting and using information about events and trends in the external environment. Information from the external environment of the organization is used by the management to plan future actions (Aguilar, 1967). Environmental scanning is conducted in order to understand the changes that occur in the environment and to make timely decisions on future actions. By scanning environment, the company receives information about the opportunities and threats in the market, thus creating a strategy for future development and gaining competitive advantage (Sutton, 1988).

### 5.1.4. Management Science Method

Management Science is a method of decision-making (Simon, 1959, 1977), which uses precise sequence of steps in the decision-making process:

- Defining the problem,
- Identification of alternatives,
- Developing criteria,
- Evaluation of alternatives,
- Selection of alternatives,
- Implementation of decision,
- Analysis of results.

## 6. The method

The research deals with the degree of involvement of middle management in strategic decision making phases in medium-sized enterprises in FBIH. In order to obtain more accurate and relevant results, the research has combined several scientific and research methods of collecting and presenting data.

In order to test “management science” decision-making method, we have conducted a survey, as the primary source of research, on the sample of 135 middle and top managers in 30 medium enterprises in FBIH. Sample included both private and public companies coming from different industries. Questionnaire had 19 questions and it was sending to companies through e-mail. In cases without response, phone call was made. Finally, if previous two approaches were unsuccessful, interview was arranged.

Quantitative research was conducted in order to test the following research hypothesis:

*Middle managers are significantly involved in all phases of strategic decision making process in the medium-sized enterprises in FBIH.*

Research was conducted in three phases:

- *Sampling* – implies evaluation and selection of companies which satisfy criteria of medium-sized companies (number of employees, revenues) from different cantons in FBIH.
- *Preparation of questionnaire* – includes preparation of survey questions, and sending them to all companies chosen for sample.
- *Initial data processing* – presentation of collected data through descriptive statistics.



The study examined a group of independent variables which describe characteristics of middle and top managers (age, gender, level of education, managerial function, nationality and years of experience).

Dependent variables are different phases in the strategic decision-making process - defining the problem ( $Y_1$ ), identification of alternatives ( $Y_2$ ), development of criteria for evaluation ( $Y_3$ ), evaluation of alternatives ( $Y_4$ ), selection of alternative ( $Y_5$ ), implementation of decision ( $Y_6$ ) and analysis of results ( $Y_7$ ). Level of involvement of middle managers in strategic decision making phases is researched based on comparison of the independent variable called *number of superior managers* ( $X_1$ ) and each of previously mentioned dependent variables.

The survey sample was 135 managers ( $a_i = 135$ ) of different levels from 30 medium-sized enterprises in FBiH.

## 7. Data and result analysis

To obtain the final results, the following statistical tests were used:

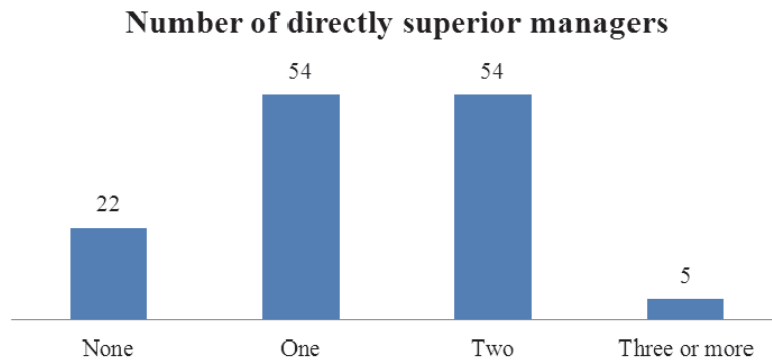
- Descriptive statistics, which is the basis for the selection of future methods and means which will be used to describe dependent and independent variables,
- Correlation between the dependent and the independent variables,
- Linear regression to determine the influence of independent variables on the variance of the dependent variable.

Medium-sized enterprises which are used as a sample are operating in different industries and cantons in FBiH, and have a different ownership structure. Survey form was sent to 30 medium-sized enterprises in the FBiH and percentage of responses reached 100% ( $Re = 100\%$ ). As a precautionary measure, the survey form was sent to additional five companies and the results are stored as a backup.

In 30 selected companies, the survey form was filled by total of 135 middle and top managers. The survey comprises various sections of middle and top managers such as CEOs, directors of sales, regional sales managers, finance directors, heads of accounting, production managers, supervisors and heads of shifts in production, etc.

The largest number of respondents top managers are CEOs (22), followed by sales managers (19) and executive directors (16). Among middle managers who participated in the survey, most of them were directors of branches (20) and regional sales directors (8). Most of surveyed managers were 30 years and older.

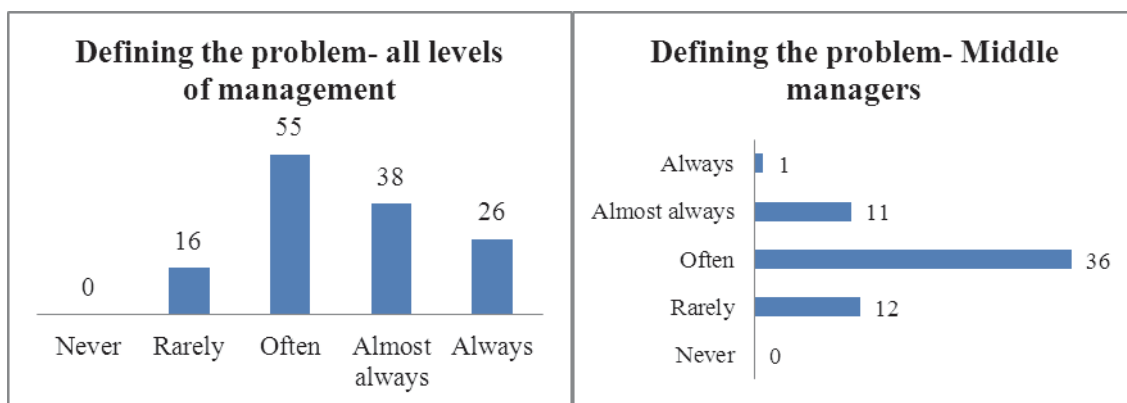
Finally, the most important information for the subject research is the number of middle managers who participated in the study. This group of managers is working directly under the top management, but above supervisors in both the formulation and implementation of strategy. Middle managers are two or three levels below the general manager. (Wooldridge, Schmidt and Floyd, 2008) In this regard, it is easy to conclude that the study included 60 middle managers, of which 55 had two direct superior managers, while only 5 of them have three or more direct superior managers.

**Picture 1.** Number of direct superior managers

Of the total of 135 surveyed top and middle managers, 123 of them or 91% believe that the key role of middle management is *implementation of adopted strategies*, 54% think it is *facilitating adaptability of organizations*, and 42% believe that it is *integration of information from the environment*.

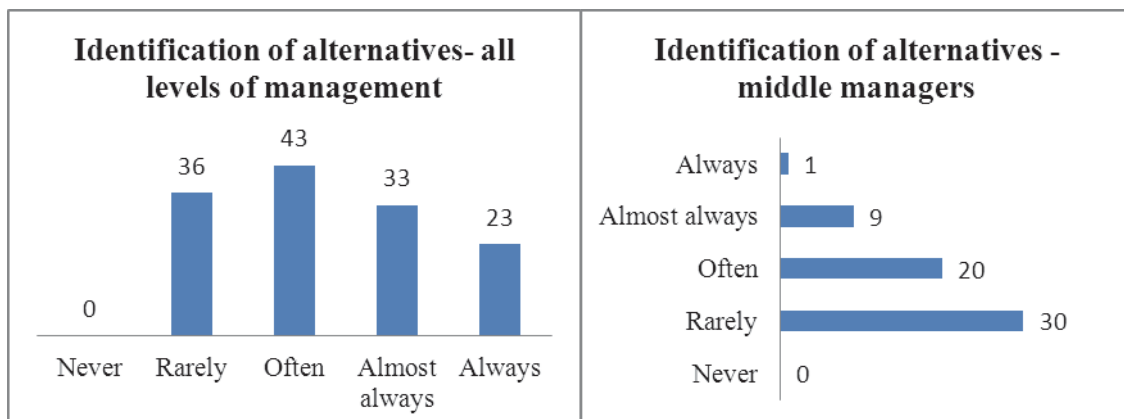
In order to show the degree of involvement of middle managers in different stages of decision-making, rational model of management science and strategic decision-making method were chosen. In the rational model, decisions are made based on incomplete information. Managers who make decisions are doing so through identification of goals, defining possible alternatives, evaluating alternatives and selecting the best alternative (Guth, MacMillan, 1986).

Following graphs show the overall view of the participation of middle and top managers at different stages of adoption and implementation of decisions. Frequency of participation of all managers is given for each phase of the decision-making process, and frequency for middle managers is given separately as they are the subject of this study. Results are derived from statistical analysis of the responses that were obtained from the questionnaire.

**Picture 2.** The degree of involvement of middle and top managers in phase - Defining the problem

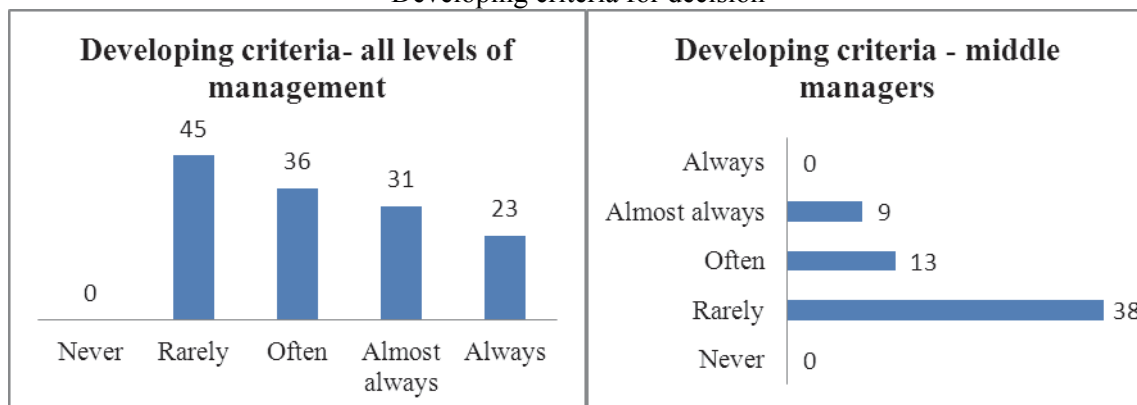
Results show that managers at all levels of the organization often or almost always participate in defining the problem that occurs within the organization or in the environment. Out of 135 executives surveyed, 119 of them often or always participate in defining the problem. A similar situation is with middle-level managers. Out of 60 surveyed middle managers, 48 of them often or always participate in defining the problem.

**Picture 3.** The degree of involvement of middle and top managers in phase – Identification of alternatives for decision



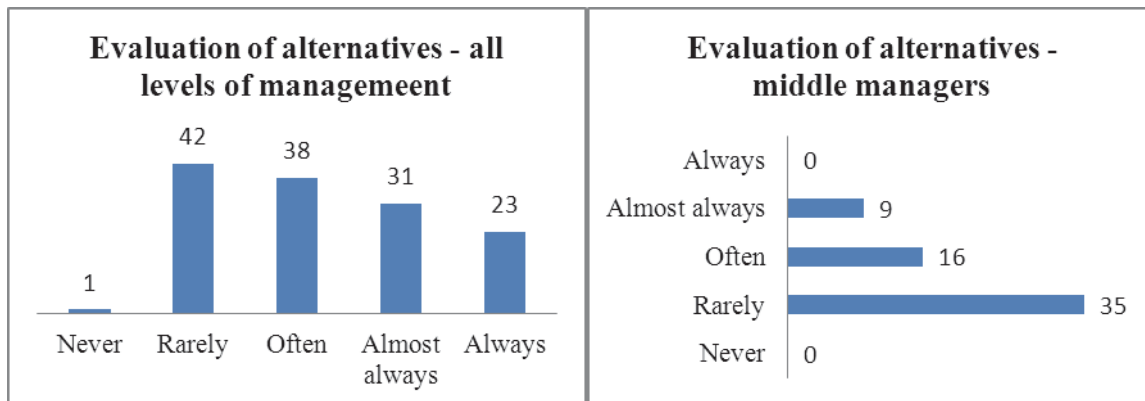
The second stage in the decision-making process is identification of alternatives. In comparison with the previous phase, a slight decline of participation of managers is noticeable in this phase at all levels of the organization. 36 out of 135 surveyed managers rarely participate in this phase. However, what is very important is the fact that only 6 out of 36 managers belong to the top management, while the other 30 come from the middle levels of the organization. Thus, 50% of the middle managers rarely participate in this phase of strategic decision-making process.

**Picture 4.** The degree of involvement of middle and top managers in phase – Developing criteria for decision



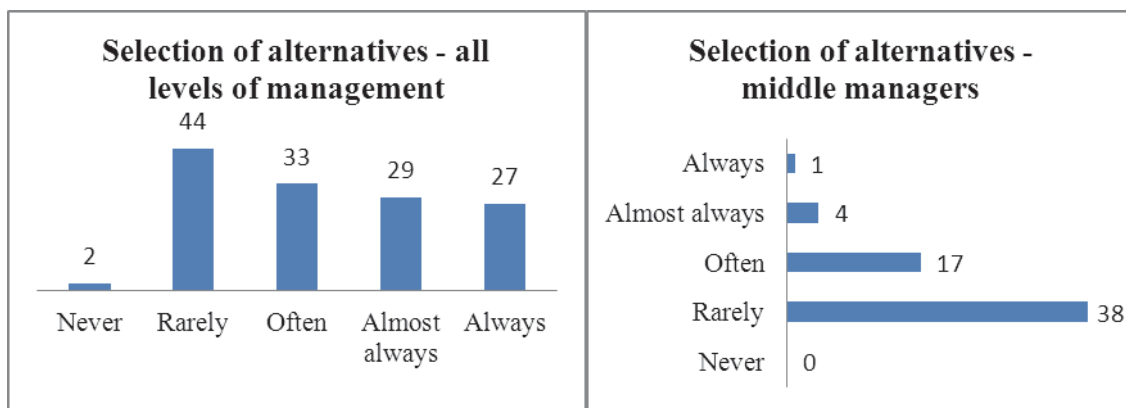
Developing criteria for decision-making is the third phase of the strategic decision-making process. At this phase, the decline in the participation of managers at all levels of the organization continues. 45 out of 135 managers at all levels of the organization are rarely involved in the development of criteria for the decision. For this research purposes, it is important to note that of a total of 60 middle managers surveyed, 38 are rarely involved in this stage of decision making.

**Picture 5.** *The degree of involvement of middle and top managers in phase - Evaluation of alternatives*



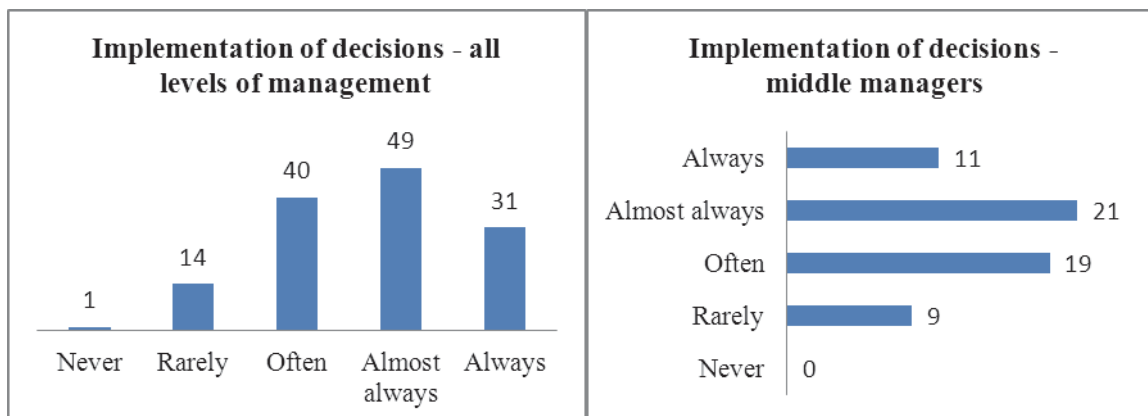
The situation does not change significantly in the evaluation of alternatives phase. Total of 43 managers at all levels of the organization, rarely or never participate in this phase of decision making process. Out of these 43 managers, 35 comes from a middle-level management, and that proves that middle managers rarely participate in the evaluation of alternatives.

**Picture 6.** *The degree of involvement of middle and top managers in phase - Selection of alternatives*



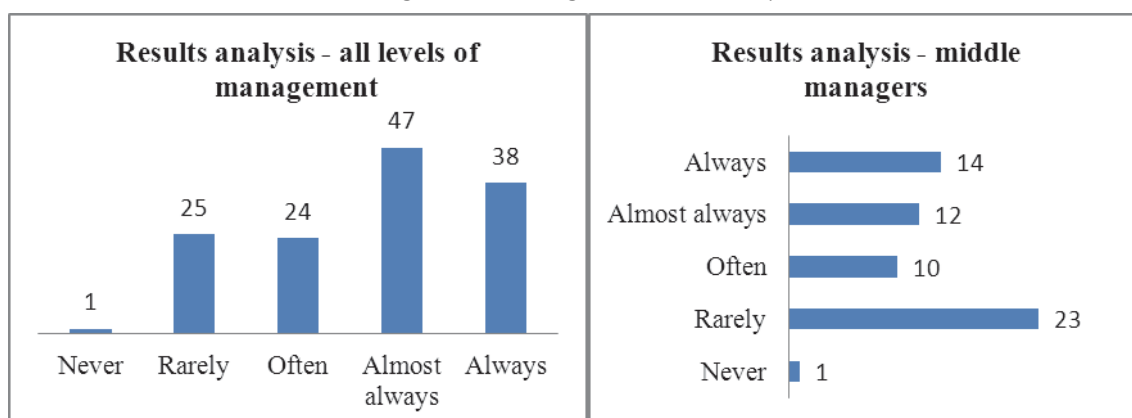
Choosing alternatives is certainly a crucial stage in the decision-making process. The analysis of the questionnaire results shows that 38 of the 60 surveyed middle managers rarely participate in this crucial stage of decision making.

**Picture 7.** *The degree of involvement of middle and top managers in phase – Implementation of decisions*



Once the decision was made, and the best alternative is selected, the implementation phase begins. Unlike previous phase, in this phase, middle managers play the most important role. Of the 60 surveyed middle managers, only nine of them are rarely involved in the implementation of the decision, while for the rest of them, this is standard and daily work. The situation is similar with top managers - only six of them rarely or never participate in the implementation of the decisions.

**Picture 8.** *The degree of involvement of middle and top managers in the stage – Results Analysis*



Finally, after the implementation of the decisions, the analysis of results is a last step in the process of adoption and implementation of strategically important decisions. High level of involvement of all managers in this phase is noticeable again. A slight decrease in the number of middle managers who participate in analyzing the results achieved is evident, but still more than 50% of them see this as a standard work activity.

Correlation coefficient shows a strong negative correlation between middle-level managers and different phases of the strategic decision making process. The corresponding coefficients for each of the dependent variables amounts to  $R_1 = -0.1258$ ,  $R_2 = -0.62$ ,  $R_3 = -0.58$ ,  $R_4 = -0.66$ . Based on these indicators, we can assume that the increase in the unit value of the management-level (higher rank means a lower level of management), reduces the unit value that indicates the frequency of involvement of managers in the identification phase of alternatives, developing criteria for decision-making, evaluation of alternatives for decision making and selection of alternatives, or making a final decision.

In order to test the relationship between each of the independent variables with each of the dependent variables, and test the relationship of several independent variables associated to each of the dependent variables we have used simple linear regression and multiple regression, respectively.

*Defining the problem.* The first dependent variable which is the first phase of the strategic decision-making process is Defining the problem. Simple linear regression was performed between each independent variable with this variable, and the coefficient of determination  $R_2 = 0.23$  shows that there is only a certain relationship between the *number of higher-level managers* ( $X_1$ ) and *defining problems* ( $Y_1$ ). When it comes to the other independent variables,  $R_2$  does not exceed 0.1.

*Identification of alternatives.* The second dependent variable which is the second phase in the strategic decision-making process is to identify alternatives. Similarly to the first phase, based on the coefficient of determination ( $R_2 = 0.33$ ), only noticeable relationship is between *the number of higher-level managers* ( $X_1$ ) and *the identification of alternative* ( $Y_2$ ). When it comes to the other independent variables,  $R_2$  does not reveal any significant relationship with  $Y_2$ .

*Developing criteria.* This variable represents the third phase in the strategic decision-making process. Coefficient of determination ( $R_2 = 0.37$ ), shows only apparent connection with *number of higher-level managers* ( $X_1$ ). It is important to note that comparing to the first phase, we can see a slight increase in the coefficient of determination between *managerial functions* ( $X_2$ ) and dependent variables (stage of decision-making). In this case,  $R_2 = 0.18$ .

*Evaluation of alternatives.* The fourth phase in the decision-making process, and also the fourth dependent variable is the evaluation of alternatives for decision making.  $R_2$  (0.33) shows that the number of higher-level manager has the strongest connection with the evaluation of alternatives for decision making ( $Y_4$ ). When it comes to relationship management functions ( $X_4$ ) and  $Y_4$ , as in the previous case,  $R_2$  (0.17) reveals that this is the second most significant connection between  $Y_4$  and some of the independent variables.

*Selection of alternatives.* This is the most important dependent variable, which represents a crucial phase in the decision-making process. Simple linear regression that results in the coefficient of determination ( $R_2 = 0.44$ ) shows us that the strongest relationship exists between the number of higher-level managers ( $X_1$ ) and selection of alternatives ( $Y_5$ ). Next important relationship which can be seen from the regression results ( $R_2 = 0.23$ ) is the one between managerial functions ( $X_2$ ) and  $Y_5$ .

When it comes to the other two dependent variables - two phases of implementation of decisions - the situation is slightly different. Specifically, in the case of testing the relationship between the *number of direct superior managers* ( $X_1$ ) and the *implementation of decisions* ( $Y_6$ ),  $R_2$  remains very close to zero ( $R_2 = 0.01$ ), which indicates almost no relationship between two variables, at least when it comes to simple linear regression. A similar or almost the same situation is with the other independent variables that were compared with  $Y_6$ .

The last step in the process of decision-making by management science method, and also the last dependent variable is the *results analysis* ( $Y_7$ ). Unlike with the previous dependent variable ( $Y_6$ ), we can notice a weak relationship ( $R_2 = 0.12$ ) between  $Y_7$  and  $X_1$ .

## 8. Conclusion

Although, many researchers have emphasized importance of involving middle managers in the process of decision making, not sufficient research on this topic was done in FBiH (Floyd, Wooldridge, 1997).

We contend that understanding the level of involvement of middle managers in the process of decision making in medium enterprises in FBiH will contribute to better understanding of decisions which are made in medium enterprises in FBiH. Results show that out of seven phases in decision making process defined by “management science” method, middle managers in medium-sized enterprises in FBiH, often or almost always participate in only three of them.



Regarding the first five phases of decision making process which are related to steps before decision is made, middle managers often participate only in the first phase which deals with the definition of the problem. Also, results show that the implementation of the decisions is perceived as a basic function of middle management.

Based on the research results, we can conclude that middle managers are not significantly involved in all phases of strategic decision making process. Future research should concentrate on the causes and effects of insignificant involvement of middle managers in the process of decision making in medium enterprises in FBiH.

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## TAKE THE OPPORTUNITY TO EARN SOCIALLY RESPONSIBLE PROFIT

Elvira ĆATIĆ-KAJTAZOVIĆ<sup>151</sup>

### Abstract

*Although the Corporate Social Responsibility (CSR) is rather actualized lately, the focus of the scientific and business circles on the CSR has not lead to any universal definitions, universal theoretical framework, or even universal terminology. On the contrary. Analysis of the thematic area of CSR identifies diversities in approaches to research, theoretical frameworks, and terminology. Even somewhat ironic is the fact that the universal starting point for most definitions and explanations of the CSR (with most members of the academic circles, managers, and others dealing with the subject) is the explanation that there is no universal definition or universal understanding of the CSR. Besides the identified diversity in theoretical understanding of the CSR, one could add that the situation in those terms is any better in the business circles. While fully acknowledging the assumption that it is almost impossible to simplify the complexity of social responsibility, this paper presents a contemporary concept as a modest and yet bold attempt to simplify the CSR. The compromise of the CSR is schematically illustrated as the following message addressed to the corporate entities: Take the opportunity to earn a socially responsible profit. That opportunity is intentionally represented in the shape of the Sun (as the source of life) for the following reasons:*

- 1. As an attempt for wakening of the humanity to restore the control over greed.*
- 2. To raise the understanding of the necessity to take responsibility for social, ecological, and economic problems.*
- 3. To lead to the final understanding that without the future of humanity there can be no future of the profit.*

*The schematic illustration of the CSR represents a continuous process that consists of 4 stages, excluding the CSR approach that defines what corporate entities must not do, but instead, it rather introduces a provocative approach inciting what socially responsible actions are the corporate entities expected to do. This approach is important because it avoids the “what must not be done” mind-set and introduces the “provocative socially desirable action”. In such context the CSR is presented not only as a concept that serves for pursuing of business opportunities, but rather as a means for accomplishment of changes, competitiveness, proactiveness and recognizability, all of which stress the causal link with both economic and social development, thus contributing to the sustainable development.*

**Keywords:** Corporate Social Responsibility, Compromise, Complexity.

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## 1. Complexity of the notion of Corporate Social Responsibility (CSR)

Analysis of the thematic area of CSR identifies a number of diverse definitions by many academic authors and business professionals, but also many business organizations that deal with the subject. Their diverse definitions are accompanied by diversity in their very notion of actions that can be considered socially responsible. According to Dow Votaw: „The term (social responsibility) is a brilliant one; it means something, but not always the same thing, to everybody“ (Votaw, 1972, p. 25). To draw attention to the expressed diversity in understanding of the social responsibility, Sethi S. Prakash wrote: „The phrase corporate social responsibility has been used in so many different contexts that it has lost all meaning“ (Sethi, 1975, p. 58).

Although the named authors published their works in the now-far-gone seventies, the issue of complexity and divers interpretation of the CSR is still on the agenda. Furthermore, there is a recognizable trend of increasing interest in the subject („Corporate Social Responsibility has become a pervasive topic in the business literature, “Brammer, et al, 2012, p. 3), expansion in the field of research, crossing of boundaries, and presence of the subject in various scientific disciplines.

This „onset“ of increasing interest, and focus of both scientific and business circles on the social responsibility, has not lead to establishment of universal definitions, universal theoretical framework, or even universal terminology. „The Corporate Social Responsibility (CSR) field presents not only a landscape of theories but also a proliferation of approaches, which are controversial, complex and unclear“ (Garriga and Mele, 2004, p. 51).

The source of complexity in theoretical foundations of the CSR one can find in the fact that CSR has its roots in various branches of science (besides its economic roots, the CSR finds traces of its origin in psychology, sociology, political science, and even in religious magazines where one can find many articles that argue for the need of responsible actions towards nature). Archie B. Carroll described the said situation as: „an eclectic field with loose boundaries, multiple memberships, and differing training/perspectives; broadly rather than focused, multidisciplinary; wide breadth; brings in a wider range of literature; and interdisciplinary“ (Carroll, 1994, p. 14).

Speaking of the science of economy alone, one can say that the said complexity of the CSR (either as a cause or as a consequence) results from two extremely opposite understandings of the CSR. In the first, scientists and professionals consider that the CSR does not reach beyond the profit that it can make for its owners (Friedman, 1970: „there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rule of the game, which is to say, engages in open and free competition without deception or fraud“), whereas the second group is of opinion that the companies owes responsibility to a wide range of stakeholders groups.

Along with the identified discrepancies in the theoretical notion of the CSR, the situation is not any better in business circles. The discrepancies in the notion of the CSR are also evident among the companies from the USA, Australia, Great Britain (philanthropy, profitability), as opposed to the notion found among the companies from continental Europe (employment affairs, environment, and human rights). Companies from the developed countries of southeastern Asia, perceive the CSR in a similar way as their peers in Europe, with emphasis on the fair treatment of employees, whereas in underdeveloped and less developed countries the demand towards the companies is more focused on economic responsibility and solving of the issue of economic development (Kotler and Lee, 2009).

Even with the said complex circumstances in theoretical and pragmatic sense, the CSR represents the future of the business world, i.e.: „Corporate Social Responsibility represents the new millennium challenge and a truly paradigmatic shift for business corporations. There is increasing evidence that the CSR movement has picked up enough momentum to continue unabated into the next century“ (Jamali and Mirshak, 2007, p. 260).

## 2. Development concepts and definition of CSR

Most of the authors (Carroll 1999, Fifka 2009, Gond and Moon 2011) who deal with the subject of the CSR agree that the first formulation of relations company–society, was given by American economist Howard Bowen, which is why even Archie B. Carroll refers to him as the father of the CSR (Carroll, 1999, p. 270). Bowen also offered a preliminary definition of the CSR: „It refers the obligations of businessmen to pursue policies, to make decisions or to follow lines of action which are desirable in terms of the objectives and values of society“ (Bowen, 1953, p.6). According to Keith Davis the CSR is reflected in „businessmen’s decisions and actions taken for reasons at least partially beyond the firm’s direct economic or technical interest“ (Davis, 1960, p. 70). According to William C. Frederick: „Social responsibility in the final analysis implies a public posture toward society’s economic and human resources and a willingness to see that those resources are used for broad social ends and not simply for the narrowly circumscribed interests of private persons and firms.“ (Frederick, 1960, p. 60).

The sixties and the seventies of the last century are marked by reinforcement of the movements for protection of environment, consumers and employees. That served as a foundation for development of the concept of the CSR by Harold L. Johnson who stance is that instead of focusing on achieving the owners’, i.e. shareholders’ goals alone, a responsible enterprise takes into account the interests of employees, suppliers, dealers, local communities and the nation as a whole (Johnson, 1971). Therefore, Johnson actually introduces responsibility towards stakeholders and that represents his significant contribution to the development of the concept of CSR, because the identification of the key stakeholders did not only contribute to the theory of stakeholders but also to the theory of the CSR. In late seventies, Carroll publishes his three-dimensional model and, for the first time, defines the four ranked responsibilities of companies: economic, legal, ethical and philanthropic (Carroll 1979) which resulted in later creation of the Carroll pyramid of the CSR (Carroll 1991).

According to Wayne Visser: „Despite the plethora of CSR definitions over the last 50 years, Carroll’s four-part conceptualisation has been the most durable and widely cited in the literature” (Crane and Matten, 2004). Some of the reasons for this could be that:

1. The model is simple, easy to understand and has an intuitively appealing logic;
2. Over the 25 years since Carroll first proposed the model, it has been frequently reproduced in top management and CSR journals, mostly by Carroll himself (Carroll, 1979, 1983, 1991, 1994, 1998, 2000, 2004);
3. Carroll has sought to assimilate various competing themes into his model, e.g. corporate citizenship (Carroll, 1998) and stakeholders (Carroll, 2004);
4. The model has been empirically tested and largely supported by the findings (Aupperle, Carroll, & Hatfield, 1985; Pinkston & Carroll, 1994); and
5. The model incorporates and gives top priority to the economic dimension as an aspect of CSR, which may endear business scholars and practitioners. In fact, Carroll (1991) goes so far as to point out how little his definition of CSR differs from Friedman’s (1970) view of the responsibilities of the firm“ (Visser, 2006, p. 33).

The Carroll’s three-dimensional model and later his CSR pyramid, went through numerous modifications, trials and criticism, and served as a basis for newer models of the CSR. In 1985, Steven Warticki Philip Cochran presented their own Three-dimensional model of principles, policies and processes (in the literature also known as 3P model of CSR), which was created as a form of criticism to the Carroll’ model, and it integrates the principles of corporate responsibility, the policies of social issue management and the processes of actions into an evolutionary dynamical system. (Wartick and Cochran, 1985, pp.758-769). In 1991, based on Carroll’s pyramid and the 3P model of the CSR by Warticki Cochran, Donna J. Wood develops an original model that identifies three institutional levels of corporate responsibility: legal, organizational and individual, and three



principles of corporate behaviors and outcomes: legitimacy, public responsibility and managerial discretion (Wood, 1991).

In 2003, Mark S. Schwartz and Carroll, by using Venn's diagram, present their CSR model which includes three domains: economic, legal and ethical, and at the same time: „none of the three CSR domains is *prima facie* more important or significant relative to the others“ (Schwartz and Carroll, 2003, p. 508). Unlike the earlier version of the CSR pyramid, where the companies' responsibility are ranked by priority, this new model presented three mutually intersecting domains that have no priorities in their mutual interaction. The three basic domains of the CSR (Purely Economic, Purely Legal, Purely Ethical) mutually intersect (thus the use of the Venn's diagram) and with such intersection they form another four domains: Economic/Ethical, Economic/Legal, Legal/Ethical and Economic/Legal/Ethical.

In the literature one can find other models of the CSR, e.g. 3C-SR model, developed by John Meehan, Karon Meehan and Adam Richards, who also used the Venn's diagram. As the basic components of the CSR in that CSR model, the authors underlined the following: commitments, consistency and connections. The model based on many excellent ideas, and its main contribution is reflected in the following: „To develop a model that bridges the gap between CSR definitions and strategy and offers guidance to managers on how to connect socially committed organizations with the growing numbers of ethically aware consumers to simultaneously achieve economic and social objectives... The 3C-SR model offers a novel approach to CR in so far as it addresses strategy, operations and markets in a single framework“ (Meehan, J., Meehan, K. and Richards, 2006, p. 386).

On the other side, many different organizations created their own CSR definitions. The World Business Council for Sustainable Development (WBCSD) defines CSR as „the commitment of business to contribute to sustainable economic development, working with employees, their families and the local communities“ (WBCSD, 2001). The United Nations Industrial Development Organization (UNIDO) defines: „Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders“ (UNIDO, 2013). Finally, the European Union defines CSR as „the concept that an enterprise is accountable for its impact on all relevant stakeholders. It is the continuing commitment by business to be have fairly and responsibly and contribute to economic development while improving the quality of life of the work force and their families as well as of the local community and society at large“ (Green Paper, 2001).

### 3. Compromise of the contemporary CSR theory

Following the presentations of various definitions, interpretations, and CSR models, it is clear that the universal understanding of the CSR is yet to be sought. Also, there is no universal selection of the CSR theories. Even within the certain groups of theories, there is no common acceptance of interrelation of specific terminology.

However, an excellent compromise of the CSR theory was presented by Majda Tafr-Vlahović: „If we were to simplify the contemporary CSR theory to its simplest form, then the stakeholders' theory would stretch into the continuum, having Michael Porter' theory on one side (do good to earn profit) and Charles Handy's theory on the other side (make profit to do good), whereas all the other theories can find their place anywhere between the two ends. Furthermore, one could argue to what degree do all the other theories fall into within or outside the area of compromise that could be defined as “Earn profit within the boundaries of good” (Tafr-Vlahovic, p. 176).

Combination of the idea presented by Tafr-Vlahović with the ideas of Adrian Hodges and David Grayson, aiming to have the CSR also viewed as a business opportunity (Hodges and Grayson, 2004), leads to avoidance of the CSR approach that instructs the companies on what



must not do, and introduces a provocative approach that defines what are the desirable actions that the companies can take.

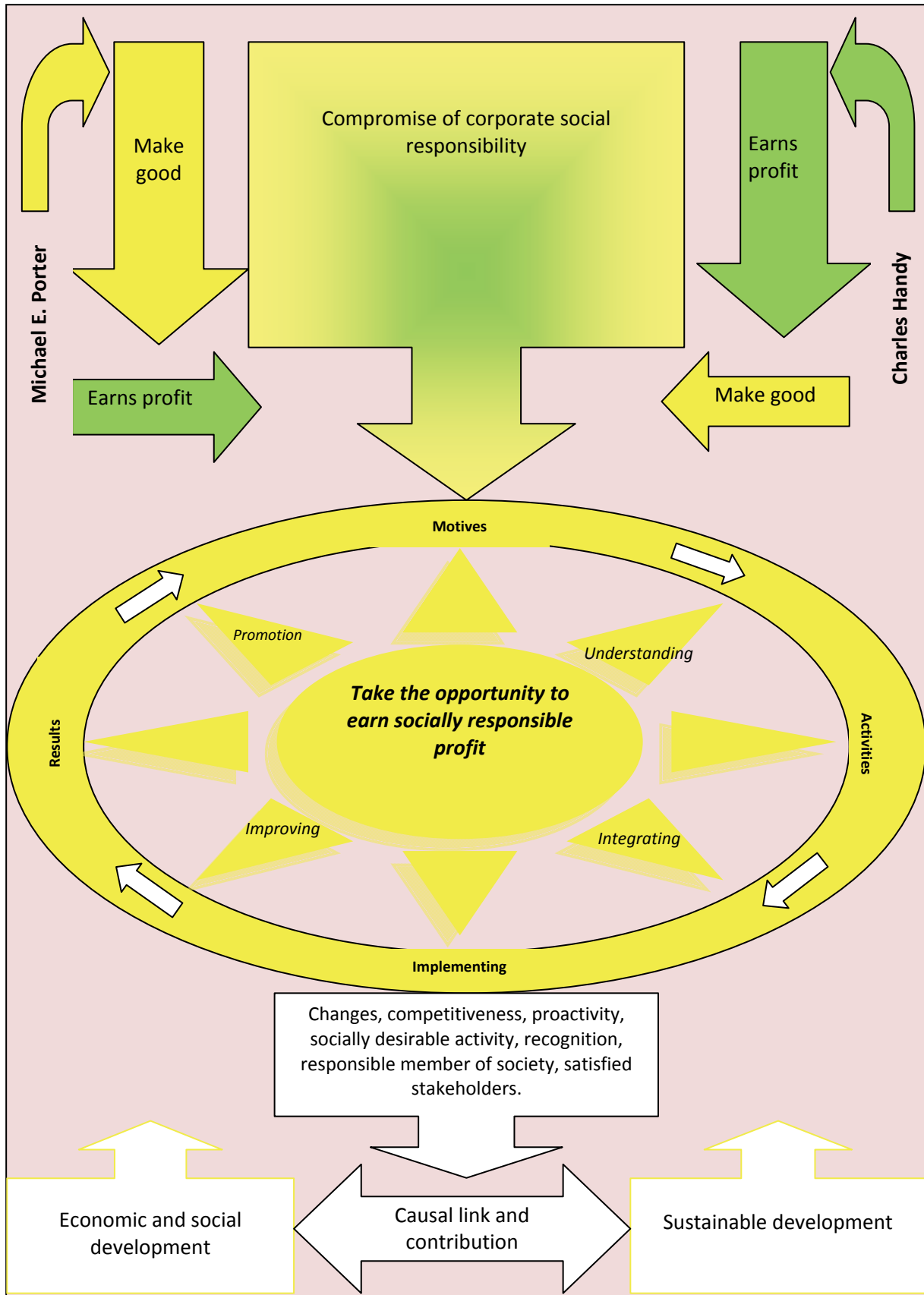
In this paper the CSR is also presented not only as a concept that finds business opportunities, but also a means for achievement of changes, competitiveness, proactivity, and recognizability, stressing the causal link with economic and social development, thus contributing to sustainable development.

Inability to simplify the complexity of the CSR, imposed a methodology for creation of a compromise, that included the following steps:

1. Analysis of the CSR definitions
2. Analysis of the CSR models
3. Analysis of the CSR business practices
4. Analysis of the CSR complexity
5. Analysis of the existing CSR compromises
6. Establishment of the CSR as a business opportunity
7. Establishment of the CSR as a means for achievement of changes, competitiveness, proactivity, and recognizability.

Such methodology resulted in the following CSR compromise: „Take the opportunity to earn a socially responsible profit“. The compromise of the contemporary CSR is illustrated in the scheme below.

**Figure 1.** *Compromise of modern theory of corporate social responsibility*



In the scheme above the CSR compromise is presented as the following message to companies: Take the opportunity to earn a socially responsible profit, which is intentionally presented in the form of Sun (source of life) for the following reasons:

1. As an attempt for wakening of the humanity to restore the control over greed.
2. The human curse that is deeply inside of us all is reflected in the paradox of the times we live in. On one side of the world there are people who starve to death, and on the other there are people who die from obesity. Human greed and the suicidal power that it incites, Nobelprize winner Günter Grass described as: „After the collapse of socialism, capitalism remained without a rival. This unusual situation unleashed its greedy and above all its suicidal power“ (Welt am Sonntag, 2002). Weber also warns about the suicidal power of greed and he introduces the term of self-destruction of humanity „Weber warned that only responsibility can secure moral of the human actions and behaviours in the times of capitalism“ (Šljivo Grbo, 2011, p.171).
3. To raise the understanding of the necessity to take responsibility for social, ecological, and economic problems.
4. Every day we hear terms such as: greenhouse effect, global warming, ozone holes, acid rains, waste waters, pesticides, herbicides, waste, burning, etc. All of those terms have a common cause: human. According to Porter and Kramer: „The capitalist system is under siege. In recent years business increasingly has been viewed as a major cause of social, environmental, and economic problems. Companies are widely perceived to be prospering at the expense of the broader community“ (Porter and Kramer, 2001, p. 62).
5. To lead to the final understanding that without the future of humanity there can be no future of the profit.

The message is clear: human desire for development must be limited by the will for survival of the humanity.

Compromise of the CSR in the scheme above is presented as a continuous process that includes the following phases:

I The first phase represents the phase of disclosure of the motive. A reply to the following question: „Why earn a socially responsible profit?“ will disclose actual motives of the company for CSR implementation. It is certainly necessary to adapt the motives for the CSR implementation to each individual company. Motives can be found in certain benefits, i.e.: „there is now a consensus, based on both practical experience and formal studies, that developing an effective CSR policy can deliver significant benefits which include:

- Improve financial performance
- Reduce exposure to non-financial risk
- Help in identifying new products and new markets
- Enhance brand image and reputation
- Increase sales and customer loyalty
- Improve recruitment and retention performance
- Create of new business networks
- Increase staff motivation, contribution and skills
- Improve trust in the company and its managers
- Improve government relations
- Reduce regulatory intervention
- Reduce costs through lower staff turnover
- Reduce costs through environmental best practice“ (OWW Consulting, 2010).

II The second phase results in a list of activities that the CSR contains. After identification of the motive, it is necessary to conduct a thorough analysis of the necessary activities focused on earning of a “socially responsible profit”. That will lead to answers to the question of „How to earn a socially responsible profit?“ This phase includes the implementation of principles of social responsibility: accountability; transparency, ethical behaviour, respect for stakeholder interests, respect for the rule of law, respect for international norms of behaviour, respect for human rights (ISO 26000).

III The third phase is the phase of implementation of the CSR activities, i.e. building of foundations for earning of socially responsible profit.

IV The fourth phase is the phase of „feeling good“ for using the opportunities that the CSR provides.

The said process leads to avoidance of the CSR approach that instructs the companies on what must not do, and introduces a provocative approach that defines what are the desirable actions that the companies can take are. That approach is important because it avoids what-must-not-be-done practice and introduces a proactive socially responsible action.

The CSR should be based on selection of those activities that will achieve maximum effect for the company and its stakeholders, in the area of professional management of selected activities and especially the continuous informing of the public of activities taken and their results. In such manner every company builds its own positive image, develops its competitive capacities, and making the CSR its regular business practice in all business aspects. Thus, the CSR represents not only a business opportunity, but rather as a means for accomplishment of changes, competitiveness, proactiveness and recognizability, all of which stress the causal link with both economic and social development, thus contributing to the sustainable development.

## 4. Conclusion

Corporate Social Responsibility is the tendency of companies to nurture and promote their multiple roles in society, not only economical but also environmental, social, philanthropic and others, which is in accordance with the set principles of sustainable development. On the other hand, financial, environmental and economic crisis emerged in the everyday life of a modern man. It becomes clear that something has to change and that the key actors must respond to accountability. This evident unsustainability of human greed gives an answer to the question: Why corporate social responsibility? Paradoxically, it appears that it is easier to answer the question: Why CSR? -compared to the question: What is CSR?

Namely, defining of the term corporate social responsibility is faced with a whole range of issues around the understanding of what is CSR and which activities are included in CSR. Complexities around the term of corporate social responsibility are also noticeable in the selection of theories of CSR. Furthermore, it happens frequently that some theories use the same terms but with different meanings.

The complexity of the CSR imposed a need for finding of the CSR compromise. Methodology for creation of a compromise included the following steps:

1. Analysis of the CSR definitions
2. Analysis of the CSR models
3. Analysis of the CSR business practices
4. Analysis of the CSR complexity
5. Analysis of the existing CSR compromises
6. Establishment of the CSR as a business opportunity

7. Establishment of the CSR as a means for achievement of changes, competitiveness, proactivity, and recognizability.

Aware that it is impossible to simplify the complexity of corporate social responsibility, contemporary theory of CSR in this paper has set a compromise that reads "Take the opportunity to earn socially responsible profit." Schematic view this compromise set consists of four phases. Simplified they read: motives, activities, implementation and results.

In this case, corporate social responsibility is seen as a business opportunity, or a concept that seeks out business opportunities. And not only as an opportunity, corporate social responsibility should be seen as a tool for change, competitiveness, economic and social development.

The compromise of modern theory of CSR carries a clear message- the human desire for progress must be limited by the will for survival of the future mankind.

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## PART SIX:

*Entrepreneurship, Culture,  
Organisation Behaviour*

## ENTREPRENEURIAL CULTURE AND QUALITY PRACTICE IN SMALL AND MEDIUM SIZED ENTERPRISES (SME) IN R. MACEDONIA

Marina KANTARDJIEVA<sup>152</sup>, Venus EL ROSARIO BUNAGAN<sup>153</sup>

### Abstract

*The employees in a powerful organizational culture have a sense of mission which in turn can increase productivity. Essentially, the employees within a powerful organizational culture know what's required of them and thus they react positively when faced with changes. In the opposite instance, the employees within a weak organizational culture dedicate plenty of time to making a decision about what to do next and how to come about it. The culture is good only if it's adequate to the context, i.e. to the objective circumstances of the industry or the business strategy in question.*

*The creation of harmonized relations at all organizational levels, the integration of the employees towards common goals and the creation of the sense of work responsibility with the employees, all these are factors which are taken into consideration in the creation of the cultural change and the realization of the strategic plan. The firm organizational culture can improve quality, as well as the operative and business process. The change of culture is the most important inhibitor in the implementation of the principles of quality. There are initiatives, for the support of the necessary cultural change in terms of improvement, which are generally described as part of total quality management (TQM), which directly led to creating a culture with specific characteristics.*

*The organizational culture, which tends towards continuous improvement and TQM are considered crucial factors in improving the skills in the business enterprises, especially in terms of innovation. The emphasis and the upgrade of the extraordinary objective such as quality, within a diversified organization, not only can lead to improvement of quality but it can also diminish conflicts and misunderstandings among the employees by giving them a unified goal, a common language and culture, which was lacking before.*

*The greatest problems related to the implementation of TQM are considered to be the insufficient understanding of the degree of necessary commitment in the organization. The business enterprises, besides, should take into consideration the sizeable time frame necessary for the adaptation of the culture of the organization to the basic philosophy of TQM. The organization committed to TQM has a culture based on commitment to customer satisfaction through continuous improvement. Such culture varies from organization to organization but still, there are certain basic principles which can be implemented everywhere in order to ensure a greater share of the market, profit increase and decrease in expenses.*

**Keywords:** *organizational culture, quality, cultural change, continuous improvement.*

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## **1. The role of organizational culture in the implementation of strategy**

According to Sanz-Vale, R. *et al* (2011), “organizational culture can be defined as the values, beliefs and hidden assumptions that organizational members have in common.” (p. 999). The concept of congruity between culture and strategy implies that strategy should be successful in a powerful culture, since it needs to be formulated in accordance with the existing culture. Regardless of the strong points, the strategy won't be successfully adopted if it is outside the culture boundaries. On the other hand, if the culture is weak, it is easily adapted to any kind of strategy, where the success in such a case depends solely on the power of strategy. This clearly indicates that the most successful combination is a powerful strategy in congruity with powerful culture. Also, in the following situation, if the strategy and the culture are congruent, the resulting success will strengthen the culture and it will strengthen the strategic congruity on its own. Popovski, V. (2001) claims that the “influence of the organizational culture is present in all the phases of the strategic management, thus without organizational culture it is nearly impossible to understand the very character of the strategic formulation, establishment and implementation.” (p. 99). Furthermore, Wheelen, L., T. and Hunger D. J. (2010) point out that “the successful strategic plan for quality depends on the cultural change” (p. 357). It is the change that leads to the necessary agreement.

In relation to strategy and cultural change together it is important to point out that their realization requires time and energy. Sometimes the changes are measured in years, not in months or weeks and they give the incentive for the crucial integration and communication within the organization itself. The capability of the business enterprises to be culturally innovative is related to leadership and top management, which should be responsible for the building of a strong culture. The leaders construct the social reality in the organization, they shape values and create a vision necessary for the motivation of the employees towards change. Also, they create guidelines for the realization of the established organizational goals.

## **2. The influence of the organizational culture on the functioning of TQM**

While TQM has special roots stemming from the cultural movement, both domains have been recently joined together through the idea that in order to achieve “top quality” either changes should be made or the cultural aspect of the organization should be worked upon. (Irani, Z. and Beskese, A. 2004). The implementation of TQM implies changes of the mutual hypotheses, of the frameworks of identification and understanding which most organizations have developed through communication with the environment. These changes impact the basic beliefs and values, which the employees have towards the work process. Therefore many business enterprises are trying to distinguish the organizational culture before they implement the TQM program. The organizational culture influences people's activities and behavior. It also changes their actions in terms of perception of all aspects of their work, including quality (Reed, R. *et al* 2000). Accordingly, many authors point to the relationship between the foundations of quality and the organizational culture. Some of them emphasize the fact that culture has direct influence on the quality of the service. The removal of the true focus over to quality, usually implies a transformation which means radical adaptation towards the internal culture of the company. The implementation of TQM is not a simple task; it requires a complete change in the organizational culture, with replacing the responsibilities towards the management and the continuous participation of everyone in the process of quality improvement.

Byars, L. L. and Rue, W. L. (2006) state the following : “Many organizations in the past have tried to create circles of quality, for example in some parts of Europe and the USA, since these were interpreted as an answer to the improved levels of productive competitiveness of the

Japanese companies. History shows that the majority of initiatives either failed or were archived having achieved no result whatsoever. One of the reasons for this outcome is the lack of adequate motivation, as well as the lack of cultural principles and human resources.” (p.160).

It is of great importance to use the business success for the purposes of development of the culture of quality, which is also inherent in the philosophy of TQM. TQM is a philosophy which the organizations can use in order to improve their work process but often too much emphasis is imposed over the means and the techniques which can get priority in terms of the need to create the necessary culture, open to changes. Chase, B. R. et al (2005) point out that the following measures are of crucial importance for achieving the necessary cultural change:

- The organizational practices, procedures and processes must emphasize quality;
- Everyone in the organization must have a clear vision as to the meaning of quality in the achievement of the business goals;
- People at all levels should be aware of the needs and requirements of the customer;
- The structure of the organization should enable continuous improvement;
- There should be integration of requirements of internal and external customers in the business plan;
- The emphasis on the values and the understanding oriented towards the customer with the support of top management.

In support of the necessary cultural change in terms of improvement, there are initiatives, generally described as part of TQM, which directly lead to the creation of a culture with specific characteristics. These initiatives include: participative management and openness (encouragement of the involvement of the employees, team work, training and open communication), rational approach (the process of making decisions based on facts, clearly stated mission, goals, statistical tools and the statistical control of processes, evaluation and the cycles of improvement), flexibility (focus on the customer, continuous improvement) and the integrity (with accent on the values and the social responsibility). All these initiatives emphasize the importance of the culture as one of the crucial elements while contemplating TQM. The implementation of the afore-mentioned measures and initiatives by TQM for the creation of the cultural change, creates a culture with the business enterprises which is a mechanism for coding and relaying knowledge, where the main accent is on quality management.

### 3. Methodology

This reserach paper combines qualitative and quantitative methodolog. The paper starts with a qualitative analysis and then quantitative, taking into consideration fact that the standardized data is presented numerically and the importance is derived from the numbers themselves. Additionally, the implementation of particular tables and graphs represents clarification of the statistical side of the research.

Data collection has been completed through administering structured surveys to the managers on higher and medium levels in the selected companies, by email. The research has been conducted on a sample of 60 subjects (managers), employed in small, medium and large enterprises. The research was conducted in the period of three months.

Software pacakge SPSS was used for Statistical analysis. Statistical procedures that were used, include: methods of descriptive statistics, regressive analysis, (multinomial logistic regressive analysis) and the method of non parameter  $X^2$  statistics which sets the null hypothesis for the uniformity of distribution. The statistical data is represented as values of attributive modalities, which, in turn were represented numerically on a scale from 1 to 7 where 1= “I disagree” and 7= “I agree.” According to the fact that research required positive neutral or negative opinion, all

variables were recoded with the following Lickert Scale: 1,2,3= “I disagree”, 4 “Neutral” and 5,6,7, = “I agree”.

The conducted research included a contingent of 60 companies in manufacturing, i.e. 60 managers working in small, medium and large organizations. Regarding the gender structure, 85% were male, and 15% or 9 subjects were women. Additionally, the results of the quantitative part of the research has been discussed and presented.

In terms of education degree, research data shows that almost 98.3% of the subjects are with higher education and postgraduate titles, and only 1.7% are with secondary education. Regarding the age, majority of subjects (36.7% or 22 of the subjects) are aged between 36-45 and aged between 26-45 (as stated by 33.3% or 20 of the total number of subjects). The other two intervals are equally represented with 15% of the total number of subjects. According to the number of employees in the organization, it's evident that most of the companies, 50 of them (or 83.4% of the surveyed companies) have over 50 employees, and only 10 companies (i.e. 16.6%) have less or up to 50 employees.

#### **4. Corporative culture of quality and organizational changes**

The P1 variable i.e. “Corporative culture” is evaluated through both variables (P2 and P3), which were measured by ordinal scales (Likert –scale from 1-7, described previously) through the answers on the following questions, accordingly:

- The goals related to quality which are measurable and limited in time (e.g. the increase of customer satisfaction by 20% in the next 3 years) are part of the long term planning (3 years or more)?
- In our company there is a corporate culture of quality (i.e. mutual values, attitudes and behaviour)?

Each of these variables was recoded and a new Likert scale was established. Besides descriptive analysis as well as the tables of frequencies of the P2 and P3 variables, the following hypotheses will also be considered:

*X1: The goals related to quality are part of the long term planning of the companies.*

*X2: In the company there is a corporative culture of quality.*

Where the  $X^2$  test will be applied whereby they will either be accepted or rejected.

##### **4.1. Distribution of the P2 and P3 variables**

Survey results, clearly shows that 63.3% (38) of the subjects taking the survey agree that the goals related to quality are part of the long-term planning in their company, as high as 25% remain neutral and 11.7% (7) disagree. On the question of corporative culture 63,3%(48) gave a positive answer, with 11,7% (7) 8,3% (5), either not replying or not having an opinion, respectively.

##### **4.2. Statistics for the P2 and P3 variables**

The medium value of all variables is above 4, which shows a tendency towards agreement on all questions. The P3 variable has a lesser variability in the answers as opposed to the P2 variable.

**Table 1. Descriptive statistics of the P2 and P3 variables**

Description of variable/statistics	Mean	Median	Standard deviation	Variance
P32: The goals related to quality are part of long term planning ?	5.5	7	2.03	4.21
P33: The company has corporative culture of quality?	6.5	7	2.29	4.16

### 4.3. $X^2$ test of the variables P2 and P3

The  $X^2$  test was made for each of the variables and the following results emerged:

**Table 2.  $X^2$  test of the variables P2 and P3**

Variable/ $X^2$ test	$X^2$ quotient	Degrees of freedom	p-value
P2	25,900 <sup>a</sup>	2	,000
P3	58,900 <sup>a</sup>	2	,000

a. 0% of the cells had frequency less than 5, with the minimum expectancy is 20

The theoretical value of the  $X^2$  is  $X^2_{(0,05,2)}=5,99$ . The test results show that each of the calculate  $X^2$  quotients of the P2 and P3 variables (25,9 and 58,9, accordingly) are bigger than the theoretical value, but also that the p-values are smaller than  $p=0,05$ . Therefore, the difference between the subjects expressing agreement and those who disagree is statistically significant for both variables. Accordingly, **the hypotheses X1 and X2 are accepted.**

### 4.4. Variable :The corporative culture of quality and organizational changes

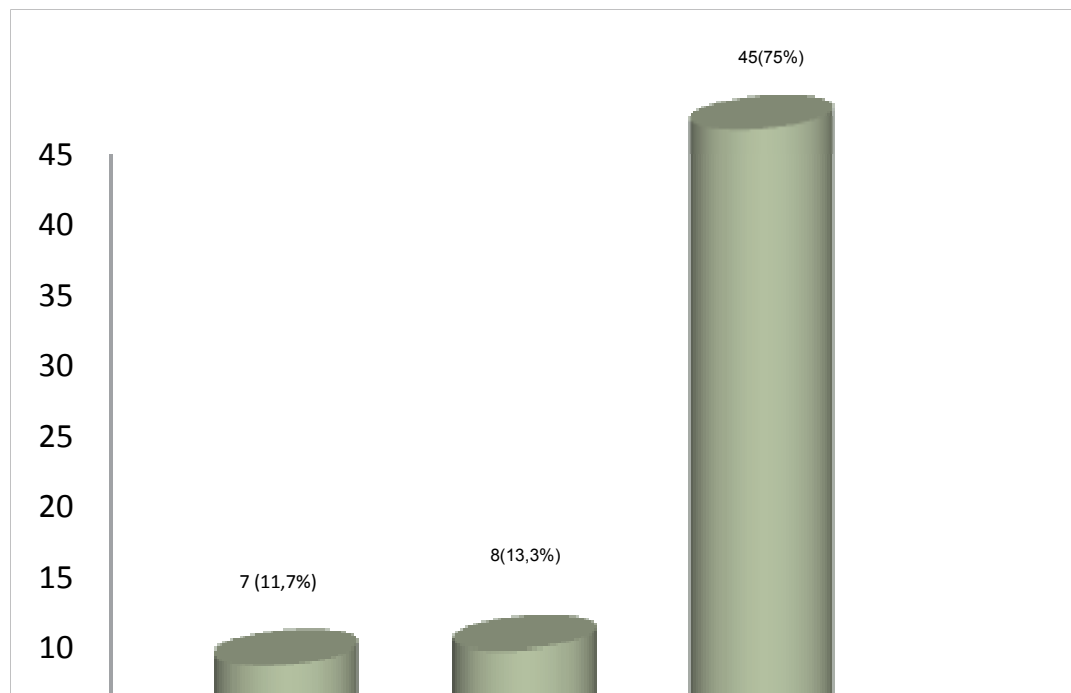
The values of the variable P1 represent the medium value of the scores of P2 and P3. The descriptive statistics of each of the variables gives the following hypothesis:

*X3: In the companies there is corporate culture of quality and organizational changes.*

#### 4.4.1. Distribution

The distribution of the variable P4, i.e. “the corporative culture of quality and organizational changes” which is a sublimation of all its components, shows that most of the subjects, i.e. 45 (75%) agree and 7 (11.7%) disagree that their company has systems for quality improvement. The percentage of neutral replies is almost identical with 13.3% (8) subjects.



**Figure 1.** *distribution of variable P4*

#### 4.4.2. Statistics

The medium value of this variable is 5.9, which points to the tendency towards higher attributive modalities on the issue of corporative culture of quality and organizational changes.

**Table 3.** *Statistics of the variable P4*

Variable/Statistics	Mean	Median	Standard deviation	Variance
P4 Corporative culture of quality and organizational changes	5,9	7	2,06422	4,26102

#### 4.4.3. $X^2$ test

The  $X^2$  test ( $X^2=46,9 > X^2_{(0,05,2)}=5,99$ ;  $p = .0000 < 0.05$ ) implies that there is a statistically significant difference in the number of subjects who agreed with the statements which are components of this variable and those subjects who disagreed or remained neutral. Therefore the **X3** hypothesis or the one which states that the companies have corporative culture and implement organizational changes *is accepted*.

**Table 4.**  *$X^2$  test for the P1 variable*

Variable/ $X^2$ test	$X^2$ quotient	Degrees of freedom	p-value
P4: Corporative culture of quality and organizational changes	46,900 <sup>a</sup>	2	,000

## 5. Conclusion

For successful implementation of the strategic plan, following contemporary organizational trends and motivating employee's, changes in organizational culture are required. Organizational culture is defining the character of the organization. Organizational culture that supports continuous improvement and TQM, represents a further incentive for increased employees motivation, profit and successful final performance. Furthermore, for creating a cohesive organizational culture, focusing on overall quality, adapting the changes and focusing on fulfillment of the organizational goals, enterprises should also consider the role of human resources as crucial. Moreover, the research paper considers the questions i.e. hypotheses which represent the critical elements of TQM. With the analysis of the questions, i.e. the hypotheses that in the companies there is people management and customer management; partnership with the suppliers; feedback on improvement; orientation towards customer satisfaction; operative quality planning; systems of improvement and quality measurement; corporative culture of quality; we can conclude that all hypotheses *are accepted*.

The hypotheses are accepted as a result of the significantly higher percentage of positive replies as well as according to the  $X^2$  test where each of the  $X^2$  quotients is bigger than the theoretical value ( $X^2_{(0,05,2)}=5,99$ ), but also in accordance with all p-values smaller than  $p=0,05$ . Therefore we conclude that the difference between subjects with positive replies and subjects with negative replies is statistically significant on all analyzed questions.

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## STUPIDITY MANAGEMENT AS A LACK OF SPIRITUALITY MANAGEMENT: HOW TO IMPROVE ORGANIZATIONAL DEVELOPMENT?<sup>154</sup>

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### Abstract

*The main cause of widely spreaded stupidity management in contemporary organizations can be settled in the lack of spirituality management i.e. lack of specific spiritual orientation and personal spiritual values. By definition stupidity management deals with limitation of unsuitable „smart“, with limitations in intelectual and/or emotional-motivational functional area. The deficit of critical thinking, deeper thinking, creativity and passion most often arise not because of intelligence deficit but because of different emotional-motivational blockages which as mostly cause generate stupidity management e.g. by fear, uncertainty, power mechanism, domination, coercion, „higher“ politics, lack of curiosity, manipulation..., but also because of partial knowledge and/or pseudoknowledge who has also an emotional-motivational background. Namely, without spiritual management no one potential valuable organizational/economic solution regardless of its vision or strategic fundation can not vivify, because it will be distorted or canceled by egoistic opportunism of organizational actors which characterize essential lack of spirituality. Today is known that organizational/socio-economic crisis is dominantly result of spirituality (value) crisis which do not promote ethical values and ethical culture/climate (knowing what's right, valuing what's right and doing what's right), what is crucial for diminishing the emotional-motivational cause of stupidity management.*

*The goal of this paper was to research how to deminish emotional-motivational caused stupidity management which is seen as a main cause of organizational stagnation by means of spirituality management and his crucial value categories. So, this paper by insight method discuss the problem of stupidity management caused because of emotional-motivational reasons. Namely, stupidity management retard organizational development by inhibiting the cognitive and emotional-motivational capacities of organizational human resuources i.e. psychological capital of an organization.*

*To deminish the main emotional-motivational cause of stupidity management and organizational stagnation substantially can help ethical culture/ climate with the spiritual management/leadership. In this paper as proposed spiritual values for spiritual management/ leadership are discussed the values of truth, correct behaviour, love, peace/serenity and nonviolence. This values are basis for organizational development i.e. realization the vision of spiritual, productive, inteligent, creative, happy enterprises, which produces stakeholder well-being and diminished stupidity management.*

**Keywords:** *stupidity management, spirituality management, ethical culture/climate, organizational capital, organizational development.*

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<sup>154</sup> There is nothing such dangerous as stupidity! Author

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## 1. Introduction

In contrary to the common assumption that contemporary organizations characterize only „smartness“, intense with informations, knowledge, competence, intelligence, wisdom, talent learning with rhetoric persuasion that they maximalize the mobilization of cognitive capacities of his members, the organizational reality (facts and experience) shows also the reverse of organizational life, i.e. widely present phenomenon of functional stupidity and stupidity management. Because the functional stupidity and stupidity management can sharply reduce intelligent use of organizational resources, disturb organizational harmony, create hipocrisis (duality) and undermine human relationships and productivity (Alvesson&Spicer, 2012), undermine employee and other stakeholders well-being (Valentine, 2014; Sims&Sauser Jr., 2014), create unethical organizational situation in which is not known what's is right, it is not valued what's right and is not doing what's right, it is important to research the ways how this managerial problem can be minced or resolved.

The main problem of functional stupidity and management who support organizational stupiditiy is in absence or blocked managerial awareness that organizational development and growth is primarily in nonmaterial (spiritual) resources and that only by promotion of basic spiritual values can be created long-term high-quality business result. Functional stupidity and stupidity management can be sharply reduced by spirituality management and his value categories implementation, which enable the management function on a higher spiritual level. According Fry&Altman (2013, p.20) spiritual leadership has specific values combined in three qualities: a) Vision; b) Altruistic Love; c) Hope/Faith. To better understand the content of this values they are presented in the table 1.

**Table 1. Qualities of Personal Spiritual Management/Leadership**

<b>Vision</b>	<b>Altruistic Love</b>	<b>Hope/Faith</b>
<ul style="list-style-type: none"> <li>· Broad Appeal to Key Stakeholders</li> <li>· Defines the Destination and Journey</li> <li>· Reflects High Ideals</li> <li>· Encourages Hope/Faith</li> <li>· Establishes Standards of Excellence</li> </ul>	<ul style="list-style-type: none"> <li>· Trust/Loyalty</li> <li>· Forgiveness/Acceptance/Gratitude</li> <li>· Integrity</li> <li>· Honesty</li> <li>· Courage</li> <li>· Humility</li> <li>· Kindness</li> <li>· Compassion</li> <li>· Patience/Meekness/Endurance</li> <li>· Fun</li> </ul>	<ul style="list-style-type: none"> <li>· Endurance</li> <li>· Perseverance</li> <li>· Do What it Takes</li> <li>· Stretch Goals</li> <li>· Expectation of Reward/Victory</li> <li>· Excellence</li> </ul>

*Source: Fry&Altman, (2013), p. 20.*

As it can be seen it the table 1. the key elements of spiritual management/leadership are ethical values. Leaders of organizations with positive ethical values i.e. cultures of characters adaptes spiritual, or universal values such as knowledge, courage, humanitiy, justice, temperance and transcendence (Bogdanović, 2013a, Peterson&Seligman, 2006). Today is also known that for organizational success there are important four set of variables/capitals (Tödtling, 2014):

1. Financial capital (what an enterprise or an individual possess);
2. Human capital (what an enterprise or individuals knows);
3. Social capital (whom employees or enterprises knows);
4. Psychological capital (what individuals are, or can be, e.g. employees positivity/spirituality which helps enterprises in achieving the comparative advantage.

So spirituality (employees-management positivity/positive ethical climate/character culture) is important part of organizational capital. Without psychological/spiritual capital, other capitals such as financial, social, or human capital can be in vain, because e.g. stupidity management destroys the effect of this capitals. This especcially can be seen in numerous examples in transition

enterprises and economies where the main cause can be settled in wrong emotions or/and motivations.<sup>156</sup>

Also today is known that toxic (unethical) behavior like abusive supervision, theft, incivility workplace bullying/abuse, discrimination and injustice, withdrawal behavior and organizational uncommitment, stress, unethical organizational perception, moral disengagement, the institutionalization of corrupt practices, unintegrity, unsafe working conditions, toxic workplaces and toxic managers with the characteristics of machiavellianism, narcissism, psychopathy (O'Boyle et al., 2012; Yatzek, 2012) are signs of unethical organizational cultures and are intimately connected with organizational (un)development. Namely, in organization reality there is no organization without presence of some kind of pathology. This organizational pathology arises as a fact of negative workplace behaviors which source is mostly in personal traits. Namely, the strongest predictor of an employee's behavior is his/her personality. So, personal traits as integrity, authenticity, and optimism predict positive behaviors and positive outcomes, and negative personal traits (e.g. machiavellism, narcissism, and psychopathy so called „Dark Triad“) are linked to negative workplace behaviors (O'Boyle et al., 2012). Namely, narcissism has been linked to unethical behavior in CEOs and a need for power; corporate psychopaths have diminished levels of corporate responsibility and can adversely affect productivity; machiavellianism is associated with diminished organizational supervisor and team commitment along with the tendency to be perceived as abusive by subordinates and to focus on maintaining power and using manipulative behavior (Jonason, Slomski & Partyka, 2012, p. 449).

For resolving such a negative organizational milieu it is proposed ethical culture i.e. the culture of character. Culture of character (spiritual organizational culture) is the culture in which positive organizational values are ingrained throughout the organization such that all of its members strive without fail to know what's right, value what's right and do what's right (Sims & Sasser Jr., 2014, p. 49). Namely, management is often in lack of spiritual dimension which consist of values, moral and ethics, so if such spiritual elements are ignored, the consequence is the violation of individual, institutional and social health (Sikula, 1996, p.31). By means of spiritual (humanistic) values can be diminished a great part of functional stupidity and stupidity management, and improve organizational outcomes. Although this is the challenge offered to today's enlightened leaders/managers, this is the only way to the creation of productive, intelligent, creative and happy organizations which satisfied the criterion of stakeholder well-being.

Spirituality management is contrary to the functional organizational stupidity, stupidity management, pagan values (Žitinski-Šoljić, 1996, p. 6&101)<sup>157</sup> and values of technical (scientific) management (Lukšić, 1995)<sup>158</sup> which excuse the use of every mean if the goal is valid. In essence the process of really spiritual awakening of management refers to the:

<sup>156</sup> In everyday life in transition economies can be perceived or even heard: „My vision is provision!“ what represents the specific managerial motivation that can not be considered as ethical or spiritual and can be pointed out as ethically „wrong“.

<sup>157</sup> Pagan value system promotes opponent (concurrent) elimination, monopol retain, conquest, rapine, destruction, superior skill of killing, rough power getting and power conservation with an attitude that goal excuse every mean. Because an attitude that man is only a supplement to the certain goal is out of men himself, such attitude nowadays is considered as dictatorial and pagan. So mentioned pagan values can be considered as irrational passions which disturb realization of human freedom, and therefore are unfavorable for general human and organizational welfare, so should be seen as inferior. Humanistic values which ensures the productive use of his own forces and by this reaching the life sense accordingly should be considered as superior.

<sup>158</sup> For today's contemporary organizations are also very problematic the values of scientific (technological) management (often dominant in contemporary organizations) which operate with four basic rational-technical values: success, survival, happiness and health (Lukšić, 1995). Namely, if mentioned values are achieved without compromise, business praxis often witness the fact that goal excuses every mean (e.g. the means for achieving the value success can be even ethical/humanistic and nonethical/barbarian). At the same time the managerial judgement is often under dominant power influence, interpersonal relations which characterise manipulation and adaptation of the weaker ones. Therefore, so defined rational-technical values understood absolutely and separated from the means, in situation where personal moral decision is discouraged in the name of higher corporate interest, ideology of moral relativism (i. e. „correct is what is commanded, not what is really correct“) very easily brings to the normalization of „unethical“ in the name of higher

1. determination to the truth and unblocking the truth flow in an organization;
2. awakening and promotion of correct behavior (doing);
3. awakening and promotion to the higher sense (love in organization);
4. achieving the internal peace and equanimity in a function of cognitive capacities activation what is also means the prevention of stress state;
5. e) awakening the pathology of violence and non-toleration of any kind of violence in organizations (mobbing, manipulation, etc.)

This paper deals with seeking the way by which can be overcome the functional organizational stupidity which main cause is in emotional-motivational sphere and how to limit stupidity management. In this work this is done by means of spirituality (value) management, which can act as efficacious corrective in almost every disfunctional and patological organizational state. The main hypotheses in this paper were:

*H1: Because of stupidity and stupidity management organizations can not develop, develop slow or even can not survive;*

*H2: Because of spiritual lack organizations becomes stupid and promotes emotion-motivation caused stupidity management;*

*H3: Introducing the spiritual management can resolve the problem of organizational stupidity and stupidity management which cause is in emotional-motivational sphere.*

All these three hypotheses are confirmed, by means of insight method methodology who use reflection about empirical evidence, literature reveiw, own personal experience and synthesis the facts about organizational stupidity and stupidity management problem.

## **2. Functional stupidity and stupidity management**

Functional stupidity is lack of ability or willingness to actively process the knowledge. This is inability or non-motivation to use his own cognitive resources or intelligence. Functional stupidity characterize situation when the organization support lack of reflexivity, substantive reasoning and justification (why is doing on the way is doing). It depicts refusal of using intelectual resources out of „narrow“ and „secure“ sphere. Functional stupidity helps to remain and strenghten organizational order, often is followed by manipulative untruth, uncorrect handling, so if „it comes to the surface“ result in organizational disharmony (Alvesson&Spicer, 2012). Although refusal of using full organizational capacity can facilitate organizational functioning, promote power and domination relationships and emphasise existing organizational conformity, it can also create the feeling of hypocrisis (falsity) because of discord between rethorical (norm) and real (counternorm) what can disturb good organizational functioning, especially by information and knowledge intensive organizations. A brief example of norms and counternorms as cause of organizational stupidity are presented in the table 2.

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interest, and business crime (e.g. in transition countries) what brings to the integrity crisis (disonance of different values, because in ethics, goal can not be separated from the mean, i.e unethical mean transform the goal into unethical goal) and to the stupidity management.



**Table 2.** *Organizational norms/ethics and organizational counternorms as cause of organizational stupidity*

Organizational norms or ethics	Organizational counternorms
<ul style="list-style-type: none"> <li>· Be open and honest</li> <li>· Follow the rules at all costs</li> <li>· Be cost-effective</li> <li>· Take responsibility</li> <li>· Be a team player</li> <li>· Maintain corporate loyalty</li> </ul>	<ul style="list-style-type: none"> <li>· Be secretive and deceitful</li> <li>· Do whatever it takes to get the job done</li> <li>· Use it or lose it</li> <li>· Pass the buck</li> <li>· Take credit for your own actions; grandstand</li> <li>· „Bad-mouth“ the company</li> </ul>

*Source: Sims&Sausser Jr. (2014)., p. 45-46 according Jansen&Von Glinow, 1985; Sims, 2003.*

Typical example of persevering in functional stupidity is when management allow to talk only desirable and good about organization. Functional stupidity also create irrational belief in complex economic and financial models and disadaptation of managerial praxis, i.e. when the most of managerial praxis is adapted from wrong opinion, general adopted wisdom and with totally lack of empirical evidence-what is very frequent and classic organizational case. So when partial and/or pseudo-knowledge of management become dominant „modus operandi“ organization is in organizational stupidity. Management is also stupid when it becomes totally abstract, not connected with reality, and adapt/respect only „science“ of pure economy as his main input. Functional stupidity promotes stupidity management, for which are characteristic following deficits (Alvesson&Spicer, 2012):

1. **Lack of reflection** about dominant rules, beliefs, expectations (e.g. for employees is correct to follow the command higher in hierarchy, regardless of sense and content of the command);
2. **Lack of reason explanation** which are founded on arguments, lack of explanation for decision and action, abstaining from question, explanation in managers edicts, tradition and fashion (key aspect in forming of functional stupidity);
3. **Lack of independant reflexion** in manner that nearsightedness are applied instruments for effective accomplishment a goal, without knowledge about broader independant questions what is in fact the goal, is the goal correct and have this goal a sense, and which are appropriate means for accomplishment a goal;
4. **Motivational lack**, e.g. lack of curiosity, lack of openmindedness, the personality of „organizational man“ who is uncritical obeying, or professional (knowledge worker) which organizational paradigm see undoubtful, because it should be like that;
5. **Emotional lack** because of fear, uncertainty, power mechanisms, domination, coercion in organization.

The main mechanisms of stupidity management are blocking or marginalization of doubts, blocking the information about doubts, structuring the organizational communication on the way that are facilitated and encouraged positive and easily understandable stories, negative and ambiguous stories are marginalized even prohibited. Stupidity management deals with limiting unsuited „smart“ in organization, limiting the staff in intellectual or motivational-emotional area. The main supporting factors of stupidity management are:

1. **Limited rationality** (because lack of time, informations, cognitive capacities, lack of knowledge about problem, etc.);
2. **Competency in one area uncritically is enlarged on the competency in other area** (but nobody can be universal competent, if someone think like this, is in stupidity);
3. **Imprudence** (acting before thinking and reflection);

4. **Absence of intellect** (e.g. in emotional demanding situation, when is primary acting on the ground of powerful emotions and passion);
5. **Dany of his own ignorance** (relaying on incomplete knowledge or pseudo-knowledge by which very important mediation factor is managerial vanity);
6. **Fear and anxiety**;
7. **Uncertainty** (existentional or psychological);
8. **Reluctance to disturb organizational harmony and existing way of organizational functioning**;
9. **Mechanisms of power and politics** (regulators of non-using the intelectual resources).

From this short review it can be noted that if mentioned factors that facilitate functional stupidity are presented in an organization, especially if management actively work on its promotion, organization can not perform optimal smart and is in some state of organizational stupidity. Organizational stupidity and stupidity management is widely present in contemporary organization, social and political life. Good example of organizational stupidity is Dilbert principle and Dilbert comics (Adams, 2000). So in contrary to the opinionion that modern organizations are more and more smart there is large evidence of reduced smartnes and organizational stupidity. So, it can be concluded, that H1 (Stupidity is blocking organizational development) can be confirmed.

### 3. Spirituality management/leadership

Creating the new paradigm for organizational performance means concentration of the values of stockholders well-being especialy employees wellbeing, social justice, spiritual ability, and sustainability, the whole person - as much as business output and material wealth, i.e. producing financial, social, human and psychological capital. Organizational spiritual leadership involves motivating and inspiring workers through a vision of love and service to stakeholders. It also builds vision and value congruence across individual, team, and organization levels to foster higher levels of employee wellbeing, sustainability and organizational performance (Fry&Altman, 2013., p. 33&34).

Different managements/leaderships plunged in the same context produce totally different decisions which brings the organizations in totally different directions, what means that leadership and management on this today level of knowledge and understanding can not adapt pure science in resolving the problem of leading, so it should have support in intuition, inner truth and spiritual values which reflect quality of manager (leader) awareness. Namely, nowadays it is much clear that improving the organizational performances should be searched in the sphere of nonmaterial and non-palpable (spiritual!).

Spirituality belongs to the value categories which are important to every human like: understanding, luck, love, truth, peace (equaminy) of mind, sense, gentleness toward other people, mercy, integrity, personality... - this means the functional principles out of materiall world (Hawley according Lučić, 2013). Spirituality primary become clear in basic human values which some organization represent or neglect. Human values are key ingredient of ethical organizational culture which determine „personality“ of each organization.

For this paper needs can be told that spirituality can be achieved by five basic human values/virtues implementation:

1. **Truth** (as harmony or the equality in the sense of judgement and being);
2. **Correct behaviour/handling** (noble acting which is not only for selfish benefit, but also on the benefit for all);
3. **Love** (appreciation and deep respect to all living beeing);
4. **Peace** (inner equanimity and composure);

5. **Non-violence** (to anybody or anything).
6. Organizational facts of many contemporary organizations are:
7. Blocked truth;
8. Ethical/correct behavior is not awakened;
9. Higher sense (e.g. love) is not awakened;
10. Stress and hectic organizational life is higher valued than peace and equanimity;
11. Organizational pathology (management by fear, threat, coercion, mobbing, manipulation) is not enough awakened.

So it can be concluded, that H2 (Spiritual lack brings to the organizational stupidity and stupidity management with emotional-motivational cause) can be confirmed.

In extension spirituality management is elaborated in manner how every value category can help in preventing and diminishing emotion-motivation caused stupidity management (H3) through units: a) By truth against stupidity management; b) By correct behaviour against stupidity management; c) By love against stupidity management; d) By peace against stupidity management; e) By non-violence against stupidity management.

### *3.1. By truth against stupidity management*

Ability and motivation to accept and communicate the truth (harmony between the reality and reflection about them) is crucial human value. According Jack Hawley (Hawley according Lučić, 2013, p. 49-50), truth is for organization the most important thing, because when any system is in the truth, every problems resolves automatically (alone with himself) on natural way. Because of that, truth is fundamental for survival of any system, so it can be considered more important then capital, work, strategy, or anything else. Managerial reaction on truth is therefore crucial problem of management and leadership. If for example management do not accept the truth, hide the truth, distort the truth, organization is quite in problem and there are arising opportune condition for stupidity management. So, good way to achieve awareness about organizational truth is free conversation with the question: „What is our truth?“ (Lučić, according Hawley, 2013, p. 51).

The organizational pathology of stupidity management can not be eliminated, if the truth in organization is blocked or distorted. Untruth or suppressed truth is deeply incorporated in contemporary organizational life, because untruth or hiding the truth is often the means for achieving somebody's goal (e.g. machiavelianism). Also untruth or missing the truth are the means of manipulations by which is wanted to achieve domination under other people- what is misuse of the truth.

In fact stupidity management as his main mechanism uses the leverage of truth manipulation, to achieve the people (employees) are manipulated in order to achieve egoistic goal. In spite of that fact for management evolution it is necessary the awareness in the truth and internalization of truth as key value category – not only in business organization but also on the civilization level. In the internalization of the truth value it is needed the inclusion of institutional system. The key managerial question is how to block that untruth or eliding the truth become the key principle of managerial acting and behaviour, because it often brings to the managerial benefit or benefit of special group of people, but damages the organization and society. The truth should be educated by known behavioral principles and create the situation that untruth/lie is not beneficial („In lie are the short legs“!), but also is to be punished if it brings to the damages for other employees

and/or other stakeholders (Bogdanović, 2013b; Pastuović, 1999, p. 217). Only by truth is possible the real battle against stupidity management.<sup>159</sup>

### *3.2. By correct behaviour against stupidity management*

Integrity, justice in achieving the goals, not making damage the other, is also important in prevention and fight against stupidity management. Behaviours such as raven the resources from the other, discreditation of other to achieve some personal gains or advantage, are also „fertile soil“ for stupidity management. Correct behaviour is deep morality in human thoughts, feelings and behaviour. This means that to the employees/management/stakeholders should behave maximal human and to the benefit of man, regardless of his material, social, educational and/or other status.

It is pathology of management if it thinks that it makes a great good only by the fact that it do no damages and evil. Doing things right can be clearly seen in relationships with the work, coworkers, clients. For example in the work with other people when individuals can say that with someone was „wonderful“ to work, or e.g. in harmonious teamwork when every team member work on the group benefit on the best way.<sup>160</sup> Correct behaviour is behaviour which do not delay, do not complicate and do not harm to others. All the behaviours according to criterion of correct behaviour can be divided into (Bogdanović, 2013b; Pastuović, 1999):

1. **Correct moral** (prosocial) behaviour is behaviour that produces positive consequences for other people.
2. **Amoral** (asocial) behavior is behavior which refuse to help to the people or group of people to whom is help necessary, by which is „price“ of helping much less than damage which arise to other person or group of person (without helping).
3. **Antimoral** (antisocial) behaviour is purposely (aimed) making damage to other person or group of persons. Psychopathological individuals also enjoy in making damages to other people or group of people in organizations.

Therefore in organization should strive only to the correct, moral or prosocial behaviour, in order to achieve optimal performance of business system, and without losing energy of „game of thrones“/ „stage games“, and in the same time creating the harmful stupidity management. Misusing of „correct doing“ value principle often depicts unethical organizational situation, mobbing, miserable interpersonal relationships, low quality and productivity, misanthropism and alienation (other people are perceived as enemies) what is extremely favourable milieu for stupidity management. Because human beings have a very powerful innate desire to get along with others; a desire so strong that the fundamental values of individuals can be overturned by social situations which consist of power of: social roles, importantly those of the leader, rules and norm it is very important to design social situations that promote altruism and prosocial behavior (Zimbardo, 2007 according Culham, 2013, p. 20), so correct behavior is key organizational value which can be designed to support ethical development.

<sup>159</sup> In the real praxis when something for management is not appropriate, management can use the strategy „Proclaiming the truth for stupidity!“. Of course, if speech of the truth is stupidity, than this managerial constatation is correct, although it refers on the existence of stupidity management pathology in such a organization.

<sup>160</sup> Service management today is more valuable because it seems to be universally acceptable. This noted even Mary Parker Follet 1924. in his book *Creative Experience*, where she perceived the three determinents of the leadership of the future: (1) the leading with the serving function; (2) the power of diversity and (3) selforganized teams (Buble, 2012, p. 5).

### 3.3. *By love against stupidity management*

Although love is value category, it is also the fundamental human need. Love include care for others, nobility, agency, sharing, joy, attraction, commitment, assistance, spontaneity. Where is the love, everything is easy, where is love not present everything is difficult. When is someone or something loved, to the loved person is joyful served, to this person is „giving the wings“.

Love is noble virtue because they manage selfish interests to the interests and good of others which are loved. Spirituality management emphasize the need of creating the organizational culture which characterize simpahty, love, tolerance, trust, pleasure, courage, readiness to risk, satisfaction and happiness in subjective experience and behaviour of employees (Gerken, 1993). Namely, without „soft“ communicative and partnership employee behavior, this means without „love“ it is not possible to develop such atmosphere where is possible the optimal functioning of organization. Love learn the people serving and desire to be others on their benefit. Servant leadership is synonym for implementing the love in an organization.

By definition servant leadership is an altruistic and sevice orientation whereby leaders view employee growth and service to the community as worth while ends in themselves. Its emphasis on the needs and welfare of stakeholders within the organization and outside community along with its development of followers' moral capacity reasoning (Härtel at all., 2014., p. 275). Servant leaders foster an ethical climate by four behavioral sets: (1) the act of serving others; (2) the involvement of organizational memebbers in the decision-making proces; (3) a more sensible concern toward community well-being; and (4) the empowerment of members' potential. Härtel at all., 2014., p. 275 according Spears, 2004).

Manager/leader who serves (love manager) manage interests of organization and interests of his co-workers who develop, above his own interests, so avoid stupidity management. Internalization of love value (noble serving) also is very important in prevention of stupidity management.

### 3.4. *By peace against stupidity management*

„Ruling principle of human beings is tranquility“. Ancients intuited that this kind of tranquility and equanimity was the ruling principle of the human being, at cellular level, and so it make sense that it is the ruling principle at all levels what it means to be human. This means that in the presence of change one must maintain tranquility and equanimity (Culham, 2013, p. 90-91 according Neiye<sup>161</sup>).

In contemporary business world which prefere haste, many and intensive information as limitet human being, people often do not reach to process many contents to which they are daily exposed. Because of accelerated life rithm and greater need for competition activities (on all levels) the important human activities like play, friendship, free time for himself, become reduced. Because of that fact, this situtation become “fertil soil” for stupidity management (occur limited rationality because lack of time, information, cognitive capacities, tiredness...). In such a world, although employees become educated, they emotionally and valuably often degrades. So, there is need to adapt to such organizational lifestyle and permanent stressfull working time, so relaxation and equanimity becomes more important. “The richest is who has peace!”, not someone who has much money-it is the old sentence. To respect himself and others is not achivable if there is not internalized the value of peace and relaxation (meditation) as basic strenght for realocation and better use of psychophysical resources.

Value of peace can be realized by peaceful siting/lieing in silence, so it can be transferred emotionality and experience. Also it is need the desire that peple respect each other (peace in

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<sup>161</sup> Neiye (Inner Traninig), a proto Daoist work recorded about 2.300-2.400 years ago on the process of cultivating virtue (Culham, 2013, p. 9 according Roth, 1999).



relationship). Peaceful can be one who can abnegate of his egoistic impulses (compromise is base for peace and respect), peace also means allowing other people to say everything without experience assault. The goal of appeasing e.g. by means siting or lying in peace is inner appeasing, than the people lighter can separate important from unimportant, resolve his anxiety, perceive/experience himself, collect energy, contemplate on higher emotional level, process things and events. Because of fact that in modern hectic life the events and life contents „fly away“ (lack of time for active processing) peace becomes extremely important. Stress becomes the main enemy of intelligence, critical mind so by means of peace/equanimity it need to be reduced on minimum level. By minimizing the stress level in organizations it is automatically reduced stupidity management.

### *3.5. By non-violence against stupidity management*

Nonviolence is behaviour that do not damages to others, neither phisically nor reputation of the person. Violence is agresive tendency where the main tool is punishment and fear. Where is fear there is regularly stupidity managemet by wich is trying to excuse such a situation. Management who excuses, encourage or tacitly accept violence (e.g. mobbing) stimulate manipulative behaviours and stupidity management. Self-control, goodness, altruism, solicitude for others are important moral attitudes in 21. century, because from the organization of fear and coercion, it should be created organization which is more human and happy. For such a managerial transformation the key value is non-violence. Namely, in the value of nonviolence there can not exist punishment or vengeance. In contrary, to the nonviolence we learn through positive things with positive thoughts and by expressing positive words. Therefore gossip and hate speech in an organization should be forbidden categories. Also, elimination of violent working climate (e.g. mobbing) can result with numerous organizational benefits (Goić&Bogdanović, 2012, p. 69-70).<sup>162</sup>

By means of humanistic values (truth, correct behaviour, love, peace, nonviolence) it is possible to internalize key values of honest, justice, authenticity, confidence, collectiveness (social cohesion), relaxation, goodness, altruism, creativity and social responsibiliy which all of them are prevention from stupidity management. According to this short explication can be stated that spiritual management by means of functional principles out of material world (truth, correct/ethical behavior, love, peace/equanimity, nonviolence) can resolve the main problem of emotional-motivational caused organizational stupidity and management stupidity, so the H3 can be

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<sup>162</sup> 1. Direct benefits

- 1.1. Better use of organisational capacities (the drop in absenteeism and fluctuation rates allows for better planning and better use of the existing machinery and equipment capacities, but also of human resources);
- 1.2. Improved productivity (favourable working conditions enhance productivity in both qualitative and quantitative sense of meaning. This is particularly true for intellectual occupations, demanding a greater deal of knowledge and awareness);
- 1.3. Reduction in absenteeism rates (reduction of production-related costs);
- 1.4. Reduction of the number and severity of occupational accidents and occupational diseases (a significant rise in the safety level is linked to the improvement of psycho-social treatments, the major effect of the latter reflecting in the diminishment of occupational accident and occupational disease frequency rates, both of the latter otherwise being extremely expensive to treat).
2. Indirect benefits
  - 2.1. Putdown of healthcare- and social welfare-related costs;
  - 2.2. Prolonged working ability (postponed retirement)
3. Emotional-motivational benefits
  - 3.1. Increase in job satisfaction;
  - 3.2. Working atmosphere improvements and the impression of aiding to "the greater good";
  - 3.3. Improvement of inter-individual and inter-group communication;
  - 3.4. Improvement of stress-coping skills;
  - 3.5. Motivational increase.



confirmed. So, organizational problem of stupidity management can be treated as problem of spirituality lack.

To improve organizational development it should improve its organization and management. This is quite difficult (even imposible in contemporary organizations) without organizational spirituality i.e. implementing key spirituality values in organizational settings.

## 4. Conclusion

Stupidity management limits „unapropriate smart“ in limitations in intelectual and/or emotional-motivational functional area. Lack of critical thinking, deeper thinking, creativity and passion arise most frequently not because lack of intelligence but because of different emotional-motivational blocks which creates stupidity management (fear/anxiety; uncertainty; mechanisms of power, domination, coercion; „higher“ politics; lack of curiosity, manipulation...), but also partial and/or pseudo-knowledge as dominant managerial „modus operandi“. So, stupidity management can be treated as a lack of spirituality management.

The main three hypotheses are confirmed:

*H1: Organizational stupidity and stupidity management is blocking organizational development in many organizations.*

*H2: Spiritual lack brings to the organizational stupidity and stupidity management which caused emotional-motivational cause.*

*H3: To diminish organizational stupidity and stupidity management caused by emotional-motivational cause we need to change organizational values to improve ethical culture/climate. So to improve organizational development it is needed to implement spiritual values such as:*

1. Truth is for organization the most important resource, because when organization (system) is in the truth all problems are resolved by means of himself, on natural way. So, truth is key resource for survival of every system it can be considered more important than capital, work, strategy or everything else. Truth is „poison“ for stupidity management.
2. Integrity, fairness in achieving goals, so the others are not damaged, also is very important in the prevention and fight against stupidity management. In organizations should strive to correct, moral or prosocial behavior (correct behavior), and this is such behaviour that produce positive consequences for other people. Integrity is strong means in stupidity management prevention.
3. Love learn the people serve and desire to be others on their benefit. Without love can not be developed the atmosphere in which is possible optimal organization functioning. Internalization the value of love (noble serving) also is important value in stupidity management prevention, because it reduces selfishness and vanity.
4. Ruling principle of human beings is tranquility. Stress is the main enemy of the mind, critical thinking, so it should be deminished on the minimum by means of peace/equanimity. High stress level in organizations support stupidity management.
5. Nonviolence as value eliminate punishment, vengeance, speech of hate, gossip, manipulation so eliminate managing/leading through punishment and fear. Where is fear there is standardly stupidity management by which such a situation is striving to excuse. From organization and management of fear and coercion should be created more human, happier organization, and only elimination of violence results not only in reducing of stupidity management but also with numerous organizational benefits.

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## IMPACT OF ORGANIZATIONAL CULTURE ON PRODUCT MANAGEMENT PERFORMANCE – CASE STUDY ON DOMESTIC APPLIANCE INDUSTRY

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### Abstract

*In this paper, we joined gained knowledge about organizational culture and product management with empirical findings. We gathered quantitative data with the use of questionnaires on the sample of twenty organizations. Based on the results of the questionnaire analysis, which were prepared to measure organizational culture based on the Cameron and Quinn typology – CVF (The Competing Values Framework) we tried to establish the link between organizational culture in organizations and the functioning of product management teams. We aimed to establish, which type of organizational culture is most appropriate for successful functioning of product management teams. We set two research questions for our research problem which result findings that organizational culture have influence on the functioning of product management teams, and that the findings which type of organizational culture is most relevant for successful teams.*

**Keywords:** organizational culture, product management, Tuckman's model

### 1. Introduction

Product management is one of the most important functions in company. Yet the product management literature has focused largely on creating successful products and has relatively little to say about its interaction with organizational culture. This paper focuses on the organizational determinants of product management at the level of project teams.

Organization culture, in regard to its impact on various situational variables within the framework of organization, is a particular research subject in management science which has never decreased its research area popularity. Organization culture has been seen as a main factor to be investigated through in organizational life, and the researches questioning its impact on realization of organizational goals has been increasing day by day.

To drive growth and profitability, firms need to successfully introduce new products and manage existing products effectively through their life cycle. Product management is the corporate role that carries this important responsibility. Despite the importance of the product management function, there is considerable ambiguity about the roles and responsibilities of product managers and the factors that drive effective product management performance (Katsanis, Laurin, and Pitta, 1996; Low and Fullerton, 1994). Product management teams often lack the authority they need to carry out their jobs effectively. Organization structure is often poorly defined, which in turn makes it difficult to determine the appropriate metrics for evaluating the performance of product managers (Katsanis et al.; Wood and Tandon, 1994).

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## 2. Organizational culture

As Drucker (1975) mentioned, the management system is concerned with people, culture, and performance. One challenge of organizational development is organizational culture. Culture is traditionally referred to as intangible, a set of values, beliefs, and symbols that make the community an organization. Additionally, each organization has its own culture. Culture is a model of norms, values, beliefs and attitudes which affects organizational behaviour. The definition of the organizational culture exists in many versions. Kilmann et al. (1985) stated that organizational culture as “shared philosophy, ideology, value, assumption, beliefs, hope, behaviour and norms that bound the organization together”. Robbins (1984) mentioned it as “Common perceptions which are held by the members of an organization; a system of common meaning”, while George & Jones (2002) mentioned it as “Informal design of values, norms that control the way people and groups within the organization interact through each others and with parties outside the organization” (2005).

Schein (1992), who is an expert in this field, defined organizational culture as “a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems” (p. 12). Moreover, Dwivedi (1995) mentioned that organizational culture also has influence on the attitude and behavior of employees that will lead to organizational improvement. In comparison, the strong organizational culture will lead to improving innovation, supporting teamwork, and increasing efficiency, quality, and productivity, while a weak organization culture could block the creating of new ideas, processes, and systems (Morgan, 1989).

### 2.1. Types of organizational culture

In the literature, there are several organizational culture typologies and related dimensions such as Schein (1992) who present The Competing Values Framework (CVF). The CVF is one of the most influential and extensively used models in the area of organizational culture research. Cameron and Quinn (1999) have developed an organizational culture framework built upon a theoretical model called the “Competing Values Framework”. The CVF is one of the most influential and extensively used models in the area of organizational culture research. In this study CVF is utilized. This framework refers to whether an organization has a predominant internal or external focus and whether it strives for flexibility and individuality or stability and control. The framework is also based on six organizational culture dimensions and four dominant culture types (i.e., Clan, Adhocracy, Market, and Hierarchy). The implications of each culture type are summarized as follows.

It has been shown that the CVF is both theoretically sound in integrating organizational culture to other organizational components and can be operationalized as a psychometrically sound instrument (Yeung et al., 1991). The CVF (Fig. 1) is built upon two axes to reflect different value orientations (McDermott and Stock, 1999). The control-flexibility axis (vertical) reflects the extent to which an organization focuses on change and stability. A focus on flexibility indicates the organization’s desire for flexibility and spontaneity, while a focus on control indicates a complementary desire to stay stable, controlled, and in order. The internal-external axis (horizontal) refers to the organization’s focus on the internal organization and the external environment. An internal focus means that the organization emphasizes maintaining and improving the existing organization, whereas an external focus means that the organization focuses on competing, adapting to, and interacting with the external environment.



**Figure 1. Comeron and Quinn's model, 1999**

	Internal concentration	External concentration
Flexibility	Group	Developmental
Constancy	Hierarchical	Market

*Source: Cameron and Quinn, 1999*

The two axes combine to reflect four culture types, each representing different values about motivation, leadership, and strategic orientation in organizations. Group culture focuses on flexibility and internal maintenance by emphasizing strong human relations, cohesion, and participation of members. Developmental culture emphasizes flexibility but external positioning through growth, resource acquisition, creativity, and adaptation to the external environment. Rational culture puts a focus on the external environment while stressing control by encouraging competition and achievement of well-defined goals. Hierarchical culture emphasizes stability and internal organization and thus stresses centralization and regulations with rules and routinization (McDermott and Stock, 1999).

An important assumption underlying the CVF is that the four quadrants are ideals (Henri, 2006). Organizations seldom reflect only one culture type, rather each organization will exhibit a combination of different culture types, although it may be that one type is more dominant than the others (McDermott and Stock, 1999). In other words, a high rating on one end (e.g., internal orientation) does not exclude high rating at the other end (e.g., external orientation) (McDermott and Stock, 1999). Thus, when using the CVF to assess an organization's culture, researchers can examine the relationships between different culture types and different facets of the construct(s) being studied. A number of empirical studies have adopted the CVF to explore the effect of organizational culture on various operations management practices such as advanced manufacturing technology (McDermott and Stock, 1999).

### 3. The concept of product management

Product managers in industry are responsible for the overall product success on market. Meža (2009) defines product management as a kind of a messenger of a market. It directly transfers clear information market logic to different departments in a company which need such information to make their business decisions. Nowadays, in the times of severe competition and constant price pressures, this should be a permanent activity of product managers to care for cost reduction of product cycles. Product management core activities are by no means focused on a product and/or on management activities. They are related to direct participation in project development and in planning of new products. The outcomes of the product management work can be judged by the product quality or the level its success. Certainly, we should note, that there are some products which are more likely to be successful on the market, and there are others, which might be unsuccessful as well.

On the other hand, domestic appliance industry is facing a crisis nowadays. Some authors (Meža, 2009) suggest variety of possibilities to solve or even prevent such product crises. Product management plays an important role in avoiding and preventing potential product crises resulting in inefficient market communication, weak commercialization of novelties/changes (due to poor advertising start and inadequate advertising strategy).

According to definition, a product management as a discipline (i.e., organizational design) has been tested, scrapped, and brought back by many firms. This is not surprising since there are both advantages and disadvantages to it. Gorchels (2000) points out that a product manager becomes a champion for select products, brands or services in a multiproduct firm, acting as a "general manager of a virtual company." This provides dedicated attention to a set of offerings, but can al-



so pose challenges. Product managers must juggle the demands of selling existing products with the development of new products. They may also be faced with resource constraints when competing with other product managers in the same company.

Product management is the entrepreneurial management of a piece of business (product, product line, service, brand, segment, etc.) as a "virtual" company, with a goal of long-term customer satisfaction and competitive advantage. Product managers are generally accountable for this piece of business without having direct authority over the entities that "make it happen." It may include, but is not synonymous with, project management, new product development, or sales support.

### *3.1. The relationship between culture and product management*

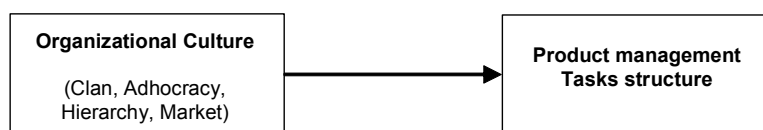
There is a gap in research literature regarding studies addressing relationship between culture and product management. Steers (1975) and Zammuto (1982) described the measurement of effectiveness was the most issue in the organizational culture theory. For linking organizational culture, Ouchi (1980) identified the characteristics to determine the organizational effectiveness. Quinn and Rohrbaugh (1983) examined that relationship organizational culture and effectiveness by utilizing the competing value framework.

Kotter and Heskett (1992) studied the relationship between strength of culture and organizational effectiveness. Ostroff and Schmitt (19993) found that the organizational effectiveness was influenced by the organizational culture. Juechter, Fisher and Alford [28] completed the research found that the organizational culture heavily influenced the organizational effectiveness of business. Quinn noted that organizations were likely to experience tension among organizational effectiveness attributes – for example, all organizations have a need for some level of stability as well as a need to be flexible and adaptable; a need for control and discipline as well as a need to allow some degree of freedom and autonomy; a need for rational formal structures and non-rational informal relations. They concluded that effectiveness depended upon the ability of an organization, and its managers, to strike the right balance among these critical attributes, as required by the organization's objectives and situation (2002). An increasing body of evidence supports a linkage between an organization's culture and its business performance. In accordance with the studies presented above, the organizational culture has a positive influence on organizational effectiveness, therefore the relationship between organizational culture and organizational effectiveness becomes important. Product managers often lack the authority to carry out their responsibilities effectively. This section reviews relevant literature and presents qualitative finding of our research.

## **4. Research model**

From the perspective of product management in organizations and in the light of literature framework appearing of significant relationship between organizational culture and organizational efficiency dimensions, the effect of stable or variable organizational environment in internal and external context on the organizational culture and product management task structure can be proposed for this research as is shown in Figure 2.

**Figure 2.** *The research framework of organizational culture*



The aim of the present study is to investigate the relationship between organizational culture and product management task in domestic appliance industry. In this research the relationship between four different kinds of organizational culture, namely group, developmental, market and hierarchical culture and product management tasks is examined. The research was carried out in the domestic appliance industry. In order to examine organizational culture types, Quinn and Cameron's Organizational Culture types (Clan, Hierarchy, Adhocracy, Market).

This study is applied, correlationnal descriptive research and is categorized as field study. To collect related literature, the related books, articles and journals were consulted as data collection procedure and analyzing the collected data, two kinds of questionnaires has been used. The first is Comerom and Queen's (1999) questionnaire about organizational culture types and the second of one is Meža's (2012) classification of product manager tasks.

Subjects answered the relevant questions based on a 5 staged Likert scale. This shows that measuring tools have high levels of constancy. The whole population was about 57 among which 35 were randomly selected. The relevant information about level of education, age, sex and years of service is as follows:

**Education:** 13% have diploma (4 persons), 76% have BA degree (27 person) and 11% MA (4 person).

**SEX:** 83% (29 person) male and 7% (6 person) were female participants.

**Age:** 15% was under 30 year old (5 person), 55% between 30-40 years old (19 person) and 30% more than 40 years old (11 person).

**Years of product management job:** 22% of participants have less than 5 years of record of service, 23% between 5-10 years and 35% between 10-15 years, 17% between 15-20 years and 3% more than 20 years (12 person).

In this study for the purpose of analyzing the collected data, SPSS software was used. Also descriptive statistics (percentage, frequency, mean, standard deviation) was used to test research question inferential statistics like variance test, pearson correlation coefficient and regression test were used. The result of ranking different organizational culture from the view point of product managers in companies is presented in table 1.

*Table 1. Results of the mean of organizational culture types*

Organization culture	Average
Group culture (G)	3,15
Developmental culture (D)	2,53
Hierarchical culture (H)	2,93
Market culture (M)	3,25

*Table 2. Product manager function - Product manager Tasks*

Product manager Tasks	Performance
T1: Initiate market research studies or analyze their findings.	3,65
T2: Use sales forecasting or strategic planning to ensure the sale and profitability of products, lines, or services, analyzing business developments and monitoring market trends.	3,5
T3: Coordinate or participate in product promotional/education activities or trade shows, working with developers, advertisers, or production managers, to market products or services.	4,25
T4: Managing new product proposals, product registration and product changes	3,25
T5: Demonstrate or explain products, methods, or services to persuade customers to purchase products or use services.	3,75
T6: Suggest specific product purchases to meet customers' needs.	4
T7: Collaborate with sales teams to understand customer requirements, to promote the sale of company products, and to provide sales support	4,25
T8: Develop, present, or respond to proposals for specific customer requirements,	2,75

Product manager Tasks	Performance
including request for proposal responses and industry-specific solutions	
T9: Collaborate with sales teams & quality department about product quality issues	4,25
T10: Prepare and deliver technical presentations that explain products or services to customers and prospective customers.	3,25
T11: Provide technical and non-technical support and services to clients or other staff members regarding the use, operation, and maintenance of equipment.	4
T12: Direct and coordinate activities involving sales of manufactured products, services, commodities, real estate or other subjects of sale.	3,25
T13: Confer with potential customers regarding equipment needs and advise customers on types of equipment to purchase.	3,5

The obtained results from pearson's correlation, coefficient are presented in table 3-6.

**Table 3.** Correlation Coefficient between Group Culture (G) and Product management task

(G)	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
R	0,854	0,822	0,612	0,834	0,633	0,763	0,807	0,657	0,831	0,603	0,609	0,797	0,671
Sig	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
n	35	35	35	35	35	35	35	35	35	35	35	35	35
r <sup>2</sup>	0,729	0,676	0,375	0,696	0,401	0,582	0,651	0,432	0,691	0,364	0,371	0,635	0,450

**Table 4.** Correlation Coefficient between Developmental culture (D) and Product management task

(G)	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
R	0,861	0,861	0,607	0,834	0,627	0,763	0,832	0,673	0,833	0,612	0,611	0,835	0,671
Sig	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
n	35	35	35	35	35	35	35	35	35	35	35	35	35
r <sup>2</sup>	0,663	0,741	0,368	0,696	0,393	0,582	0,658	0,426	0,694	0,375	0,373	0,642	0,450

**Table 5.** Correlation Coefficient between Hierarchical culture (H) and Product management task

(G)	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
R	0,798	0,873	0,607	0,834	0,621	0,763	0,811	0,653	0,828	0,614	0,611	0,817	0,675
Sig	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
n	35	35	35	35	35	35	35	35	35	35	35	35	35
r <sup>2</sup>	0,637	0,762	0,368	0,696	0,386	0,582	0,692	0,453	0,686	0,377	0,373	0,667	0,456

**Table 6.** Correlation Coefficient between Market culture (M) and Product management task

(G)	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13
R	0,814	0,817	0,628	0,832	0,621	0,753	0,833	0,675	0,833	0,619	0,623	0,801	0,681
Sig	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
n	35	35	35	35	35	35	35	35	35	35	35	35	35
r <sup>2</sup>	0,741	0,667	0,394	0,692	0,386	0,567	0,694	0,456	0,694	0,383	0,388	0,697	0,464

## 5. Results

A product management function is an important activity that helps enterprises to survive and make further steps to increase competitiveness. On the other hand, culture can affect product management performance in different ways. As product management task framework and its related

findings can penetrate into culture, organizational culture is also affected by organization efficiency. In the present study the concept of organizational culture and product management and the relationship between them was examined, then with the application of the proposed model the extent of relationship between four different kinds of organizational culture (group culture, developmental culture, hierarchical culture and market culture and thirteen product management tasks (T1–T13) of product management in domestic appliance industry were evaluated. For doing so after data collection procedures and analyzing them by appropriate statistical techniques the dominant situation in domestic appliance industry were examined. Results indicated that the dominant culture in domestic appliance industry is Developmental culture. Moreover this research shows that 99%, there is significance relationship between different organizational culture and product management task. Also the Market culture plays an important role in product management framework.

A more significant aspect of the study however, is identifying potential lessons for product management development policy that domestic appliance industry may adopt. Therefore, we recommend conducting further research related to other types of cultural model and product management competencies, because the findings may have a significant impact on the company strategies and daily business.

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## PART SEVEN:

### *Technology Transfer, Ict, Innovation*



## THE IMPORTANCE OF REGIONAL DEVELOPMENT IN NORTH CYPRUS

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### Abstract

*Economically, the Turkish Republic of Northern Cyprus, as a de-facto state, endures relentless financial hardship, with international embargoes continuing for nearly 40 years. While the Republic of Cyprus joined the European Union in 2004, Turkish Cypriots were denied entry as an illegal state (although the people themselves are entitled to an EU passport). 2014 has been heralded as the year of reunification for Cypriots, and it is important to plan for the future and possible EU membership, where entrepreneurship will play a large part in strengthening the economy.*

*In the first survey of entrepreneurs in North Cyprus, mixed methods were used to collect data from 399 entrepreneurs in the region using a survey, as well as 30 in-depth interviews. Themes covered in the research study included entrepreneurial exposure, the determinants for business sector choice, motivation, and barriers to entrepreneurship in the region. Understanding the nuances of entrepreneurship in North Cyprus would allow the government to develop and shape policy, and tailor training courses to nurture the nascent entrepreneurs in the region towards building a strong private sector, ready to pull the TRNC out of embargoes and into a strong democratic Europe. In this paper, the data has been analysed and results used to make policy recommendations for developing entrepreneurship in the region.*

**Keywords:** entrepreneurship, North Cyprus, regional development, entrepreneurship policy.

### 1. Introduction

Entrepreneurship is an understudied and yet very important global economic phenomenon (Carree & Thurik, 2003; Lingelbach et al., 2005; Minitti & Arenius, 2003). Minitti and Arenius (2003) go further to promote entrepreneurship as a dynamic that should be an integral element of any government attempt to boost economic prosperity. It is the responsibility of government to nurture entrepreneurial activity, through financial policy, economic policy, policy on fair competition, policies on education and technology, and regional development (Skoko, Wright & Santa, 2010). However, care should be taken that growth-oriented firms should be targeted, as Lingelbach et al., (2005) point out that microenterprises and low-growth firms do not contribute in a meaningful way to sustainable economic growth, the kind of growth needed to reduce poverty in developing countries.

It is important that both national government and local government acknowledge the large part entrepreneurship plays in forming a growing economy. In a small region, with very poor infrastructures, and little in the way of employment, entrepreneurship should be promoted as an

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opportunity for nascent entrepreneurs, as entrepreneurship is widely accepted as a very important part of a developing economy.

## 2. Background

In order for us to examine the state of entrepreneurship in the region, we need to present some background information on the history, demography, and political status of the Turkish Republic of North Cyprus. Cyprus is the third largest island in the Mediterranean, after Sicily and Sardinia, positioned at the East of the Mediterranean, 65km South of Turkey, and 112km West of Syria. The most ancient findings of humans on Cyprus are 6,500 – 7,000 BC (Simmons, 2001). The history of Cyprus is rich and complex, and control of the island has passed from Hittites, Egyptians, Assyrians, Persians, the heirs of Alexander the Great, the Roman Empire, the Byzantine Empire, Richard the Lionheart (Richard I of England), the Knights Templar, the Frankish Lusignan dynasty, the Venetians, the Ottoman Empire, the British Empire, with Cyprus gaining independence from the British in 1960 (Luke, 1989).

Intercommunal tensions between Greek Cypriots seeking *enosis* (union with Greece) and Turkish Cypriots seeking *taksim* (partition and union with Turkey) caused many Cypriots to emigrate to other Commonwealth nations. Independence did little to quell the rising tensions, and in 1963 the Turkish Cypriots were excluded from the Parliament. It was at this time that the *Green Line* was first created to keep the two communities apart in Nicosia. In 1967 the communities were separated, with movements of population from different sides of the island. On the 20<sup>th</sup> July 1974, Turkish forces launched an operation to protect the Turkish Cypriot population, and the island has remained divided ever since.

In 1983 the Turkish Cypriots declared independence as the Turkish Republic of Northern Cyprus, but within the International community was only recognised by Turkey. Continual international efforts made to find a solution to the “Cyprus Problem” and reunify the island have so far been unsuccessful. Another reunification referendum is expected in 2014.

The consequences of this political isolation are far reaching, with the Turkish Cypriots facing embargoes in communications, sporting and cultural events, direct trade, any diplomatic representation, direct travel, academia, and economic development and international aid. These economic embargoes over time have restricted economic growth, and direct travel embargoes have subdued external demand (Günçavdi & Küçükçifçi, 2008).

## 3. TRNC economy

Due to its *de facto* status, the TRNC uses the Turkish Lira as a currency substitution. Despite the constriction of unique and complicated economic circumstances, the TRNC has experienced economic growth, particularly since 2010 (Muhtaroglu, 2012). The economy is largely created from the services sector, which accounted for 78.7% of GDP in 2010, with light industry accounting for 9.9% of GDP and agriculture 5.9% in 2011 (KKTO, 2011). The direct trade embargoes mean that most economic trade is with Turkey, with imports at 7% and exports of 46.4% in 2010 (Muhtaroglu, 2012). Back in 2006 there was a major expansion in the construction industry. This has now petered out, with current major growth in the economy in the tourism and higher education provision sectors. GNP per capital is an estimated US\$15,000 (KKTO, 2012), but some economist suggest it is probably higher as many Turkish Cypriots cross the Green Line to work, and their wages are not counted in government statistics (Ünlücan, 2010).

Since trade across the Green Line to the Republic of Cyprus was introduced in 2004, trade from North to South has increased to nearly €30,000,000 in 2011 (Muhtaroglu, 2012). However, some €24,000,000 of this was from electricity exports, after an explosion near a major power plant in July 2011 reduced the electricity production by 50% in the Republic of Cyprus.

The Turkish Cypriot Chamber of Commerce recently used the World Economic Forum's methodology to analyse the strengths and weaknesses of the TRNC economy (Besim, 2010). Besim (2010) points out that the TRNC economy has suffered an economic crisis approximately every six years, over the past 35 years, making the economy very vulnerable. Recently the TRNC's economy has expanded, due to increased stability in Turkey, including the stability of the Turkish exchange rate, interest rates and inflation rate, leading the private sector to strengthen (Besim, 2010).

#### 4. Entrepreneurship in North Cyprus

In the Turkish Republic of North Cyprus (TRNC) 56% of the working age population are working (Thompson, 2005). 95% of private sector organizations are small to medium size enterprises, and 88% of employees employed in the private sector are employed by these small and medium sized enterprises (Tanova, 2003). 80% of SMEs are sole-ownership or family-owned businesses (Güven Lisaniler, 2004).

The *push* factor for entrepreneurs is reduced by the fact the Government sector is an attractive employer, with comparatively high wages and many fringe benefits. This sector was originally enlarged to create employment after partition in 1974. It is heavily overstaffed, with few people employed gainfully. As well as the above economic factors, the entrepreneur can experience problems in access to information. This makes it difficult for any entrepreneur to expand or develop their enterprise (Güven-Lisaniler, 2004). The sum total of all the above factors pertaining to the Turkish Cypriot community's economy is that there are severe restrictions in opportunity for entrepreneurs.

#### 5. Research methodology

This research study used a sequential mixed methods research approach (Morse, 2003). The major part of the research involved a survey of 399 enterprises and the sample was created using block sampling (Blackwood & Mowl, 2000). The survey instrument was delivered and collected using the drop and collect methodology (Ibeh & Brock, 2003; Indarte & Langenberg, 2004; Karamustafa, 2000). The survey instrument contained 89 questions that range in type from those gathering personal data (gender, age, nationality, previous experience) and demographic data (residence, location of premises, type of business premises), to personality questions (locus of control, attitudes to risk, motivation, entrepreneurial exposure), detailed information on the enterprise (business sector, number of years in operation, number of employees, customer base, methods of selling). Further data was captured through 30 interviews, through purposive sampling, from all the respondents to the survey questionnaire that agreed to participate in the interview phase. The in-depth, semi structured interviews were carried out face-to-face at the entrepreneur's work place, and the data created was analysed for themes and patterns. The interviews were exploratory, to bring out further details of the entrepreneur's motivation, entrepreneurial exposure, perceptions of their environment and economy, and their attitude towards their own business.

Following Casey (2003), *"qualitative, semi-structured, in-depth interviews appeared to be the best means of gaining a non-hierarchical research relationship, 'authentic' voices and subjectives which, as much as possible, were not affected"* by the researcher's own assumptions about the entrepreneur's lives.

## 6. Results

The financing of the business is an important factor in enterprise start ups. Over 80% of the respondents sample started the business up themselves, with slightly more men (83.9%) than women (73.6%) being in this situation. The largest proportion of the Turkish Cypriot entrepreneurs used their savings to finance their new enterprise. Also, typical of an Islamic community a high percentage of entrepreneurs secure their start up finance from their families. A quarter of women and nearly a third of men receive substantial sums of money from their parents and other family members to start up their enterprises.

Regarding factors that were inhibitors to the start up of their enterprise most respondents indicated that a lack of finance was the main inhibitor to their enterprise start up (25.8%). Lack of infrastructure was another factor that was selected by a large number of entrepreneurs (22.1%) as being an inhibitor to their start up phase, with more male entrepreneurs (25%) selecting this option than female entrepreneurs (16.3%). There seem to be some important gender differences in the perceptions of inhibitors to the business start-up phase. Nearly double the amount of female entrepreneurs (20.0%) said they lacked prior experience compared to the male entrepreneurs (10.2%). The fact that 'lack of support from spouse' receives is only mentioned by 5.9% of the female population is an interesting insight into how this patriarchal society views and appreciates women's efforts in the economy and community. Another surprising result of this question is that more men (6.8%) than women (5.9) related that a lack of confidence was an inhibiting factor in their business start-up, whereas one might expect men to be overwhelmingly confident in their strongly patriarchal society.

This empirical setting also shows that the Turkish Cypriot entrepreneur's locus of control differs from that of the body of literature. The Turkish Cypriot respondents did not have an internal locus of control, which is usually high in entrepreneurs (Littunen, 2000). This anomaly was also present in the Turkish Cypriot respondents' replies to questions aimed at finding external locus of control. External locus of control is usually low in entrepreneurs (Littunen, 2000), yet Turkish Cypriot entrepreneurs have high external locus of control. Yet, in spite of this, most of the entrepreneurs describe themselves as risk takers. More anomalies were found with the motivation to become an entrepreneur.

Despite the difficult economical situation in the Turkish Republic of Northern Cyprus, most entrepreneurs are pulled into entrepreneurship, drawn by the desire to be their own boss, to earn extra profits, but also by more esoteric reasons such as "*to have a social life*", or "*because I enjoy it*", which leads us to understand Turkish Cypriot entrepreneurship as a lifestyle choice. Another factor that emerged from both the quantitative data and qualitative data was the high level of entrepreneurial exposure indicated by the respondents. Already noted in the literature as of great importance in developing entrepreneurs (Baycan Levent et al., 2003; Gray & Finley-Hervey, 2005), Turkish Cypriot entrepreneurs presented many examples of entrepreneurial exposure. This is an interesting phenomenon, as the existing body of literature on employment of Turkish Cypriots refutes the existence of any entrepreneurship before 1974 (Olgun, 1993).

## 7. Policy recommendations

The information and comments analysed in this research study, leads us to policy recommendations essential for the TRNC as a state to encourage and develop entrepreneurship in the region. The policy recommendations described below have been grouped into seven themes:

### ***7.1. Government policy***

Several of the entrepreneurs in the study complained that the economic embargoes stifle their growth. The TRNC Government should be preparing for integration with the EU, and to align with EU legislation, as any future reconciliation agreement will include the region being included in the EU as part of the Republic of Cyprus, or with some special agreement as some federation of Cyprus. For example a number of policies and initiatives could be introduced to increase market efficiency by improving free market conditions. A new competition law, aligning the TRNC with the EU acquis, should be enforced. This is an anti-trust law, to prohibit agreements and practises that could restrict competition between businesses, and where mergers and acquisitions would be supervised, and financial support would be controlled by a “competition commission”. Along with this, judicial changes are needed so that trade disputes can be resolved quickly. It is also important that the government satisfy European Union criteria for social inclusion, along with any economic policies that they may create (Blisson, 2004).

The income tax system and the valued add tax system need restructuring to be more favourable to entrepreneurs. Also, regulations need to be applied to shrink the size of the informal economy, but in a way that entrepreneurship is still encouraged. Customs duties must be lowered, to allow TRNC entrepreneurs fair competition in the market place. The TRNC has very few medium sized businesses; with many entrepreneurs in this survey reluctant to expand due to excessive costs and paperwork needed to employ more staff.

### ***7.2. Policies to improve the infrastructure of the region***

Many of the entrepreneurs complained about the very poor infrastructure of the region, and this is an item that national and local government must address if they wish the economy to grow and flourish. While tourism is an important part of the economy, it is not the only dimension to the economy, and other aspects must be explored to not become dependent on one facet of the economy. Again, many of the entrepreneurs in the study commented that the tourism market was not large enough to accommodate their aspirations.

The infrastructure must be improved at all levels. This is not only the physical infrastructure of roads, and electricity and water, but also the virtual infrastructure through communications channels. Poor telephony hinders the TRNC from being a major employer in the computer and communications industry. An underutilised, highly educated work force with expertise in electrical and electronic engineering and computer engineering could be the infrastructure of any nation has a direct influence on costs of production. The TRNC suffers from serious deficiencies in roads, ports, and in energy production. Serious investment is needed in all these areas, as well as assisting the private sector to enhance the communications networks.

### ***7.3. Policies on training and education***

None of the entrepreneurs in the study referred to any specific training programs in entrepreneurship. A very small number of training initiatives have taken place in the last 10 years, specifically a small program to encourage female entrepreneurship run by the European Union. Public and private services should be encouraged to provide training, and aim to reach all areas of the community. This would mean specific training courses being taken out to rural areas, so that the whole community can take advantage of the training. One important factor is an initiative to explain the bureaucratic processes needed to register a new business to nascent entrepreneurs. Training for government staff and agencies can be tailored so that they are more responsive to women’s needs. Mentoring could be adopted as a form of training, by using a women’s entrepreneurship initiative, with funding to encourage more women into entrepreneurship.



Specialist entrepreneurship training could be introduced into the curriculum in vocational school. The TRNC has recently overhauled its policies and practice on vocational schools, and has aligned their curriculum and levels with the Scottish Vocational Qualifications Framework (Qualifications Framework Projects, 2010). Students could be introduced to the concept of entrepreneurship as a career option towards the end of their studies. Entrepreneurship education could also be introduced as a final semester course in the universities' vocational school programmes. It is important at these stages to eliminate stereotypes in the community and develop awareness that it is acceptable for women to be entrepreneurs (Hisrich & Brush, 1984). Minnitti and Arenius (2003) state that good broad policies for all entrepreneurs are more successful than ones aimed specifically at female entrepreneurs, "governments should address factors such as education, training and family-work reconciliation" with policies that create and guarantee the existing underlying conditions favourable to economic environment. One way to encourage students into entrepreneurship class, is to offer it as a free and extra credit in their curriculum. In this way, students from any department, whether engineers, architects, or other disciplines, can take one or two entrepreneurship classes as an undergraduate, as offered in many American universities (Henricks, 2004), and throughout Germany (Klandt & Volkmann, 2006).

The encouragement of nascent entrepreneurs into the market place should be done with carefully designed small and medium enterprise development policies. The policies should aim to increase capacity and to increase exports. This would need product development on the part of the entrepreneurs, and some firms would need to specialise, and training programmes should be initiated to aid in this process. Training programmes are essential, as the nascent entrepreneur needs access to information, as is advice on starting up a new enterprise (Bliss & Garratt, 2001).

Labour efficiency in the market place begins with education. Vocational programmes have recently been overhauled at the high school level. Changes and improvements must be made to the vocational level programmes at universities. Education programmes need to be refined to provide a smooth transition from vocational high school into a vocational degree level programme for the vocational student. Female Turkish Cypriots are attracted by further education, and a programme specific to entrepreneurship, or an MBA with entrepreneurship modules, or short courses would be attractive to women in the region. Specific entrepreneurship information sessions would attract more women into entrepreneurship, and the government should take advantage of the attraction of further education to the adult female population.

Issues specific to women can often get ignored or fall in priority when a government faces the large tasks of economic rebuilding after political troubles or war. UNIFEM have been promoting female entrepreneurship in Jordan, Syria, and the Lebanon since 1994, in an attempt to support women in the region, while governments were busy repairing the infrastructure after the Gulf War (Husseini, 1997). The main problem for the female entrepreneurs of Jordan was lack of available credit. While this is not a specific issue for female Turkish Cypriot entrepreneurs, there are still issues related to finance, as the TRNC banks ask for very high levels of collateral. The government should legislate to prohibit the overlarge collateral requested by banks.

Training schemes also need to be adapted to be sensitive to the needs of the female entrepreneurs. The possibility of female trainers and facilitators on training schemes would make it far easier for the individual female entrepreneurs to attend, keeping inside the cultural norms of their society. If an all female training staff could not be arranged, then at least one member of the training staff should be female, to avoid unpleasantness from the perspective of the female entrepreneur and explanations to her family about the day away from home. Also, it is important that training companies take their programmes out to rural areas, rather than use the capital Nicosia for their work. Many entrepreneurs live in remote and rural areas where it takes them many hours to reach Nicosia, and they may be more keen to attend a training program that was being held within 40 minutes of their home.



#### ***7.4. Special fund for first time entrepreneurship***

The financial system of the TRNC also needs addressing, so that a credit fund can be established for small and medium sized enterprises. SMEs should be able to access finance with reasonable interest rates, and without dangerous levels of collateral.

#### ***7.5. New niches, new markets, and research and development***

Where possible, the Turkish Cypriot entrepreneurs should be encouraged to find high level niche markets, and high quality goods and services. Incentive policies should encourage new product development, to give the means by which entrepreneurs can begin to diversify and specialise, and also be given the necessary marketing expertise. Movements and improvements in these areas will give added value to the economy. Alongside this, the Turkish Cypriot entrepreneur should be encouraged to adopt internationally accepted accounting and financial reporting standards.

Entrepreneurs should be encouraged to diversify, with an emphasis on products and services that can be exported, in order to broaden the TRNC economy away from the main economy drivers of tourism, education, and construction, a strategy suggested by Skoko, Wright and Santa, (2010) to move the Saudi economy away from petroleum in the GEM 2010 report on entrepreneurship in the Kingdom of Saudi Arabia.

Research and development should be supported and encouraged, particularly as the TRNC does not have a tradition in this area, and exposure to advanced technology is crucial for the economy to advance. Innovative ideas emerging from these research centres could be licensed and commercialised.

#### ***7.6. Establishing a council for entrepreneurship***

The Turkish Cypriot Chamber of Commerce should make themselves more welcoming to new business people. While they are a strong and active body, they should make themselves more appealing to all entrepreneurs in the region. In the qualitative part of the study, many entrepreneurs did not see the relevance of official bodies or membership of trade associations, and thought they were not beneficial to them, and so these bodies need to re-present themselves to entrepreneurs of the region, giving specific ideas about why they are relevant and to encourage these entrepreneurs to join with them.

In the 2010 GEM report on entrepreneurship in Saudi Arabia, Skoko, Wright and Santa (2010) suggest a national body with board members selected from the policy community, business associations, universities, and development organisations, with the aim of raising the public profile of entrepreneurship as a key growth issue for the economy. With careful consideration to the importance of entrepreneurship to the development of an economy in transition, the government would be well placed to create an entrepreneurship council, as suggested by Skoko, Wright and Santa (2010).

#### ***7.7. One stop shops for nascent entrepreneurs and existing entrepreneurs***

The processes for registering a company and the necessary bureaucratic paperwork could be simplified, including reducing regulations and reducing the cost of registration, as suggested by Skoko, Wright and Santa (2010), in the 2010 GEM report on the state of entrepreneurship in the Kingdom of Saudi Arabia. If a more favourable environment were created, such as “one stop

shops” for everything from initial information through to help registering the company, entrepreneurship may be seen as more attractive by the nascent entrepreneurs (Skoko, Wright & Santa, 2010).

It has not been reported that Turkish Cypriot entrepreneurs face any difficulties, apart from the strong reports by the Turkish Cypriot Chamber of Commerce highlighting the problems of the economic embargoes and the promotion of trade with Greek Cypriots. However, the reality is somewhat different. Turkish Cypriot entrepreneurs face numerous difficulties, particularly with regards to accessing information and the bureaucracy of local government, as well no available training. There is no support program in place for these entrepreneurs. It is imperative that government acknowledge the type of entrepreneurship that is taking place in the region, and how developing this can boost the total entrepreneurship in the region.

Yet however many of the above policies are adopted, little can be done to improve the economy of the Turkish Republic of Northern Cyprus with more lobbying of the EU and other institutions to break the economic embargoes set since 1986. The economic embargoes prevent the Turkish Cypriot entrepreneurs from access to international markets, and all opportunities should be followed to aid the lifting of the embargoes.

The key weaknesses in the TRNC economy are the small market place, the macroeconomic instability, and inefficiency in the production of goods and services. While many of the problems stated are related to the unresolved political status of the TRNC, many new initiatives could greatly change the competitiveness of its economy.

## 8. Conclusion

It is well known that entrepreneurship is a very important factor in creating economic growth in a developing nation. In a non-recognised country such as the TRNC, it is imperative that the government acknowledges and understands the importance of entrepreneurship and the role it plays in economic development. Effort must be put into funds and policies to improve the infrastructure of the region which will in turn support the development of entrepreneurship. It is also important that the government seek specialist advice with regards to economic development and entrepreneurship and create policies that attempt to bring about entrepreneurship and foreign investment. Understanding the nuances of entrepreneurship in North Cyprus would allow the government to shape policy and training to take advantage of the nascent entrepreneurs in the region to build a strong private sector to pull the TRNC into a strong economic state. Turkish Cypriots have been shown to have high entrepreneurial exposure, making them ideal candidates as nascent entrepreneurs. They are also predisposed to be pulled into entrepreneurship, making them ideal candidates to be trained and encouraged and mentored from nascent entrepreneurship into real, live entrepreneurship.

With specific government policies and training programs, more of the Turkish Cypriot population could be encouraged to make successful enterprises, which in turn would help strengthen the economy. The policy recommendations of this paper would go a long way to assist in this pursuit.

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## VALORIZATION OF RESOURCES: FROM COMPARATIVE TO COMPETITIVE ADVANTAGES IN NORTHERN REGION OF MONTENEGRO

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### Abstract

*The term "competitiveness" usually refers to business arena commercial entities participate in. However, lately this term is increasingly used for comparison of economic performances of the countries and region. The regional competitiveness refers to ability of the region to create high values in area of employment, standards and quality of life and to enable sustainability of these values through creating economic opportunities to its citizens within the context of today's intensive global economy.*

*In last decade, Montenegrin economy recorded positive real economic growth. In 2008, measured by purchasing power standards, Montenegro was (only) 46% of the EU-27 average, while in 2012 it was 41% of the EU 28 average and was ahead of the least developed EU members. Still, growth of the economic activity at the national level didn't reflect equally to all regions. Regional disparities are significant. Compared to other two regions, Northern region of Montenegro has relevant comparative advantages and significant development potential due to preserved natural resources – primarily agricultural land, wood and cattle, and good pre-conditions for development of eco-tourism. However, those comparative advantages remain underutilized and Northern region stays the least developed region in Montenegro.*

*The main indicator of economic competitiveness is gross domestic product per capita. However, other factors influence economic achievements and therefore are the subject of various analysis. Such factors include: physical and social infrastructure, accessibility of the location/region, labour force quality, stimulative framework for innovation, as well as efficient public administration and institutions. This is confirmed by set of indicators proposed by the EU 2020 Strategy for monitoring economic and social development, as well as environment protection.*

*Competitiveness became an important policy dimension, so it is also elaborated in theory. Depending on the theory of regional development, the key assumptions, determining factors, and as implications to (regional) competitiveness are distinguished. The concept of competitiveness is complex and includes variety of inter-related policies, including entrepreneurship, research and development, innovations and human resources (education and employment policies). It is important to understand to which extent economic growth on all levels is determined by the same or similar conditions, so recommendations for better national competitiveness could be applied in order to improve competitiveness on the regional and local level, as well.*

*The paper identifies and analyzes comparative advantages of the Northern region of Montenegro, identifies factors and provides recommendations for moving towards the competitive advantages in order to reach more equal regional development and sustainable valorization of*

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*available natural resources. Paper also compares Montenegro to other countries in the region in sence of competitiveness.*

**Keywords:** *Comparative advantage, Competitive advantage, Regional Competitiveness, Level of Competitiveness, Level of Development*

## 1. Introduction

Comparative and competitive advantages are the subject of interest to many theoretists and researches, both in Montenegro and worldwide. Historic development of the theory of competitive advantages is two centuries long and includes the following factors: mercantile concept of foreign trade, absolute price advantage, relative prices and exchange rates, salaries, relative factor availability, technology, market structure, then competitive advantage and cooperation based advantage. Each of these factors directly or indirectly impacts what one country will produce, how, for whom and in what way. Economists believe that comparative advantages are critical factor for production specialization at international level, as well as for determining trade flows. Non-economists, however, think that competitive advantages are of crucial importance. All development theories (Classical theory, Neo-classical theory, Keynesian Economic theory, Economy of Development, New Economic Growth theory and New Trade theory) highlight particular factors they find critical for economy competitiveness. New researchers of competitiveness theory in the world believe that new competitiveness theory called "comparative advantage theory of competition" emerges in the bibliography of strategies, and it is compared to neo-classical theory of perfect competition. They believe that the new competitiveness theory explains main macro and micro phenomen, even better than neo-classical theory of perfect competition itself. At the same time, they explain the competitive advantage theory, assessing that market orientatuon is potential source of comaprative advantage.

A particular importance has the analysis of Porter's concept of competitiveness, by applying Porter's diamond model. Michael Porter has developed model of competitive advantages based on four inter-related elements – known under as the “diamond”. The competitiveness is created by mutual action of four group of factors and two external variables. The two external variables are: the government and opportunities (chances), while the factor are: 1) factor conditions, 2) related and supporting industries - strategy, structure and rivalry between companies in the industry, 3) demand conditions – local demand quality and 4) company strategy and structrue and level of competitiveness – existence of a group (cluster) of similar supporting industries in the country.

Competitive advantage is one of important factors contributing to economic development. Bearing in mind that fact, as well as experiences of different countires, especially EU countries in this regard, the aim of this paper is to identify and analyze comparative advantages of Northern region of Montenegro, and to provide recommendations for moving towards competitive advantage in order to reach more equal regional development and sustainable valorization of dispoisible natural resources which could contribute to the higher level of development of Montenegro, that accounted for 41% of the EU-28 in 2012.

The comparative advantage of the economy refers to its ability to produce a particular good or service at lower opportunity and marginal costs over another. The idea of comparative advantage was firstly mentioned in Adam Smith's Book *The Wealth of Nations* and later formulated by David Ricardo<sup>169</sup>. The theory of Comparative Advantage was the subject of the criticisms of theories related to competitive advantage. The Theory of Competitive Advantage was proposed in 1985 by the US economist Michael Porter. Porter emphasizes “productivity growth as the focus of national strategies. ...” Competitiveness is determined by the productivity with which a region

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<sup>169</sup> Ricardo D (1817): “The Principles of Political Economy and Taxation”



uses its human capital, and natural resources. Productivity sets a region's standard of living (wages, returns to capital) (Porter, 2004)."

Pursuant to the European Competitiveness Report (2000) "an economy is competitive if its population can enjoy high and rising standards of living and high employment on a sustainable basis. More precisely, the level of economic activity should not cause an unsustainable external balance of the economy nor should it compromise the welfare of future generations." "Competitiveness may be defined as the degree to which, under open market conditions, a country can produce goods and services that meet the test of foreign competition while simultaneously maintaining and expanding domestic real income" (*OECD Programme on Technology and the Economy (1992)*).

Bearing in mind the above, for the purpose of this paper, it is also important to pay attention to *regional competitiveness*, a term which was used more rarely, and that was defined more poorly. As a starting point, a definition for regional competitiveness comes from the Sixth Periodical Report on the Regions in the EU:

"Competitiveness is defined as the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income or, more generally, the ability of (regions) to generate, while being exposed to external competition, relatively high income and employment levels." and "In other words, for a region to be competitive, it is important to ensure both quality and quantity of jobs." (European Commission, *the Sixth Periodic Report on the Regions (1999)*).

Bearing in mind the above definitions, the rest of the paper is related to Montenegro and an issue of regional competitiveness enhancement, especially in the Northern region as the less developed region of the country. The key hypothesis of this paper is that an appropriate and efficient valorization of available natural resources could contribute to the enhanced competitive advantage.

## 2. Macroeconomic overview of Montenegro

Montenegro is Western Balkan country with the population of 620,029 according to the 2011 census. As far as the GDP in Montenegro is concerned, from 2001 until 2013, its annual growth rate averaged 2.2 percent. Real growth rate of GDP was 3.5% in 2013 (Monstat, preliminary data). Tourism is the fastest growing sector of the economy (12.4 percent a year) and accounts for around 10 percent of GDP. Measured by the GDP PPS per capita, the level of development of Montenegro accounted for 41% of the EU -28 average in 2012. Geographically, Montenegro is divided in 3 geographic regions: Northern, Central and Southern. The Northern region of Montenegro comprises more than a half of the Montenegrin territory or almost 53% of the total territory of the country, but only 1/3 of Montenegrin population (Monstat, Census 2011) lives there..

Based on global competitiveness index for 2013-2014, Montenegro was ranked as the 67<sup>th</sup> (with the score of 4.2 from 1-7), out of 148 countries measured within the Global Competitiveness Report of the World Economic Forum (WEF). This position was improved comparing to 2012-2013 when Montenegro was ranked as the 72<sup>nd</sup> country in the world. Compared to the countries of the Western Balkan, in 2013-2014 WEF Report, Montenegro was ranked better than Macedonia FYR (which was ranked on the 73<sup>rd</sup> position), Croatia (75<sup>th</sup> position), Bosnia and Herzegovina (85<sup>th</sup> position), Albania (95<sup>th</sup> position) and Serbia (101<sup>st</sup> position).

Despite the fact that Montenegro is the country with the higher level of competitiveness compared to other Western Balkan countries, reforms in the country should be continued as well as all activities related to the business environment and investment climate improvement in order to continue with the enhancing of the level of competitiveness of the country in a long run. Furthermore, in order to enhance the level of competitiveness of Montenegro, it is important to be

more focused on the enhancing of the local level of competitiveness. Namely, based on the competitiveness<sup>170</sup> index measured by the Ministry of Economy of Montenegro, almost all less developed municipalities which belong to the Northern region of the country, have competitiveness level below the national average as it is shown in the following table.

**Table 1. The Level of Competitiveness of Local Self Government Units for the period 2010-2012**

Local Self Government Unit (region)	Deviation from the level of competitiveness of all municipalities in Montenegro	Competitiveness index	Rang
		Average competitiveness of all local self-government units=100	
Budva (S)	0.610	161.0	1.
Tivat (S)	0.560	156.0	2.
Podgorica (C)	0.420	142.0	3.
Kotor (S)	0.350	135.0	4.
Žabljak (N)	0.290	129.0	5.
Danilovgrad (C)	0.220	122.0	6.
Herceg Novi (S)	0.211	121.1	7.
Bar (S)	0.160	116.0	8.
Ulcinj (S)	0.039	103.9	9.
Nikšić (C)	-0.007	99.3	10.
Cetinje (C)	-0.108	89.2	11.
Pljevlja (N)	-0.140	86.0	12.
Rožaje (N)	-0.170	83.0	13.
Mojkovac (N)	-0.230	77.0	14.
Andrijevica (N)	-0.290	71.0	15.
Kolašin (N)	-0.305	69.5	16.
Plužine (N)	-0.306	69.4	17.
Berane (N)	-0.330	67.0	18.
Bijelo Polje (N)	-0.334	66.6	19.
Plav (N)	-0.355	64.5	20.
Šavnik (N)	-0.356	64.4	21.

Source: Ministry of Economy of Montenegro

According to the previous table, it is obvious, that the level of competitiveness of the country would be enhanced in a long run only through the enhancement of the level of competitiveness of its less developed Northern region.

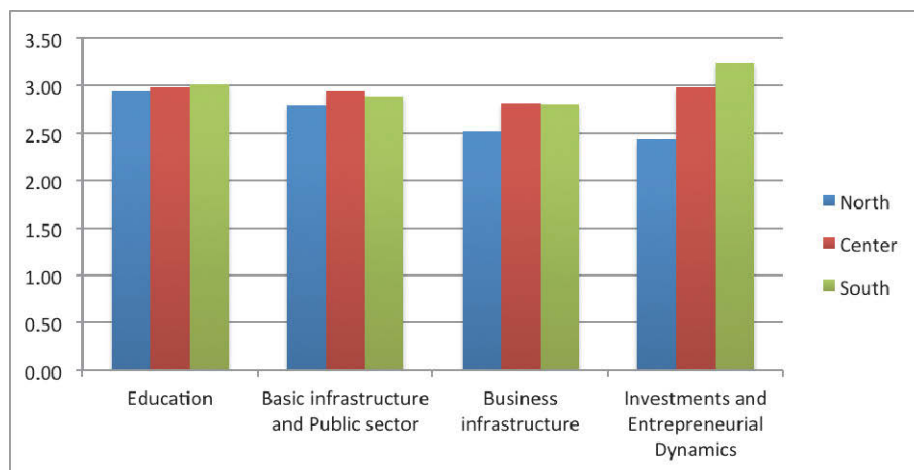
However, natural resources could be very important but not sufficient factor for development of an economy or its region. Survey<sup>171</sup> conducted among the business community in Montenegro confirmed that Northern region is deprived in terms of business environment and in terms of the business sector characteristics as well. The following graph summarizes the survey findings as a

<sup>170</sup> The level of competitiveness of local self-government units is measured as the weighted average of business environment and business sector on the level of the local self-government unit (pursuant to the Government Regulation on methodology for calculating the degree of development and local self-government units for 2012)

<sup>171</sup> Survey implemented by CEED Consulting, for purposes of UDG scientific-research project titled: Valorization of resources: from comparative to competitive advantages in Northern region of Montenegro”, financed by the Ministry of Science of Montenegro.

reflection of companies' assessment of various components of: education, basic infrastructure and public sector, business infrastructure and investments and entrepreneurial dynamics in their respective regions.

**Graph 1.** *The quality of various segments relevant for economy development by region*



Source: CEED Consulting Survey results, 2014

In all analyzed segments, companies from North give lower mark compared to companies from other three regions. The overall assessment of education is the most equalized which is probably due to the fact that this is a reflection of a national policies which are the same in all regions.

The Northern region of Montenegro is the region that has many comparative advantages and disposes of preserved natural resources: the largest part of Montenegrin hydro-potential, all coal reserves in the country, around 67% of agricultural land, 71% of wood, 62.3% of cattle, almost all lead and zinc reserves, and good preconditions for development of winter and eco-tourism. Despite the above-mentioned resources, the Northern region of Montenegro is the least developed region of the country with the level of development of around 73% of Montenegrin average. However, more adequate valorization of natural resources could in a long run contribute to the moving from comparative towards competitive advantage of the Northern region and to the higher contribution of this region to GDP of Montenegro. This is particularly important if one considers that 15 years ago the GDP of the Northern region accounted for 25.5% of the GDP of Montenegro and in 2012, only around 11% of Montenegrin GDP was related to the Northern region<sup>172</sup>.

### **3. Resources of the Northern Region of Montenegro as the base to move from comparative towards competitive advantage**

#### ***3.1 Resources of the Northern region of Montenegro***

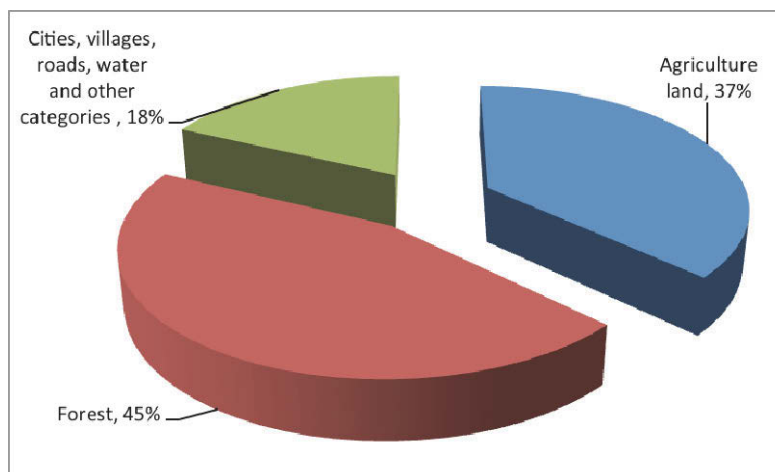
The word “resource” means natural and production resources, human capital and other resources which could be used in production or consumption process. Differences in disposing resources are related to the potential source of competitive advantage of one country or the region, and contribute to the long term economic growth and development.

<sup>172</sup> Estimations of authors based on national statistics

For the purpose of this paper there has been analyzed resources base of the Northern region of Montenegro, which is consisted of: spatial resources<sup>173</sup>, human capital, technical infrastructure, entrepreneur infrastructure as well as disposable financial resources. The balance of those factors brings to the balanced development of the country, what is an opposite of the unplanned development and inadequate resources valorization.

Spatial resources of Montenegro are mostly referred to the forest and agricultural land, as it is provided in the graph below:

**Graph 2.** *Structure of spatial resources in Montenegro (type of land, in % of total)*



Source: Spatial Plan of Montenegro until 2020

### **3.2. Valorization of the Spatial resources of the Northern region of Montenegro – current situation**

Valorization of spatial resources of the Northern region of Montenegro is in particular related to energy production and transmission, agriculture and tourism, forestry and wood processing, as key areas where the new value added is created. Despite the fact that the region is reach with resources in agriculture, the level of development in this sector is not satisfactory. Barriers which make agricultural products from the Northern region of Montenegro less competitive are, among other related to an inappropriate transport infrastructure, which also has a negative impact to competitiveness of other sectors relevant for the Northern region development like energy and wood processing and tourism. There are some production capacities in milk and meat processing industry as well as in wood processing industry. However, there is a lot of space to expand the current production capacities, increase production efficiency in the Northern region, increase the level of finalization of products in sectors of agriculture and wood processing, as well as in energy and agro tourism sectors. This should represent one of the ways how to enhance competitive advantage of the region through the more efficient valorization of disposable resources.

<sup>173</sup> Resources in forestry, mineral resources, protected areas, touristic resources, energy, resources in agriculture, cultural heritage

#### 4. Key sectors for valorization of resources in favor of competitiveness enhancing in the Northern region

Bearing in mind currently disposable resources of the Northern region, the key potential for the specialization of this region is related to the appropriate valorization of resources in following areas:

**a) Development of agriculture** based on the agronomy, animal husbandry, fruits production and farming. The concept of mini-farms with cattle is one of successful elements for milk and meat processing industries development. In addition, specialization in honey production as well as fishery, organic food production, herbs and forest fruits processing, based on an adequate resources valorization especially through the SME development, would also contribute to the competitive advantage and higher level of regional competitiveness.

**b) Development of tourism**, as significant for the further specialization of the Northern region. The Northern region of Montenegro is rich with resources for the development of winter as well as summer tourism, eco-tourism, sport tourism, agro-tourism, religious tourism as well as health tourism. All those different kinds of tourism could be in the future in a relatively efficient way linked with the coastal tourism in order to make an integral touristic offer of Montenegro for tourists from all over the world. However, in order to contribute to the competitive advantage improvement as well as to the competitiveness enhancing through the tourism sector, it is necessary to invest in new hotel capacities in the Northern region, which are currently very limited, as well as in transport infrastructure.

**c) Wood processing industry development** with an accent on the higher level of finalization of wood products, as also significant for further specialization and increase of the level of regional competitiveness.

**d) Energy sector** especially mining as well as hydro energy, which are the base for the specialization of the region. This could be especially achieved through the construction of the second block of the Thermal Plant in Pljevlja as well as through the construction of hydro power plants (especially on the rivers: Moraca, Lim, Ibar, Cehotina, Piva, Komarnica etc.) and biomass production. This will be also related to new SMEs establishment, which would be the channel for the efficient valorization of the resources in energy sector or achievement of the enhanced competitiveness advantage of the Northern region.

Regional competitiveness enhancement based on specialization in above mentioned sectors would bring to significant growth of production in Montenegro as well as growth of exports and substitution of imports.

However, in order to enhance regional competitiveness or to move from comparative to competitive advantage based on the above-mentioned sectors for specialization, it is important to overcome certain barriers and obstacles the Northern region still faces with.

Those obstacles are in particular related to the:

- Lack of spatial planning documents which would be the vital base for further development of specialization in key development areas, or exploration of land areas for planned purposes;
- Lack of the matured projects on the local level, especially projects, which are in favor of SME development;
- Inadequate transport connections of the Northern region with the rest of the country as well as inadequate transport connection between municipalities of the Northern region;
- Small land parcels, lack of investments, lack of processing industry capacities;
- Negative growth rate of population in almost all municipalities of the Northern region except in Rozaje;
- Inappropriate environment protection and old production technologies;

- Inadequate offer of work force with requested profiles of education because of the low level of interest of the local population for certain jobs profiles relevant for the contribution for specialization of companies and the region;
- Low level of productivity;
- Inadequate education programs, as well as the low level of collaboration between the companies and scientific societies.

Based on the above mentioned, in order to provide an appropriate valorization of the resources of the Northern region which could bring to its competitive advantage and enhanced level of regional competitiveness it is necessary to:

- Provide appropriate spatial planning documentation;
- Strengthen inter-municipal cooperation and plan common projects, which are in favor of entrepreneurship and SME development;
- Invest in development of transport and communal infrastructure that will provide better connection of the Northern region with the rest of Montenegro and consequently to its higher competitiveness;
- Introduce penalties for the illegal wood logging as well as for the raw wood exports;
- Improve linkage of companies with the education institutions in order to develop new products as well as to improve efficiency of current production in order to enhance competitive advantage;
- Promote potentials for tourism development in order to attract investors for investments in new touristic capacities;
- Promote investment opportunities in mining sector in the Northern region as well as the opportunities for investments in valorization of mineral resources in general.

## **5. Key policy measures relevant to move towards competitive advantage**

Montenegro invested around 2.5% of its GDP in the last three years from the state budget, local self government budgets, loans, IPA funds and other donations in order to improve basic and business infrastructure in the Northern region, which is still a significant barrier for regional competitiveness enhancing. In addition to the investments in basic and business infrastructure, there are other, parallel measures related to the improvement of business environment as well as financial resources relevant for the efficient valorisation of natural resources in order to achieve competitive advantage of the Northern region. Those measures are mostly related to the specific measures for investments, general measures regulating business as well as measures to finance business and local development.

### ***5.1. Specific measures for investments***

The legal and institutional framework for foreign investments in Montenegro is related to the Law on Foreign Direct Investments as well as the Strategy for Attraction of Foreign Investments. The Strategy consists of all specific measures for investments, treatment and protection of FDI. In addition, there are also double taxation treaties as well as international agreements containing investments provisions (like agreements which Montenegro signed as WTO member, EFTA, CEFTA etc.). The above mentioned legal framework is at the same time relevant for investments in the Northern region which could bring to the enhancement of its competitiveness, employment growth and the level of development.



## ***5.2. General measures regulated to business***

In order to avoid inconsistency and duplication between the old and new legislation, the Government of Montenegro launched in 2009 the process that was called “Regulatory guillotine” with the intent of eliminating all unnecessary, complicated and outdated regulations. In addition to this, the Government introduced the Regulatory Impact Assessment (RIA) in order to assess the possible level of business barriers of each legal act before its adoption. As consequence, the business environment in Montenegro has improved, but there is room to improve it in the future as well. Besides the above-mentioned simplification or elimination of unnecessary regulations, general measures regulation the business in Montenegro and its regions are related to rationalization of institutional setting, improvement of the predictability of the regulatory environment, implementation of the regulation deriving notably from the EU accession process. This is especially important due to the fact that several chapters of the EU acquis have a direct impact on the investment climate, including among others the free movement of goods (trade policy), free movement of workers (working permits), right of establishment and freedom to provide services, treatment of investors (within the chapter of free movement of capital), intellectual property rights, public procurement, company law, competition policy, taxation, as well as sectorial regulations (energy, transport, agriculture etc.). Adjusting national legislation to the acquis will have a major influence on the business environment in Montenegro so as to it does not unnecessarily increase the regulatory burden. The progress that will be achieved in adjusting to the acquis will be reflected to business registration, documentation, conditions and procedures, legal forms a business can take, registration of enterprise, etc.

Special concern in this paper is given to the tax policy as one of the most important elements of the business environment improvement and consequently, regional competitiveness enhancing.

Montenegro is the country with the lowest nominal corporate tax rate (9%) in the South Eastern Europe and in the EU, where the average nominal corporate tax rate accounts for 23.1%. Value added tax rate of 19% and 7% is one of the lowest in the region and a very relevant element for the investments climate and competitiveness enhancing. Pursuant to the Corporate Tax Law as well as the Income Tax Law, companies registered in the Northern region of Montenegro do not pay taxes eight years upon registration.

In addition, in order to enhance business environment, the Government of Montenegro adopted “The Plan on Business Zones Development”. Based on this Plan, there are 4 business zones established in the Northern region of Montenegro in municipalities of Kolasin, Berane, Bijelo Polje and Mojkovac. The company established in the business zone, based on the Government Regulation on Employment of Certain Categories of Unemployed Persons, does not pay taxes and duties regarding pension, health insurance and unemployment insurance. Furthermore, the local self governments provide communal tax release for companies established in the business zone.

## ***5.3. Other policy measures to enhance competitiveness of the Northern region***

In order to contribute to enhancing of competitiveness, the Government of Montenegro adopted the Strategy for Sustainable Economic Growth through the Introduction of Business Clusters, seeing clusters as one of most important tools for the movement towards competitive advantage and competitiveness enhancing. Pursuant to before mentioned Strategy, business clusters are seen as “promising environments for the development of linkages for competitiveness. Clusters are geographical concentrations of related firms and associated institutions. Firms in a cluster are located in spatial proximity, produce similar or related goods or services, and are supported by a range of dedicated support institutions.” During elaboration of the Strategy, there were 63 potential business clusters mapped in Montenegro and more that 50% of them are in the Northern region. Implementation of this Strategy, but also other policy documents shows importance of the

active approach of local entrepreneurs in clusters in development of their businesses and their linkage with the scientific and research society. In parallel to before mentioned, the Government shall support clustering of enterprises through further activities on business environment and investment climate improvement, as well as through the technical and financial support (from the budget, EU funds, loans etc) according to the law. The principle of clustering development in Montenegro is based on the “concept of the Triple Helix<sup>174</sup>”, bearing in mind that efficient valorization of resources in the Northern region and entire Montenegro could be achieved through the close collaboration of university, industry and the government in order to move towards the higher level of regional competitiveness. Based on the before mentioned principles, in last two years, there are developed 5 clusters of small and medium enterprises in the Northern region of Montenegro with potentials for the good performance in a long run. Those clusters are mostly related to the agriculture sector (or mushrooms production, meat production) as well as wood processing and their success in the future will depend on the collective efficiency and capacities to valorize natural resources of municipalities they belong to, but also on the public and business infrastructure provided by the local and central governments, appropriate business environment as well as financial resources available.

## **6. Financial resources to move from comparative towards competitive advantage**

Besides the support from the capital budget of the state which is mostly related to investments in public infrastructure, there are other types of support from the state budget and among them, the most important is the state aid which could be allowed according to the rules based on the state aid rules and competition policy. There are currently several programs of support to SMEs in Montenegro through the state aid, with the special emphasis on enterprises in the Northern region in order to enhance their level of competitiveness.

As far as IPA funds are concerned, the European Commission approved to Montenegro EUR 152.2 million through IPA funds in the period 2007-2013. Until the end of 2012, out of total approved amount of IPA funds, 79.1% has been contracted and 62.7% was disbursed. This shows absorption capacity of the country in previous period. In addition, around 1/3 of the IPA support until 2013 was related to environment, transport, social development as well as agriculture and rural development which are all relevant sectors for regional competitiveness enhancing. Within the IPA II or IPA 2014-2020, Competitiveness and Innovation were recognized as one of sectors, which should be supported, as well as the sectors of energy, environment, transport, agriculture and rural development. In other words, financial support through IPA funds in the above mentioned sectors would contribute to the faster moving of the country and its developed areas from comparative towards competitive advantage and enhancement of the level of regional competitiveness.

## **7. Concluding remarks**

This paper intended to present that Montenegro disposes with different resources, which are not equally allocated, but are sufficient to contribute to diversified and more equal development of regions. In other words, Montenegro is not equally developed, and the most important natural

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<sup>174</sup> “The Triple Helix thesis 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” (Stanford University-Triple Helix Research Group).

resources are not appropriately valorized in all strategic sectors for development: agriculture, tourism, wood processing and energy. In addition, the largest part of resources in before mentioned key development sectors are located in the Northern as the least developed region of the country. Thus, this paper elaborated possibilities on how to provide appropriate valorization of those resources in order to move from comparative to competitive advantage of the Northern region. Key recommendations are related to the further investments in public and basic infrastructure in the Northern region from state budget and EU funds and in parallel to continue with the improvement of the business environment and investment climate in order to contribute to investments growth and number of enterprises in this region. In parallel, measures in education and entrepreneurship policy, social and health policy are very important in order to provide the higher level of development and competitiveness of the Northern region through the efficient valorization of its natural resources in the long run and achieving the smart, sustainable and inclusive economic growth of this region and the entire country.

In conclusion, based on the key hypothesis of this paper, it is obvious that an appropriate and efficient valorization of key natural resources in the Northern region of Montenegro, could contribute to its enhanced competitive advantage.

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## TURKISH CYPRIOT CULTURE AND ITS IMPACT ON THE RATE AND TYPES OF FEMALE ENTREPRENEURSHIP.

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### Abstract

*North Cyprus has a strong patriarchal culture where social gender segregation plays a major part in modern life, yet to outsiders the culture appears to be like any other European nation. A research study was constructed to investigate the entrepreneurs of the region, both male and female, to identify factors that influence their business sector choices, to determine the depth of patriarchal influence on their enterprise choice. The study is the first into entrepreneurship in North Cyprus.*

*A mixed methodology was chosen to capture data, as it was essential to understand the variety of entrepreneurship in North Cyprus, as well as understanding some of the entrepreneurs' problems in depth. A questionnaire was administered to one thousand entrepreneurs, using the block sampling with the drop and collect methodology, which reveals the variety and magnitude of entrepreneurship, both male and female, in North Cyprus. The qualitative analysis included thirty in-depth interviews, again with both male and female entrepreneurs, to find out their specific problems in their difficult economic climate, entrepreneurship exposure and experience, and some insight into the motivation for this entrepreneurship.*

*Analysis of the study showed that female entrepreneurs in North Cyprus have much in common with their Western counterparts, and while they are restricted in terms of business sector choices this is more to do with the economic restrictions of enterprise under embargo conditions than gender issues. The pull factor was strongly identified as the major factor for selecting entrepreneurship as a career for female entrepreneurs in the region, and women do not have the financial constraints of other European entrepreneurs. Turkish Cypriots enjoy the benefit of strong support from their families, in terms of finance to start an enterprise, and logistic help in the running of the enterprise.*

*The implication of this research is female entrepreneurs in North Cyprus have a distinctive perception of entrepreneurship, somewhat shaped by their traditional patriarchal society, yet also modern in viewpoint with no restrictions on the type of enterprise they start in terms of gender. This research will contribute to the understanding of female entrepreneurship in strong patriarchal cultures, including Islamic nations and other regions.*

**Keywords:** *female entrepreneurship, business sector choice, gender issues, North Cyprus*

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## 1. Introduction

Cultural and social norms play an important part in the nascent entrepreneur's initial analysis of selecting which business sector and then which business type they would like create an enterprise in. It has been noted that while the body of literature on entrepreneurship is large, it is mainly centred on Western Anglo-Saxon countries, while research on entrepreneurship in small peripheral countries such as Cyprus is limited (Hadjimanolis and Poutziouris, 2010). In addition, it has been argued that the impact of culture on entrepreneurship tends to be researched at a national level, but there needs to be more at regional and even societal level (George and Zara, 2002). While Islam is a shared religious base in many countries of the Middle East, Arab nations and other countries, the customs, mores, and gender relations are not the same. Each nation or region has intricate social customs and traditions that shape and form the way that women can start enterprises in their particular area. As an under-researched area, there is scope to continue to study entrepreneurship in the Turkish Republic of Northern Cyprus, as well as other regions in transition, as comparative analysis.

While it is agreed that the body of literature on Western female entrepreneurship is low (Brush, 1992; Carter et al., 2001), the number of research studies on female entrepreneurs living in the Middle East or MENA countries is very low indeed, described by Ahmed (2011):

*“There is a dearth of studies based on different social contexts especially in Islamic societies, where social and familial control over women, their economic dependence on men and restrictions on their mobility determine the differential access that males and females experience concerning education and other key supporting services.”*

In enterprise development, what works for women in North Africa may not be possible for women in the Kingdom of Saudi Arabia where gender discrimination has kept women at low management levels (Tlaiss and Kauser, 2011). Each area or region has its own peculiarities. To promote female entrepreneurship in Jordan, Syria and the Lebanon, the United Nations Development Fund for Women (UNIFEM) set up an office in Jordan in 1994 (Husseini, 1997), the only project supporting women in entrepreneurship, as government budgets in these difficult regions were directed towards strengthening or repairing the infrastructure (Husseini, 1997). One of the issues raised was that is a lack of credit for women with small businesses, as was the need for collateral to secure a bank loan, often not an option for women (Husseini, 1997).

Other initiatives have been created in the MENA region, including The Center of Arab Women for Training and Research (established in 1993 in Tunisia), which conducted research in the Arab nations of Lebanon, Yemen, Egypt, and Tunisia, and the occupied territories of Palestine of both working women and women who had started their own enterprises. In the in-depth interviews they conducted, some interesting factors were identified about Arab women in their enterprise endeavours. Many of the successful female entrepreneurs were unequivocally supported by their spouses, despite local social pressure (Jabre et al., 1997). The push factor is also a large factor for some women in the region, who turn to enterprise as income in times of hardship (Jabre et al., 1997). One common theme inside the Middle East and North African countries is that the women who were supported by their husband and family fared better in their enterprise creation and continuation. Most of the Middle East countries have liberal economic policies, and informal employment is high. As such, many women's micro-enterprises are unregistered (Nabavi, 2009), as they feel there is no necessity to register a business that is run from their home.

In contrast, in other Islamic regions, the entrepreneurship turns from Push to Pull. In a recent small qualitative survey in the Kingdom of Saudi Arabia, over 80% of the female entrepreneurs in the study were pulled into entrepreneurship (Ahmed, 2011), but this is probably no surprise in such an economically rich nation. A similar disposition was found by Sadi and Al-Ghazaki



(2010), where female entrepreneurs unreservedly said that self achievement was their motivation to enter entrepreneurship. The 2009 Global Entrepreneurship Monitor figures included Saudi Arabia, and in a special report on entrepreneurship on the Kingdom of Saudi Arabia, Skoko, Wright and Santa (2010) reveal some very interesting statistics on female entrepreneurship in the kingdom. In terms of participating rates when analysed by gender, there are 2 to 4 male entrepreneurs for every single female entrepreneur, which leaves the Kingdom grouped with Pakistan, Iran, Egypt, and the West Bank and Gaza Strip, listed as “Factor Driven Economies” (Skoko, Wright & Santa, 2010). Since the previous report in 2009, there has been a doubling of entrepreneurship in general in the Kingdom, much of this has been due to the “large gains among female entrepreneurs”, moving from 1% of the total entrepreneurship in 2009 to 6% in 2010 (Skoko, Wright & Santa, 2010). While these gains are substantial, it means that there is a “largely untapped source of entrepreneurial potential and an economic force” (Skoko, Wright & Santa, 2010).

While the male rates of entrepreneurship participation are 24th in terms of only male entrepreneurship (above the rates of Germany, Australia, and the United States), there are unusual factors to consider in the Kingdom of Saudi Arabia. The female labour force in the Kingdom of Saudi Arabia is quite small (15% female compared to 85% male), but this not directly attributable to social mores of women not working outside the home, but more to do with the very large numbers of male guest workers in the Kingdom (Skoko, Wright & Santa, 2010). Number of female entrepreneurs in the Kingdom of Saudi Arabia have increased so much that the Kingdom has gone from being ranked bottom in terms of female participation in entrepreneurship in 2009, to being in the middle of the rates in 2010, ahead of countries like the United Kingdom, the Netherlands, and Sweden (Skoko, Wright & Santa, 2010). So, while women only make up 14.8% of the work force in the Kingdom of Saudi Arabia, the participation of women in entrepreneurship is now 26% (Skoko, Wright & Santa, 2010).

Research in Oman specifically details the barriers that exist for female entrepreneurs in Muscat (McElwee & Al-Riyami, 2003). McElwee and Al-Riyami (2003) found that one of the factors directly relevant to the success of a female entrepreneur was the support of her family and of her husband. Female entrepreneurs in Oman may have fewer difficulties with the work/home role conflict, as all the entrepreneurs interviewed by McElwee and Al-Riyami (2003) had full domestic helpers. This cultural difference exists as domestic labour is relatively cheap in Arab nations, and a social norm for middle class households. Again, because the female entrepreneurs were of a relatively high social and economic status, their motivations were different from many Western female entrepreneurs. These female entrepreneurs were motivated by role models, rather than a need for money. They did it to gain autonomy (McElwee & Al-Riyami, 2003). Further research on female entrepreneurship in Oman alludes to a significant number of female entrepreneurs in the male dominated Arab society (Khan et al., 2005).

Female entrepreneurship was studied in Morocco through the use of mini case studies and interviews (Gray & Finley-Hervey, 2005). Social mores in Morocco rule out the intermingling of men and women in public, which has blocked women’s entry into business ventures. However, the culture has spawned women business owners who establish their businesses outside the public sphere (Gray & Finley-Hervey, 2005). Entrepreneurship research has shown that exposure to entrepreneurship early in life indicates a predisposition for entrepreneurship. This is linked to the strong pull factor in Moroccan women to become business owners, as they belong to a patri-lineal culture where many men are entrepreneurs (Gray & Finley-Hervey, 2005).

In a qualitative study in Jordan female entrepreneurs revealed that they started their enterprises to gain autonomy, and that they enjoyed their work (Ahmed, 2004). Again, the husband and family are cited as being a positive factor in influencing the women into starting their enterprise, and as support in coping with demands of business ownership, in giving encouragement, financial assistance, and the dispensing of business advice (Ahmed, 2004). Analysis of the data in this qualitative study revealed that Jordanian female entrepreneurs generally already had business



experience and this is why they sought their own venture, and that the high status of entrepreneur in their society is something that they desired (Ahmed, 2004).

In nearby Lebanon, micro-enterprises are very popular, and provide additional income for many families (Husseini, 1997). As gender stereotypes begin to fade in the Arab world, Jabre et. al., (1997) found that husbands are beginning to be more supportive of their wives' endeavours into entrepreneurship, even offering to share the household responsibilities. In 2001 a report on the informal employment in the Occupied Palestinian Territories refers to the women's labour force being very low, and as such not very different from any other Middle East country (Esim & Kuttab, 2001). In the Gaza Strip there are women's micro enterprises in the sectors of dairy products and handicrafts (Esim & Kuttab, 2001). However, many Palestinian women chose not to register their self-employment (up to 70%) (Esim & Kuttab, 2001), and work mainly in commerce or services (Esim & Kuttab, 2001).

Some comparative research between Turkish entrepreneurs and Irish entrepreneurs found some surprising results, in that many of the characteristics of the Turkish entrepreneur were found to be the same as their Western counterparts, despite distinct cultural differences (Turan & Kara, 2007). Hisrich and Ozturk (1999) surveyed 216 female entrepreneurs in Eskişehir and Istanbul and found that they had different problems to female entrepreneurs in developed countries. They found similarities with Western female entrepreneurs in that the motivations for starting their businesses were independence and achievement. The most frequently mentioned problems were finance, and obtaining a loan. Other significant problems for these Turkish female entrepreneurs were recruiting personnel, lack of guidance, lack of involvement with business colleagues, lack of managerial experience and lack of experience in hiring staff. Hisrich and Ozturk (1999) also found that women in Turkey have more barriers to enterprise development. Much of this is to do with gender segregation persisting in rural communities and in the work place.

Although women are seen working in Turkey, and many women graduate from university, the range of skills and economic sectors they cover is limited. Hisrich and Ozturk (1999) found that female entrepreneurs in Turkey were concentrated in the business sectors of tourism, food, health, and service industries. In 2000, Simnel Esim researched the informal economic organisations of women who were self-employed in urban Turkey. Esim (2000) reports that women in agriculture are employed in the most vulnerable employment, where they contribute to unpaid family labour, or both. Esim (2000) also reported that women in micro and small enterprise were more likely to sell to other women, and more likely to employ women rather than men.

Ufuk and Özgen (2001) suggest that there is a low level of female entrepreneurship due to the importance of traditional values in a patriarchal society like Turkey, where being an entrepreneur is seen as "going against the norm". Research on 220 female entrepreneurs in Ankara from 1990 to 1995, reported much work/home conflict, yet simply "being" an entrepreneur had a positive effect on their social life and their economical well being (Ufuk & Özgen, 2001). Research was carried on 54 female entrepreneurs in the Adapazari region of Turkey where some respondents declared a problem of legitimacy in their business dealings, and that the "sector types for them were limited" (Özen Kutunis & Bayraktaroğlu, 2003, p.8).

## **2. Research design**

### ***2.1. Methodology***

Due to the unusual political situation of the Turkish Republic of Northern Cyprus, a different approach was needed for the research study methodology. An off-the-shelf, research template could not be applied. The extremely poor infrastructure and lack of official bodies meant that a unique research design methodology needed to be designed, created and implemented, as there were no ready-made lists of business telephone numbers or postal addresses that could be used.

This project used a sequential mixed methods research approach (Morse, 2003), drawing on both qualitative and quantitative data. The first quantitative phase of the study was a questionnaire delivered to 1000 entrepreneurs in the region, while the second qualitative phase of the study comprised of 30 interviews with entrepreneurs in the region. The sample of the quantitative phase was created using block sampling (Blackwood & Mowl, 2000), and the questionnaire was delivered and collected using the drop and collect methodology (Ibeh & Brock, 2003; Indarte & Langenberg, 2004; Karamustafa, 2000). With block sampling methodology, the researcher selects a series of “blocks”, comprising of a number of communities and sites relatively close to each other such as streets or village sections. The drop and collect technique was selected to allow the researcher to “find” the entrepreneur, and to present the questionnaire to the entrepreneur. The questionnaire is then left with the entrepreneur and they will complete this in their own time. The researcher then returns a week later to collect the completed questionnaire. The survey instrument contained 89 questions that range in type from those gathering personal data (gender, age, nationality, previous experience) and demographic data (residence, location of premises, type of business premises), to personality questions (locus of control, attitudes to risk, motivation, entrepreneurial exposure), detailed information on the enterprise (business sector, number of years in operation, number of employees, customer base, methods of selling) , and details of the gender perspective of the respondent (attitudes towards employment of women, education of girls, abilities of female entrepreneurs, belief in equal opportunities).

During the quantitative survey, respondents were asked if they were willing to take part in further research. Those that replied positively were added to a list of possible interview subjects. In this way, further data was captured through 30 interviews, through this purposive sampling method, from all the respondents to the survey questionnaire that agreed to participate in the interview phase. The in-depth, semi structured interviews were carried out face-to-face at the entrepreneur’s work place, and the data created was analysed for themes and patterns. The interviews were exploratory, to bring out further details of the entrepreneur’s motivation, entrepreneurial exposure, gender issues, perceptions of their environment and economy, and their attitude towards their own business. The interviews were conducted in English and Turkish, depending on the native language of the interviewee. The interviews were transcribed at the time of the interview, and later the text was entered into a bespoke database.

Following Casey (2003), *“qualitative, semi-structured, in-depth interviews appeared to be the best means of gaining a non-hierarchical research relationship, ‘authentic’ voices and subjectives which, as much as possible, were not affected”* by the researcher’s own assumptions about the women’s lives.

### 3. Data analysis

Most of Turkish Cypriot female entrepreneurs are running their businesses on their own. However, there is a difference in the percentages of men and women organizing themselves in this way. According to this survey a higher percentage of men (69.1%) than women (60.4%) are running their business as the sole proprietor. Many more women are in partnerships, especially where they are the major partner. Over half the women respondents have a business partnership with their husband (51.3%). While male respondents have a business partner who is a friend (25.4%) or an acquaintance (14.1%), the female respondents tended to have their business partner in the family. The financing of the business is an important factor in enterprise start ups. Over 80% of the respondents sample started the business up themselves, with slightly more men (83.9%) than women (73.6%) being in this situation. The largest proportion of the Turkish Cypriot entrepreneurs used their savings to finance their new enterprise. Also, typical of an Islamic community a high percentage of entrepreneurs secure their start up finance from their families. A quarter of women and nearly a third of men receive substantial sums of money from their parents and other family members to start up their enterprises.

Regarding factors that were inhibitors to the start up of their enterprise most respondents indicated that a lack of finance was the main inhibitor to their enterprise start up (25.8%). Lack of infrastructure was another factor that was selected by a large number of entrepreneurs (22.1%) as being an inhibitor to their start up phase, with more male entrepreneurs (25%) selecting this option than female entrepreneurs (16.3%). There seem to be some important gender differences in the perceptions of inhibitors to the business start-up phase. Nearly double the amount of female entrepreneurs (20.0%) said they lacked prior experience compared to the male entrepreneurs (10.2%). The fact that 'lack of support from spouse' receives is only mentioned by 5.9% of the female population is an interesting insight into how this patriarchal society views and appreciates women's efforts in the economy and community. The female entrepreneur will not only find support from her immediate family of husband and children, but from her extended family of parents, siblings, cousins and others. This has not been the situation in many neighbouring Islamic MENA nations, where many women report that their family, particularly their husbands, are often hostile when discovering the women wishes to start a business (Jabre et al., 1997). Another surprising result of this question is that more men (6.8%) than women (5.9) related that a lack of confidence was an inhibiting factor in their business start-up, whereas one might expect men to be overwhelmingly confident in their strongly patriarchal society.

Unusually, the Turkish Cypriot entrepreneurs did not express an interest in innovation; a theme emerged from the quantitative analysis and was echoed in the qualitative analysis. More triangulation of data was evident in the analysis of the Turkish Cypriot entrepreneurs' locus of control, which was found to differ from that of the body of literature. The Turkish Cypriot respondents did not have an internal locus of control, which is usually high in entrepreneurs (Littunen, 2000). This anomaly was also present in the Turkish Cypriot respondents' replies to questions aimed at finding external locus of control. External locus of control is usually low in entrepreneurs (Littunen, 2000), yet Turkish Cypriot entrepreneurs have high external locus of control. Yet, in spite of this, most of the entrepreneurs describe themselves as risk takers. More anomalies were found with the motivation to become an entrepreneur, again from both the quantitative and qualitative parts of the study.

The data analysis of the qualitative part of the study revealed that the Turkish Cypriot entrepreneur is pulled into entrepreneurship (47.0% male, 50.4% female). From the female respondents, motivation themes were generated from their replies on the questionnaire. From the 16 themes created, only 3 were from a Push perspective. These were specifically where the entrepreneurs related that they were pushed into entrepreneurship because they couldn't find a job, for economic reasons, and some who wanted to leave their current job. The other 13 categories were all designated as Pull factors. These pull factors included succession in their family business, a profession from which they had degree level education, experience in the business sector, or the entrepreneur felt they were knowledgeable in the sector. Some entrepreneurs were pulled into entrepreneurship because they loved their role, or they wanted the extra security of working for themselves, and they wanted to earn more money than normal employment would offer, or they wanted to be their own boss and expressed a desire to own their own company. A number of entrepreneurs chose the role for social reasons, such as they did not want to be at home, they wanted a social life, or they had retired and wanted to continue to contribute something to society. The remaining entrepreneurs answered that they wanted to try out a career as an entrepreneur, or they thought they had found a new niche market that needed to be explored. While in the context of a very difficult economic situation, we can see 48% of the sample has been pulled into entrepreneurship, which leads us to understand Turkish Cypriot entrepreneurship as a lifestyle choice. Another factor that emerged from both the quantitative data and qualitative data was the high level of entrepreneurial exposure indicated by the respondents. Already noted in the literature as of great importance in developing entrepreneurs (Baycan Levent et al., 2003; Gray and Finley-Hervey, 2005), Turkish Cypriot entrepreneurs presented many examples of entrepreneurial exposure. This is an interesting phenomenon, as the existing body of literature on employment of Turkish Cypriots refutes the existence of any entrepreneurship before 1974 (Olgün, 1993).

Another interesting result of the data analysis was the positive gender perspectives of the Turkish Cypriot entrepreneur. The last six questions of the survey instrument were dedicated to capturing the breadth of sentiment about gender issues in the region, with the expectation that many respondents would have negative replies due to the heavily patriarchal society. However, the results were not as expected, with all Turkish Cypriot entrepreneurs expressing liberal views on women's education, women's participation in the workforce, and in women's ability to be entrepreneurs.

From the data gathered from 84 individual questions of the quantitative study, only the variables that were suitable for factor analysis were chosen on which to perform an exploratory factor analysis. The exploratory factor analysis identified ten major dimensions of entrepreneurial attitudes and entrepreneur profile issues in the empirical context of TRNC. These first ten factors were given names to describe the items that had highly similar loadings. The highest grouping of factors occurred with those factors concerning *Attitudes to Risk* (explains 21.4% of the variance), and it encompasses eight items and they all relate to the entrepreneur attitudes to risk, new technology and their personal energy managing risk, the search for new ventures and the entrepreneur's belief in the success of their enterprise. *Gender attitudes and perceptions* were the next highest factor revealed in the factor analysis which accounts for 8.5% of the variance. This includes women's abilities to be entrepreneurs, in any industry and whether or not women should be encouraged to entrepreneurs. It also includes attitudes towards girls' education, and whether or not they should be encouraged into male oriented industries. Again, the questions were specifically selected to bring to the fore the real gender perspectives of both men and women in the region. The position of this high factor loading within the rotated factor matrix shows us its importance in understanding the entrepreneur and the gender issues that abound in this region. The third highest grouping of factors was *Entrepreneurial exposure*, and this grouping helps to triangulate the data, and for us to understand the importance of entrepreneurial exposure to the Turkish Cypriot entrepreneur.

This research emphasises the high levels of entrepreneurial exposure found in the female entrepreneurs in the Turkish Republic of Northern Cyprus, as well as that a high portion of the female entrepreneurs have created their enterprise as a partnership, with a male family member, rather than as a sole proprietor. Home/work conflict is an issue frequently highlighted in the body of literature as a major problem for mainly female entrepreneurs (Boohene, 2005; Neider, 1987; Ufuk and Ozgen, 2001; Verheul, 2004; Zakaria, 2001). In some Islamic countries, the home/work conflict is solved by buying in help, with childcare and house work (McElwee & Al-Riyami, 2003). However, The Turkish Cypriot female entrepreneur has not reported serious difficulties with the home/work conflict as it has been mitigated by high levels of family support they receive concerning child care, housework, and helping to run their enterprises.

An exceedingly high level of family support for nascent and existing entrepreneurs is a phenomenon that has been unreported in the body of literature. This study found that Turkish Cypriot entrepreneurs enjoy both financial, emotional and organisational support from their parents and near family. Young entrepreneurs are given enough financial support to start up and run their businesses, as well as being able to call on their parents as unpaid help in the business.

The entrepreneurs of the Turkish Republic of Northern Cyprus exhibit some qualities that seem international in entrepreneurship, but they also have some inconsistencies that have been highlighted above. Rates of female entrepreneurship are higher than the European average of 27% (Nearchou Ellinas & Kountaris, 2004), and higher than their Greek Cypriot neighbours and the Turkish motherland even though the economy is severely restricted.

#### 4. Conclusion

The data gathered from the interviews run in the second part of this research study, indicate that the Turkish Cypriot entrepreneur has much in common with their Western counterpart, in that



they are not restricted by social gender segregation in their business sector choice, or by the historical patriarchal values in the region. They are restricted by economic conditions that prevail from the embargo conditions of North Cyprus, rather than by gender issues.

Enterprises outside the range of the entrepreneur's educational and employment experience have been created to fit into regional needs and current niches, rather than being stifled by social mores or gender stereotyping. The analysis of both the quantitative data and qualitative data has shown that the Turkish Cypriot entrepreneur, both male and female, have a modern, democratic outlook on gender issues. Unusually, Turkish Cypriot female entrepreneurs were identified as having the pull factor as a major factor for selecting entrepreneurship as a career. With strong family support, financially and in terms of organising the work/home conflict, Turkish Cypriot female entrepreneurs are well placed to have a successful enterprise.

With specific government policies and training program, more of the Turkish Cypriot population could be encouraged to make successful enterprises, which in turn would help strengthen the economy.

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## THE CREATION OF MODERN IDENTITY OF NATION BRAND

Tadeusz POPLAWSKI<sup>177</sup>

### Abstract:

*Author analyzes in this paper the concept of nation branding in modernity, its definitions, attributes, features, image, as well as market environment and promotion. There are presented not only economic and marketing, but particularly multidimensional and holistic view of nation branding as a process of image creation.*

**Keywords:** nation, brand, image

### 1. Identity of nation in postmodernity

Fluent modernity provokes the necessity to transform old identities and define the new identities. The Nation is one interesting subjects of old identities in new wear. The old identity has been established through historical State-Nations and its components, new one has shown new image of open country and civil society. Arnold Toynbee said that “democracy is a process of fermentation of young wine in the old utensils, kinship provenience”. In this sense nation, on the one hand, has a problem with democracy, on the other – with its own kinship nature. The brand of nation is founding at the national identity, but it is not strong and unchangeable. The change and development of domain so delicate as image of nation not only is possible, but necessary and difficult to avoid. Appearances of emergent markets, liberal world economy, consumption, services domination, postindustrial (postfordist) production, open societies, human rights, dependence of states on regional organisations as the European Union, increasing power of international companies, new classes, segments and styles of life to create new identities, more flexible and multidimensional as it was in the past. Internally modern societies are more and more similar to the model of American melting pot. The efforts to establish distinguishing identities of nations as a brand are heavy to introduce into a practice. The notion of ‘nation branding’ has attracted the interests of national policy makers, convinced by the belief that a strong nation brand can contribute to development, restore international position of a country, enhance global influence by exercising more harmonious neighbourhood and partnership with other nations (Helmi, 2011).

### 2. Nation Brand Creation in Theory of Place Marketing

The significant European specialist in the domain of place marketing and city image Simon Anholt is focused on the potential of identity through nation brand creation as a tool of place marketing. He has opined this process as follows: “Just as branding has proved to be one of the most potent instruments for devising strategy and creating wealth in the commercial sector, so its application to the development and competitiveness of cities, regions and states will have enormous and far-reaching impacts in the years to come” (Anholt, 2004). He added to this definition also important remark: “Simply announcing one's existence will not attract tourism or

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investment; people need to be given motivations for choosing to do business with a country... Small states in particular find themselves competing with one another for attention from audiences that are not always well-informed about them" (Anholt, 2005). Ph. Kotler discussed the topic of nation branding. Subtitle of his book written with Asplund is very persuasive: "Marketing places Europe. How to attract investments, new residents and tourists to cities, nations and places?". "How to attract" is an important problem from marketing point of view. An overview of the literature suggests that there are four main marketing domains which underpin the theoretical foundations of 'nation branding': "country of origin", country-product image, destination branding, and country identity (Helmi, 2011). It has been noted by place branding authorities such as Simon Anholt and Keith Dinnie that the branding of places "covers some of the hardest philosophical questions one can tackle: the nature of perception and reality, the relationship between objects and their representation, the phenomena of mass psychology, the mystery of national identity, leadership, culture and social cohesion, and much more besides".

### 3. Dimensions of Brand of Nation

Places are also people, with their cultures, historical heritage, psycho-sociological characteristics, relations between of them and opportunities. There are many dimensions of places for consumer. He could be there, spend the time, see the attractions, make the interest, meet somebody, buy something and build something. A nation brand has been defined as "the unique multi-dimensional blend of elements that provide the nation with grounded differentiation and relevance for all of its target audiences" (Dinnie, 2008, p. 16).

Nation branding consists of five main aspects, through which it can be controlled and maintained. First of all is tourism, which is the most influential to build a positive image and economic growth. Nations can create their positive image to tourists by promotion, but negative images have trouble attracting tourists and it is difficult to change in an opposite way. Touristic country is frequently most distinguished image of country and national brand. Important international trademarks are presented in tourist market.

Second one is an export of goods and services, which build a strong image of country as an important economic actor on the international level. Branded exports are one of the most effective ways of nation's image and competitive advantage building. Developing nations have been considered as weak exporters and underdeveloped economies. It does not add the positive value to the process of creating strong brand of a nation.

Third factor depends on investments. The positive image of the country is created by its possibility to formulate the legal regulations, which are useful to attract direct external investments and investors. Innovations, country and firms expenses in the field of research and development, creative and scientific potential of nation is one of the most important factors for investor's choice on the international level.

Governance and nation presence on the international level depends on political and diplomatic relations with other countries. Anholt focuses on possibilities of international and domestic influence through political leaders and their idea of good governance. He formulated first edition of GMI Nation Brands Index. This ranking presented Sweden (and more general Scandinavian countries) as a pattern of good governance on the international level. International influence, internal persuasion about good governance, honesty and moral impact to exercise of power, properties of self-governance, intellectual capital of politicians from a country make a huge impact on the positive image of a country.

Next factor is people, their hospitality, openness and communicative abilities, values system, what is the property of human and socio-cultural capital of actors, its identity. Positive image of nation is important factor. S. Anholt also underlines, that normal citizen should be an ambassador of their place of origin, should present to the others its potential to changes and to have an open

view about the possibilities. National character is one of dimensions of national brand and its feature.

Last factors are culture and heritage. They are historically determined, accepted in the environment and deciding about national brand identity. Culture creates more and more frequently most of new jobs, which replace nowadays not so significant in comparison to the role of services industrial labour market, decreased by process of delocalization of investments to the cheapest countries as China, India, Brazil, Poland. Strong culture could be presented in mass media by world known media stars, mostly in the domain of music, films, books, internet culture. Very important in this domain are most popular sports and its most famous stars as football, tennis, ski, basketball etc.

Mihailovich (2006), author of very interesting notion of kinship branding, in his investigations concerning nation branding is describing the competition on the global level. The citizens and countries which want to compete effectively in more and more globalized world must fight at the market. Countries have to upgrade and 'up brand' these images and to guarantee that they become and remain as fair, as true, as complete and as useful to their aims as the marketplace is prepared to accept. I could add to this concept, that the position of global products guarantee by global companies as global trademarks is most important in this domain.

#### **4. Branding of Nation – internal and external factors and features**

The concept of branding was associated traditionally with companies and their products or services. Nowadays the concept is using to the description of reputation of nations. It is a somewhat new way of looking at a nation, but every nation is already a brand as it is perceived in the minds of people living elsewhere, at least those people who are aware of its existence. Nation branding may be defined as "the way a nation is perceived by its audience" and improving aim and program of building a nation's reputation in the eyes of the rest of the world (Source Watch, 2007). This program emphasizes two principal elements, internal in the eyes of inhabitants and external in the eyes of members other nations. Sometimes we have a problem, how to counterpoint negative stereotypes or depreciating opinions. Branding is a process, sometimes taking long time and demanding patience. Shaping of image of a nation in the framework of branding program demands also from its internal and external actors the change of awareness. Deep changes in this area are very rare, but stereotypes have own durability and internal logic.

Image of a nation is frequently not clear, mixed. Nations *long durée* tradition and history, different periods create different stereotypes and images, eg. present identity of Germany it doesn't matter to its nazi period of history, Russian present image was much better, but imperial past has been remembered soon to Russia after recent invasion in Crimea and Ukraine. Factors of nation's image are emotionally featured. This emotional effect plays an important role not only in common stereotypes, but in the framework of relation to image of nation. Nation's brand could not be formulated in opposition to this emotional characteristic, but there are no rapid changes in awareness of other country citizens. Cold or hot emotional image of nation for marketers of place make a basic difference. Hospitality is one of most expected properties with positive emotional addition in place and tourist marketing. Some countries are more known than the others because of political or economic position in the world, as their brand is stronger than of the others. Mass-media time for these countries is an advantage and added value from the point of view of steps necessities to establish of strong brand of nation and country. Attributes and perception are two most important properties of brand. One of common persuasion about brand tell us, that brand is a promise, which is verified every day in situation of normal relationships and survive of nations in the contemporary world.

Strong brand of nation is based on a the important events in the domain of politics, sports or culture. From marketing point of view the image of nation and its brand the international events

enforce identification of nation at the international level and its image as an active member at the global scale. International significance of organized events creates capital of a brand. Nation as a brand has own socio-cultural and political capital. Its significance on the international level depends also on the position at the international mass-media market. Political meaning of brand depends on activity of an country in international organizations, which make possible to be a decision maker. Nation is represented by state. If it is an active member of international community the potential of building strong brand of nation significantly increases. Very important is the international position of language in the world of international institutional and mass-media level, eg. evident domination of English language in the world. Media and communication process build the position of nation at the international level. The determination of nation brand depends on position of national media on the international level. This position can help to create the positive image and strong identification with a nation brand. This identification focuses at the base of positive image of nation as modern civil society.

Nation's image building process mostly depends on positive image of democratic state, which is natural environment of nation's image building and the framework to organize this process. Resolved internal problems and an advancement in process of building democracy and civil society build a capital of brand outside. When a state is a global actor supporting this democratic process its position in the world is growing up. Contemporary dominant value in the structure of relationship between of states as global actors of nations building image process are human rights, democracy, civil society, active citizenship, but also good economy. The image of dictatorship states is contradictory. Nation image and position of Burma or North Correa is strongly negative, Belarus and Iran weak and contradictory. Weak nation brand is frequently depending on lack of toleration for minorities existing in the state and its economic and civil society's practice progress.

In the summary of this factors of nation's brand building process, we could underline that this is a holistic process from the point of view of theory and practice. It involves many elements and factors as a whole process. The difficulties and contradictions are involved into a logical matrix of this process. There are internal and external in the framework of current political conjuncture, dominating values, social harmony and contradictions, economic factors, civilizational process.

The value of building nation brand in the eyes of eminent authors like S. Anholt, Ph. Kotler, K. Dimmie and others bases on concept, that positive brand for a nation is obvious and includes the following elements:

1. Attraction of inbound investment
2. Attraction of inbound tourism
3. Credibility and confidence by investors
4. Increase of political influence internally (national) and externally (multinational)
5. Better and productive global partnerships with other countries
6. Nation pride: ability to focus local harmony, confidence and resolve. (Kotler, 2008, Mugobo and Ukpere, 2006)

This proposition of most distinctive authors is too narrow from presented in this paper point of view. My proposition is focused on more holistic point of view, because nation's brand capital process building is more complicated than attracting investors, tourists, and confidence and pride of nation from successes and international position. Image of nation is problematic and delicate problem, and may be very contradictory eg. peripheral nations are very weak, when significant structural processes in the world don't involve those nations or significant mass-media and opinions creators aren't interested by situation of this nation or state. Problems of civil society building and state's position building are crucial from a point of view of creation of stable inflow of capital, which is associated to nation's brand building process. Nation as a brand is not a product, but specific mega-product, because of system of values and identity attributes, which characterizes of every nation. Nation brand building is a process of creation positive image in multidimensional reality of modern world. This process is presented in modern literature particularly from economic and marketing point of view. Holistic presentation of this process try to explore

sociological concept of national identity and national system of values, similar to Max Weber's (1994) concept of religious origins of capitalism.

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## DYNAMICS AND LEVEL OF DEVELOPMENT OF THE TOURISM SECTOR IN THE REPUBLIC OF MACEDONIA IN CONDITIONS OF TRANSITION AND MARKET ECONOMY

Dejan ILIEV<sup>178</sup>, Risto MIJALOV<sup>179</sup>, Goran KITEVSKI<sup>180</sup>

### Abstract

*After the 1991 there's a period of development of the Republic of Macedonia on the principles of market economy. It is a period of economic transition and structural reforms in all spheres of the economic system and creation of a new integrated market economic system.*

*Tourism, as part of the economic system of the country is evolving in a market conditions, and vast majority of the tourism organizations and enterprises (hotel accommodations, restaurants and other catering and accommodation facilities) are restructured from social to private enterprises; new hotels and other accommodation facilities were built but in most, they are smaller and most of the family business character. It is a very complex and unstable period which brings new changes in the development of the tourism industry, which contributed to the changes in the social sphere (reduction of employment, reduction of the actual amount of salaries etc,...).*

*Therefore, the main objective of this research is to present the dynamics and degree of development of the tourism industry in the country in terms of market economy and the problems and perspectives in the development.*

**Keywords:** *economy, tourist sector, tourist revenue, GDP, employment*

### 1. Economic system oriented to a free market economy

The main and most important feature of the new economic system of the Republic of Macedonia is the introduction of the market economy and all forms of ownership. Social ownership continued to exist until the process of transformation in the private, public or mixed ownership was over. This period in which the state was found proved to be quite complex, laborious and unstable, which is a feature of almost most former socialist countries that succumbed to the transition process.

The period after the independence of the Republic of Macedonia brought new changes and downs in the economy of the country, which led to changes in the social sphere.

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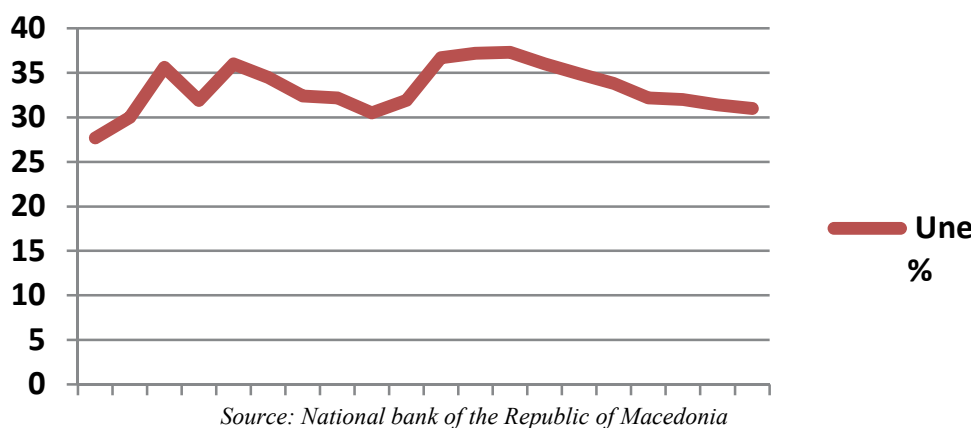
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**Figure 1. GDP real growth rates %**

Source: State Statistical office of the Republic of Macedonia,  
Statistical yearbook of the Republic of Macedonia, 2002, 2013.

In this context, strictly difficult problems that emerged in the social sphere should be underlined, such as: lowering of the standard of living, reducing the actual amount of wages impoverishment a large portion of population in the new social stratification, high unemployment rate and growing the same, a lot of retired people compared to working contingent of the population in the country and so on.

**Figure 2. The high unemployment rate of the Republic of Macedonia**

Source: National bank of the Republic of Macedonia

The shifts in the labor market during the development period of the country after independence largely comply with the dynamics of economic activity during the period. The high unemployment rate in the state is present throughout the entire period after the independence of the country, with a tendency to decrease in recent years. (Figure 1)

Economic performance measured by the growth rate of the gross domestic product of 6.1% and 5.0% in 2007 and 2008 are the best so far in the development period of the country. (Figure 1). Such growth rates of GDP have enabled Macedonia to join the group of advanced transition countries to accelerate the process of converging in the European Union.

However, in 2009 followed a period of economic problems in the country caused by the wave of global economic crisis, so that the real rate of GDP was 0.9%. (Figure 1). After that period, followed period of economic recovery and the gradual stabilization of the national economy where the real growth rate of GDP ranges from 2.9% to 2.8% in 2010 and 2011. (Figure 1).

In the period after 1991 the main economic activity in the country's industry which in the GDB accounts for 49.82% in 1991 and 36.02% in 1995.

From the percentage share it is noted downward trend of the industry as a result of socio-economic transition reforms of the system, on the collapse of the overall economy (economic development until 1995 was characterized by negative economic rates, where the real rate of GDP in 1991 was - 6.2%, while in 1995 -1.1%) and reduction of the accumulative economy power. (Iliev, 2011, p.101).

The period after 2001 was a period of stabilization and growth of the Macedonian economy and its greater openness to world markets. That brought larger economic activity and investment, which can be observed from the dynamic growth of the GDP.

Under these conditions structural changes and transformations in the economy of the country occurred, this reduced the dominant share of the industry and agriculture, while the participation of services in the economy increased, a case that in practice is a model of development and structural directions that characterize highly developed market economies. (Iliev, 2011, pp.101-102).

*Figure 3. Structure of the economy, 2011*



*Source: State Statistical office of the Republic of Macedonia, Statistical yearbook of the Republic of Macedonia, 2013.*

Contribution to the growth of the economy in 2011 was distributed in multiple sectors of the national economy. So, with the largest contribution to GDP growth sectors were: manufacturing, wholesale and retail trade and agriculture, forestry and fishing. (Figure 3).

The level of development of the service sector is dependent on the achieved level of the socio-economic development of the country. The contribution of the service sector in the GDP of the Republic of Macedonia has a tendency to rise. Yet, the services sector still is far from the lead role in the recruitment and employment of the labor force in the country.

## **2. The place of tourism in the economic system of the country**

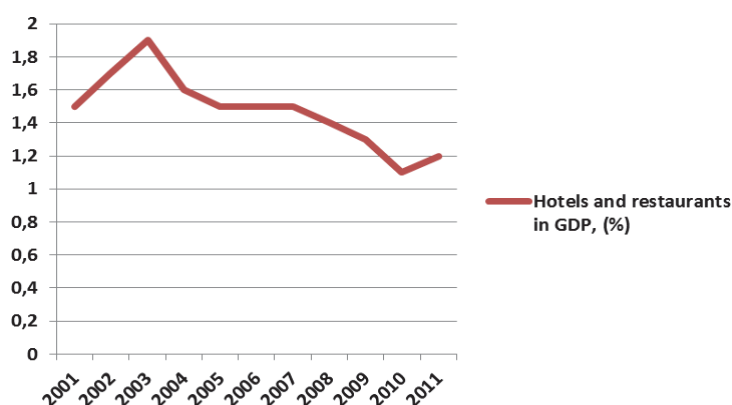
One of the most important functions of tourism is its economic function. Other very important economic functions are: multiplicative, inductance, conversive, impact in the balance in the money relations and function of tourism in the growth in international economic exchange. (Todorov et al., 1990).

The lack of data available for the tourism sector means heavy limit for more serious analytical approach in the research of the real economic value of tourism in the economy of the country.

Existing sectoral categorization and data provided by the *State Statistical Office of the Republic of Macedonia*, as the official and most reliable source of the value of tourism in the country's economy is incomplete and insufficient in the attempt to feel the true spirit of the tourism sector in the economy.

The available data provide an opportunity to use the parameters that are easy to identify the values of the hotel and restaurant industry as the only representatives and replacement of total tourism sector in the country.

**Figure 4.** *Hotels and restaurants in GDP, (%)*



Source: *State Statistical office of the Republic of Macedonia, Statistical yearbook of the Republic of Macedonia, 2005, 2008, 2010, 2011, 2012, 2013.*

The increase as a percentage of GDP in terms of turnover in the hotel and restaurant sector in most of the analyzed period is static with a tendency to decrease. (*Figure 4*).

Other products and services used by the tourists as: traffic transport, travel agencies, services trade and crafts, and other telecommunications services., are not calculated in the tourism sector by the *State Statistical Office of the Republic of Macedonia*, but in other categories in the structure of the national GDP. Therefore, it is considered today the share of tourism in the national GDP is larger, and instead of 1.2% of GDP is assumed that it is around 2% of GDP.

According to some international standards and assessments, each share of economic activity from 2% in GDP is a indicator which indicates that it represents stimulant to the economic development, but it is not the carrier in the total development activity.

Analysis and evaluation of relevant indicators for determination of the level of development of the tourism sector in the Republic of Macedonia

### **3. Analysis and evaluation of relevant indicators for determination of the level of development of the tourism sector in the Republic of Macedonia**

To present situation, physical and financial indicators are used to determine dynamics and level of development of the tourism sector in the country. The most important physical indicators that express tourism development are the tourism and hospitality operations.

#### **3.1. Tourism and hospitality turnover**

Tourist turnover implies spatial determinant, and economic effects that arise as a consequence of consumption and certain other services in the objects and capacities for the tourists stay, transportation services, etc.

Is expressed in form of physical and financial volume. The physical volume is expressed of mass tourist clientele of a place, county, state, etc... (Iliev, 2010). In order to present the physical volume of tourist turnover, two main indicators are used: the number of tourist arrivals and the number of tourist overnights.

**Table 1.** *Number of tourists and number of nights spent (1991-2011)*

Year	Number of tourists			Number of nights spent		
	total	domestic	foreign	total	domestic	foreign
<b>1991</b>	710 278	415 955	294 323	2 740 484	2 164 146	576 338
<b>1995</b>	503 837	356 830	147 077	1 804 310	1 528 561	275 749
<b>2001</b>	333 308	234 362	98 946	1 254 582	1 041 831	212 751
<b>2005</b>	509 706	312 490	197 216	1 970 041	1 527 053	442 988
<b>2011</b>	647 568	320 097	327 471	2 173 034	1 417 868	755 166

*Source: State Statistical office of the Republic of Macedonia, Tourism in the Republic of Macedonia 2008-2012, Statistical review: Transport, tourism and other services, Skopje, June 2013.*

The tourism turnover in the period 1991-2011 was characterized by oscillations in the development. So, from 1991-2001, at the tourist turnover emerges trend of steady declining. In 2001, the lowest tourist turnover was registered (333,308 tourist arrivals and 1,254,582 overnights of tourists), compared to 1987, the most successful year in the tourism development in the Republic of Macedonia, which represents a decrease of 3.5 times of the tourist arrivals and 3.2 times in terms of nights spent by tourists.

Overall, the period 1991-2001 was characterized as relatively bad period in the development of tourism in the country, in which the domestic tourism had the principal place.

There are some reasons for this condition, some of them more significant: there is a strong competition and the international tourist market, unfinished privatization and categorization of objects of tourist offer, inadequate for international tourism market and still incomplete content of tourist offer as inadequate and modest tourist propaganda and presentation of all tourist values of the country in the international tourism market, tourism and catering facilities relatively slowly taking experiences from around the world standards of quality and hygiene services, underdeveloped and unstable economy with slow implementation of economic reforms, high unemployment and low living standards of the population, unfavorable political and security situation in our environment and the Balkans, the Republic of Macedonia marked the unsafe tourist destination and so on. (Bojadjieska and Vekikj, 2001).

But the post-2001 was a period of political stabilization and Euro-Atlantic integration of Macedonia, and it reflected on the development of tourism through gradually increasing tourist trade. Membership of the Republic of Macedonia in the European Union will allow greater openness, competitiveness and integration of the economy, and thus greater liberalization and intensive development of tourism and its contribution to increased economic growth and development of the country. (Iliev, 2010).

Tourism as an economic sector and massive movement of population have tightest bounds with the traffic, but in terms of all economic indicators, is closely related to hospitality.

**Table 2.** General development overview of catering trade and services (1991-2011)

Year	Catering trade and services			
	Number of catering business units	Beds in catering trade and services, private rooms and vacation facilities	Seats	Beds
1991	3 663	80 296	163 703	80 296
1995	2 543	78 913	133 431	78 913
2001	1 772	74 130	128 274	74 130
2005	2 190	72 637	131 379	72 637
2011	1 950	69 737	117 006	69 737

Source: State Statistical office of the Republic of Macedonia,  
Statistical yearbook of the Republic of Macedonia, 2013.

In the catering trade in the period 1991-2011 some changes in the development and decline were evident. The reasons for the decline in the development of hospitality should be seen in the realized tourist trade after 1991, which is characterized by relatively lower achievements. Also, after 1991, the Republic of Macedonia obtained the status of an independent and sovereign state, which develops in the hospitality market conditions.

In such conditions, the hotels and restaurants that prior to 1991 were in public ownership were transformed into private enterprises, part of them closed, but new, smaller scale family type hotels were built. Also, during the time of transition, Macedonia had a limited presence of international hotel brands (except Holiday Inn and Best Western), and the lack of big international brands decreased the ability to attract foreign tourists, and the opportunity for presentation and implementation of the western standards and technology that can be applied in domestic hotels and other accommodation facilities.

Constraint was the lack of quality hotel accommodation from middle and upper class outside Skopje, Ohrid, Struga and Mavrovo. The lack of high-class hotels was also compounded with overestimated categorization of objects that did not corresponded to the actual standards. One of the biggest problems was the “gray accommodation“, where most of the facilities for private accommodation did not registered their tourists, and with that, they avoided paying the tourist tax which was not in favor of the municipalities and the state as significant financial resources needed for investment in tourism infrastructure in the country were not acquired.

But today, the accommodation particularly in the area of hotel accommodation, marks significant progress in the quality of services, especially with the conducted categorization (Ministry of Economy of the Republic of Macedonia, Department of Tourism, 31.12.2013 ) according to which, the number of superior five-star hotel is 2, the number of five-star hotel is 11; number of superior four-star hotel is 1, the number of four-star hotel is 36; hotels with three-stars are 60, with two superior stars are 3 hotels, two stars hotels are 52; and with a one-star, there are 39 hotels.

The entrance of several well-known hotel brands like Marriott and Hilton (the stage of investment and construction) was also enabled. The presence of international hotel brands provides confidence in the general quality of accommodation offered by the country that can contribute to the country's advertising and attracting new investors in this sector.

### 3.2. Tourism revenues

In the group of financial indicators which expresses tourism development, the most important point is the realized earnings from tourism. It is an essential image for the successful operation in the tourism sector. The impact of foreign exchange income especially has positive reflects on

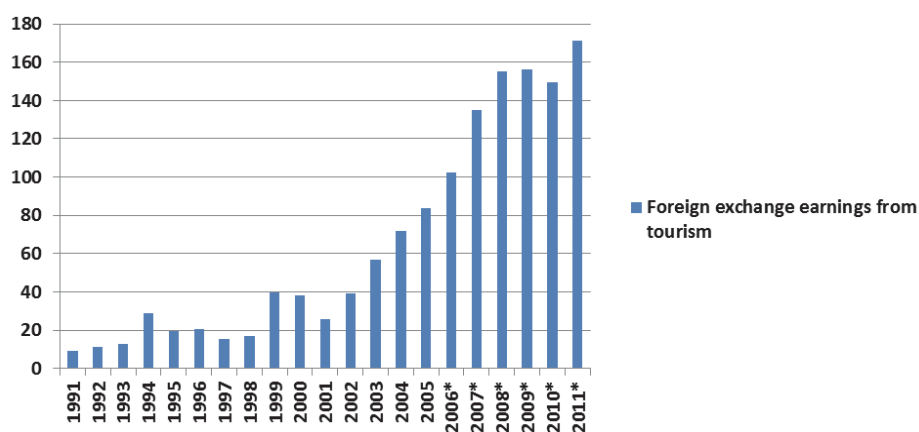
economically underdeveloped and developing countries like the Republic of Macedonia, characterized by a large deficit in the balance of payments and unfavorable trade. Because our country has unconvertible currency, the necessity of foreign assets is highly significant, and it can be achieved through intensive fostering of the development of foreign tourism. (Iliev, 2010, p.160).

To determining exchange income from foreign tourists, registered foreign currency payments of foreign persons which in most are considered to be foreign tourists are used, but also the transactions of Macedonian citizens living in the Diaspora who sent or pay out in foreign currencies in the Republic Macedonia in a goals which are not related to tourism.

The importance of tourism in economic activity in the Republic of Macedonia can be analyzed and seen through foreign exchange inflows from tourism services offered to foreign visitors.

The period after 1991, in terms of foreign exchange earnings from tourism is characterized as a very unstable period with stagnation and cuts in income. (*Figure 5*). The main reason appears to be the reduced number of visits and overnight stays of foreign tourists due to the restrictions mentioned, but also those related to the unprofessional and poor quality work of employees in the tourism sector, as well as frivolous and inferior attitude of the state towards this activity in that period.

**Figure 5.** Foreign exchange earnings from tourism (in million USD);  
(\* – in million EUR)

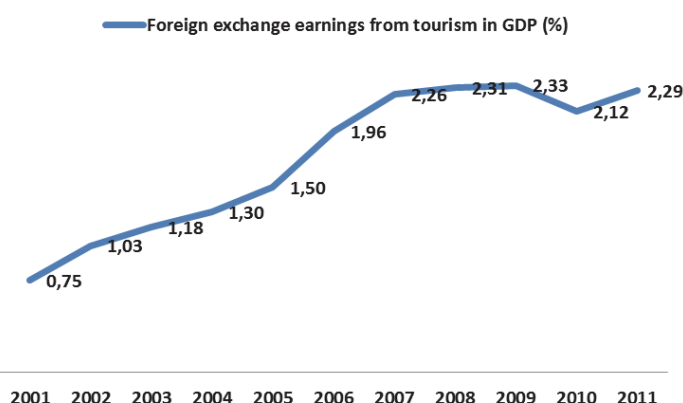


Source: National bank of the Republic of Macedonia

But, in the period after 2001, the inflows from tourism are constantly evolving and becoming important, like in 2006, when they exceeded 100 million, while in 2011 it reached its peak of 171.2 million euros. (*Figure 5*). In order to get a full picture of the extent of foreign exchange inflows from tourism, it should be noted that in 2011 they amounted to 21.2% of the total flow of services and 5.3% of exports of goods.

In the period after 2001, an increase in the share of foreign currency receipts from tourism in GDP is marked. The share of the proceeds of tourism in the GDP is increased by 3 times in 2011 compared to 2001. (*Figure 6*). This situation suggests that in the future, there is great potential to increase the effects of tourism in the economic activity of the Republic of Macedonia.



**Figure 6.** *Foreign exchange earnings from tourism in GDP (%)*

Source: 1. State Statistical office of the Republic of Macedonia,  
Statistical yearbook of the Republic of Macedonia, 2013. 2. National bank of the Republic of Macedonia

### 3.3. *The importance of tourism to the development of the country*

Tourism is an important activity for many countries in the world, and in this case for Macedonia, because of the revenues generated by the tourism consumption of products and services that further reflect the national GDP and balance of payments, the taxes that are collected from tourism sector, as well as the employment opportunities in this sector.

The restructuring of the country's economy and the lack of major investments are the two most important factors that caused the decline in global demand and didn't allow new jobs to be created in the first years of independence.

Today, in these conditions in the country, where the unemployment rate is 31% (2012), tourism can occur as labor-intensive branch because in this sector, the working hand still has the main role. In fact, the tourism sector is important in terms of creating new jobs and reducing unemployment in the country.

The lack of official statistics on the number of employees in travel agencies, tourist tour-operators and other entities means limit - factor for determining the actual number of employees in the tourism sector, because official statistics state only provides data on the number of employees in the sector of hotels and restaurants.

**Table 3.** *Total employees and employees by section accommodation and food service activities*

Year	Employees		Structure (%)	
	Total	Accommodation and food service activities	Total	Accommodation and food service activities
2001	297780	5712	100	1.9
2002	279854	4472	100	1.6
2003	267545	4422	100	1.6
2004	411723	11905	100	2.9
2005	411031	12892	100	3.1
2006	418192	13040	100	3.1
2007	434041	13040	100	3.0
2008	434858	13265	100	3.0
2009	426252	13668	100	3.2
2010	435524	13371	100	3.1
2011	458873	16267	100	3.5
2012	474398	18359	100	3.9

Source: State Statistical office of the Republic of Macedonia,  
Statistical yearbook of the Republic of Macedonia, 2002, 2005, 2008, 2010, 2011, 2012, 2013.

The number of employees in the hotel and restaurant sector grew by 3.2 times in 2012 compared to 2001. Another feature is that employment growth in tourism is a greater intensity of total employment in the country (3.9% of total employment in 2012). (Table 2). Although the percentage of representation looks modest, however, compared to some of the surrounding countries, tourism in the country provides a greater contribution to the total number of employees.

If we take into account the jobs that are not included in this sector, together with the unregistered employment (gray economy), it is assumed that the number will increase by at least 40%, and with that, the number of informal workers in the tourism sector accounts for 30,000 persons. On the other hand, the *Hotel Association of Macedonia (HOTAM)* claims that the total number of employees in hotels and restaurants sector amounted to 50,000, of which 20,000 are official employees, but additional 15,000 are undocumented workers (most of them full-time) and 15,000 casual (occasional free workers) are active as tourist workers. (*National strategy for development of tourism in the Republic of Macedonia, 2009-2013, p.125*). Solving the issue of informal tourist economy is of great importance in order to express the true value of the tourism sector in the recruitment and employment of labor.

Tourism other than its direct impact on the economy and the growth of GDP, creating jobs, etc., have also indirect effects on the economy, and impact on the development of certain economic activities such as agriculture, industry, construction, transport, trade, crafts and more.

In fact, tourism stimulates the growth of primary, secondary and tertiary sector, i.e. process known as the multiplier effect which is an indicator of how many times the money spent by tourists circulate in the economy of the country. So far, in our country there are no specific research and analysis in order to determine the value of multiplicative impact of tourism in the economy of the state, but considering the weak inter connection and the trade deficit, it is not expected values of the multiplicative effect to be large.

Tourism appears as a factor for development of underdeveloped areas and regions of the country, and as such are: rural areas, villages in mountainous areas and areas close to the border. In terms of economic limitations of these areas, tourism stands out as an alternative

development branch which has a great impact on the socio-economic processes, particularly through the opportunities for engaging of the insufficient manpower.

#### 4. Conclusion

From the preceding analysis and results, it can be concluded course of movement and the level of development of the tourism sector in the country. In terms of transition and market economy, the development of the tourism sector in the country has seen fluctuations in development.

The tourism turnover since the country's independence is steadily decreasing, but to a certain period of its development. All this is accompanied by transformations in the structure of the tourism turnover, especially in the structure of the turnover realized by foreign tourists.

But, as a reason for reduction of the tourism turnover the fall of the Macedonian economy and the reduced standard of living of the population is considered, especially with the impact on reducing domestic tourist turnover.

The reduction of the tourist turnover reflects upon on the low usage and operation of accommodation and catering facilities, reducing of the transport and trade services etc., Or the increased losses at the total tourism sector remains with negative impact on the national economy and the growth of GDP.

The period after 2001, brings stabilization of the national economy and the gradual growth of GDP, new results in the field of realized tourism turnover and development of the tourism sector or economy produces more developed tourism. Domestic and foreign tourist traffic in the country is rapidly expanding, balancing are the increased participation rate of foreign income in the national GDP (2,29%), generating new jobs ( 3.9 % of total employment in the country ), contributing to the reduction of the high unemployment in the country.

Overall, the level of development of the tourism sector depends on the level of development of the overall economy of the state, and the development of state policy and the encouragement of certain economic development activities in which the tourism is placed in order. Today, if we take global trends in consideration, the Republic of Macedonia has a real opportunity to intensify the development of the tourism sector, and to increase its share in the national economy, greater engagement with the evaluation of the comparative advantages and potentials for tourism development.

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## ENTREPRENEURIAL LEADERSHIP IN A BUSINESS CLUSTER

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### Abstract

*The article presents a business cluster as a form of organisation created by specialised entities of the sector of business, science, public administration and NGO, which function in close vicinity and which are connected by vertical and horizontal relations basing on cooperation and competition, mutual values and aims. According to M. Porter, a cluster is a form of network that occurs within a geographical location, in which the proximity of firms and institutions ensures certain forms of commonality and increases the frequency and impact of interactions (Glävan, 2008, p. 52). Presently, many economists argue that the concept of clusters exceeds geographical proximity as it emphasises the relationships and social ties among the actors in the cluster population (Hansen and Clasen, 2010, p. 9). B. Glävan emphasises that a cluster represent a form of industrial organisation since it results from entrepreneurs' incessant attempt to arrange the structure of production so as to fulfil the demands of the consumers to the greatest possible extent (Glävan, 2008, p. 54). The literature review indicates a long list of the key factors causing the emergence and development of clusters: economies of scale and of scope, transport costs (inputs and outputs), transaction and sourcing costs, availability of production factors and/or components in a specific location, knowledge, information and technological spillovers, innovation development, trust, social capital, cooperation between companies or between suppliers and buyers, and the reduction in uncertainty (Cuervo-Garcia and Montoro-Sanchez, 2005, p. 193). It is commonly assumed that the cluster development is a long-term process which is based on the mobilisation of key stakeholders in the community, local or regional territory (Tremblay, 2006, p. 1). Due to the fact that the nature of the majority of contemporary clusters is multi-sectoral and that they function in a turbulent environment, it has been emphasised that the dynamics of the development of these organisations depends mainly on entrepreneurial leadership.*

*Owing to a variety of the interpretations of the notion of leadership, it has been assumed that it is orientated towards both – efficient implementations of the aims as well as sustaining the stability of organisations' functioning. While analysing the theoretical and practical dimensions of leadership in a cluster, the attributes of entrepreneurial leaders, the role of a leader and a cluster manager, it has been acknowledged that a cluster manager should combine the features of both – a manager and a leader. This person has to maintain a high level of engagement, so as the further development and the growth of a cluster was possible. Concurrently, it was also indicated that an integral element of strategic competence of a cluster leader is the ability to effectively anticipate changes in a turbulent environment and anticipate behaviour, including the openness and flexibility to changes which will be made in the future. In this context, there was determined the significance of knowledge, experience as well as creativity and intuition of leaders in the process of winning favours of various stakeholders, perceiving and using opportunities as well as developing and effectively implementing changes within projects.*

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*Basing on the results of theoretical and empirical studies, it was stated that the value of a cluster leader is the derivative of his/her: knowledge and experience, trust, reliability and respect, decision making efficiency, ability to communicate assertively, inspire and motivate cluster members to constant value creation, and also to implement common missions and the vision of development. Moreover, it has been stated that efficient cluster management, including efficient leadership, creates a well organised and motivated team of cluster members who show an ability to realise common projects oriented towards strengthening the competitiveness of a cluster.*

**Keywords:** cluster, management, leadership, entrepreneurship, development, competitiveness

## 1. Introduction

In the processes of managing contemporary organisations (often, complex ones and the ones with complicated configurations) there is an increasing demand for the leaders who would lead them to the realisation of even complex objectives. Presently, more and more frequently, being a traditionally understood director or a manager proves to be insufficient. There is a need for entrepreneurial, charismatic, visionary, transformational leaders, who, placed in a position of social trust and responsibly creating relationships with subordinates, are capable of “attracting crowds”, activating a great deal of social energy lying in human capital, and, owing to that, attaining even very complex objectives in more and more complicated environment. An entrepreneurial leader, owing to their attitude, is also able to encourage others to increase their activity and engagement in the accomplishment of tasks. It is conducive to the involvement of other people as well as the morale of the team, the atmosphere within it, the attitudes employees adopt towards their work, and subsequently, the effectiveness of individuals, groups and the entire organisation.

The subject under discussion of the paper is entrepreneurial leadership and its significance in contemporary management processes. What was analysed minutely were the cluster structures and the role of entrepreneurial managers and leaders in their functioning. The emphasis was also put on the fact that the turbulent character of the environment causes that the competitiveness of various kinds of structures, including clusters, is becoming more and more dependent on effective entrepreneurial leadership.

## 2. Methodology

The basis for the theoretical part of the present article encompasses the theoretical research on the literature on the subject. It enabled learning the analysed fragment of reality (the problem of leadership in clusters), gathering the theoretical knowledge concerning the issue under discussion, the formulation of conclusion and showing the tendency within the area in question. For the purpose of this paper there has been conducted exploratory and verification research. It aimed to identify the problem of leadership, comprehend the significance of this phenomenon and determine the scope of the data necessary for further empirical verification. The verification research aimed to identify the feature of efficient, entrepreneurial leadership and the influence of leadership on the development of contemporary organisations of cluster type.

Theoretical consideration regarding the significance of effective, entrepreneurial leaders for the functioning of contemporary cluster structures has been supported with the analysis of empirical research concerning leadership in clusters, which was conducted in 2010 and 2012 by the Polish Agency for Enterprise Development (PARP) based in Warsaw. This research was based on a methodology prepared especially for this purpose in 2008 (and modified in 2010) by PARP. Initially 250 organisations that defined its activity as clusters qualified for the research. Only a 35



clusters functioning in Poland qualified for the final stage of benchmarking research. The data achieved from the research of every cluster comprised inter alia (Hołub-Iwan, 2012, p. 14):

- cluster characteristics, comprising the following aspects: sector of operation, management structure, development types and phases, external projects and objectives,
- cluster benchmarking – a set of questions designed to assess the processes performed in clusters, resources available stemming from cluster cooperative agreements, performance and prospects of the development of individual initiatives.

During the course of the above mentioned research, there were applied the following methods and techniques of social research (Hołub-Iwan, 2012, p. 15):

- questionnaire-based (standardised) interviews,
- desk research (analysis of secondary sources such as: web pages, promotional materials, documents prepared for clusters and cluster policy at a regional and central level, etc.),
- direct observation, done by the experts who met cluster coordinators and leaders.

Basing on the empirical research conducted by PARP, in the paper the theoretical consideration on the problem of leadership has been confronted with the practice of Polish clusters' management, the results of which have been presented in the present paper.

### **3. The nature and the significance of leadership**

In many cases, researchers argue that contemporary leadership literature places modest consideration on the importance of the social foundation of leadership, specifically how social and cultural context impact leadership (Adams, 2013, p. 92). Leadership is a term that is difficult to define in theory as well as in practice (Greenberg, 2011, p. 447)<sup>183</sup>. Incontrovertibly, it is a specific relationship between a superior and their subordinates that ensues mainly from informal sources of power (such as: knowledge, skills, competences, personality and charisma), which condition the manner a leader exercises their power. It is a skill of influencing people, encouraging them to realise attractive visions of the future; it is an ability to rally supporters, activate human capital and use it in the fulfilment process of even very complicated and complex objectives. It is also 'a set of processes applied in order to make the members of contemporary organisations cooperate more effectively in a sense of common aims and values' (*Cluster Benchmarking in Poland*, 2010, pp. 152-159, Hołub-Iwan, 2012, p. 131). According to J. Greenberg (2011, p. 447-448), leadership:

- is not based on coercion; it bases on the voluntariness of subordination,
- is orientated towards strictly determined objectives, which ensue from the vision of the future formulated by a leader,
- requires supporters (followers) realising the formulated visions.

E. O'Leary (2000, p. 13), basing on the analysis of a number of various definitions of the term of leadership, distinguished a range of common aspects, which – in her opinion – regard the fact that:

- a leader is appointed the head of a group, a team or an organisation,
- a leader is a charismatic person, who is able to make good decisions and inspire others to reach a common goal,

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<sup>183</sup> Explaining the problems with defying *leadership*, J. Greenberg compares it to love – the majority of people think that they know what this notion means, but they are not able to describe or explain it precisely.

- leadership is the power to communicate assertively and inspire others,
- leadership is the ability to influence others,
- leadership involves more than one person.

Leadership is a significant resource for contemporary organisations, which contributes to the achievement of success. It is a set of processes used in order to make the members of an organisation cooperate more effectively as regards common aims and values. A leader may act very effectively owing to the fact that this is a person who is trusted, accepted, who can inspire respect and influence people's behaviour, despite the fact that leaders do not refer to their position; they do not use power, intimidate or use negative incentives to motivate employees.

In order to better understand leadership, one frequently refers to the role or functions performed by managers in organisations. Leadership may be treated as a form of management work, though, far more serious and ambitious than traditional management. The advantage of a leader is based more on respect than power; it does not ensue (does not have to) from formal sources of advantage (a leader does not have to, for instance, occupy a higher position in the hierarchy of an organisation to have the power). The selected differences between the traditionally understood management and leadership are presented in Table 1.

*Table 1. Leaders versus Managers*

<b>Managers</b>	<b>Leaders</b>
<b>administer</b>	<b>innovate</b>
<b>focus on a system</b>	<b>focus on people</b>
<b>do things right</b>	<b>do the right things</b>
<b>care for maintaining the present level of organisation's development (accept the status quo)</b>	<b>care for the constant development of the organisation and the improvement of the present state (challenge the status quo)</b>
<b>rely on control</b>	<b>rely on reciprocal trust</b>
<b>take a short-term perspective</b>	<b>take a long-term perspective</b>
<b>react to the changes of the environment (follow them)</b>	<b>are ahead of the changes occurring in the environment (are able to anticipate them)</b>
<b>use mainly negative motivation instruments, based on negative incentives (the so-called coercive power)</b>	<b>use diversified motivation instruments, but prefer positive ones – based on positive incentives (the so-called reward power)</b>
<b>their influence on subordinates is unidirectional</b>	<b>their influence on subordinates is multidirectional</b>
<b>repeat the solutions of others'</b>	<b>base on their own, original solutions</b>

*Source: (Greenberg, 2011, p. 449).*

In spite of the fact that it is possible to indicate the differences between a leader and a manager, a distinct separation of the functions they perform in an organisation is very difficult and probably impossible to determine completely. It ensues from the fact that actually in practice, as a result of complex internal and external conditions of organisation's functioning, the roles of a manager and a leader mingle; they are complementary systems of influencing subordinates. Frequently, a leader is forced to act as a manager, take normal, standard, traditional and organised actions, and a manager, in certain situations, becomes a leader – forms and introduces their own or other person's (other leader's) innovative visions of the future, owing to that it is possible to take effective actions in the changing conditions of the environment. Hence, it should not be inferred that traditional management is wrong, ineffective and unsuccessful or that it should be replaced by leadership. Management and leadership should complement each other (they are not mutually exclusive) providing effective functioning of even complex organisations in a turbulent environment.

What also plays a very important role in contemporary leadership is entrepreneurship, which gives it a specific character. It refers to the creative potential lying in leaders themselves, but also

in their subordinates, which can substantially contribute to the increase in the effectiveness of the actions being undertaken.

#### 4. The characteristics of entrepreneurial leadership

Entrepreneurial leadership in the theory of management is a new area of theoretical considerations and empirical research. It is a combination of two aspects which are very significant in the functioning of contemporary organisations, namely – entrepreneurship and leadership. Entrepreneurial leadership may be defined as an ability of an entrepreneurial leader to anticipate the future, think strategically, be flexible and open to changes and diversify activity into new areas, which can become an attractive domain of the activity of enterprises, bringing them measurable benefits and becoming a source of their competitive advantage (Kuratko and Audretsch, 2009, pp. 1-17).

Entrepreneurial leadership combines the elements of an effective strategy, management and entrepreneurship in the process of managing an enterprise with enormous growth potential (Kuratko and Audretsch, 2009, p. 2). It is frequently called a transformational leadership, due to the fact that it is effective in very difficult, external crisis conditions (e.g., in the processes of socio-economic transformation), when a great involvement and dedication to the tasks (often very difficult) being undertaken is required from a leader and their followers. A proper (moral, basing on values) attitude of a transformational leader and their engagement in tasks realisation are conducive to the motivation of subordinates and ensure more effective realisation of the visions being formulated.

Entrepreneurial leadership consists in organising a group of people aiming to achieve a common goal, using proactive entrepreneurial behaviour by optimising risk, innovating to take advantage of opportunities, taking personal responsibility and managing change within a dynamic environment for the benefit of the organisation. It is effective use of the skills associated with successful individual entrepreneurs and their application within the environment of a larger organisation. This particularly means, within an organisation where those skills have been lost and replaced with a “corporate” mind-set that focuses on processes, systems and risk minimisation rather than entrepreneurial behaviour (Roebuck, 2011).

Although the analysis of entrepreneurship and leadership proves that they are two separate thinking constructs, one can also find significant common areas. According to M. A. Roomi and P. Harrison (2011, p. 4), these are: the vision of the future, the influence on other people, managing innovative and creative employees and planning future activities (with particular regard to the long-time perspective). L. Fernald also mentions: the solution of complicated problems, making difficult decisions, taking risk, taking strategic initiatives (Fernald, Solomon and Tarabishy, 2005, p. 2). According to the above mentioned authors, entrepreneurial leadership should be defined and analysed on the basis of these aspects. B.M. Bass and P. Steidlmeier (1999, pp. 181-217) argue that entrepreneurial, transformational leadership can be described with four characteristic types of behaviour (the so-called four ‘i’ of leadership). These are (Bass and Steidlmeier, 1999, pp. 187-190):

- *ideal influence* – it is an equivalent of charisma; subordinates perceive their superiors in an idealised way; they are able to devote a lot to them; they are involved in the realisation of the visions presented to them; they copy their behaviour, trust them completely; all these things cause that such a leader becomes a pattern to follow, has natural power over their subordinates, who are ready to realise even complicated aims;
- *ideal concern for an employee* – such a leader cares for their employees, supports them, praises, encourages to get involved, inspires, cares for their personal development, all these things are conducive to the creation of a proper intrapreneurial culture orientated towards employees’ proactive behaviour;

- *inspiring motivation* – reflected in the acceptance of an attractive vision of organisation's future state and passing it on to the subordinates; it signifies mutual trust, encouraging subordinates to activity; induces intrinsic motivation, owing to which employees care not only for their own interests but they are also able to realise even very difficult aims of individuals, groups as well as the entire organisation;
- *intellectual stimulation* – is reflected in encouraging subordinates to develop their ambitions, expand horizons, and seek new, unusual (also creative) ways of solving the problems they encounter; it is also visible in supporting them actively and helping them when necessary.

The research shows that entrepreneurial leadership is a dynamic process of presenting a vision, making commitment among followers and risk acceptance when facing opportunities that cause efficient use of available resources with respect to the leader's vision (Agbim, Oriarewo, and Owutuamor, 2013, pp. 68-70). Hence, entrepreneurial leadership activates subordinates' powerful, positive emotions, creates a specific atmosphere in an organisation contributing to the effective realisation of its aims. Moreover, it bounds employees with an organisation; they are loyal to the organisation, identify themselves with it, and they are able to devote a lot to its advantage. In this kind of relationship, appreciating the attitude of employees, a leader provides them with a certain margin of discretion. Owing to that, they become independent, responsible, and proud of the fact that they actively co-create their organisation, co-contribute to its management and take part in decisive processes.

## 5. The traits of an entrepreneurial leader

Leadership is frequently analysed through the prism of the traits and abilities ascribed to an individual, perceived and considered as a leader. A range of qualities, which should also characterise a person, can be enumerated. As the fundamental one the authors of the paper regard the ability to formulate attractive, credible and visionary scenarios of the future, the encouragement to their realisation and the coordination of their fulfilment – since leaders are activity-orientated. A very significant trait is also charisma, owing to which leaders possess a special gift that enables them to successfully influence others. Due to charisma, subordinates accept leader's propositions; their respect does not ensue from coercion – it is based on values and trust resulting from leader's knowledge, qualifications and experience. What also is not insignificant is the ability to build a creative team involved in the realisation of leader's entrepreneurial visions and to manage this team. Leadership bases on human resources, their aspirations, emotional and spiritual values.

K.B. Boal and R. Hooijberg (2001, pp. 515-549) clearly connect the results achieved by a given organisation with visionary leadership and leaders' competences such as cognitive abilities and social intelligence, which manifests itself, among others, in positive, emotional arousal of their subordinates (e.g., dedication, courage, pride, involvement, determination, sensitivity, etc.). Everything to make them completely engaged in the realisation of the aims proposed by a leader. According to E. O'Leary (2000, p. 14), the qualities of transformational leaders include: charisma, self-confidence, respect and loyalty, expressive praise, inspiration. Whereas J. Greenberg (2011, p. 452) adds to this set: vision, environmental sensitivity, intellectual stimulation, interpersonal consideration, morality.

Leaders should also be persistent, self-assured, and creative. Using their imagination, they tolerate uncertainty and equivocation; they are ready to take risk. They possess communicative skills, which facilitate enthusiastic transfer of the scenarios of the future that has been prepared; subsequently, these scenarios are accepted and realised by their followers (Ming-Huei, 2007, pp. 239-249). They clearly and distinctly communicate their visions to other people, afterwards, they

encourage to activity, motivate and inspire. They can focus subordinates' attention on the realisation of the objectives they determined. Furthermore, they are open for the suggestions formulated by co-workers. It is conducive to the creation of a specific culture of entrepreneurship characterised by an active attitude to the possibilities, openness to changes and the implementation of innovations. An entrepreneurial leader can also negotiate, or, when necessary – mediate. Owing to their knowledge and experience, they can effectively use the possibilities of introducing changes – manage the process of planning them as well as the process of their implementation.

Since trust is one of the fundamental values that are crucial in the process of leadership, a transformational leader should be transparent, ethical, and ought to have a proper moral profile. Such a leader manages their organisation through values, hence, the activities they undertake should: base on a firm moral foundation, be compliant with the generally adopted rules and principles and respect the needs, opinions and views of others.

Thus, the vision used by an entrepreneurial leader should base on values. Furthermore, it itself is a set of rights and rules, and a kind of moral imperative applied to effectively manage people and organisations, resolve conflicts and prevent contradictions. Moreover, an entrepreneurial leader takes responsibility for their actions, which must be more proactive than reactive. They think about achieving organisational outcomes in an innovative way and also working with a diverse group of people and resources to achieve these goals.

In the case of an entrepreneurial (strategic, transformational, revolutionary) leader, an important feature is also intuition, since, frequently, the decisions they make base on intuition rather than analyses and numbers. Intuition can considerably enhance the course of the processes being realised and increase the effectiveness of the decisions made by the leaders. It is assumed that the higher the management level, more complex environmental conditions and more complicated problems, the leaders base more on intuition. It ensues from the characteristics of the problems, their complexity, and atypicality – hence it is difficult then, to apply an algorithm or a scheme, to analyse potential possibilities of the activities being undertaken. In such a situation, experience and a specific – resulting from intuition – “sense”, “smell” of the market proves to be very helpful.

While analysing the features of an entrepreneurial leader, what is worth emphasising is the specific style of entrepreneurial leadership they apply, which results in risk-taking, activity and innovativeness (Ming-Huei, 2007, pp. 239-249). It is a combination of leaders' features of character, their attitude towards the reality and the functions they realise. It is a kind of management philosophy of such a person (a mixture of classical and contemporary management styles) permanently orientated towards people (towards agreement, cooperation, collaboration, partnership, trust), towards the creation of the conditions in which employees may display initiative and entrepreneurship (Merrill and Sedywick, 1995).

Owing to the fact that they possess a range of specific features, and due to the adopted management styles entrepreneurial leaders are able to manage an organisation effectively even in a turbulent environment. They can anticipate problems that can occur in the future, counteract them and solve more and more complicated and untypical problems. Taking care of the constant development of their organisations, they introduce innovative solutions, respond to the challenges of the environment and take advantage of the chances and opportunities. On the other hand, it has to be emphasised that, though an entrepreneurial leader should be perceived through the prism of their features, it is equally important (or even more important) to analyse their behaviour, which ensues from those features. It is mainly the prism of behaviour through which the effectiveness of leaders' activities is evaluated; they establish specific standards, form visions, but above all, realise them effectively (Roomi and Harrison, 2011, p. 5).



## 6. Entrepreneurship as a feature of leaders in a cluster

A cluster is a specific structure, a form of production organisation with high potential of innovativeness and entrepreneurship. It is one of the most mature and complex forms of innovative environment. According to M. Porter (1990), the author of the concept of clustering, it is a geographic agglomeration of mutually connected, specialised enterprises that operate in the related (economically-linked) sectors, which cooperate, but simultaneously compete with one another (this phenomenon is defined as *coopetition*) with a view of achieving various advantages, owing to the use of the synergy effect in the areas (industries, sectors) in which it is possible (Kuah, 2002, p. 209). Economic and social dimensions of the relationship in a cluster is also featured by P. Morosini (2004, p. 307). He indicates that it is a socio-economic arrangement, which characterises itself with the permanent co-existence and development of the community of people and market entities that function in their vicinity.

The persons that play a very significant role in effective functioning of cluster structures are their leaders. The process of leadership in a cluster is not only the ability to communicate assertively and inspire its members or the ability to influence them. It is also a process in which a properly formed vision of a cluster is being transferred by a charismatic person who uses internal and external relationships with a view of increasing communicativeness, competitiveness and effectiveness of this kind of structure (Hołub-Iwan, 2012, p. 131).

To lead a cluster in the right direction, the role of leaders should be performed by cluster managers (defined also as animators and coordinators – depending on the specificity of a cluster). It should be emphasised that, in spite of the fact that in their nature classical managers and leaders as a rule differ in terms of the function they perform, in the case of clusters, these differences are not so visible. The role of cluster managers is particularly significant. They combine management and leadership, and, therefore, they set ambitious goals, the ways of their realisation, and also stimulate and inspire structure members to an active participation in the tenacity to achieve those goals. It is them who, possessing the knowledge of the conditions of cluster functioning (also the specificity of a given sector), should concentrate very diverse and interested entities around the concept of clustering. Most frequently, it is their initiative that decides on the creation of a cluster; they also motivate entrepreneurs to operate actively and co-participate in decisive processes; they coordinate knowledge transfer among the participants of a network and integrate cluster members. Entrepreneurship of a cluster manager is reflected, *inter alia*, in:

- seizing and taking advantage (for the benefit of the cluster members) of the chances that other people do not perceive or underestimate,
- the determination in the endeavour to attain the objectives of the cluster members,
- providing a proper development dynamics to the structure,
- the formation and effective implementation of the strategy of cluster development,
- the implementation of marketing strategies that enhance cluster image and contribute to the strengthening of its position on the market,
- winning strategic partners (contractors, investors, trade partners), who strengthen cluster potential within a given area of the market,
- motivating cluster members to mutual cooperation and activity to gain advantage from the membership in the structure,
- effective fund raising, e.g., funds from EU programs that contribute to cluster development.

A cluster leader is a kind of mentor who motivate and actively support the realisation of various initiatives that are conducive to the improvement of the competitive position. They should enjoy respect; inspire trust of the entrepreneurs concentrated around the clustering concept as well as the external business partners, a wide range of various stakeholders.



A significant task of the leaders is to make cluster members realise that the effectiveness of this structure depends directly on the quality of their involvement in the common activities. Moreover, it becomes necessary to make right decisions that ensue from the needs of partners' integration within the cluster structure, and to further broaden its membership. It is worth emphasising that, as long as an entrepreneurial cluster leader is frequently, so to speak, forced to realise the functions ascribed to classical managers (to which one can include: motivating, controlling, negotiating and representing), the activities of an entrepreneurial cluster leader almost always exceed the borders of the network they represent – due to the fact that it is something more than the classically understood management. An effective, entrepreneurial cluster leader is an individual who is able to anticipate the future, devise plans to realise goals, form visions that are attractive to others and gain support for the organisational change, which is reflected in such competences as (<http://www.leadingfutures.ca>):

- the preparation of visions and aims, i.e. knowledge and skills of formulating cluster's objectives and the development of the measures of achieving success,
- designing a strategy and an organisational structure – knowledge and skills within the scope of analysing the environment, the strategy and the applied technology,
- creating and managing change; knowledge and skills of managing change in an organisation through the determination of the direction and the priorities, building a support coalition, a middle ground and overcoming resistance towards change,
- the creation of internal entrepreneurship – this competence focuses on taking risk, managing creative employees, diversifying and integrating new elements of risk in a current business environment.

While analysing the problem of cluster leadership, one should also take note of the significance of coordinator's position<sup>184</sup> (among others, within the scope of coordinating and motivating to the realisation of common undertakings, creating missions, visions and strategies). By many people, it is treated as a significant link contributing to the success that is achieved by this kind of structure. The major object of activity of a cluster coordinator should be project realisation for the benefit of entrepreneurs – the structure members, and the cooperation of entrepreneurs with scientific units, schools and the organs of the local government administration (<http://www.pi.gov.pl>). It is their leader's features, i.e. charisma, dedication and involvement that chiefly influence the development of internal and external cooperation between the cluster partners. As it is indicated by the research, but for their engagement and dedication, a number of common projects could not be implemented. In the substantial majority of the newly created, young clusters (in Poland they constitute 70% of business entities of this kind) the coordinators work socially; they do not receive remuneration for their work (due to the fact that there is no possibility of paying them from public resources), and, additionally, they have to reconcile the duties they perform in a

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<sup>184</sup> A manager of a cluster is frequently called a coordinator or an animator/facilitator (Ingstrup, 2010, p. 25). It depends on the specificity and the type of the stakeholders that are involved. T. Damgaard and M.B. Ingstrup (2013, p. 562) define cluster facilitators as individuals or a team of individuals who are seated in a formal cluster secretariat with in a cluster, facilitating and coordinating cluster development through trust building in order to promote cooperation and sharing of activities and resources among the participating actors of the cluster. The main goal of cluster facilitators is to build trust and a platform for partnership. A coordinator, most frequently, appears when the cluster structure is fully developed and ready to take on new challenges, including the realisation of its own, complex projects, e.g., research and development, socio-economic, etc. It is a natural person or a legal entity chosen by the cluster members to manage the established structure. Whereas, an animator, most frequently, appears in the initial stage of cluster establishment and development (in the so-called seed stage). Its role is performed by a natural person or a legal entity, which is responsible for the process of organising the structure, hence, for obtaining significant information, strategic partners, who influence future potential of the cluster (Palmen, Baron, 2011, pp. 90-91). An animator most frequently embodies a specific style of leadership, defined as servant leadership (Oliveira, Ferreira, 2012, pp. 8581-8582). It is very difficult, requires various behaviours that are characteristic, for instance, of: a manager, a change leader, an analyst, a mediator, a mentor, a coach, a controller, a planner, a strategist, an entrepreneur.

cluster with their personal career. It constitutes a big problem and does not let them fully engage in the tasks being realised. If this problem could be solved, coordinators would play far greater role in cluster functioning (*Cluster Benchmarking in Poland*, 2010, p. 153)<sup>185</sup>.

Cluster leaders play a key role in cluster establishment, functioning and development. These persons (Svetina, Jakli, Zagorsek, 2004, p. 4):

- contribute to the creation of trust between the entities of a cluster structure,
- help in the identification, formulation and realisation of the common visions,
- encourage to an active realisation of the common objectives,
- stimulate the cluster, introduce dynamics and enthuse, also with entrepreneurship.

In the literature on the subject, a few ways of creating leadership in a cluster on the level of managers, leaders and coordinators have been distinguished (Sydow, Lerch, Huxham, and Hibbert, 2011, p. 331):

- formal, which is reflected in the structure of a cluster board,
- formalised and institutionalised,
- spontaneous – occurs when a leader emerges from the group and takes the initiative within the scope of a common project,
- ascribed to a person or an institution, in a situation in which they are the cluster initiator (e.g., government and local departments).

Cluster leaders should possess a range of the features that are conducive to the efficient management of this kind of structure. In the management theory, the emphasis was put on (Svetina, Jakli, Zagorsek, 2004, p. 11):

- technical knowledge,
- administrative skills facilitating the management of even complex projects,
- interpersonal skills, owing to which the cooperation with various partners – internal as well as external ones – progresses more efficiently,
- cognitive skills that enable adequate understanding of, frequently, very complicated, internal and external relations and their proper management,
- political skills associated with the possibilities of influencing the decisions of various stakeholders involved in the functioning of cluster structures; they are also helpful in the process of creating coalitions and the support groups realising certain undertakings.

However, a very important (frequently deciding upon cluster's future success) feature of cluster leaders (also managers) is the skill of strategic thinking – since strategic dimension is a key one for cluster's future functioning, development and for the success it achieves. It increases the probability of formulating an adequate mission, vision and strategy, which in the case of a cluster, frequently decides upon its future success. Having adequate information concerning the changes of the environment that are to be introduced, cluster leaders are able to prepare different variants of the scenarios of future development, aiming to minimise the risk in the process of strategic decision making. Hence, an integral element of the strategic competence of a partnership's leader in a cluster is the ability to effectively anticipate the forthcoming changes in the environment and to react to them in advance. As it results from the research, the success of the changes being introduced within an organisation is determined in about 70-90% by leadership and only in 10-30% by management (Kotter, 1996, p. 26).

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<sup>185</sup> clusters participated in the research in 2010. Benchmarking studies were performed within the framework of the initiative launched by the Polish Agency for Enterprise Development (<http://www.pi.gov.pl>).

According to P. Lorange and B. Chakravarthy (2007, p. 2), an entrepreneurial cluster manager has three key attributes:

- the ability to see new business opportunities before they are obvious to everyone else and to communicate and market these ideas to the key stakeholders in the cluster,
- the ability to mobilize the best team to develop such opportunities,
- the ability to lead project teams in an inspirational, non-hierarchical way.

The above mentioned abilities are clearly dependent on individual skills and strengths. However, even the most talented entrepreneurial manager can be limited, and even stifled by organisational systems, structures, and cultures.

Entrepreneurial managers and leaders constitute the basis for cluster development. They stimulate innovations, provide an adequate bargaining position to a network in the industry, play ‘a key role in encouraging employees to believe that innovation is expected of all members of the organization’ (Scheepers, Hough, Bloom, 2008, p. 54). Moreover, owing to the support of the development of the clustering concept and the emphasis put on the role of powerful leaders, it is possible to create the so-called regional leadership (*Collaborate*, 2010, p. 40). It is a situation in which a given area performs the role of a development leader – is the initiator of the positive changes that create investment attractiveness as well as higher quality and the comfort of life of its inhabitants. To achieve this, economic development strategies are created; they influence the realisation of the visions of the future changes. Regional leadership consist not only in the creation of strategy but also (or maybe, above all) in taking steps with a view of introducing institutional changes that attract key investors to a given area. Those changes are a very important goal of the regional leadership concept, however, it is also a great challenge. Strong, innovative, competitive clusters, owing to the involvement of a wide group of various stakeholders (for example, research and development institutions, universities, capital funds, training companies, etc.) in their functioning, are able to create trends in a given area, contribute to the introduction of positive changes and enable socio-economic development. The clustering concept contributed to the completely new way of thinking, different perception of the problem of the competitiveness of regions as well as entire economies. However, to make clusters able to fulfil their role, it is necessary that they are managed by strong, entrepreneurial and charismatic leaders.

## 7. Conclusion

The conditions in which contemporary business clusters function are very difficult; the changes that occur in the environment frequently are radical, even revolutionary. These challenges can be met only by entrepreneurial leaders. Owing to their courage, skills, focusing people’s social energy and a specific approach towards reality, they are capable of realising (even in very difficult external conditions) complex, commonly desired, attractive goals, contributing to the achievement of success by the organisations they manage.

The paper presents the significance of effective, entrepreneurial leaders in contemporary management processes with particular regard to cluster structures. It has been emphasised that they constitute a cluster’s considerable asset, a key factor strengthening their competitive potential. It enables the development of partner relations, the establishment of cooperation with various valuable, strategic partners, the activation of energy, knowledge and skills lying in a cluster structure. An entrepreneurial manager is capable of using the chances and opportunities that occur in the environment in more effective way, building and constantly strengthening its “resistance” to the consequences of unfavourable events that occur in the environment. Lack of strong leadership can be treated as a formidable barrier for the development of a cluster at present and in the future.

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## CHALLENGING MANAGEMENT OF RURAL TOURIST DESTINATION OF SERBIA

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### Abstract

*The rapid creation of a new, global economy and global tourism in general gives rise to the need for rapid conversion of certain forms of rural tourism destination management as what was new yesterday has turned obsolete today. Therefore, this paper aims to show how these new challenges are reflected in the management of such destinations in Serbia. So, the paper builds upon the following hypotheses:*

*- If rural tourism offers an inspiring setting for tourist destination, then the management must be very flexible, but at the same time exceedingly stable, and*

*- If the management of tourist destinations becomes a necessity that will allow for further tourism development, then the rural destinations in Serbia must fulfill all of the hard and soft elements in order to reach recognizability.*

*The paper is based on qualitative methodology so as to provide the most comprehensive description of modern management forms and their likelihood to be incorporated into the existing and potential rural tourism destinations in Serbia.*

*The expected results of the work show incorporating scientific-methodological and practical co-existence of modern and contemporary management of rural tourism destinations.*

**Keywords:** management, tourism destination, rural, modern, development

### 1. Introduction

From primordial times to the present day, rural area has remained an issue of challenging debate in our country and wider on how it should be organized and utilized in best manner. This triggered the introduction of multi-purpose approach to the use of rural resources including tourism as its integral part. On one hand, the tourism remains an exploiting force of rural space, while on the other it occurs as an alternative strategy, development opportunity, a factor contributing to the economic stability and global ecological sustainability.

During the former debates, the tourism of rural areas has eventually gained a wider dimension as it included a larger number of the component parts. Today there are more than 105 different sub-forms of rural tourism and the best definition would be that it represents tourism in rural areas, whatever the form is. In our opinion, splitting it into sub-forms that are always integral to rural leads only to a more refined selection of tourist activities and more subtle distinction of its forms. This further means that rural tourism includes a wide range of activities, services and leisures provided by farmers and other locals in order to attract tourists for generating additional

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income. Lazic shows that rural tourism makes a unity of tangible and intangible elements of rural area, i.e. hard (basic) and soft (service) factors of the entire rural tourism system (Lazić, 2007). Keeping compliant with the further development perspectives of rural tourism, we point out the following opinion: rural tourism is a collective term for a variety of activities and forms of tourism that take place out of the city and those areas featured by mass tourism (Demonja, Ružić, 2010). The previous definition reveals the term „collective“, which indicates that it was then that the groundwork for the modern term *portfolio* was laid. In addition, we see that rural tourism has appeared as a result of mass movement tourism in response to the more demanding tourism trends.

A major contribution to the development of rural areas as a tourist destination has been given by Pike in his analysis of the global tourist destinations. On this basis we can say that rural area has already become a recognizable tourist destination with its specific characteristics. Starting from this, we have that eco-rural destination is a larger area functioning as a unit, which builds its tourist identity on the concept of cumulated attractions, which combine the experience they offer and appropriate infrastructure, and represent the area of intensive tourist gathering. (Romelić, Kosić, Pivac, 2005). Tourist identities of many countries in the world are growingly merging with global trends. However, from this statement we can conclude that it is the identity of a rural tourism destination which serves to confirm its synthetic individuality.

21<sup>st</sup> century introduced the new terminology such as modern and postmodern tourism, which has impacted the tourism in rural areas as well. Simultaneously, an issue arises on moving towards cultural tourism, which is not only to valorize the cultural heritage created by humans, but more importantly, the cultural attitude towards tourists, tourist centers, the behaviour of the local population and tourism workers, the state and all stakeholders involved in the rural tourism development. Accordingly comes the conclusion that the term rural tourism is used in cases when the rural culture is seen as a key element of the offered tourism product, which is characterized by an effort to ensure the visitor a personal contact, a sense of physical and human rural space setting and an opportunity to participate in activities, customs and lifestyle of the local population to the greatest extent possible.

Finally, looking at the rural tourism concepts, we come to the point that (which is very positive) it builds links between the services (which is a human quality) and the overall content of rural tourist destination as created by humans and nature together. Rural tourism implies and includes a range of activities, services and supplementary offers provided by rural population in family households with the aim of attracting tourists and creating additional revenue, while showing respect to the principles of sustainable development and preservation of natural resources (Štetić, 2007).

## **2. Basics of new management in rural tourism of Serbia**

The level of economic development and the need for global market diversification understood as imposing economic lifestyle of the most developed countries to the rest of the world, has initiated a number of changes in the management development. It comes natural that such aspirations gave birth to the global term management proving the Folet Mary Parker's words right: Management is the art of getting things done through others. However, in the modern tourism development, management permanently takes on new shapes, forms, models, etc. Therefore, rural tourism must accept all the possible new challenges arising from the following (Vojnović, Cvijanović, Stefanović, 2012):

1. management is observed and defined as the process of handling businesses, ventures or systems to achieve common goals more efficiently, and

2. management can be viewed as an activity of a specific group of people with the responsibility to manage the execution of jobs and tasks performed by other people so as to efficiently achieve the set objectives.

Relying on the previous definition in setting the development objectives of rural tourism in Serbia, the management is supposed to create such a portfolio that will ensure, no matter where it occurs, the knowledge on what business, process or system should be managed to achieve certain economic results. The whole portfolio actually synthesizes the components of its marketing mix with precisely defined hierarchy set by the Likert's scale of importance which determines the respective values of each part of the mix. In order to ensure successful management, the rural tourism in Serbia is challenged to move beyond the so-called 'zero choice game'. Likewise, in order to reach a consensus of the constituent parts of the rural tourism marketing mix by means of the so called "semantic differential", the management has to ensure the analysis includes all the inputs from the business environment relevant to the issue of rural tourism development in Serbia.

The new management of rural tourism in Serbia faces very serious constraints in performing their tasks because there are no adequate human resources to produce creative management teams on the basis of excellence, innovation and entrepreneurial skills. Therefore, it appears necessary to do a detailed, so-called SOS analysis, including the following: an analysis of awareness (S) among tourists, tourism workers and local population on rural tourism issues; training of all the staff members above (O) in order that each party knows what and how to perform within the common management mechanism, which further means that the education process must be designed as a permanent learning platform; and the employment of all the available know-how and human resources so as to make the cost of time, space and labor in tourism reduced to the lowest possible level (S), which will ensure maximum return on minimal investments in the final TOWS matrix (min - max ratio). From the above it follows that (Štetić, Šimičević, Ničić, 2009) the management represents a method of managing organizations and people, but also a tool to improve the performance and results of executives and the company itself. The management process is conducted in several phases as follows: planning, organizing, motivating and monitoring. All these respective phases are clustered into activities. Speaking in terms of tasks, we come to planning, decision making, organizing, leading, delegating responsibilities within a company (human resources management) and supervising.

Taking into consideration the previous arguments and putting them in the service of the new rural tourist destination management in Serbia, we notice that management is a very complex job, faced with huge obstacles occurring on a daily basis, no matter if it deals with a tourist business, organization and association or the overall socio-economic environment. Therefore, the new management has to:

1. get acquainted with the character of each member of the tourist company individually, first and foremost their mental stability, body language and their attitudes towards peers and material resources;
2. be an absolute authority, both over the strategic team and executives;
3. ensure full cohesion of working conditions, objectives and tasks of all stakeholders of a tourist activity;
4. treat local tradition and heritage as a matter of his company, but also a property of the local community;
5. develop permanent result driven competition, both within the same company or community but also as compared to other businesses and local communities operating in rural tourism;
6. reconcile all his efforts with the wishes of the local self-government, regional authorities, state, civil society, church and other individual and group stakeholders;
7. turn all interest groups into sound and successful partnerships;

8. develop a sense of ownership over the clusters, incubator centers and other associations in order to diversify relations in the management structure, and
9. be up for new management challenges and recruiting new, more competent staff members.

At the current development stage of the new rural destination management in Serbia, there are four different viewpoints we are starting from:

- management should become an artistic and cultural category, because in the modern complexity of economic relations, it turns to be a real feat to fit all elements of rural tourism destination into a successful management, with the culture tourism becoming an integral part of the general culture in the new framework of rural tourism destination;
- the new management needs to follow up achievements of the modern science because it ensures new methods of economic valorization of destinations' resources, new HR and financial management tools, but also a new marketing methodology which is steadily gaining importance on tourism market;
- in our opinion, the new management framework should be set in such a way to include traditional habits, demographic, ethnographic, culinary and other behaviors of all tourist stakeholders.
- the new processes should speed up technical, technological and other exchanges of information, ideas, opinions, suggestions and other communication performances contributing to rural tourism development. This would incite development of new information booking systems, networking, web marketing, particularly M2-00 and M3-00, as well as put in force all the technical and technological achievements to service different needs of tourist businesses and the rural area on the whole.

To put in practice the idea of a successful and competitive destination management, it is vital to determine the long-term objectives of rural development in Serbia, the economically viable vision, the sustainable rural tourism mission and the reasonable development directions based on the availability of resources in the medium term. So, in our opinion, the new management structure should prioritize tactical and operational planning, put right the own garden first, and only then fit it all into a broader strategic plan in order to reach the state policy objectives.

The purpose of rural tourism in Serbia is to bring tourists to the area for a new experience, especially through didactic recognition of the local population and their anthropological characteristics, through didactic workshops on traditional crafts, artworks, traditional handicrafts in textile, wood, clay, iron, preparation of traditional dishes, folklore and customs, and particularly through "a friendly chat with the villagers", which is something that modern tourists lack. Also, the new management of Serbian rural tourism destinations should be organized on the principle of a diffuse hotel, i.e. dispersed accommodation units, as the share of rural areas in Serbia is quite big (close to 80% of the overall territory) and with many different accommodation facilities (rural houses, rural hotels, motels, camping sites, eco lodgings, mountain lodges, barns, inns, farms, pubs, meadows, etc.). Therefore, theoretically applicable concepts for the new tourism management in rural Serbia should satisfy the following principles:

- A person as human being must be treated by the management as a tourist with exact requirements, with a very specific creative, educational and 'conscious' potential, as a local resident struggling between economic value of tourism and tourism as a dangerous scourge, and finally, as any other stakeholder in the community who wishes both to have a tourist experience and be its economic constituent;
- In Serbia, there are too many elements in rural area, the bad and the good sides of the culture, so that the management should make them all mutually compliant to produce a full satisfaction of all parties interested in rural tourism;

- In order that the new management coordinates the growing needs of a modern traveler more efficiently, he must be competent enough and very specific;
- The educational component of the new management should be conceived in such a way to make all the participants learn and teach at the same time, and
- Seeking for innovations, stimulating entrepreneurship, building partnerships, full understanding and satisfied stakeholders arise as a motto and an explicit request of the new tourism management in rural tourism of Serbia.

### **3. Rural touris destinations of Serbia as new management challenges**

The territory of Serbia is indicatively specific ground in terms of defining its rural tourist destinations (Milenkovic, 2009). There are those that in such forms cannot be found elsewhere in the world. These are slash-like destination areas (from Hungarian szállás), specific in lowland relief and requiring new travel psychology, whose subtypes are unique in the context of new rural tourism destinations. They are the following: Vrsac hill with wine routes, Fruska Gora as a national park, wine route and the most complex anthropogenic localities of the Old Bega and the Obed Swamp - the water areas that complement the rural tourism environment, and finally, the Upper Danube, which covers many different rural tourism subtypes.

Eastern Serbia with the two typical ethno gastronomic features, ie. Vlach and Shope culture, abounds in many rural destinations. In this area can be formed another large rural tourism destination which, thanks to its specificities, would have no competitor in the global market - that is the destination of the Vlach magic.

In Western Serbia, all rural tourism destinations look similar to the others in the immediate or wider vicinity so that the challenges of a new management concept in these destinations are most needed, because they most need to fight with competition. The same goes for the rural areas of the central part of Serbia which due to the lack of tourism development considerably lag behind so that the new management challenges aren't yet available here, so it rather has to deal with the old, mainly basic management factors.

As set forth in the foregoing findings, we come to the establishment of new concepts in the management of rural tourist destinations of Serbia. These are:

The new management challenges seek for new benchmark destinations, as the ones that used to be so start declining slowly under the influence of profits and global economic relations. This particularly occurs in some rural tourism destinations in the Azores and the Greek islands and some parts of France and Spain. "Benchmarking is a continuous process of identifying, understanding and harmonization of companies' products, services, equipment and procedures with the best practices in order to boost their own improvement (Vojnović, Cvijanović, Stefanović, 2012). The utilization of this model in the new management system of rural tourism in Serbia ensures the following:

- permanent benchmarking is done for all parts - all employees working in tourism businesses, all processes and products - with the best practices in the same field;
- all activities of the local population, the culture, the ethnic and other personal characteristics are compared with those who perform best in working with tourists;
- when facing most critical periods in a business activity, a comparison is made between the total tourism destination product and the same or similar destinations in the immediate or wider environment;
- better economic results of tourism businesses in rural destinations of Serbia should be sought in the economically best performing rural tourism destinations in other countries;

- in searching for benchmark destination with the best technical solutions primarily in the information technology, it is always to insist on those who already have them established together with the other well matched factors that serve them;
- when it comes to the process of work, creation of tourism product, marketing and monitoring, one need to be careful as some benchmark destinations have the best production process and the others excel in marketing. Therefore, for the rural tourism of Serbia and its new management, more than one benchmark process should be applied, and
- the future benchmark activities of the new management of the Serbian rural tourism should be preceded by a clearly defined vision, mission and implementing guidelines of the set objectives for develeopment of rural tourism of Serbia;

1. Re-engineering (business process reengineering-BPR) is a creative and innovative process which is changing organizational culture, creating new processes, new systems, new structures and new ways for driving changes and, as such, has an impact on the company's success.

The new, challenging model of rural tourism destination management in Serbia represents a challenge for all creative people with entrepreneurial spirit, those full of innovations or with sufficient funds, all interest groups, clusters, associations, foundations and the state to create a new image, that is a completely new presentation of rural destinations of Serbia, a new product of our identity and individuality, new form of hospitality that is friendly but professional and modern. All these things call for a new management organization that will be most functional if taking the form of a holding, a new process, an improved educational system, a developed environmental consciousness, and especially a wholly reconstructed tourist culture of all stakeholders involved in the development of rural tourism in Serbia. The reingeneering process of the new management has also shown us that there is no bankruptcy in tourism but only reconstruction, relocation and redistribution, which altogether importantly contributes to the rejuvenation of rural destinations in Serbia, and not their abandonment;

2. The essence of the Kaizen costing model lies in a continuous reduction of costs during the service provision or production process by means of certain mechanisms (Joksimović, Stevanović, Marjanović, 2009). This model is based on the assumption that anything you do can be made better.

In the destination management of rural tourism in Serbia this concept cannot yet be fully applicable because many cost principles are not in line with all the objectives, missions, visions and strategic management directions. In order that rural tourism of Serbia is developed in accordance with the latest world trends without neglecting tradition, it is necessary to preserve identities of all the regions potentially involved in this process. However, the cost reduction is a demanding requirement of the new rural destination management as such business environment produces much more costs than any concept of a successful economy recognizes. This further means that 'the foundation of the House of Kaizen is made of: standardization, "5S" principles for maintaining the "house", elimination of waste and encouragement of workers to participate in the improvement of factory performance'; the 'Roof of the House of Kaizen management is represented by the profit management as a senior management level; then comes the middle level management: Quality & Safety Management, Cost Management and Logistics Management and, in the end, the workers needing necessary equipment, products, material and access to right information to perform their duties properly. As one can see, it is first needed to form new teams for each of these, which is a long and demanding process, and only then introduce the new management scheme of the concerned destinations, and

3. Mass tourism led to appearance of many destinations and a variety of tourist forms. On the basis of this, rural tourism has developed over a hundred sub-types with each having its own specificities. Therefore, the competition model, as a challenge to the new management of rural tourism destinations in Serbia, is based on several conditions:



- competition should be monitored for each tourism subtype within the rural destinations of Serbia;
- competition must not occur among the local self governments that together form a neighbouring rural tourist destination(s);
- as for the national regional entities and international macrotourist regions, competition must take place in such a way to incite competitive struggle between respective destinations within a joint national region; in the international, macro regions the respective national ones are united and jointly involved in competitive struggle against the same or similar international destinations belonging to the same level, and
- tourism in Serbia has to reduce operational costs and carry out a comprehensive differentiation of consumers, producers, tourism products and local population and their behaviour integrated in the product.

Competition represents an ability of the destination and its managing actors to increase tourism spending, attract more visitors, ensure a satisfactory level of leisure provision, enjoyment and memorable experiences in order to make profit without endangering lives of the local residents or doing harm to the environment for the good of the future generations (Ritchie, Crouch, 2003).

The challenge management of rural tourism destinations of Serbia undoubtedly has to respect the competition model and understand that in the modern tourism there is no space for euphoria or xenophobia, but only the satisfaction and pleasant, recommendable experience of all participants in rural tourism activity in Serbia.

Taking into account the characteristics of rural space in Serbia mentioned here, it is easy to conclude that a good tourism potential exists. However, the developmental results produced in rural space in recent times show that the potential has not been valorized in an adequate manner. To be specific, there are 950 family-scale rural tourism businesses running in 67 municipalities in Serbia, with the capacity of 5.500 beds. So, the most negative indicator refers to the low level of occupancy – only 5% on annual level, which clearly indicates the absence of a minimum profitability rate. Therefore, in the context of rural tourism development, it seems necessary to change the present management system of the Serbian rural space.

The application of the afore mentioned forms of rural tourism management might produce a considerable increase in the existing capacity utilization rate to the acceptable 45%, but also to stimulate appearance of new rural tourism forms and destinations.

## Conclusion

The modern society has many challenges and so does the modern tourism. On one hand, there are those which are contributing to xenophobia among the members of local communities and euphoria of tourism workers. Such examples are large apartmentalisations, „concretizations“, „golfizations“ and the like. On the side of tourists, however, these challenges cause neither euphoria nor xenophobia, but necessary tourism development movements. All the new challenges are a constituent part of the operation, development, modernization and elimination of certain management concepts. Something similar takes place in the management of rural tourism destinations in Serbia because it has to satisfy the following requirements:

- to monitor and fits into any changes in the rural tourism market;
- to raise awareness, provides quality training and ensures full support of all stakeholders in rural tourism activities;
- to coordinate the preservation of the environment through a good strategic planning, which always strives to meet the objectives of modern management, and



- to meet the needs of all stakeholders – business partners, the experience of tourists and coherent objectives of the local community.

By means of the presented models of challenge management of rural tourism destinations in Serbia, we can get good benchmark destinations from the neighbouring countries, have them re-engineered in accordance with our rural identity, accept kaizen costing at a certain stage of tourism development and strive to remain relevant in the struggle with our competition.

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## IMPROVEMENT OF ECONOMIC DEVELOPMENT THROUGH USE OF GEOTHERMAL ENERGY

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### Abstract

*One of the ways to promote economic development and reduce energy dependence of Serbia is the use of geothermal energy and geothermal sources. Geothermal energy has many advantages against traditional energy sources based on fossil fuels. The biggest advantage of geothermal energy is that it is clean and safe energy source for the environment. It also reduces the use of fossil fuels, and thus reduces emissions. Another advantage is the quantity of power reserves that are available to us. Reserves of geothermal energy are practically inexhaustible. Out of these reasons, the development of geothermal resources and geothermal technologies should become the primary interest of the country.*

*The use of geothermal energy and its resources in Serbia is very small compared to the geothermal potential. In Serbia, only geothermal energy is used from geothermal and mineral water, mainly in the traditional way, mostly for the balneology and sports and recreational purposes. The use of geothermal energy for heating and other energy production is in an early stage and is very modest compared to the potential of geothermal resources. With relatively small investments, compared to investments in other energy sources (oil, gas, coal), whose exploitation and utilization creates huge hidden costs, geothermal energy can repay the initial investment in a relatively short period of time.*

*In Serbia, as everywhere in the world, a hydro-geothermal potential is mostly used. Numerous hot springs have always been used as spa resorts, and this tradition has been preserved to this day. However, in the thermal spas, no attention is paid to energy efficiency and large amounts of hot water are discharged as useless, even from them using for the heat pump which can extract enough energy for space heating or pool. At the same time the space is heated by coal, oil or electricity. If we could do rationalization of the used heat from the hot springs spas, then the same sources of energy could supply and other facilities such as greenhouses, residential space heating, industrial production, etc.*

*In Europe, they set very high goals regarding the use of renewable energy and reduction of emissions. Geothermal energy is the most appropriate for achieving those goals, and therefore the only one of all renewable energy in several European countries entered into a legal obligation to use it for heating new buildings. By joining the European Union, Serbia is also expected to adhere to obligations regarding the use of renewable energy and reduced emissions.*

*The aim of this paper is to identify the potential of Serbia for the use of geothermal energy and potential applications of geothermal energy as an engine of economic development through energy saving activities at all levels - from the households, industry and agriculture, to the geothermal power plants building.*

**Keywords:** economic development, geothermal energy, hydro-geothermal potential

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## 1. Introduction

High goals have been set in Europe regarding the application of renewable energy sources and reduction of harmful gas emission. Geothermal energy is the most suitable one for the achievement of these goals and therefore it is the only one of all renewable energies in several European countries which entered into legislation as a legal obligation to be used for heating in new buildings. In the process of accession to European Union, Serbia shall be expected to implement the legal obligations regarding the use of renewable energies and reduction of harmful gas emissions.

Since the estimated total quantity of geothermal energy that could be used is much higher than the total quantity of energy sources based on petrol oil, coal and earth gas all together, greater attention should be paid to geothermal energy. Especially when taking into account that it is about cheap, renewable energy source which is also ecologically acceptable. Since geothermal energy is not easily accessible, at least, locations where energy is easily accessible should be used and thus reduce the pressure on fossil fuels and help the Earth to recover from harmful gases causing the greenhouse effects.

Use of geothermal energy and its resources is at low level in Serbia compared to the geothermal potentials. Reasons for this are obscure, especially when taken into account that some of the geothermal sites are the best in Europe and that the development of geothermal technology in Serbia started at the same time as it did in the countries where geothermal technology is at the highest level of development today. In this regard, we have asked several research questions: What is the potential of geothermal resources in Serbia? What is the extent of their use? What measures should be taken to improve the utilization of geothermal energy in Serbia?

Since there are no officially published statistics on the geothermal energy potential of Serbia, research was based on collection of relevant data published by the relevant ministries and on the data contained in the studies and relevant research of relevant institutes. Analysis of the collected data led to certain conclusions, recommendations and measures to be taken to increase the use of geothermal energy in Serbia, and thus enhance economic development based on the use of renewable energy sources.

## 2. Use of geothermal energy

People had used natural springs of hot mineral water in medicinal purposes even in prehistoric times. Evidence of this is numerous archaeological findings and written documents. Spa sites had an important role throughout the history of mankind when treatment of many diseases are concerned, and are still very attractive in contemporary society. Use of thermal water and vapour for energy generation has happened recently. The range of use increased by the outbreak of great energy crisis of the seventies of this century. The first use of geothermal energy for energy purposes is related to the production of electrical power in the countries where this kind of energy was available in the form of water vapour (Japan, Iceland, Italy, USA, etc.). With the deepening of energy crisis, the countries that had available low-temperature geothermal resources, that is thermal and thermo-mineral waters began to use them in various low-temperature energy fields.

Geothermal energy is used today for various purposes and its use can be classified as follows:

### *A. As the energy for heating*

The use of geothermal energy as thermal energy for heating has long been known. Today, the largest geothermal system used for heating houses, public buildings and the like is in Iceland. Approximately 89% of households in Iceland and in the capital of Reykjavik are heated in this way, while 20% of electricity is produced on the basis of geothermal energy. Iceland is not an isolated example. Geothermal energy for heating is widely used in New Zealand, Japan, the Philippines, Italy and the United States, while the share of the energy for heating in the region of

the countries in the Balkan is negligible. Otherwise, in Europe there are about 1.000.000 geothermal installations, and in the United States around 5.000.000. Thanks to geothermal energy today, we have the saving in electricity about 24 M kWh, which is equivalent to 40 million tons of fossil fuels and reduction of carbon dioxide emissions by about 6 million tons and 3.6 million tons of other pollutants. (Cakić, Veljković, Stamenković, 2011, p.15)

Today, different systems are used for heating, but the two ones most frequent:

- Open-direct, in which geothermal water is directly downloaded from the sources and used for heating after which it returns to the source, and depending on the location of the sources there are horizontal circular systems in which water is taken from the surface of the earth (well, rivers, ponds, lakes) and vertical in which it is taken from groundwater wells with the natural reservoirs of hot water,
- System with a closed loop which can be vertical, horizontal and lake like shape. The closed system does not use fluid geothermal heat, but use shallow geothermal energy of rocks for heating the tubes of heat exchangers which is dug into the ground, and for this there are two rounds of exchange, because the energy is exchanged via heat exchanger with a fluid drive (methanol, antifreeze) of lower freezing temperature and circulation is enabled through circulating pumps. (Cakić, Veljkovic, Stamenkovic, 2011, p.16)

In addition, geothermal waters can be used for different purposes in agriculture and in industry:

- In agriculture for heating greenhouses, in the production of fruits, vegetables and flowers,
- In livestock and poultry farms for heating,
- In the industry for dehydration and evaporation of various products and raw milk for pasteurization,
- In the paper industry, wood drying, wool,
- Like hot water in dwellings,
- In the industry as a technology hot water,
- For drying herbs and grains,
- The cultivation of certain species of fish and others.

#### *B. For balneological sports and recreational purposes*

Use of geothermal energy from geothermal mineral water in medicine, balneology for postoperative treatment (rehabilitation) in prevention and treatment of diseases of bone, joint systems, etc., and in sports and recreational purposes is the oldest and traditional way. Natural flow or water from shallow drill-holes is used. It is used for heating buildings, swimming pools and baths, but some waters can be bottled water and consumed as they are sterile and rich in minerals and trace elements, some are drunk from the source as recommended by doctors and some are used in treatment, for example, Vrnjačka Banja whose water are used for treatment of diabetes, waters of Sijarinska spa are used in gastrointestinal tract, eye wash, etc. In some spas in Serbia (Niska Banja, Prolom Banja), geothermal heat pumps are used for geothermal water with temperature under 30oC as is the case with Prolom Spa.

#### *C. For electrical energy production*

Generation of electrical power from geothermal energy is in general similar to the production in power plants based on fossil fuels. However, there is an essential difference in the method of water vapor production which is not obtained by combustion of fossil fuels, but geothermal water or water vapour with high temperature is used (higher than 120oC), which drives the generator. Another difference is related to the fact that it is environmentally friendly because there are no

harmful gas emissions, no problems with emissions of particles and ash disposal. Sources for geothermal energy use for electrical power generation are:

- Hot dry rock: These are found at depths of 2.5 to 6 km, temperature of 150 to 300<sup>0</sup>C. These sources are difficult to be used because the rocks need to be crushed and water should be brought to them, since they transfer heat poorly and there is danger of explosion, and these are now widely investigated,
- Water at great depths and under high pressure, located at depths ranging from 2.5 up to 9 km, the temperature is about 160<sup>0</sup>C, pressure greater than 1000 bar, typically with a high content of mineral, up to 10%, and saturated with natural gas, mainly methane, and their use is investigated,
- Water / steam at lower depths up to 5 km, temperature of about 300<sup>0</sup>C, pressure up to 8 bar, water can exit alone, or by the pump, but there is a lack of mineral content. If it is about water vapor, it comes itself with a temperature of about 200<sup>0</sup>C. Such sources are used commercially because it does not require special technology for drilling and exploitation. (Cakić, Veljković, Stamenković, 2011, p.18-19)

The use of geothermal energy has great advantages, but also some weaknesses.

The *advantages* of using geothermal energy compared to other energy sources are numerous:

- This energy is cheap because of low production costs (energy is needed just to run the pumps) and also represents a stable and sustainable source of energy,
- Replaces a large amount of fossil fuels,
- Use of geothermal energy causes a negligible impact on the environment, and does not contribute to the greenhouse effect,
- Geothermal power plants do not take up much space, and thus have little impact on the environment,
- Do not depend on weather conditions as in the case of hydro power plants, wind power plants with solar energy (from wind power or the number of sunny days),
- It is a huge energy potential (provides unlimited power supply),
- When a geothermal power plant is built, the energy is almost free, with less local consumption,
- Ability for multi-purpose use of resources (affecting the economic feasibility of exploitation)

*Disadvantages* of geothermal energy use are:

- Limits due to accessibility (conditioned by position, depth, temperature, water content percentage in a given geothermal reservoir), for use and construction of geothermal power plants (these locations are close to so-called geothermal zones, and are also the earthquake zones which increases the construction and is an additional problem related to transfer of energy to consumers, since as a rule, these zones are poorly populated) whose effectiveness depends on the characteristics of the drill-hole,
- Thermal energy spring may be depleted due to inappropriate exploitation,
- Discharge of gases and materials from the depth of the earth which can be harmful when they go to the surface; which is the case most often with hydrogen sulphide which is aggressive and corrosive, but the solution is its separation and utilization for the production of sulfuric acid, while deposits may be used in construction industry or some metals may be extracted such as zinc,
- Required high initial investments (commencement of use and development) and high maintenance costs (caused by corrosion, mineral deposits, etc.).(Cakić, Veljković, Stamenković, 2011, p.14).

Regardless the listed disadvantages, geothermal energy, as a renewable energy source, is more frequently used in the world and in our country.

### 3. Geothermal potentials of Serbia

According to data of Geology and Mining University of Belgrade, Serbia with 238 springs and wells have the most so-called geothermal phenomena in relation to the population. In the Republic of Serbia are identified natural and artificial sources of thermal waters in the territory of more than 60 municipalities (Figure 1). The water temperature in most sources is up to 40°C and in the territory of six municipalities over 60°C, as follows: Vranje, Sabac, Kursumlija, Raska, Bujanovac and Apatin.

Due to low water temperature, this energy potential is not sufficient for the production of electricity, but could be used for heat generation in various fields. This low temperature energy could be used for heating greenhouses, rooms, swimming pools and other purposes, but the local government, investors and users do not have enough of experience of using this source.

The average flow of water from the existing sources and wells up to 20 l/s, at several locations exceeds 50 l/s (Bogatic, Kursumlijska Spa, Pribojska Spa, Niska Spa) and only in one location it is more than 100 l/s (Spa Koviljaca). The total heat output that could be achieved by using the thermal waters in Serbia is about 216 MWt, which is equal to the amount of about 180,000 tons of oil equivalent.

To determine the potential of geothermal energy resources and conditions for their use, in 2011 IPA project was launched in Serbia, whose goal is to review all documents and studies in that field, summarizing data and make inventory and a new study with an overview of the data. The aim is to identify the most profitable locations and determine how exploitation would be profitable.

Geothermal energy potential of a particular area can be presented by geothermal heat flow density (the amount of geothermal heat every second through an area of 1 m<sup>2</sup> of the Earth's interior comes to its surface). Average values in Europe are about 60 mW/m<sup>2</sup>, while in Serbia these values are much higher: more than 100 mW/m<sup>2</sup>. Terrain in Serbia has been constructed from hard rock and because of such favorable hydrogeological and geothermal characteristics there are about 160 sources of geothermal water in Serbia with temperature higher than 15°C. The hottest sources are in Vranje Spa where the temperature is up to 96°C. Estimated total amount of heat contained in the sites of geothermal waters in Serbia is about two times higher than the equivalent amount of heat that would be obtained by burning all of our coal reserves.





**Table 1.** *Exploitation of hydro geothermal resources according to the function type*

Function	Installed thermal power	Produced heat
	MWt	TJ/year (terajoules per year)
<b>Residential or commercial areas (direct use)</b>	18,5	575
<b>Spas and recreation</b>	36,0	1.150
<b>Grain drying</b>	0,7	22
<b>Greenhouses</b>	8,4	256
<b>Fishing and cattle breeding</b>	6,4	211
<b>Industrial processes</b>	3,9	121
<b>Heating by Heat pumps</b>	12,0	80
<b>Total</b>	86,0	2.415

Source: [http://www.centrala.org.rs/knjiga%20liber%20perpetuum/05Energija\\_zemlje\\_Geothermal\\_energy.pdf](http://www.centrala.org.rs/knjiga%20liber%20perpetuum/05Energija_zemlje_Geothermal_energy.pdf), p.73

According to the present state of knowledge of geothermal resources, the richest and therefore the most important hydro-geothermal resources are located in the area of Macva, then in the area of Vranjska Spa and Josanicka Spa.

If great opportunities for exploitation of geothermal resources from little depths by means of geothermal heat pumps are taken into account in the territory of almost entire Serbia, then geothermal energy needs to be adequately treated in Strategy of energy development as equal to other energy generating products.

#### **4. Measures for improvement of economic development of Serbia by use of geothermal energy**

Activities carried out to introduction of use of geothermal energy in Serbia in the last 30 years have had very limited success. Serbia has a great need and all the prerequisites to develop rapidly geothermal technology. The development of geothermal resources and geothermal technologies should become the primary interest of the country. From an economic point of view and in regard to environmental protection, domestic clean energy resources are able to be incorporated into the state economy because they offer benefits that can not be offered by other energy resources.

According to the Simplified National Action plan for renewable energy of Serbia (ref. 7, p. 12) to achieve the goal of 27% share of renewable energy to the 2020<sup>th</sup>, it is needed to build new capacity of 1,092 megawatts for production of electricity. The Action Plan, which was launched in February 2013, predicts that the plant should accommodate facilities with capacity of 500 megawatts of power generation from wind, 438 MW of mini hydro power plants, 100 MW biomass power plant, 30 MW of biogas, the 10 megawatt landfill gas and solar energy, three megawatt of power from waste plant and one megawatt from geothermal energy to the 2020<sup>th</sup>. According to the Action plan, the share of renewables in the electricity sector should be increased from the current 29% to 37% to the 2020<sup>th</sup>, in energy for heating and cooling from 26 to 30 % and in the transport sector through the use of biofuels from the current zero to 10%. In order to comply with the objectives of the EU to the 2020<sup>th</sup> in the field of renewable energy and energy efficiency Electro sector of Serbia in May 2011<sup>th</sup> published a policy document - a White Paper, which contains an overview of the obligations and planned activities.

To achieve the objectives in the electricity sector, the Republic of Serbia should have installed additional 1.092 MW by 2020<sup>th</sup>. Planned distribution of additional megawatts is shown in Table 2.

**Table 2: The planned allocation of new installed capacity from renewable energy sources**

Types of renewable energy	MW	Contribution
<b>Hydro power plants (up 10 MW)</b>	250	which makes 23% of the total estimated new installed capacity
<b>Small hydro power plants (to 10 MW)</b>	188	which makes 17% of the total estimated new installed capacity
<b>Wind energy</b>	500	which makes 46% of the total estimated new installed capacity
<b>Solar energy</b>	10	which makes 1% of the total estimated new installed capacity
<b>Biomass energy</b>	100	which makes 9% of the total estimated new installed capacity
<b>Biogas energy</b>	30	which makes 3% of the total estimated new installed capacity
<b>Geothermal energy</b>	1	which makes 0,1% of the total estimated new installed capacity
<b>Waste</b>	3	which makes 0,3% of the total estimated new installed capacity
<b>Landfill gas</b>	10	which makes 21% of the total estimated new installed capacity

*Source: Simplified National Action plan for renewable energy of Serbia 2012, Republic of Serbia, Ministry of Energy, Development and Environmental Protection, p.13*

In the sector of heating and cooling, a small increase in the share of renewable energy sources has been planned- only 0.6% (from 1,059 ktoe in 2009 to 1,269 ktoe in the 2020th). In order to achieve the objectives in the field of heating and cooling up to the 2020th, the Republic of Serbia should use renewable energy sources that have not been used before in addition to the use of biomass for heating in households. New facilities will enable use of the additional 149 ktoe. The planned distribution is shown in Table 3.

**Table 3: Planned allocation of new installed capacity from renewable energy sources in the field of heating and cooling**

Types of renewable energy	MW	Contribution
<b>Biomass energy SNR</b>	45	which accounts 30% of the expected production from new capacity
<b>Biomass energy SDG</b>	29	which accounts 19% of the expected production from new capacity
<b>Biogas energy</b>	10	which accounts 7% of the expected production from new capacity
<b>Geothermal energy</b>	10	which accounts 7% of the expected production from new capacity
<b>Solar energy</b>	55	which accounts 37% of the expected production from new capacity

*Source: Simplified National Action plan for renewable energy of Serbia 2012, Republic of Serbia, Ministry of Energy, Development and Environmental Protection, p.13*

If we sum up all the above data, both the existing geothermal potential of Serbia, as well as obligations to be met under the Action Plan for renewable energy sources, as well as commitments to reduce harmful gas emissions due to EU accession process, it is necessary to take the following measures in order that Serbia could achieve greater utilization of geothermal energy:

#### *A. More efficient use of the existing geothermal springs and drill-holes*

When using geothermal water in Spas and medical centers and sports recreational centers, energy from water is only partially used, although the water temperature is at high level. No attention is paid to energy efficiency and large amounts of hot water are discharged as useless, although it is possible to recover enough energy from them by heat pumps to heat area or swimming pools. All available energy can be recovered by use of heat pumps up to the temperature level of 10°C. At the same time, space is heated by means of coal, oil or electrical power. If rationalization of the use of thermal energy from hot springs in the spas is made, then the same source of energy

could be supplied to new attractive facilities. This means that the capacity of geothermal sources in some places could be used two to three times more than it is currently used.

Also, future users of the currently sealed drill-holes should get familiar in time with the methods of rational use of maximum energy potential which will have more favorable financial results.

#### *B. Activate sealed drill-holes*

Putting into operation of wells that are sealed is of great importance to Serbia. In this process must be carried out the procedure established for this purpose. In many wells has not been made fully examining the composition and quality of the water and therefore should not be allowed to make such uncontrolled water discharged into waterways. It is possible that the damage is greater than the gain. The state then has to take an active part and to determine which water can be discharged to the surface, which must return to the underworld after taking heat. This means that since the user must have an existing solution on technical acceptance wells or after the analysis done, get a new solution. By increasing the price of fossil fuels and electricity many sealed wells will become attractive and demonstrate the need for their activation. Putting in operation of drillholes that are sealed is of great importance to Serbia. The procedure established for this purpose must be carried out in this process. Examination of composition and quality of water has not been made fully in many drill-holes and therefore it should not be allowed that such uncontrolled water get discharged into waterways. It is possible that the damage can be greater than benefit. Then the state has to take an active part and to determine which water can be discharged to the surface, which must be returned to the underground after taking heat. This means that the future user must have a solution on technical acceptance of drill-hole or to get a new solution upon the completed analyses. Increase of fossil fuel price and electrical power shall make many sealed drill-holes to get more attractive and the need for their activation shall be shown.

#### *C. Use geothermal heating pumps more intensively*

State should grant incentives and take the lead role in the project for massive use of heating pumps for heating buildings, since calculation shows that gain is high both for the state and users. The project can be quickly realized by financial participation of future users without any long preparations. It is necessary just to start up the company and incentives will be used primarily to draw attention to the seriousness and importance of the project. Since geothermal energy is present everywhere and that there are technological capabilities to use it very effectively, it may generate great benefits to the state:

- Only dissemination of information can indicate great cost effectiveness of the application of heating pumps,
- Appropriate measures for stimulating the use of heating pumps in the period of the following year would lead to a reduction in the share of electrical power for heating flats that would enable profitable export of electricity,
- Consumption of fossil fuels would be reduced, emission of harmful gases and would produce amplification of other ecological effects,
- It would contribute to increase of scientific and technological knowledge about use of heating pumps,
- Serbia would readily access European integration process on an equal level in regard to the increase of energy efficiency. (Janković, 2009, p.3)

Use and exploitation of geothermal energy in Serbia must become more intensive due to the following factors: tension of oil and energy imbalance, market economy, steady increase of deficit

of fossil and nuclear fuels, worsening of ecological situation and the increase of costs for environmental protection. Direct use of geothermal energy for heating and heating in rural and urban areas and the development of agriculture and tourism is of the greatest importance for Serbia.

## 5. Conclusion

Activities carried out to introduction of use of geothermal energy in Serbia in the last 30 years have had very limited success. Serbia has a great need and all the prerequisites to develop rapidly geothermal technology. The development of geothermal resources and geothermal technologies should become the primary interest of the country. From an economic point of view and in regard to environmental protection, domestic clean energy resources are able to be incorporated into the state economy because they offer benefits that can not be offered by other energy resources.

If great opportunities for exploitation of geothermal resources from little depths by means of geothermal heat pumps are taken into account in the territory of almost entire Serbia, then geothermal energy needs to be adequately treated in Strategy of energy development as equal to other energy generating products.

It is necessary to take the following measures in order that Serbia could achieve greater utilization of geothermal energy: more efficient use of the existing geothermal springs and drill-holes, activate sealed drill-holes and use geothermal heating pumps more intensively.

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PART EIGHT:

*Economic/Business Development and Education,  
Entrepreneurship Policies*



## HIGHER EDUCATION AND COMPETITIVENESS: THE CASE OF REPUBLIC OF SERBIA

Dubravka ŠKUNCA<sup>190</sup>

### Abstract

*This paper explores the international competitiveness of the Serbian economy and factors which contribute to its economic competitiveness. It focuses particularly on education factors identifying features of the higher education system that urgently need reform. It argues that the current higher education system has been unable to respond sufficiently promptly to the demands of the changing world environment. The findings suggest that student curriculum is overburdened and outdated, and needs to be brought in line with modern developments and practices. Both students and teaching staff should be involved in this developmental process. The emphasis needs to shift from teaching to learning. To include Serbian students and teaching staff from all academic fields in international networks is of great importance for the future of universities and society as a whole. Universities that are educating students in different areas have to include mandatory highly weighted practical training in their curriculum that would be conducted in well established institutions and that would be strictly controlled by the university. Activities that should be introduced to the higher education level include introduction of standardized admission to tertiary education and ensuring coherence between university entrance examinations and secondary school curricula. The oral examination should not be the sole mean of examination and mandatory plagiarism detection software should be implemented. Stronger emphasis should be on socio-economic need in providing public financial support for university education, including access to dormitories and study loans. The process of setting scholarship quotas with faculties should be public and transparent. Better integration of faculties would help foster a more transparent management of the higher education sector by facilitating the data collection process, the standardization of exams or the application of quality assurance mechanisms. Anonymous student evaluations of teaching staff should be introduced.*

**Keywords:** competitiveness, higher education, education system, education strategy

### 1. Introduction

This paper consists of introduction, four chapters and conclusion and recommendations. First part of the paper *Higher education in Serbia* and third part *Rank of Republic of Serbia* consists of theoretical framework and literature review. Second part *Determinants of competitiveness* and fourth part *Proposal of new indicators* are empirical and represent author's proposal of specific new indicators that should be implemented in competitiveness analysis of Serbia in Global Competitiveness Report, issued by World Economic Forum. This way, the better estimation of the competitiveness level of Serbia in the area of higher education will be possible. Competitiveness is the process by which one country seeks to out-perform others with the goal of winning. At the

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macro level, national competitiveness is a consolidation of the micro level performances of companies and individuals. In addition, national competitiveness can be defined as the ability of a national economy to compete with its goods and services in world markets with other national economies; or as the ability of one economy to develop on a healthy basis and with its own resources. The Global Competitiveness Report issued by the World Economic Forum is the internationally accepted for the analysis of national economies. That Report defines competitiveness as a set of institutions, policies and factors that determine the level of productivity of a country. The level of productivity sets the sustainable level of prosperity that can be earned by the economy. According to the Global Competitiveness Index rankings in the Global Competitiveness Report 2013-2014, Serbia is ranked 101 out of 148 countries. Position of Serbia can be upgraded by implementing new indicators in 5th pillar of competitiveness of Global Competitiveness Report. These new indicators should be *Graduates from public universities (in % from enrollment rate), Average time student spent on public universities studies, Time spent on practice during tertiary education, Coordination between higher education and economy needs and Practical implementation of gain knowledge on job.*

University teachers are working with groups of students that are too large to make teaching effective. Supervision and guidance are practically impossible because of the number of students. Due to the excessively detailed curricula and outdated pedagogical methods, the activities of students are basically reduced to the memorization of unrelated facts. In other words, the curricula need to be adapted to the needs of society, thereby meeting European standards. It will be difficult to change the old system of teacher-centered teaching techniques, dominated by the “ex cathedra” approach and adopt more skills-oriented methods. Consequently, it will be important to combine curricular reform with the retraining of university teaching staff, since the introduction of new programs into a rigid faculty system may have little effect on teaching methods. Students are not encouraged to express their own opinions and engage in debate. They are rarely involved in discovery activities, problem-solving, classroom interaction, group work, individual or group projects. Students have not been involved in evaluating the performance of their university teachers. Evaluation methods are needed in order to enhance curriculum development, improve teaching techniques and develop communication with the scientific community.

## 2. Higher education in Serbia

The history of education in Serbia starts in the year 1718, when the first form of primary school appeared in Belgrade. The development of regular secular elementary schools began in 1805, and of grammar schools in 1833, in Kragujevac, the capital of Serbia at that time. The first high school was established in the year 1838 in Kragujevac under the name of Lycée, and the first university was established in 1863 in Belgrade. Historically, Serbian faculties benefit from a high degree of autonomy. As a result, the higher education sector appears totally fragmented, with the existence of 85 faculties, grouped under seven public universities with 228 525 students in the 2010-11 academic year. Each faculty must belong to a university and comply with the national regulatory framework, but it is self-managed. It is governed by a council, which is responsible for the preparation of financial plans and activity reports; the distribution of financial resources; and the management of the institution’s property, tuition fees and academic matters. Serbian public and private higher education institutions have engaged in a reform process to meet the standards of the Bologna Declaration. The Law on Higher Education recognized the European Credit Transfer and Accumulation System as mandatory for all higher education degree programs. On this basis, the Commission for Accreditation and Quality Assurance developed standards for self-assessment, external quality, and accreditation of institutions and study programs that were approved by the National Council of Higher Education in October 2006. Since the academic year 2006/07, the three-cycle structure prescribed by Bologna (i.e. undergraduate studies, Master and

Doctorate) has been progressively adopted by all Serbian higher education institutions. The introduction of the Bologna Process also favored the development of a full quality assurance and accreditation system, with the establishment of the Commission for Accreditation and Quality Control. The Commission accredits three types of institution: universities, faculties and study programs (an institution must be accredited to propose accredited programs). The ministry only supervises the process from a legal point of view and issues work permits once an institution has been accredited. Between 2007 and 2010, Commission for Accreditation and Quality Control accredited 13 universities (eight state, five private), 112 faculties and 1 182 study programs. It rejected five faculties and 56 programs and sent warning signals to 4 faculties and 121 programs. No new institution can operate without receiving this accreditation. The accreditation is granted for five years. Transparent operation of Commission for Accreditation and Quality Control is crucial to the integrity of the higher education system. If the accreditation system can be manipulated, it means that there are no reliable standards for judging the quality of academic performance, which in turn leaves the door open for abuse of professional and financial standards (OECD, 2012).

### 3. Determinants of competitiveness

‘Competitiveness’ is a key term in the new era of globalization as countries strive for advantage. Competitiveness is the process by which one country seeks to out-perform others with the goal of winning (Bagarić, 2005). At the macro level, national competitiveness is a consolidation of the micro level performances of companies and individuals. In addition, national competitiveness can be defined as the ability of a national economy to compete with its goods and services in world markets with other national economies; or as the ability of one economy to develop on a healthy basis and with its own resources. With the aim of studying national competitiveness, the modern literature on the subject offers a set of indicators used as measures of national competitiveness, and a set of determining factors representing the main stimuli of national competitiveness. The set of indicators includes, for example, standard of living, growth rates, levels of exports and trade balance; and the set of determining factors includes, for example, investment, productivity and education. Of course, there are additional factors that foster national competitiveness. The Global Competitiveness Report issued by the World Economic Forum is the internationally accepted for the analysis of national economies. That Report defines competitiveness as a set of institutions, policies and factors that determine the level of productivity of a country. The level of productivity sets the sustainable level of prosperity that can be earned by the economy. The World Economic Forum ranks competitiveness of nations in relation to 12 pillars of economic competitiveness that are divided into three groups – ‘Basic requirements’, ‘Efficiency enhancers’ and ‘Innovation and sophistication factors’. Carefully chosen indicators are defining each pillar. In the group of ‘Basic requirements’ there is the fourth pillar of ‘Health and primary education’, which includes 10 indicators, 2 of them associated with education: ‘Quality of primary education’ and ‘Primary enrollment’. The second group ‘Efficiency enhancers’ includes the fifth pillar of ‘Higher education and training’ that measures education through all 8 indicators – ‘Secondary enrollment’, ‘Tertiary enrollment’, ‘Quality of the educational system’, ‘Quality of math and science education’, ‘Quality of management schools’, ‘Internet access in schools’, ‘Local availability of research and training services’ and ‘Extent of staff training’. This group has also the seventh pillar of competitiveness in ‘Labor market efficiency’, which includes 10 indicators, 2 of these being associated with higher education: ‘Reliance on professional management’, and ‘Country capacity to retain talent’, an indicator that measures the altitude of the number of skilled intellectual and technical workers who move to more favorable economic and professional environments (World Economic Forum, 2013). Position of Serbia can be upgraded by implementing new indicators in 5th pillar of competitiveness ‘Higher education and training’ of Global Competitiveness Report - *Graduates from public universities (in % from enrollment rate), Average time*

*student spent on public universities studies, Time spent on practice during tertiary education, Coordination between higher education and economy needs and Practical implementation of gain knowledge on job.* Indicator *Graduates from public universities (in % from enrollment rate)* should be implemented because only 14% of the Serbian workforce graduated from university, which is very low by international comparison. *Average time student spent on public universities studies* is important because, for example, in the Faculty of Law, before Bologna Process implementation, only 1.5% of the students finished within standard length of study. *Time spent on practice during tertiary education* is very valuable for preparing students for world of work, but most of the universities are neither coordinating nor controlling that training in an appropriate way. *Coordination between higher education and economy needs* is valid indicator, because unemployment stands at 37% of the total working-age population, 50% of whom are under 30 years of age. *Practical implementation of gain knowledge on job* should be important indicator, because the educational system is unable to meet the need of employers, which actually represents the problem of establishing and conducting a National Qualifications Framework. (Government of Serbia, 2006).

#### 4. Rank of Republic of Serbia

According to the Global Competitiveness Index rankings in the Global Competitiveness Report 2013-2014, Serbia is ranked 101 out of 148 countries.

**Table 1.** The pillars and indicators related to higher education from Global Competitiveness Report 2013-2014 with their ranks out of 148

„EFFICIENCY ENHANCERS“ – Rank 92		
5 <sup>th</sup> Pillar of Competitiveness: „HIGHER EDUCATION AND TRAINING“ – Rank 83		
Indicator 5.01	“Secondary education enrollment, gross %“	Rank 62
Indicator 5.02	“Tertiary education enrollment, gross %“	Rank 50
Indicator 5.03	“Quality of the educational system“	Rank 111
Indicator 5.04	“Quality of math and science education“	Rank 55
Indicator 5.05	“Quality of management schools“	Rank 114
Indicator 5.06	“Internet access in schools“	Rank 84
Indicator 5.07	“Availability of research and training services“	Rank 121
Indicator 5.08	“Extent of staff training“	Rank 140
7 <sup>th</sup> Pillar of Competitiveness: „LABOR MARKET EFFICIENCY“ – Rank 119		
Indicator 7.07	“Reliance on professional management“	Rank 135
Indicator 7.08	“Country capacity to retain talent“	Rank 146

The “Quality of management schools“ indicator ranks Serbia very low at the 114<sup>th</sup> place, and according to the “Availability of research and training services“ indicator, Serbia is at a low 121<sup>th</sup> place. Serbia has absolutely unacceptable evaluations for the “Extent of staff training“ indicator – 140<sup>th</sup> place, “Reliance on professional management“ indicator - 135<sup>th</sup> place, and “Country capacity to retain talent“ – 146<sup>th</sup> place. The indicator, “Internet access in schools”, reveals the level for the provision of IT equipment as well as the quality of connections on the world Internet network. According to this indicator, Serbia is ranked 84. However, we can be optimistic, because activities at state level that should result in upgrading this domain are in progress. Also, the price of IT equipment and Internet connections have fallen in the last two years, which can be said to favor the probable realization of positive expectations. In the fifth pillar of competitiveness, “Higher education and training”, in the Global Competitiveness Report there are two indicators, “Availability of research and training services” (121<sup>th</sup> place) and “Extent of staff training” (140<sup>st</sup> place) which are related to the possibilities given to employees in terms of conducting research and training and upgrading professional qualifications, regarding which Serbia ranks low. The unsatisfactory position of Serbia, especially with

respect to the latter indicator, is to be expected, considering the small number of properly educated management executives. This is a significant defect, since it is crucial for top management to constantly upgrade their skills and knowledge and to support the “life-long learning” process. According to the twelfth observed indicator, “Reliance on professional management”, which is evaluated by the survey, the World Economic Forum has ranked Serbia 135<sup>th</sup>, which represents one of the lowest positions amongst the indicators (World Economic Forum, 2013). Certainly, statistical data concerning the education of some of the current executive staff have to exist. In Serbia, it is still common that in hospitals the doctor is the director, and in schools, professors work as school principals without any management education. This type of director, without knowledge in the area of management, finance and marketing, surely needs to obtain additional education of at least one year in the above-mentioned and other areas, as is the common practice in many countries in the world. As regards the indicator, “Country capacity to retain talent”, Serbia occupies 146<sup>th</sup> place, which means that in that area almost nothing has been done. In recent years, around 4,000 young people with university degrees leave Serbia every year. So far, around 400,000 persons, mostly young and educated, have left Serbia since 1990. With these data in mind, it comes as no surprise that Serbia is almost in last place in the Global Competitiveness Report issued by the World Economic Forum, when “brain drain” is the focus.

## 5. Proposal of new indicators

Position of Serbia can be upgraded by implementing new indicators in 5<sup>th</sup> pillar of competitiveness of Global Competitiveness Report. These new indicators should be *Graduates from public universities (in % from enrollment rate)*, *Average time student spent on public universities studies*, *Time spent on practice during tertiary education*, *Coordination between higher education and economy needs* and *Practical implementation of gain knowledge on job*.

**Table 2.** Indicators related to higher education from 5<sup>th</sup> pillar of competitiveness of Global Competitiveness Report 2013-2014 and new proposed indicators

INDICATORS OF COMPETITIVENESS IN 5 <sup>TH</sup> PILLAR OF COMPETITIVENESS: „HIGHER EDUCATION AND TRAINING“
Secondary education enrollment, gross %
Tertiary education enrollment, gross %
Quality of the educational system
Quality of math and science education
Quality of management schools
Internet access in schools
Availability of research and training services
Extent of staff training
NEW INDICATORS OF COMPETITIVENESS THAT SHOULD BE INCORPORATED IN 5 <sup>TH</sup> PILLAR OF COMPETITIVENESS: „HIGHER EDUCATION AND TRAINING“
Graduates from public universities (in % from enrollment rate)
Average time student spent on public universities studies
Time spent on practice during tertiary education
Coordination between higher education and economy needs
Practical implementation of gain knowledge on job

*Graduates from public universities (in % from enrollment rate)* is an important indicator because only 14% of the Serbian workforce graduated from university. This is very low by international comparison, but is around the average for the region (13.7%). The analysis of complaints submitted via the official channels of the Ministry of Education and Science shows that the most frequent complaints in year 2010-11 were about university procedures and administration. This



category includes unscheduled course examinations and issues related to admission and ranking. Despite the reforms of recent years and the changes triggered by the Bologna Process implementation some examinations are still taken orally and most examinations have a strong focus on memorizing of definitions, theories, concepts and less on an analytical approach to knowledge. Students often take one-on-one exams with the professor and this continuing reliance on oral examinations at higher education levels increases the potential for unacceptable practices as they are difficult to regulate and mark according to objective standards, especially if there is only one professor present at the assessment of the student.

*Average time student spent on public universities studies* is valid indicator. In the Faculty of Law, before Bologna Process implementation, only 1.5% of the students finished within standard length of study (four years); and after this share grew to 7% (and even 16% for budget students). Similarly, in the Faculty of Electrical Engineering, before Bologna, only 5% of students finished their studies on time; after Bologna, this percentage went up to 40%, but there is still room for improvement.

Universities that are educating students in different areas have to include mandatory highly weighted practical training in their curriculum that would be conducted in well established institutions and that would be strictly controlled by the university. That is why *Time spent on practice during tertiary education* is valid indicator. Today, universities in Serbia that are educating future managers only require their students to bring confirmation that they have undergone practical training in some company for a limited period, usually a few weeks. This practical training is then recognized as part of the educational process, although universities are neither coordinating nor controlling that training in an appropriate way.

Youth unemployment is an indication of a mismatch between schooling and the needs of the labor market. *Coordination between higher education and economy needs* is important indicator since unemployment stands at 37% of the total working-age population, 50% of whom are under 30 years of age. Job opportunities are few, especially for youngsters with low qualifications. Access to university has widened with the introduction of fee-paying students, but at some cost to quality. Non-completion rates are high, and those students who do stay, take, on average, far longer than the normal time to complete their degrees. It is not enough for teachers to simply "deliver the curriculum according to the timetable". Basic skills, which need to be acquired by all, are not reflected in teaching programs; yet it is those skills that enable youngsters to progress in further schooling, find employment, or participate usefully in daily life. The emphasis needs to shift from teaching to learning, and professors need to have a much better understanding of standards-based, formative assessment in their own classrooms (OECD, 2012).

The conclusions of the analysis of one generation of students who were tracked from primary school right through to their higher education are presented in *National strategy for the Economic Development of the Republic of Serbia: 2006-2012*. Between 8% and 10% of students have completed higher schools and universities on a time scale that can be considered as acceptable for obtaining proper employment in Serbia. Between 15% and 20% of students in the observed generation are enabled to be part of the world of work after completion of high school, and in most cases employers consider them adequate for certain job. About 20% of students in the observed generation, during their education or after completing it, have left Serbia. From this significant percentage of young people, only a small number of them is returning to Serbia afterwards. Between 50% and 55% of students in the observed generation are not prepared for the world of work. They have to be reeducated, or they have to acquire additional skills. That is why indicator *Practical implementation of gain knowledge on job* should be introduced. From the mentioned percentage, between 30% and 35% have completed high school, while about 20% have completed only primary education. A small proportion of students in this category have completed higher schools or universities. According to these findings in the above-mentioned statistical analysis, certain problems that effect education in Serbia can be defined. There is a constant need for reeducation of personnel. Many young people are going abroad during or after completing hi-



gh school in the important areas of development: electrical engineering, informatics, technology, medicine, pharmaceuticals. Dropping-out is most common in the area of higher schools and universities. The educational system is unable to meet the need of employers with respect to employees with specific knowledge and skills (analytical abilities, concepts of conduct and software tools), which actually represents the problem of establishing and conducting a National Qualifications Framework. The available curriculum is divided in terms of theoretical and practical teaching, which inadequately prepares students for solving economic problems (Government of Serbia, 2006).

University teachers are working with groups of students that are too large to make teaching effective. Supervision and guidance are practically impossible because of the number of students. Due to the excessively detailed curricula and outdated pedagogical methods, the activities of students are basically reduced to the memorization of unrelated facts. In other words, the curricula need to be adapted to the needs of society, thereby meeting European standards. It will be difficult to change the old system of teacher-centered teaching techniques, dominated by the “*ex cathedra*” approach and adopt more skills-oriented methods. Consequently, it will be important to combine curricular reform with the retraining of university teaching staff, since the introduction of new programs into a rigid faculty system may have little effect on teaching methods. Students are not encouraged to express their own opinions and engage in debate. They are rarely involved in discovery activities, problem-solving, classroom interaction, group work, individual or group projects. Students have not been involved in evaluating the performance of their university teachers. Evaluation methods are needed in order to enhance curriculum development, improve teaching techniques and develop communication with the scientific community.

Scholarships are tied to study places and are the main channel of state funding for universities. Faculties have to rely on student fees to make ends meet or to improve their study offer, which provides a strong incentive to have as many fee-paying students as possible, or, in other words, to be highly restrictive when granting access to public support. At the same time, the state has delegated to public universities the full responsibility for deciding which students are suitable to receive this support. Every student who completes four years of secondary schooling is allowed to access higher education provided he/she has success at the enrollment exam organized by the individual faculties. The admission examination is administered by the university or faculty, depending on the intra-university organization. There are no general regulations concerning by whom and how the entrance exam should be prepared, nor what its content should be. Consequently, test difficulty and subject knowledge requirements vary greatly among faculties. The absence of overarching regulations regarding the content of admission examinations is a concern. It limits the credibility of the admission system, allows universities to define admission requirements that are detached from the secondary curriculum, and increases possibilities for fraud. For students, a compromised examination and assessment environment – and widespread doubts about the relevance and quality of some or many of the subjects taught – create an atmosphere of tolerance for cheating and fraud. Control against plagiarism in coursework seems weak, as many students who took part in the Student Network survey report behavior which goes against the code of academic work, such as adding unread books and articles to reference literature, paraphrasing a section of text, and copying a section of text without quoting the source. Lack of awareness and understanding that any form of academic fraud is unacceptable, is widespread. In a student survey carried out in 2003, 45% of the students found it fully acceptable to cheat, and seven out of eight admitted readiness to cheat should there be an opportunity. Sometimes plagiarism is also due to a lack of confidence in the student’s own skills and knowledge. In any case, academic fraud is a serious threat to integrity and the reliability of certificates in higher education and can lead to skepticism about the validity of results and suspicion about actual performance. It has real consequences for the quality of educational institutions, because students who have faked their results might not be suitable for university-level work, which in turn would degrade the quality of study programs. It also has consequences

in the job-market when employers find discrepancies between official qualifications and the knowledge and capacity of new entrants in the workplace. There is competition for funding not only between students, but also between faculties. The prestige, size and level of income of faculties vary significantly from one higher institution to another and within institutions. Some of the renowned institutions also function as entrepreneurial organizations, generating their own incomes which are often used to increase salaries. The situation is quite different in other higher education institutions with relatively modest market appeal. These faculties have an incentive to lower academic standards in order to attract students. At the same time, since even the poorest public institutions dispose of a certain number of public scholarships, less successful student applicants are often willing to enroll in a field of study in which they have no interest, just to obtain access to public financial support, dormitory placement and other benefits. It has a negative impact on the motivation of students to learn and invest effort (OECD, 2012).

## 6. Conclusion and recommendations

Activities that should be introduced to the higher education level include introduction of standardized admission to tertiary education and ensuring coherence between university entrance examinations and secondary school curricula. The oral examination should not be the sole mean of examination and mandatory plagiarism detection software should be implemented. Stronger emphasis should be on socio-economic need in providing public financial support for university education, including access to dormitories and study loans. The process of setting scholarship quotas with faculties should be public and transparent. Better integration of faculties would help foster a more transparent management of the higher education sector by facilitating the data collection process, the standardization of exams or the application of quality assurance mechanisms. Anonymous student evaluations of teaching staff should be introduced.

Competitiveness position of Serbia can be upgraded by implementing new indicators in 5th pillar of competitiveness 'Higher education and training' of Global Competitiveness Report - *Graduates from public universities (in % from enrollment rate)*, *Average time student spent on public universities studies*, *Time spent on practice during tertiary education*, *Coordination between higher education and economy needs* and *Practical implementation of gain knowledge on job*. Indicator *Graduates from public universities (in % from enrollment rate)* should be implemented because only 14% of the Serbian workforce graduated from university, which is very low by international comparison. *Average time student spent on public universities studies* is important because, for example, in the Faculty of Law, before Bologna Process implementation, only 1.5% of the students finished within standard length of study. *Time spent on practice during tertiary education* is very valuable for preparing students for world of work, but most of the universities are neither coordinating nor controlling that training in an appropriate way. *Coordination between higher education and economy needs* is valid indicator, because unemployment stands at 37% of the total working-age population, 50% of whom are under 30 years of age. *Practical implementation of gain knowledge on job* should be important indicator, because the educational system is unable to meet the need of employers.

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## ENTREPRENEURSHIP EDUCATION FOR AN ECONOMIC DEVELOPMENT

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### Abstract

*For a longer period, under the pressure of the global connectivity, availability and competition, improvement and competition can be noticed at the level of university education. However, the pressure of the habits, the tradition, the ambient and the expectations not always create enough sensitivity for the new to be accepted on time. Furthermore, the fact that the University is an inert institution has an impact on this. Its improvement would cause big changes which can bring results that are enormous and can have an impact on the efficiency of the systems. The universities slowly adapt to the surroundings, usually with minimal-cosmetic changes.*

*In the time when the entrepreneurship is present into all the spheres of the society and creates noticeable improvement, it seems that it is less present into the educational system, especially in the education at the higher level. It seems that we learn through practice, because we do not gain any practical skills from the educational institutions. It is clear and already proven through practice that the entrepreneurship provides fast growth and development, which are really required for a refresh of the higher education. It will provide inspiration and improvement of the knowledge, as well as of the transfer, and in this way the entrepreneurial education will strengthen its link with the business.*

*The entrepreneurship in both directions (first of all towards itself, and then towards the students) will provide knowledge, skills and motivation for encouragement of the entrepreneurship studies in a different ambient for the students. The entrepreneurial spirit built in the concept in which the University is now transforming, with the help of the new approach of organization and maximum autonomy in the sphere of creativity, invention and innovation may be the real combination. With the help of appropriate university leadership and solid staff this could provide the position of Avantgarde, without which the University minimizes its basic functions.*

**Keywords:** entrepreneurship, education, economic development, universities

### 1. Entrepreneurship education

In the world of globalization and challenges of the modern world, in which the knowledge, innovations and changes are happening constantly, arises the question which are those skills, knowledge and abilities that should be adopted by people in order to be successful in their personal and professional life, having into consideration that the traditional system of education cannot react fast and efficient enough to follow the changes. For this reason, one of the basic competen-

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ces, by references of the European Parliament and Council is the entrepreneurship. Entrepreneurship is more than the mere creation of business.

The education in entrepreneurship can cover the entire scope of business administration, and as such is the closest approach to the original concept of management education available in universities. The field of study that takes a broad, integrative, pragmatic, rational approach to business would find itself increasingly popular with those who aspire to be entrepreneurs, managers, and top executives<sup>195</sup>.

The whole set of education and training activities that try to develop in the participants the intention to perform entrepreneurial behaviours, or some of the elements that affect that intention, such as entrepreneurial knowledge, desirability of the entrepreneurial activity, or its feasibility are the key concepts of entrepreneurship education.<sup>196</sup> This includes the development of knowledge, capacities, attitudes and personal qualities identified with entrepreneurship.

## 2. Changes for entrepreneurship education

### – *Entrepreneurial awareness education*

Its purpose would be to increase the number of people having enough knowledge about small enterprises, self-employment and entrepreneurship, so that they consider that alternative as a rational option. One example of this type of initiatives would be courses imparted at universities. They are usually optional courses within business or engineering degrees. This kind of courses fits very well into the characteristics of university instruction and, especially, of secondary schools.<sup>197</sup>

### – Education for start-up

It would consist of the preparation to be the owner of a small business, as are the great majority of all new firms. It would be centred on the specific practical aspects related to the start-up phase: how to obtain financing; legal regulations; taxation; and so on<sup>198</sup>.

### – *Intention-based models of entrepreneurship education*

Participants in this type of courses are usually highly-motivated about the project. So, they tend to show much interest in course contents. These courses should try to develop the entrepreneurial intention of the participants.

### – *Education for entrepreneurial dynamism*

It would try to promote dynamic entrepreneurial behaviours after the start-up phase. Therefore, their objective would not only be to increase the intention of becoming an entrepreneur, but also the intention of developing dynamic behaviours when the enterprise is already in operation. However, the conventional forms of education do not allow for the development of entrepreneurial quality<sup>199</sup>, thus it would be necessary to use alternative educational models<sup>200</sup>.

### – *Continuing education for entrepreneurs*

This would be the last type of entrepreneurship education. It would be a specialized version of adult education in general, designed to allow improvement of the existing entrepreneur's abilities<sup>201</sup>.

<sup>195</sup> Kuratko D., Entrepreneurship education: Emerging trends and challenges for the 21st century, Coleman Foundation White Paper Series, 2003

<sup>196</sup> Liñán Φ. Intention-based models of entrepreneurship education <http://congreso.us.es/gpyde/DOWNLOAD/a9.pdf>

<sup>197</sup> Garavan, T. N. and B. O'Kinneide (1994). "Entrepreneurship education and training programmes: A review and evaluation - Part 2." *Journal of European Industrial Training* 18(11): 13-22

<sup>198</sup> Curran & Stanworth, (1989) 'Education and training for Enterprise: some problems of classification, policy, evaluation and research', *International Small Business Journal* 7(2)

<sup>199</sup> Guzmán & Santos, (2001) The booster function and the entrepreneurial quality: an application to the province of Seville. *Entrepreneurship and Regional Development* 13:211-228

<sup>200</sup> Garavan & O'Kinneide, 1994

<sup>201</sup> Weinrauch, 1984 Continuing education for entrepreneurs

These objectives of entrepreneurship education still need a lot of research to enlarge their knowledge-base, to perfect their teaching techniques, to improve their effectiveness<sup>202</sup>. In any event, education for entrepreneurial dynamism is probably the most relevant category<sup>203</sup>.

Entrepreneurship is a lifelong learning process, which starts in the primary schools and continues at all levels of education. The entrepreneurial education must be an integrated part, in which several elements that have an impact on one another will be included. Elements which are part of the entrepreneurial education are the students, the educational system, the business and the society.

The development of the entrepreneurship, or the entrepreneurial culture, is one of the most important subjects nowadays. Particularly, in the condition of a global crisis, many scientists see the solution in the development of SME's, which are innovative, flexible and offer many employment opportunities. On long term, the country must build strong entrepreneurial culture.

### 3. Current initiatives and programs for entrepreneurship

It is important that the current picture of entrepreneurship education in Europe is viewed in context. The integration or reinforcement of entrepreneurship education is among the objectives of many of the curricular reforms. Initiatives and programmes to promote entrepreneurship education are widespread. In some countries, there are specific strategies to develop entrepreneurship education while in others there exist broader educational or economic strategies. In the countries where such strategies have not yet been developed, this must be done in nearest future. Closer cooperation between stakeholders in education and business is one of the means used to promote and implement entrepreneurship education. In some cases, the aim of such cooperation is to enable students to discover the world of work and prepare them for their own future career choices. Few examples are given in the text.

In Belgium, a network of education and business representatives focuses on cooperation and the transition between school and work. It runs several projects and activities to facilitate meetings between students and businesses and fosters the development of an entrepreneurial spirit<sup>204</sup>.

In Cyprus, students can gain experience in a profession of their choice over one week. Furthermore, two or three times a year, the Enterprise Day programme gives students the opportunity to become familiar with the workplace and the daily activities of a person in business.

In Latvia meetings of upper secondary students and representatives of 20 successful and innovative enterprises working in sectors such as pharmacy and food production are organized. Students and their teachers meet with business managers and have the opportunity to discuss topics on innovative business solutions.

In some countries, incentives are given to schools and other interested parties to develop a variety of programmes to promote entrepreneurship education. This gives schools the opportunity to gain funding for pilot projects as a first step to embed entrepreneurship education in the curriculum.

In Malta, the Government launched the Entrepreneurship through Education Scheme. Its aim is to provide support to all schools in primary and lower secondary education for the implementation of projects promoting entrepreneurship.

The organisation of entrepreneurship competitions can be seen as an incentive to students to engage in entrepreneurial projects. Furthermore, the certification of entrepreneurial skills adds

<sup>202</sup> Curran & Stanworth, (1989) 'Education and training for Enterprise: some problems of classification, policy, evaluation and research', *International Small Business Journal* 7(2)

<sup>203</sup> Garavan & O'Cinneide, 1994; Liñán, 2004 Entrepreneurship education and training programs; Research-based Methods of Reading Instruction, Grades K-3

<sup>204</sup> Outcomes Education, Audiovisual and Culture Executive Agency, 2012.



value for students who choose to invest in their skills development. However, the wider impact of the competitions on the development of entrepreneurship skills is restricted as access to them is often limited.

In Austria, the Entrepreneur's Skills Certificate is a course of four modules covering essential and practical questions on entrepreneurship. It can be delivered alongside the core curriculum in school settings from lower secondary education.

In Romania, the Business Plan Competition was introduced in the school year 2008/09 as a joint initiative of the Ministry of Education, Research, Youth and Sports, the National Centre for the Development of Vocational and Technical Education, KulturKontakt Austria and other social partners.

In Belgium the project Proleron aims to raise the standard of entrepreneurial education by training secondary school teachers in entrepreneurship and developing their entrepreneurial attitudes through adopting non-traditional approaches and teaching methods and by using non traditional pedagogical tools.

In Bulgaria, the Ministry of Education organised pilot training projects for teachers in primary education.

In the Netherlands, the Education and Entrepreneurship Action Programme 2007 and 2009 also included a training programme for teachers to ensure they act in an entrepreneurial manner themselves and to help them encourage entrepreneurial behaviour in their students.

In the United Kingdom, to support enterprise in schools the government is enhancing online resources for teachers at the Enterprise Village and promoting the recruitment of 2 500 local enterprise champions through the Inspiring the Future website.

Many examples can be found for the implementation of entrepreneurship education by involving students in setting up and running fictive companies. In Ireland, for example, students in the Transition Year (first year of upper secondary education) and taking part in the Enterprise module can get involved in mini companies.

In Latvia, the non-profit organisation Junior Achievement – Young Enterprise Latvia plays an active role in organising seminars and workshops for students on establishing and running Student Learning Enterprises. The main aim of the programme is to enhance students' entrepreneurship skills and to develop their decision making skills. Similarly, in Lithuania, Junior Achievement is one of the leaders in the promotion of entrepreneurship education.

In Luxembourg, the Association Jonk Entrepreneuren, created by the government in cooperation with economic stakeholders, offers programmes for different school levels which includes 'mini-enterprises'. Students are responsible for running a mini-enterprise over one year with their teacher as coach.

## **4. Entrepreneurship education experiences in Europe and the United States**

### ***4.1. Entrepreneurship within the university***

Many US universities have academic entrepreneurship departments and a large percentage of schools offer entrepreneurship courses. In Europe, entrepreneurship is still trying to find its home. Activities are in place across Europe but efforts are fragmented and often driven by external actors instead of by the education system itself.

#### *4.2. Multidisciplinary learning*

Another key difference between Europe and the United States is the way universities view education. The world is not divided into functional silos, so the educational process should not be either. In a number of US universities, entrepreneurship is treated as an integral part of a multidisciplinary education process. Students are encouraged to take courses and engage in projects with students from other disciplines, enabling them to draw upon expertise from across the university – engineering, science, design, liberal arts and business. The universities strive to minimize the institutional barriers to this cross-fertilization to provide the most creative and innovation learning process possible. The result is a dynamic team- and project-based learning environment. The Kauffman Foundation, which with an asset base of USD 2 billion is the largest foundation in the world focused on entrepreneurship, is encouraging the integration of entrepreneurship across entire campuses. The Foundation has selected “Kauffman campuses” in the United States and is supporting those schools’ efforts to create cross-campus, cross-disciplinary entrepreneurship programs to install entrepreneurial thinking in all disciplines. Even on campuses with less of an interdisciplinary approach, US entrepreneurship programs often connect traditional business courses with those offered in science and technology programs. This allows for the sharing of expertise and knowledge between the business and technical students, sparking greater innovation and facilitating technology transfer. Increasingly this approach is spreading across Europe, with great examples provided by the University of Cambridge as well as a number of other institutions across Europe.

#### *4.3. Academic-business links*

Other differences lie in the attitude and approach to teaching. In the United States, entrepreneurship education is very closely linked with business practice. Professors often have experience working with start-ups. Entrepreneurs, many of them alumni of the university, are both brought into the classroom to speak to students as well as to teach courses. These courses are structured to be as experiential as possible, incorporating real-life cases, projects, internships and business plan competitions. Case studies also provide role models for students considering an entrepreneurial career path. This is an important part of creating entrepreneurial drive: if students see that people “like themselves” were able to successfully create companies, it helps to demystify the process and make that option more feasible. While interactive approaches, usually project-based, are also used in Europe, most entrepreneurship courses are still taught by the lecture method. Case studies are sometimes utilized but they are rarely focused on European entrepreneurs as potential role models. More European case studies, featuring successful entrepreneurs, need to be developed and shared broadly through schools across Europe. More could also be done to profile these entrepreneurs in the media to create a broader exposure to such role models. US universities foster networks with entrepreneurs, business practitioners, venture capital firms and business angels as part of a mutually reinforcing learning and sharing process. In Europe, most universities are government funded and, in many cases, they lack the experience and incentives to initiate proactive outreach with the private sector. Government-funded universities tend to have very traditional structures making it more difficult to integrate new approaches. In addition, they tend to be more nationally focused than internationally minded by nature of their funding base.

#### *4.4. Quality of the entrepreneurship curricula*

The proliferation of entrepreneurship programs in the United States and increasingly in Europe has been positive in terms of validating interest in the field, but more depth and rigor is needed to ensure that entrepreneurship courses, materials and research are of high quality. Research and cu-

riculum development are of particular importance in helping to ensure entrepreneurship's rightful place among the academic disciplines. The Kauffman Foundation has been focusing on this issue and recently set up a multidisciplinary panel of distinguished scholars to provide recommendations on the core elements necessary for a high-quality, university-level entrepreneurship program. Universities in Europe are undergoing tremendous change through the implementation of the Bologna agreement, which aims to create more standards among institutions of higher education by 2008. During this process, curriculum content must be rapidly overhauled as well and geared towards developing problem-solving skills, which are greatly needed in today's knowledge-based society. Educational systems and teaching methods must move from traditional to more creative, interactive, student-centered learning methods (EUA, 2005). The Bologna process is an opportunity for European universities to leverage the reform process to make their institutions more innovative and entrepreneurial. Perhaps it can also open the door for more radical changes, including the way in which they manage the institution the faculty they hire, the programs they teach, the flexibility with which they incorporate new topics and the way they teach them, and the students they attract.

#### ***4.5. Funding entrepreneurship***

In the United States, many universities have entrepreneurship centers and chaired professorships of entrepreneurship funded by external sources. In Europe, this is a relatively new phenomenon. In Europe the bulk of the funding still comes from governments, although this is beginning to change as companies and foundations have begun to contribute. There are a few examples of entrepreneurs funding centers or chairs but this is still relatively rare in Europe. In general, Europeans do not feel strong ties to their own universities, which are still seen as the realm of governments; and certainly there have not yet been enough successful entrepreneurs capable of giving back at that level. In addition, very few European universities track their alumni, making it more difficult to know which ones have become entrepreneurs, let alone engage them in the work of the school.

### **5. Entrepreneurship education opportunities and challenges**

There are many opportunities and challenges for entrepreneurship. Universities and business schools must play a key role in promoting entrepreneurship and innovation, helping students learn not only how to start but also how to grow enterprises, including across borders. In particular, technical and scientific universities provide potential breeding grounds for high-technology/high-growth companies or "gazelles". EFER has conducted many surveys and research on entrepreneurship education and research in Europe.<sup>205</sup> The goals of the survey were to gain a perspective on the level and growth of entrepreneurship education in Europe, identify trends, and understand the training and development needs of faculty teaching entrepreneurship.

The role of higher education in society is changing. No longer are universities expected to stay within their ivory towers. European university leadership should see this new role as an opportunity and leverage the Bologna reform process to make their universities more innovative and dynamic, in line with the goals of the Lisbon agenda.

For maximum results, different initiatives should be targeted to change mindset and attitudes, to create functionally, high-growth-oriented entrepreneurship courses through:

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<sup>205</sup> Wilson K., Entrepreneurship Education at European Universities and Business Schools  
<http://www.efer.nl/2013/pdf/RP-European%20EntrepreneurshipEducationPilotSurveyResultsFINAL.pdf>

- Development of appropriate measurement and evaluation of the impact, of entrepreneurship programs
- Integrate entrepreneurship into the curriculum towards a multidisciplinary learning environment
- Set high-quality standards for entrepreneurship curricula and research
- Encourage the use of interactive teaching methods in the classroom
- Ensure a consistent and adequate level of funding for entrepreneurship education programs
- Encourage cross-border entrepreneurship faculty and research collaborations
- Facilitate spin-outs from technical and scientific institutions
- Profile European role models

## 6. Conclusion

Eurydice survey on ‘Entrepreneurship Education’<sup>206</sup> shows that many European countries define specific learning outcomes for entrepreneurship education and these generally cover different aspects of the three dimensions of entrepreneurial attitudes, knowledge and skills. The information shows that a third of countries have practical implementation guidelines for entrepreneurship education and, in also roughly one third of countries, teaching materials have been developed. The ongoing initiatives related to entrepreneurship education in a dozen countries show a range of activities, including closer cooperation between education and business, financial initiatives to fund pilot projects promoting entrepreneurship, the organization of entrepreneurial competitions, the certification of entrepreneurial skills, the setting up and running of student training firms and last, but not least, teacher training and support. Finally, it is important to highlight, that the current picture of entrepreneurship education in Europe is viewed in a context where half of the countries are engaged in a process of educational reform.

Entrepreneurship education today is really necessary for many reasons: 207

- attracts substantial private sector financial contributions.
- produces self-sufficient enterprising individuals
- produces successful business and industry leaders
- enhances a graduate’s ability to create wealth
- produces champions of innovation
- leads to greater opportunities with advancing technologies.

Given the key role entrepreneurial activity has in fostering economic growth and innovation, the evaluation of measures that may stimulate successful entrepreneurship is of high interest to both academics and practitioners alike. Institutional culture, practice and policies often get in the way of developing an entrepreneurial spirit and<sup>208</sup> environment within universities. Entrepreneurship champions play critical roles within the universities but there must also be strong commitment from the university leadership (provosts, rectors and vice chancellors). This requires a complete paradigm shift for the entire university, including changing the fundamentals of how

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<sup>206</sup> [http://eacea.ec.europa.eu/education%20/Eurydice/documents/thematic\\_reports/135EN.pdf](http://eacea.ec.europa.eu/education%20/Eurydice/documents/thematic_reports/135EN.pdf)

<sup>207</sup> Alberta Charney, Gary D. Libecap, IMPACT OF ENTREPRENEURSHIP EDUCATION, The Kauffman Center for Entrepreneurial Leadership, [www.entreworld.org](http://www.entreworld.org).

<sup>208</sup> Wilson K. *Entrepreneurship Education in Europe*, European Foundation for Entrepreneurship Research, Entrepreneurship and higher education – ISBN- 9789264044098 © OECD 2008

the university operates and its role in society. Activities on many levels are needed if we want to create good entrepreneurial environment.

Overall, the entrepreneurial culture and the entrepreneurial education may help in the development of the economy, particularly in the countries in transition, and better positioning in international scales.

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## INFLUENTIAL FACTORS ON ENTREPRENEURIAL ACTIVITY – SUPPORTS AND BARRIERS: THE CASE STUDY OF TRANSITIONAL COUNTRY

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### Abstract

*Research of influences on entrepreneurial activity is of great importance. This paper according to Scott's framework examines influence of society's normative, culture-cognitive (cultural value and beliefs) and regulative (rules) institutions that are related to entrepreneurial activity. In research we examine influence of these factors during the actual entrepreneurial activity through analysis of companies from different industries in a case of a transitional country like Serbia. Social view of entrepreneurs, their status and respect, influence of social contacts, networks, culture (national, industry, corporate), human (intellectual) capital, market specificity and infrastructure, benchmarking and quality management systems on entrepreneurship as well as influence of institutions and regulations are some of the factors that are investigated in the paper. This study aims to contribute to a better understanding of the components of the national environment that influence entrepreneurship in transitional country in order to improve entrepreneurship, business and national economy development. The study aims to confirm existing parameters from the literature and to identify new parameters from the case study, how society's institutions influence enterprising behavior and activity and to reveal obstacles and opportunities to solve them. In order to collect data we made interviews with owners and top managers from 8 small and medium enterprises within 8 different industries. Companies are family owned and managed based on opportunity-motivated entrepreneurship. This paper has argued that society's regulative and normative factors are at least important as cultural values of entrepreneurship in one society.*

**Keywords:** Entrepreneurial activity, society influential factors

### 1. Introduction

Business development and entrepreneurship is a key driver of national economy competitiveness in world market. This is of more great importance for developing transitional countries from state to market economy since they have newly established system of entrepreneurship and they have to compete with developed economies in open trade market. Therefore research of society's factors that make barriers or improve entrepreneurship activity is of great importance.

This paper according to Scott's framework examines influence of society's normative, culture-cognitive (cultural value and beliefs) and regulative (rules) institutions that are related to entrepreneurial activity. In our work we examine influence of these factors during the actual entrepreneurial activity through analysis of companies from different industries in a case of a

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transitional country like Serbia. Social view of entrepreneurs, their status and respect, influence of social contacts, networks, culture (national, industry, corporate), human (intellectual) capital, market specificity and infrastructure, benchmarking and quality management systems on entrepreneurship as well as influence of institutions and regulations are some of the factors that are investigated in the paper. This study aims to contribute to a better understanding of the components of the national environment that influence entrepreneurship in transitional country in order to improve entrepreneurship, business and national economy development.

This paper has argued that society's regulative and normative factors are at least important as cultural values of entrepreneurship in one society. This goal of the paper is to contribute to a better understanding of the factors of the national environment that help to explain the differences in entrepreneurship across countries and help to find main causes for obstacles in business development especially in transitional developing countries. Paper also reveals the existence of different characteristics and society's influential parameters on entrepreneurship in different industries within transitional country. This study aims also to contribute to a better understanding of the components of the national environment that help to explain the differences in entrepreneurship across countries.

This paper is organized as follows. A review of the literature presents the main factors and variables that have been considered in various researches as influential elements on entrepreneurial activity. The research methods section outlines how the research topic emerged and describes the research approach taken. This is followed by a section outlining results from analyzed case studies and how different organizations within different industries in a transitional country understand and accept influences on their entrepreneurial activity. Finally conclusions are made from literature and research data integrating different variables and the results obtained are discussed.

## 2. Literature review

Regional development concerns the upgrading of the economic, institutional and social base, with entrepreneurship that is able to unlock wealth being a prime source of development (Amin, 1999). Entrepreneurship and enterprise development as a tool for improving regional competitiveness is therefore of great importance for regional development. Spatial economics which does not incorporate entrepreneurship factors may fail to understand and identify key sources of regional development (Anderson, 2005), with regions that are open and creative, able to attract human capital and enjoy more dynamic entrepreneurship (Anderson, 2005; Benneworth, 2004). In regions where entrepreneurship is seen as providing valuable rewards, and entrepreneurs are seen as role models, a sustaining entrepreneurial culture can be formed (Saxenian, 1996). In a competitive environment, entrepreneurs will be alert to opportunities and contribute to regional economic growth (Audretsch and Keilbach, 2004).

Huggins and Williams (2011) investigating the relationship between entrepreneurship and regional competition found that entrepreneurship policy at the regional level is multidimensional, with policies broadly ranging from those that are either economically or socially driven. Economic policy drivers at the regional level are usually targeted at improving levels of business growth by encouraging new business start-ups, providing appropriate business support, improving access to finance, supporting specific industries (clusters) that are deemed to be of regional significant, encouraging innovation and investment, and ensuring an appropriate regulatory framework. Social drivers evolve societal values and norms within particular communities like improving enterprise rates in disadvantaged areas which have low rates of entrepreneurship, and groups that are underrepresented in terms of business ownership and the more general stimulation of culture of regional entrepreneurship, particularly among young people especially through the education system (Huggins and Williams, 2011).

A number of researchers have recognized the appropriateness of an institutionalist framework for the study of entrepreneurship in environments, where external conditions can be a dominant

influence on entrepreneurial behaviour (Smallbone and Welter, 2012). In his research Parrilli (2009) highlights some of the main difficulties for one type of industry districts dispersed in economic, social (for example, trust within the local system, individual push of self-realization) and policy – institutional (such as, laws and public programs) factors. Hindle (2010) establish a diagnostic system for assessing the influence that community factors will have upon the conduct and outcome of any proposed entrepreneurial process through three generic institutional components (physical resources, governance/institutional arrangements and property rights) and three generic human factors (human resources, world-views/social networks and the ability to span boundaries).

One of the most promising lines of inquiry in entrepreneurial studies is the examination of how institutions influence enterprising behaviour and organisations (Kalantaridis and Fletcher, 2012). Within sociology the definition and conceptualisation of institutions differs significantly from that in economics. More specifically, Scott views institutions as ‘cultural-cognitive, normative and regulative elements that, together with associated activities and resources, provide stability and meaning to social life’ (Scott, 1995). Regulative elements emphasise rule setting and sanctioning, whilst normative elements contain an evaluative and obligatory dimension. Lastly, cultural/cognitive factors involve shared conceptions and frames through which meaning is understood (Powell, 2007). Considering the question of entrepreneurial activity, formal institutions (political, financial and regulating structures) contribute to creating opportunities, whereas informal institutions (values and cultural norms) shape society’s and individuals’ perceptions of these opportunities (Welter, 2007).

According to Scott’s framework (1995) and study of Valdez and Richardson (2013) society’s normative, culture-cognitive (cultural value and beliefs) and regulative (rules) institutions are related to entrepreneurial activity. According to other researches there is a connection between national differences in entrepreneurial activity and differences at the national level in social, cultural and economic environments and that they support or make barriers to entrepreneurship. A lot of studies have explored the connection between national characteristics and entrepreneurial activity. GEM semi structured study from 1999 to 2001 shows that cultural social norms, financial support, and government policies are the three most often mentioned issues concerning entrepreneurial activity for the experts interviewed.

Normative factor include the participants perceptions of their society’s view on entrepreneurship as a career, the status and respect given to those engaged in entrepreneurship, and the visibility of entrepreneurship in the media (Scott, 1995). Cultural cognitive influence uncover the participants perceived knowledge, skill, and experience required to start a new business, how the participant views the handling of uncertainty, given their resources and background within the national context and uncover the role of the fear of failure in preventing the starting of businesses (Scott, 1995). The regulative dimension is operationalized using the Heritage Foundations and the Wall Street Journal Index of Economic Freedom which consists of 10 components (business freedom, trade freedom, etc.). The concept of economic freedom relates closely to the concept of regulative institutions. Individuals in an economically free society would be free and entitled to work, produce, consume, and invest in any way they please under a rule of law, with their freedom at once both protected and respected by the state. (Miller and Holmes, 2009, p. 11).

Fayolle et al., (2010) investigated the influence of explanatory variable culture and three levels – national, industry and corporate and postulated that corporate and industrial culture can reinforce or weaken the effects of national culture on a firm’s entrepreneurial orientation. To the extent that the culture of an organization reflects not only its founders’ values but also its history, which is largely a process of adaptation to environment and technology changes, the firms that belong to the same industry share organizational and cultural traits (Chatman and Jehn, 1994). The resemblance that results from similar external and internal conditions is further reinforced by the exchanges and interactions that take place among members of these firms via trade fairs, trade magazines, shared suppliers, managers transfers, further consolidating within industry culture (Abrahamson and Fombrun, 1994). Only countries with a culture that is favourable to entrepre-

neurship are able to generate a strong entrepreneurial orientation leading to the development of entrepreneurial activity and the increase of global competitiveness (Fayolle et al., 2010). Some researchers as well as popular press authors have argued that certain cultures are more 'entrepreneurial' than others (Zacharakis et al., 1999) and on the contrary someone argued that rewards and incentives affect levels of entrepreneurship and national wealth creation (Michael and Pearce, 2009).

Considering the research of influential factors on entrepreneurship activity, of great importance is to make distinction between an opportunity-motivated and necessity-motivated entrepreneurship. The first type of entrepreneurs is the one who creates employment and economic development (Reynolds et al., 2002). GEM defines three dominant reasons or motives why individuals participate in entrepreneurship, and therefore measures three separate indexes for national entrepreneurship prevalence rates: High-expectation entrepreneurship activity, Opportunity entrepreneurship activity and Necessity entrepreneurship activity (Valliere and Peterson, 2009). It is important to note that not all entrepreneurs are equal in economic potential. Entrepreneurs who do not innovate do not create wealth; at best they redistribute wealth with no net gain to the economy. For example, many current government programmes target the unemployed to become entrepreneurs, but their entrepreneurship is often not innovative: these new entrepreneurs simply provide services already offered by others. On the other hand, innovation requires investment of time, talent and treasure by the entrepreneur to create a novel product, process, or service (Michael and Pearce, 2009).

Just as entrepreneurial opportunities arise from gaps in the market, which entrepreneurs may seek to address by creating new ventures, entrepreneurial opportunities can arise from institutional holes. Also within research in transitional economies, the issue how individuals use social contacts and individual networks, based on strong personal trust in order to pursue business endeavours, were uncovered (Smallbone and Welter, 2012).

Entrepreneurship liberalizes the economy, promotes foreign investment, infuses new technology, and increases the standards of living (Zahra et al., 2000). Reasons for governments support entrepreneurship are different. Someone support as a means to create jobs, others as a means to create competition in market with lower prices and higher quality. Michael and Pearce (2009) argue that government reason for support is to encourage innovation, therefore to raise competition, lower prices, create jobs and creates wealth for individuals and nations. Spurred by the remarkable successes of entrepreneurial efforts in both emerging and established economies, governments world-wide are taking aggressive action in support of entrepreneurship. European Union, governments offer seven distinct categories of assistance including financing, information sources, labour, research and development assistance, assistance with regulatory bureaucracy, start-up advice, and export support (De, 2000). There is no conceptual framework for the reasons entrepreneurs need assistance. If policy goals are stated, they are inconsistent and sometimes contradictory (Storey, 2000). As a result, efforts by government to aid in entrepreneurship have not been especially effective, and evaluations have been characterized more by hope and puffery than by serious analysis (De, 2000; Storey, 2000).

### 3. Methodology

The chosen research methodology was that of multiple case studies which is suited to the interpretive research approach (Yin, 2003). Multiple sources of data are embraced and engaged in a recursive, sense-making process, in which the results and discussion are compared and contrasted as suggested by Yin (2003). Eight case organizations, were selected to provide a wide range of data from different sector and analysis according to Scott's framework society's factors that are presented in the literature part of the paper, as opposed to a single sector study, which created a richness through their inter and intra variation, as suggested Remenyi et al. (1999). These companies were chosen as private with foreign or domestic capital from different business

sectors, industrial and external environment. Case studies were chosen within different sectors (production, sale and distribution, construction, agriculture, education, food and process industry) in order to analyze entrepreneurship factors in different surroundings.

Semi-structured interviews were held with the managing directors of analyzed companies within repeated interviews which enabled a relationship of trust and mutual exchange of information (Remenyi et al., 1999). We developed the questions, issues and protocol for interview according to society's normative, culture-cognitive and regulative factors that are related to entrepreneurial activity. The managers were allowed to freely give their opinions and answers according to Simon et al. (1996).

## 4. Results and discussion

In our research we analyzed 8 small and medium enterprises (SMEs) within 8 different Industries: Manufacturing products for construction, sale and distribution of agriculture machines and equipment, process industry equipment, agriculture – grape and wine production, construction industry, food industry – bakery, investment in real estate projects, high education. Companies are family owned and managed based on opportunity-motivated entrepreneurship. Their business is based on domestic market and they work for more than 10 years. Comparing the influence of three different factors normative, culture and regulative, six of analyzed companies argue that the dominant influence on entrepreneurship has regulative factors and two of them stated that the culture factors have the dominant influence.

### *4.1. Normative factors influence on enterprise activity*

According to opinion from all organizations, social view of entrepreneurs, their status and respect is on the middle level. There is no special significant respect of their status in society and among government institutions. Some of interviewed managers stated that this general attitude toward entrepreneurs is connected with wide spread opinion that if some entrepreneur is successful that is because of his parties/government connections. In recent time of economic crises more and more intellectuals and politicians recognize that the only way for economic recovery is entrepreneurship and establishment of new companies.

Considering visibility entrepreneurship in media, opinions are divided. Half of analyzed companies stated that entrepreneurship problems are very little presented in media and half of them stated that this presence is on the middle level and in the cases when some new law is prepared when government needs opinion from entrepreneurs and in the cases of election. The exception is education since this field is in permanent focus of citizens and therefore they have a much greater visibility in media. All interviewed stated that this question of visibility is very important for entrepreneur's problems and their solving.

Entrepreneurship orientation of people in Serbia is on very low level considering our results from analyzed companies. Less than 5% of people that they know are ready or are preparing to open their business. According to their opinion most of people are seeking to work for some company, especially if it is state owned company or some government institution since they seek for safety and stability without any risks. A lot of people are unsecured to start new business and there a lot of them who try to do so and were forced to close because of economic crisis, instability in business and not adequate conditions for business. Those who try to start and open some business are necessity motivated and those who didn't try before.

Interviewed managers from analyzed companies consider that rewards and incentives of entrepreneurship in Serbia are unsatisfactory considering invested money and effort. Only company from sale and distribution of agriculture machines and equipment stated that they are satisfied with rewards and incentives. For unsatisfactory results they stated economic crisis and

insufficient of money among customers, insufficiently developed economy and large government taxes.

#### *4.2. Culture-cognitive factors influence on enterprise activity*

Extensive knowledge and skills are needed for success of entrepreneurs in business in one transitional country like Serbia. This is unique opinion for all analyzed companies. They stated that knowledge and skills are needed for uncertain environment like domestic market and especially in period of economic crises like we are today.

Opinions about the level of fear for failure and risk taking in entrepreneurship are completely different. Some of interviewed stated that fear is very high and on the other side four of them stated that this level was low in their case. They stated that this level of fear that they felt was directly connected with their belief in their business regardless of environment and conditions on the market. All of them stated that they are ready for intermediate level of risk taking.

Use of social contacts, individual networks and personal trust are very important for business success for all interviewed. The level of workers education is different within analyzed companies. Some of them have well educated workers (sale and distribution; education) and some of them have educated people on very low level and low level of desire for self-improvement. All of them stated that the influence of innovativeness is very strong. Innovativeness is presented on different level among analyzed companies. Those with younger management and owners are more innovative independently from the type of industry. The degree of competition influence is on very high level among all case studies. Competitive aggressiveness, proactivity, benchmarking and competition status are very important according to gained results. Problem is that benchmarking and business results within one industry is not easy available and is not presented officially. Results from all case studies are that infrastructure for business (IT, traffic, utility services, advisory service, permissions, administration...) is not well developed and is great obstacle for entrepreneurship development.

On the question which factors most dominantly influence on entrepreneurship orientation unique common answer for all case study companies is self proactivity, ideas and innovations. Management and humans resources, social contacts and networks and economic situation and regulative were other offered answers.

Research confirmed that domestic companies use very little quality management systems (QMS), management techniques and performance management system (PMS) and therefore they stated that their level of efficient business organization and operation management is on very low level. Only two companies (construction and manufacturing) which implemented QMS and have appropriate PMS are satisfied with their level of business and management efficacy.

Highly influential characteristics for analyzed companies are market conditions like size of the market (they stated that Serbian market is small), payment power of the citizens (very small at the moment), etc. Also very influential factor according to our researched companies are influence of government structures and stakeholders on national and industry level. National and industry culture are tightly connected and share same values of relationship to entrepreneurship. They stated for all industries that this level of value is on very low level and that this value is connected with history of the entrepreneurship within national and industry level in the past. All companies stated that they share the same threats within industry that they belong.

Considering corporate culture answers from analyzed companies lead to the conclusion that corporate culture is only connected with owners (entrepreneurs) values and that employee are not included in a process of values expansion, improvement, making decisions and taking risks. The entrepreneur's behavior in researched companies is on different level, depending on entrepreneur ability and manager characteristics and so among case companies' entrepreneurs in wine making, education and construction in some level wants to share decision making and opportunities for improvement and strategic issues with employees on some level. Others don't expect and give



opportunities to employees to be more involved in such an issues. On the other hand most of the companies appreciate knowledge exchange with universities and institutes and in the previous period use some of the services from academic institutions considering transfer of knowledge.

### *4.3. Regulative factors influence on enterprise activity*

Entrepreneurs from all companies stated that government relations toward entrepreneurship are good, not excellent but not inadequate. All of them agree completely that there is no sufficient financial support for entrepreneurship, that the bank loans which are very required considering extremely bad situation considering working capital are very expensive and therefore unreachable to them. Most of them except agriculture, education and process industry equipment company didn't use any financial support related to government economic policies. Except one participant in research (food industry), all other stated that economic freedom exist in domestic market but on the other side all participants except one from sale and distribution sector, stated that there is no freedom competition, that large and strong companies especially with brands from abroad are in advantage to SMEs and that the influence of politics is very strong on business success and therefore negative for entrepreneurship establishment and functioning.

Most of interviewed are considering adequacy of rules and procedures for entrepreneurship in SMEs stated that they are on right level and that they are not obstacle for large number of opening new companies and expansion of business.

Divided opinion considering illiquidity of domestic economy existed in our research. Companies who sale their goods or services to citizens don't have problem with payment, but those who work with government and companies have large problems with liquidity and regular payment on time. Entrepreneurs are not introduced and they don't use the property rights system and human capital management system. Most of analyzed companies except companies from wine industry and construction are not member of any association of companies within particular industry sector and they don't see any benefit from these organizations.

The existence of institutional support is evident in export support for all case study companies. Two of them beside this support noted institutional support with regulatory bureaucracy and in education for management improvement – practical knowledge for entrepreneurs.

All respondents stated that foreign entrepreneurs and companies are privileged. They also unanimously recognize that conditions for business and entrepreneurship are not the same in different regions in Serbia.

## **5. Conclusion**

Comparing the influence of three different factors normative, culture and regulative, six of analyzed companies argue that the dominant influence on entrepreneurship has regulative factors and two of them stated that the culture factors have the dominant influence. In our study we concluded common factors that are important and similar to analyzed companies. Analysis of normative factors are important for entrepreneurship activity since it reveals entrepreneurship orientation of people, public opinion and attitude to entrepreneurs and the level of entrepreneur's rewards and incentives. Influential culture factors specific to one nation are the national values in a field of entrepreneurship, national market conditions, use of social contacts and personal links, infrastructure, level of innovativeness, competitive aggressiveness, proactivity and benchmarking. Regulative factors like government legislative, support, financing conditions, freedom competition, rules and procedures, regional policy, security of payment are important for analyzed companies.

According to analyzed case studies we conclude that the main obstacles in transitional country like Serbia are negative entrepreneurship orientation of potential entrepreneurs for establishment



of new business and low level of entrepreneur's rewards according to invested efforts (connected with normative factors) little market, low level of infrastructure development, lack of benchmarking and existence of PMS (culture) and problem of payment security and competition with privileged status of large companies especially from abroad (regulative).

The main advantages among analyzed influential factors in Serbia case studies are procedure and rule for entrepreneurship establishment and what is very important the recognized attitude that innovativeness, creativity and proactivity are the essential characteristic for entrepreneurs.

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# EDUCATIONAL STRUCTURE OF THE WORKFORCE AND ITS IMPACT ON THE ECONOMIC DEVELOPMENT IN THE REPUBLIC OF MACEDONIA

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## Abstract

*The subject of this paper is an analysis of the educational structure of the efficient population in the Republic of Macedonia, analysis of the educational structure of the employed and the unemployed according to their totality and gender, as well as according to their educational level. After determination of the current conditions and the changes during the observed period (2002-2012) the relation between the education of the workforce and the economic development of the country is presented.*

*The goal of this paper is to give comprehensive analysis of the current situation and the changes in the educational structure of the workforce in the Republic of Macedonia, and to perceive its importance for the economic development.*

*A questionnaire for the workforce for the period of 2002, 2006 and 2012 from the State Statistical Office of the Republic of Macedonia as well as home and foreign literature are used as sources of information.*

**Keywords:** Educational structure, workforce, economic development

## 1. Introduction

In the Republic of Macedonia, in conditions of limited finances, the capital and the stuff, the role of the workforce and the educational level play an important role for encouragement of the economic, social and cultural development.

The determination of the current conditions related to the educational level of the workforce is a basic assumption for identification of the education as a kind of human capital. From economic aspect of view, the educational structure is important because higher educational level allows engagement and productivity of the efficient population.

In this context, the investments in education are especially important and they are activities that have an influence on the improvement of the individual's skills and abilities, that is on the increase of their productivity. The increased productivity leads to economic growth, which is an instigator of the economic development of a country.

## 2. Educational structure of the efficient population in the Republic of Macedonia

The efficient population is composed of employed people and people that want to be employed, but cannot find employment. For that purpose data from the questionnaire for the work-

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force<sup>214</sup> which is a research of the economic activity of the population is used and it gives information about the number, structure and the characteristics of the active population. Having in mind the great importance of the utilization of the human resources as an important factor for development, the attention has to be directed not only to the number of the active and inactive part of the efficient population, but also to their structure according to the educational level.

The data from the questionnaire for the workforce in the Republic of Macedonia between the age of 15 and 64 show that during the observed period there have been positive changes (Table 1).

That is, the percent of people with low educational level has decreased from 47.3% in 2002 to 40.4% in 2012, the percent of people with secondary educational level has increased from 42.1% in 2002 to 44.3% in 2012, and there has also been a mild increase, in the same observed period, of the number of people with high educational level (from 10.6 to 15.3%).

In relation to the structure of the active population, from 2002 to 2012, the changes refer to a decrease of the number of people with low educational level and an increase of the number of people with secondary and high educational level.

Analyzing the data about the inactive population we can see that the participation of the people with low educational level has decreased from 65.9% in 2002 to 61% in 2012. The percent of inactive people with secondary educational level has increased from 29.9% in 2009 to 31.9% in 2012, and the number of those with high education has increased for 2.9% in the observed period.

**Table 1.** *Structure of the efficient population in the Republic of Macedonia (15-64 years), according to the educational level and economic activity, for 2002, 2006 and 2012*

2002				2006				2012					
	Efficient population		Active	Efficient population		Active	Efficient population		Active	Efficient population		Active	Inactive
		%		%		%		%		%		%	%
PE♦	642.497	47,3	642.497	47,3	642.497	47,3	642.497	47,3	675.875	40,4	24,6	61,0	
SE♦♦	572.046	42,1	572.046	42,1	572.046	42,1	572.046	42,1	739.645	44,3	53,9	31,8	
HE♦♦♦	144.658	10,6	144.658	10,6	144.658	10,6	144.658	10,6	254.446	15,3	21,4	7,2	
Other	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0,1	0,0	
Total	1.359.201	100,0	1.359.201	100,0	1.359.201	100,0	1.359.201	100,0	1.669.966	100,0	100,0	100,0	

Source: Calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office

The given calculations point to quite unfavorable conditions from the aspect of developmental potential and utilization of the available human resources, especially from the inactive efficient population.

In relation to the decrease of the birth-rate in the Republic of Macedonia, a gradual decrease of the workforce is expected. That is, in future, every increase of the demand of workforce will include economic activation of the inactive part of the efficient population or better utilization of the unutilized part of the workforce.

### **2.1. Characteristics of the educational structure of the employed people in the Republic of Macedonia**

Analysing the educational structure of the efficient population we come to the part where the educational structure of the employed people is especially important creator of the current and the future economic development, and at the same time, of the development of the country. In this direction, information are given about the current condition and the changes in the education of

<sup>214</sup><http://www.mtsp.gov.mk/?ItemID=F929FD8F442B3840ABB1BF339897B832>

\*Uneducated people, unfinished primary school and people with primary education

\*\*People with 3 or 4 years of secondary education

\*\*\*People with high education master's and doctoral

the employed people, total and according to gender, according to the age and the educational level.

### 2.1.1. Employed people according to the educational level, total and gender

The structure of the employed people in the Republic of Macedonia in the period from 2002 to 2012 is marked by positive trend. This trend is manifested through a decrease of the participation of people with low educational level from 32.2% in 2002 to 22.2% in 2012, and an increase of the participation of the employed people with secondary education from 49.6% to 53.6% as well as of those with high education from 18.2% to 24.2% (Table 2).

**Table 2.** Structure of the employed people in the Republic of Macedonia, according to gender and educational level, for 2002, 2006 and 2012

	2002				2006				2012	
		man	woman		man	woman			man	woman
<b>Total</b>	561.341	342.779	561.341	342.779	561.341	342.779	650.554		393.092	257.462
		In %				In %			In %	
<b>PE</b>	32,2	32,7	32,2	32,7	32,2	32,7	22,2		23,2	20,7
<b>SE</b>	49,6	51,0	49,6	51,0	49,6	51,0	53,6		56,1	49,8
<b>HE</b>	18,2	16,2	18,2	16,2	18,2	16,2	24,2		20,6	29,4

Source: Calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office

During the analyzed period, an increase of the employed women is noticed in the structure of employed people according to gender. In the period from 2002 to 2012 there is an improvement of the educational structure in men as well as in women that is changes that overlap with those of the employed. That is, the participation of men with low educational level has decreased from 32.7% in 2002 to 23.2% in 2012, and of women from 31.2% to 20.7%. The prevalence of employed men with secondary education, on the other hand, has increased from 51% to 56.1% during the observed period and from 47.4% to 49.8% of employed women. Biggest deviations are present in the participation of employed people with high education. That implicates significant improvement of the educational structure of women and deepening of the differences in relation to the employed men with high education. Although there have been changes in the structure of the employed women, the bigger prevalence of people with low and secondary educational level was and remained in comparison to those with high educational level.

We can conclude that during the period from 2002 to 2012 there have been positive changes in men as well as in women. From the aspect of quality of the engaged workforce they are more expressed in women as a result of the bigger increase of employed women, from that of employed men with high educational level. These tendencies can be qualified as very significant for the economic development of the country.

### 2.1.2. Employed people according to the age and the educational level

The structure of the employed people according to the age is significant demographic mark because it shows the vitality of the engaged workforce. From the presented data in Table 3 particular movements can be noticed in the absolute volume and the relative participation of the employed in the Republic of Macedonia according to the age and the level of education (Table 3).

During the observed period there is a tendency of a decrease of the number of employed people with low educational level from all age groups. Biggest decrease is noticed in the employed people that are 60 years old or older.

The number of the employed young people with secondary educational level between the age of 15-29 years and 30-39 years is bigger, around 60% . Only in the cases of the employed young people (30-39 years old) there is a decrease of the participation of those with secondary educational level and that is from 59.5% to 53%, whereas in all other groups the percent is increased. The age group of 60 and older has less participation in this educational level, whereupon according to the situation in 2012 it is lower from those employed with high level of education.

The prevalence of employed with high education has a tendency of increase in all age structures, not including the younger, middle-aged population (30-39 years old). In 2002, it moves from 18.2% (15-29 years old) to 25.7% (50-59 years old), and in 2012, these indicators are 28.5 and 25%.

**Table 3.** *Structure of the employed people in the Republic of Macedonia, according to age and educational level, for 2002, 2006 and 2012*

Educational level	Total	15-29	30-39	40-49	50-59	60 and more
<b>2002</b>						
<b>Total</b>	561.341	101.260	150.859	177.840	101.877	29.505
In %						
<b>PE</b>	32,2	31,8	23,2	29,8	36,8	77,4
<b>SE</b>	49,6	59,4	59,5	49,2	37,5	9,8
<b>HE</b>	18,2	8,9	17,2	21,0	25,7	12,8
<b>2006</b>						
<b>Total</b>	570.404	111.988	155.344	171.227	109.803	22.042
In %						
<b>PE</b>	29,1	28,4	24,9	24,3	35,6	67,0
<b>SE</b>	52,1	60,3	57,6	54,7	38,9	15,9
<b>HE</b>	18,8	11,3	17,5	20,9	25,5	17,1
<b>2012</b>						
<b>Total</b>	650.554	122.037	180.518	173.691	140.052	34.255
In %						
<b>PE</b>	22,2	11,7	21,7	21,9	27,1	44,4
<b>SE</b>	53,6	59,9	53	59,9	47,9	27,1
<b>HE</b>	24,1	28,5	25,3	18,2	25	28,5

*Source: Calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office*

The analysis of the age structure of the employed people in the Republic of Macedonia, in the period from 2002 to 2012, undoubtedly leads us to a conclusion that apart from the positive changes, expressed in an increase of the number of employed people with secondary and high educational level, yet, from developmental point of view cannot be evaluated as significant improvement of the quality of the engaged workforce because the same are more expressed in older people at the age of 50. And this leads to changes conditioned by the aging of the employed and their generation movement. That is, the quality of the significance of the older generations whose participation notes an increase of the total number of employed with high educational level leaves a mark, as well as the possibility for them to be involved in the process of permanent education and to follow the modern technical and technological changes that have great importance in the economic development of the country.

### **3. Characteristics of the educational structure of the unemployed people in the Republic of Macedonia**

Analyzing the dependence between the human resources as an important factor for economic development of a country, and the economic development as an important condition for greater



engagement of the efficient population on the other hand, in conditions of huge unemployment it is very important to perceive the educational structure of the unemployed people. According to the obtained data from the conducted analysis, it is necessary to create and implement appropriate programs for improvement of the educational level and qualification, as an assumption for stimulation of the possibility for their employment.

In addition, there is an analysis of the unemployed people in the Republic of Macedonia, their total number and gender, according to their educational level and age, as well as according to the period of their unemployment.

### ***3.1. Unemployed people according to the educational level, total number and gender***

The educational structure of the unemployed people in the Republic of Macedonia in the period from 1999 to 2006 has significant changes (Table 4).

**Table 4.** *Structure of the unemployed people according to the age and the educational level in the Republic of Macedonia, for 2002, 2006 and 2012*

	2002				2006			2012	
		men	women		men	women		men	women
<b>Total</b>	263.483	159.145	104.338	321.274	191.856	129.418	292.502	180.406	112.096
		In %			In %			In %	
<b>PE</b>	42,9	45,8	38,5	36,9	38,7	34,2	30	34,6	22,6
<b>SE</b>	49,7	47,8	52,4	54,1	54,0	54,3	54,5	55,1	53,6
<b>HE</b>	7,4	6,3	9,0	9,0	7,3	11,5	15,5	10,4	23,8

*Source: Calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office*

That is, during this period there has been a decrease of the participation of the unemployed people with low educational level from 42.9% in 2002 to 30% in 2012, and an increase of the participation of those with secondary education from 49.7% to 54.5% and of those with high education from 7.4% to 15.5%. From these trends, it can be noted that during the observed period the participation of the unemployed with secondary education is biggest and of those with high educational is lowest.

In relation to the absolute and relative increase of people with secondary and high education from one side, and the increase of the unemployment from another, it can be concluded that the composition of the unemployed people according to the educational level is unfavorable.

From the presented data in Table 4 we can conclude that during the period from 2002 to 2012 the number of unemployed men with low educational level has decreased for 11.2% that is, 15.9% of women. The number of unemployed men with secondary education has increased for 7.3 %, and the number of women has increased for 1.2% whereas these indices in the unemployed with high education are +4.1%, that is +14.8%.

According to these tendencies there have been significant movements in the structure of the unemployed people according to their age and their educational level. The participation of people with low educational level in the total number of men has decreased from 45.8% to 34.6%, and the total number of women has decreased from 38.5% to 22.6% in the period from 2002 to 2012. From the aspect of quality of the workforce there is a positive trend of decrease of the less educated unemployed men and women.

That is, we can conclude that irrespective of the changes in direction of a decrease of the differences in the educational level between men and women, in the observed period, the unfavorable educational structure existed and it still exists.

## 3.1.1. Unemployed people according to age and the educational level

The structure of the unemployed people shows that in the period from 2002 to 2012 there have been significant changes that are related to the absolute volume and participation of the unemployed people and the relative participation (Table 5).

Analyzing the data for absolute volume and participation of the unemployed people, observed according to the high, secondary and low educational level we come with several findings. In the structure of people with secondary education those of 29 years are most present, no matter of their totality and participation in the total unemployment. Independent of the changes the condition of men can be evaluated as quite unfavorable from the aspect of quality of the available unengaged workforce because their number is 43 000 young people that after finishing their primary education have continued the education.

*Table 5. Structure of the unemployed people in the Republic of Macedonia, according to age and the educational level for 2002, 2006 and 2012*

Level of education	Total	15-29 in %	30-39 in %	40-49 in %	50-59 in %	60 and more (in %)
<b>2002</b>						
<b>Total</b>	263.483	44,2	28,1	17,8	8,5	1,4
<b>PE</b>	113.115	41,6	27,1	19,6	9,5	2,3
<b>SE</b>	130.831	47,3	28,5	16,3	7,3	0,6
<b>HE</b>	19.537	39,0	30,8	17,2	11,1	2,0
<b>2006</b>						
<b>Total</b>	321.274	38,1	25,4	21,0	13,5	1,9
<b>PE</b>	118.511	36,2	24,9	20,9	15,5	2,5
<b>SE</b>	173.914	39,1	26,4	21,6	11,7	1,2
<b>HE</b>	28.849	40,2	22,2	17,8	16,5	3,3
<b>2012</b>						
<b>Total</b>	292.502	37	25,8	18,48	15,59	3,14
<b>PE</b>	87.712	24,1	31,6	20,3	18,39	4,8
<b>SE</b>	159.413	36,9	24,4	20,4	15,8	2,4
<b>HE</b>	45.377	60,7	19,1	8,1	9,5	2,6

*Source: Calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office*

In relation to the other age groups their participation in the unemployed people with low educational level has positive trend in all age groups, especially in those at the age of 50 to 59 years.

In relation to the structure of the unemployed people with secondary education the dominant participation of the 29 year olds has remained, independent of the decrease from 47.3% to 36.9% in the period from 2002 to 2012. In the age group of 30-39 years old there is a decrease in the participation from 28.5% in 2002 to 24.4% in 2012, and an increase in all other groups. This increase should not be neglected because it is more as a result of the great number of discharge during the observed period, an less as a result of the generation movement. That means that one third of the unemployed people at the age of 40 are with secondary education.

The condition of unemployment of people with high education should not be underestimated. That is, they manifest an increase from 7.41% in 2002 to 15.5% in 2012. This increase means that there is a large number of highly educated cadres in the structure of the unemployed people whose employment may have big influence on the economic development. In relation to the changes in the other age groups we can conclude that there has been an increase, especially in the group of those that are at the age of 15-29 years whose number has increased from 39% to 60.7%. From the analysis of the obtained data we can conclude that the unemployment, independent of the age structure and the educational level, is a problem faced by the unemployed people.

The reason for unemployment of a large number of young people is the fact that the country lacks a strategy for encouragement of opening new work posts. And, in the group of the older people, the reason for unemployment is in the fact that they hardly answer to the demand for workforce due to their qualifications and their age.

### 3.1.2. Unemployed people according to the period of unemployment and education

From aspect of utilization of the available workforce, especially in conditions when a significant part of the total workforce is out of economic activity, the period of unemployment is an important indicator. In the Republic of Macedonia, there is a long-term unemployment which is composed mainly by people who are waiting for employment more than one year (Table 6).

Apart from the period of waiting for employment, there have been changes in the period from 2002 to 2012 in relation to the educational level of the unemployed people. In addition, an increase of the long-term unemployment is characteristic for the unemployed people with low educational level from 67.4% to 73.1%. These data point to the fact that there is an expressive limitation of the possibilities for their future engagement on the market for workforce.

The trend of increased number of those waiting for employment more than 4 years is worrying and that implies that their knowledge lapses and the possibilities for their employment are lowered.

**Table 6.** Structure of the unemployed people in the Republic of Macedonia, according to the period of unemployment and to the age for 2002, 2006 and 2012

Educational level	Total	To 11 months (in %)	12-17 months (in %)	18-23 months (in %)	To 2 years (in %)	To 3 years (in %)	4 and more years (in %)	unknown (in %)
<b>2002</b>								
<b>Total</b>	263.483	15,5	4,1	6,0	1,2	10,5	62,8	0,0
<b>PE</b>	113.115	13,1	3,5	4,9	1,3	9,7	67,4	0,0
<b>SE</b>	130.831	16,7	4,3	6,3	0,9	11,1	60,6	0,0
<b>HE</b>	19.537	20,5	5,9	9,9	2,4	11,2	50,0	0,0
<b>Other</b>	263.483	15,5	4,1	6,0	1,2	10,5	62,8	0,0
<b>2006</b>								
<b>Total</b>	321.274	13,7	5,4	3,9	0,9	9,8	66,4	0,0
<b>PE</b>	118.511	9,9	4,8	3,3	0,6	7,6	73,7	0,0
<b>SE</b>	173.914	14,2	5,6	3,7	1,0	10,9	64,7	0,0
<b>HE</b>	28.849	26,6	6,7	7,0	1,6	11,6	46,5	0,0
<b>Other</b>								
<b>2012</b>								
<b>Total</b>	292.502	17,9	6,4	4,8	0,7	9,3	60,9	0,0
<b>PE</b>	87.712	12	3,5	3	0,3	8	73,1	0,0
<b>SE</b>	159.413	8,3	6,8	4,7	0,8	8,6	61	0,0
<b>HE</b>	45.377	16,3	10,6	8,7	1,5	14,3	37,2	0,0
<b>Other</b>								

Source: Calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office

In relation to the duration of unemployment of people with high education we can conclude that the number of those waiting for employment more than one year has decreased from 20.5% in 2002 to 16.3% in 2012, which means that there has been a significant decrease of the long-term unemployment. At the same time, the number of people waiting for employment more than 4 years has also decreased. But, this change does not mean significant improvement of the condition of the highly educated unemployed people. These considerations come from the fact that the total

number of unemployed people from these educational levels, around 37.2%, can not find employment longer period of time (4 and more years).

That is, although there has been a relative decrease in the unemployed people with secondary and high education, the absolute number of the long-term unemployment shows an increase. This means that very small number of the unemployed with secondary and high education can find employment after graduation. But, this implies that a large number of the available workforce in the Republic of Macedonia remains unutilized for a long time and cannot give contribution to the economic contribution of the country.

#### **4. Investment in the human's capital**

The unfavorable conditions in relation to the educational structure of the efficient population in the Republic of Macedonia, undoubtedly call for taking activities in relation to the intensifying the investments whose goal is to enlarge the quality of the workforce.

In this context, the investments in education are especially important, and by definition these investments are activities that have an impact on the improvement of the individual's skills and the abilities, that is on the improvement of their productivity.<sup>215</sup>

The education can be analysed as an expenditure, but it can be analysed as an investment as well. The expenditures are related to the expenses for education, and the investments are related to the individual's profit. But, analyzing both we come to the fact that everything comes to measuring the effects and the profit of the education on the improvement of the future national and individual profit, that is the impact that education has on the economic and human's development.

The effects from the investment in education are the following:<sup>216</sup>

- Improvement of the knowledge and skills, which results in improvement of the individual and social productivity of labor;
- Decrease of the working risk of the companies and enlargement of their productivity;
- Increase of the Gross domestic product which is directly related to the employment, the quality of life and the general welfare of the population;
- Increase of the inventive and innovative activity in the country which results in technical progress etc.

That is, if we treat all the resources used in education as investments, based on the behavior of people who look for possibility for investment, these estimations will not be opposite to the opinions for large attractiveness of the profit rate of the population. The profit in this case is bigger than in the profit gained by the physical capital.

#### **5. Impact between the educational structure of the workforce on the economic development of the Republic of Macedonia**

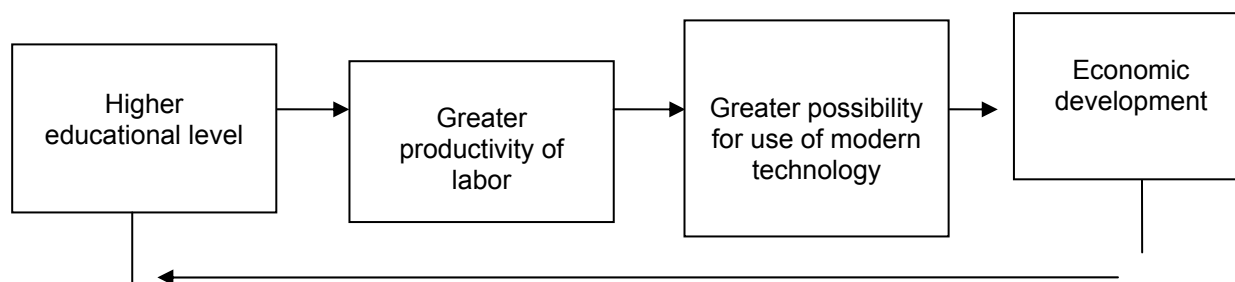
Having in mind the influence that people have on the economic development, the changes that happen in the active and inactive part of the efficient population especially in relation to the educational level, have impact on the economic development.

The relation between the education and the economic development can be shown as following:

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<sup>215</sup>Eftimovski D.: "Economy of the development", Economic institute – Skopje, 2003, pg.30

<sup>216</sup>Ibid, r. 34

**Picture 1.** *Relation between education and economic development*

*Source: Eftimovski, Dimitar. Economy of the development: Economic institute, 2003, pg. 35*

That is, the education increases the productivity of the labour, which results in a possibility for adaptation of the worker to the new technologies, which are the main instigator of the economic development. But, as we can see from Picture 1 there is a direct relation between the education and the economic development and the relation is in direction from the economic development towards the education. That comes from the fact that education, that is its quality, depends on the economic development of the country<sup>217</sup>.

From the aspect of the quality of the workforce in the Republic of Macedonia, the current situation of the active population at the age from 15 to 64 according to the education can be evaluated as unfavorable because of the number of people with low educational level. Because of this fact they cannot contribute to the economic development of the country.

The current situation in the Republic of Macedonia points to the fact that a significant part of the available human resources of efficient population is out of the whole of active population. That are people who participate in the total efficient population with secondary, that is high education whose number is 29.9%, that is 31.9%. That means that around 13% from the total efficient population is a human capital that is not part of the workforce, that it is out of the economic activity and because of that it cannot have an impact on the economic development of the country. However, it is a potential human capital that in other conditions, under presumption of its economic activation will be a factor for development.

The analysis of data, in the period 2002-2012 showed that although there have been significant positive changes, the number of employed people with secondary education has remained huge. The participation of the employed people with low education implies the need for additional trainings and qualifications in order to improve their productivity that has direct impact on the economic development of the country.

In relation to the age structure of the employed people with secondary and high education in 2012 is characterised with smaller participation of the middle-aged population (15-29 and 30-39) which points to the small number of new employments in the observed period. Also, the participation of people at the age of 40 from the total number of employees with these levels of education is significantly larger, that is 41.7% and 62.9%. This situation estimates a certain lapse of the knowledge and smaller contribution to the economic development of the country. In these circumstances a need appears for implementation of the concept of learning at the work post, as well as for lifelong learning.

The situation of the unemployed is even more unfavorable because in the last decade there was a decrease of the participation of the unemployed people with low educational level and an increase of the participation of those with secondary and high education. Because of this, from the aspect of economic development, the current educational structure of the unemployed can be evaluated as unfavorable because of two reasons<sup>218</sup>:

<sup>217</sup>Eftimovski D.: "Economy of the development", Economic institute - Skopje, 2003, pg.35

<sup>218</sup>According to calculations based on data from questionnaires for workforce 2002, 2006 and 2012, State Statistical Office

- Big part and absolute volume of the unengaged workforce with low educational level – where the unemployment of the young people to 29 years who are with low educational level is the most worrying
- The educational structure of the unemployed shows that in 2006, the biggest part of them is with secondary education, and this means that out of the economic activity the quality part of the workforce is significant.

From the stand point of the economic development, it is interesting to point to the mutual participation of the efficient population and the unengaged workforce, that is the unemployed with secondary and high education. According to the conditions in 2006, around 348.800 people with secondary education and 44.900 people with high education are inactive or unemployed, and their participation in the total number of the work force is 54.0% and 29.2%. That means that in the Republic of Macedonia there is a significant number of human potential that is out of economic activity.

## **6. Conclusion**

The structure of the educational level in the Republic of Macedonia, from the aspect of quality, can be estimated as unfavorable because of the large number of people with low education. That implies the fact that their contribution to the economic development of the country is very low. At the same time, this condition entails bigger expences by the country for training of the employees and for encouragement of the employment of the unemployed.

As a result of the inactive efficient population with secondary and high education, the Republic of Macedonia faces a significant amount of unutilized human capacity in which financial assets have been invested and which will be irreversable if those people don't find employment.

Irrespective of the positive changes in relation to the education of the employed people, the participation of people with low educational level still remains enormous. From another point of view, the participation of people with secondary and high education who are older than 40 is still high. This means that one part of the employees faces with insufficient education, and another with bigger or lower lapse of their knowledge which lowers their contribution to the economic development of the country. In these conditions the need for learning at the work post and longlife learning appears.

There is also unfavorable situation in the educational level of the unemployed people, especially of those at the age to 29 who during the transition left their education and remained with low level of education. Because of that, in order to overcome this situation, these people must be included in some other forms of education by which they will acquire particular qualifications. Also, the unemployed people with secondary and high education, as potential workforce, do not create new values but spend the national budget because of the compulsory insurance.

That is, in relation to the presented perceptions, the current educational structure of the efficient population in the Republic of Macedonia cannot have bigger impact on the encouragement of the economic development of the country. That is why it is necessary to take measures that will allow adjustment of the supply and the demand on the market of workforce through improvement of the quality of the supply and through encouragement of the investment climate in the country as necessary condition for improvement of the demand.



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## DISCOVERING BRAND INFLUENCE ON SALES AND PROFITABILITY

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### Abstract

*Consumers have positive attitudes and purchase intentions towards brands that are perceived as compatible with their personal concept and image, and conversely, if this correspondence is little or none they have less favourable attitudes and purchase intentions towards brands. The marketing managers and entrepreneurs have to know how and what influence certain factors have on consumer behaviour. This paper researches the influence of brand on purchase decisions of young people.*

*In the theoretical part of the paper the primary focus is on brand and elements of brand identity. The last issue of the theoretical part is consumers' behaviour as well as the process of purchase decision making. The evaluation part of the paper is an empirical research about the direct influence of brand on clothes sales to young population and increasing revenues and profitability for the organisation. Questionnaire technique was used for primary data collection. The paper identifies relative importance of several factors on the sale among thirty-four analyzed variables using the methods of business intelligence.*

**Keywords:** brand, profitability, consumer behaviour, business intelligence.

### 1. Introduction

In contemporary society people satisfy their needs of exchanging goods and services at the market whereat they freely choose products and services according to their preferences. The market of final or broad consumption consists of consumers, individuals and smaller groups. That type of market has many specific qualities and it is a subject of interest of both professionals and scientists from different areas of science and economic practice. Marketing, as a business function and philosophy, places consumer and his/her behaviour in the spotlight. It is only possible to achieve business goals if consumers' needs and behaviour are constantly analysed, and business activities are directed towards their satisfaction.

Marketing has to cooperate with anthropologists, psychologists, sociologists, and with other experts when customers' needs and behaviours are researched so that they can coordinate demand with the requirements of the target market.

Brand has existed since there is exchange of products and services at the market. American Marketing Association (AMA) defines brand as follows: "Brand is a name, term, sign, symbol or form, or their combination with the attention to identify product or service of an individual or a group of sellers, differencing it from competitive (products and services)." (Keller, 2003, p.3). The oldest function of brand is "separation" or differentiating of one product from the others. A consumer protects himself/herself from bad product by labelling it. Brand is not only the product

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but also symbolises relationships, viewpoints, associations, and opinions that are developed between a product (service) and a customer, and a customer and a company. Brand concept becomes complex and gets more manifestations: product brand, service brand and corporative brand, trademark brand, and image brand. Ideas, information, actions, on-line products, cities, institutions, countries, organisational systems, almost everything can be branded. (Keller, Aperia, Georgson, 2008, p. 9-24). In this paper we are only interested in economic dimensions of a brand i.e. how much a brand contributes to organisational system profitability and if brand is an important element of consumers' behaviour at the market of final consumption. Moreover, we are concentrated on behaviour, attitudes, and customs of the consumers aged up to 35 years of age, and their behaviour in an on-line purchase process.

We have started from a hypothesis that purchasing market segment of consumers aged up to 35 years of age prefers branded products, and brand is the most important variable in their decision making about on-line purchase of food and clothing. That hypothesis will be tested on a sample, and data about variables in purchase process are collected by a questionnaire.

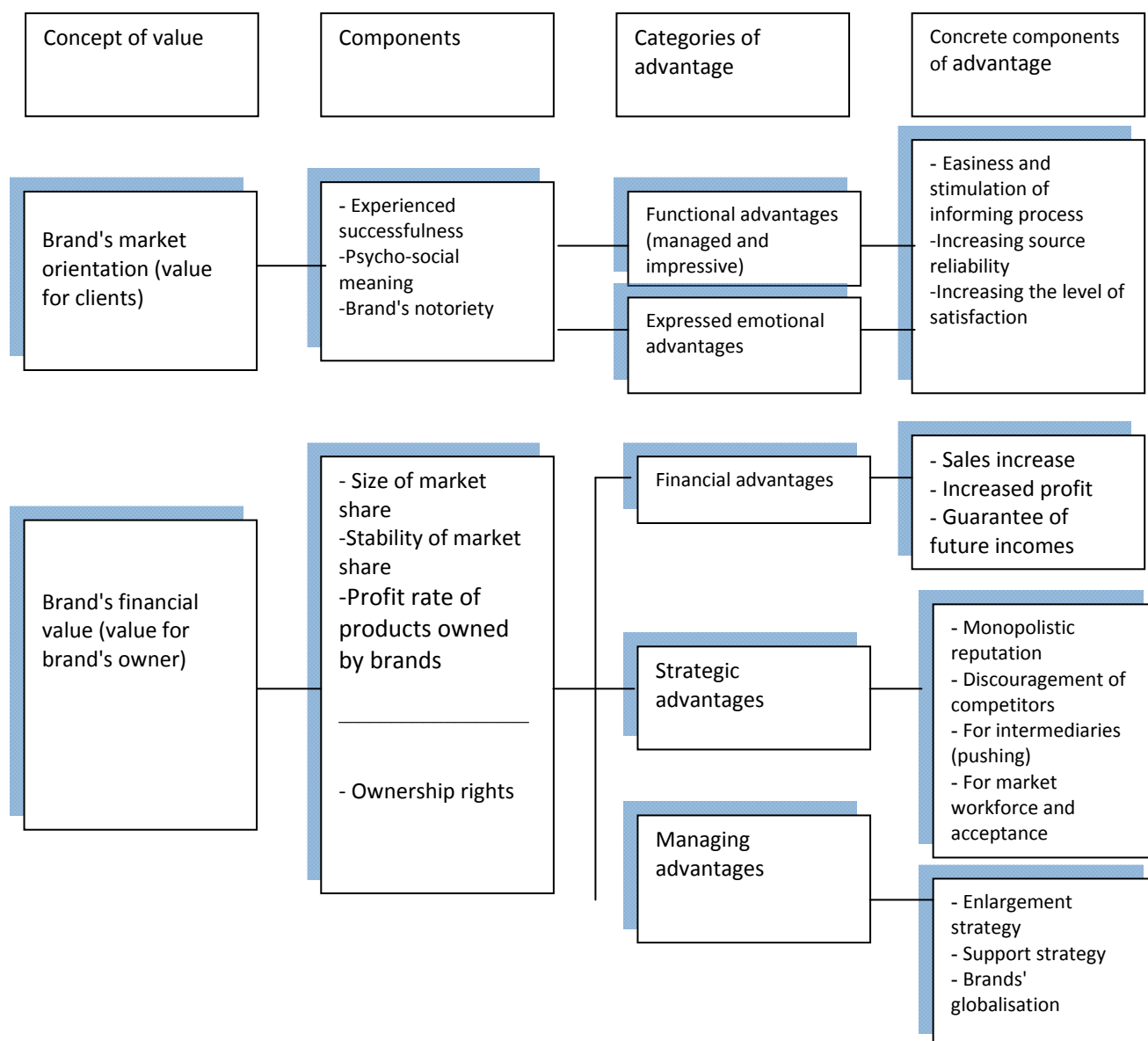
## **2. Measuring value of a brand and its influence on profitability**

In theoretical sense, we start from an assumption that marketing value of a brand has an appropriate positive reflexion on financial results of organisational system business running. Therefore different approaches that measure brand contribution to overall financial result are developed.

### ***2.1. Measuring brand's financial and market value***

Although brands are really the basis of corporation's wealth today, measuring brand value is relatively new discipline for most of brand owners. It is a view on business running that differs significantly from classical accounting viewpoint according to which the values are primarily expressed for buildings, machines i.e. material elements. It is easy to understand past focus of a company on values that can simply be measured. Namely, company goals are often expressed in short-term financial results. Therefore the amount of sales is sometimes more important than market segment, and simply measurable quarter results are more important than hardly measurable customers' satisfaction. However, great values of a company today are more and more based on harder measurable elements. Value of a brand is exactly one of such elements. Brand value is that contribution which is a result of company's investment in brand management. It can be financial contribution and it can increase company's assets, but it also means strategic determinant of company's management. Market value of a brand depends on perception and behaviour of clients with regards to a brand, while financial value is an attempt to quantify in money exactly those market values of a brand.

Review of market and financial components of brand value is shown in Figure 1.

**Figure 1. Review of market and financial components of brand value**

Source: Vranešević, T., 2007 p.163

Brand is a property, and it is better to observe every property in longer than in shorter term. Brand value estimation is similar to value estimation of other property. It is more important to observe how much the property will value in future, and how big contribution will be realised, than how much it brings today. Brands are subject of sale, but are rarely sold, and it is not possible to find out easily and simply real or agreed value expressed in price which is acceptable for both buyer and seller in the given moment. Challenge of following brand financial value is in it that such value is not markedly changed in short period of time, but deviations are very small, except for markedly high market disturbance. Numerous findings of brand value measurement suggest that trademark should be managed by considering broad understanding of brand meaning and applying numerous marketing activities.

### 2.1.1. Financial value of brand

Non-material values that companies possess are also evaluated in financial evaluation of brands when some company is purchased and overtaken. Value of non-material goods has often surpassed the value of company's material goods in such activities. For example non-material value of Rowntree made 83% of total price that Nestlé paid when it took over. ( Vranešević, T., 2007., p167.) Financial value of brand estimation is important in sales, merging or overtaking of companies with brands. Special challenge of evaluation of non-material values of a company has shown up in the companies that realise their activity primarily on the Internet or through it.

Brands' evaluation requires estimation of all potential advantages in future either to owner or to buyer of a brand. Accordingly it should be led by a fact that if a brand is owned by a certain company it assumes the source of its value.

When brands are sold or purchased there is an attempt to express their value in price i.e. in financial term. Due to observation of overall success of a company, there is evident trend that other indicators of success (market share, clients' satisfaction index, estimated financial and market values of brand) are mentioned in annual reports along with financial indicators (income, profit, etc.).

In traditional marketing, which is directed towards classical indicators of success (profit, income, level of sale, market share), sales level presents intuitive indicator where it is assumed that a brand with high level of sale is a brand with high value. Advocates of financial statements of brand value usually start from the level of sales and profit. It is an interesting viewpoint of income estimates of company's non-material values in which the company's income is divided in two parts (material and non-material means) with an assumption that non-material means participate in income creation. Similar viewpoint on financial value of brand gives a possibility of additional profit that a brand earns surpassing basic (generic) purpose of a product and/or service. This means that financial value of a brand is a result of difference between future profit of a product and/or service that are presented in brands and profit, which would be realised by trading generic product or service.

There are many approaches to brand financial value measurement. Numerous sources indicate that the most common approaches are directed towards discovering: ( Vranešević, T., 2007., p169)

a) How much can higher price be determined to a product or service because of brand?

Brand value include implicitly reliability of brand's name, experienced quality, feelings and loyalty based on which there is a potential to increase prices to a product or service with that brand. Such approaches are directed towards discovering buyers' resistances on one's own brand price increase or competitors' price decrease. Changeable characteristics are a brand and price. It is possible to change only the price and discover the level of price elasticity of a certain brand. In this way there would be an attempt to discover how much would sales decrease if brand's name would be discarded (or changed), or if nothing would be invested in it in the future. All those changes can be measured and followed over time, and results can be recalculated in financial value. For example if the price for  $c$  can be increased due to brand, and sales level will be  $k$  in the following year, then brand value is  $\alpha = k \times c$ . Certainly, this is a simple example on which it is possible to apply static quality approach since it observes present position of a brand and only two characteristics of product and service – price and brand.

b) How much would cost if existing brand would be exchanged with a new brand at the market?

According to Aaker this approach wants to discover how much investment is necessary for comparable product to achieve the same market result.

c) How much is estimated financial value of a brand in shares at the market?

Company shares' price can to the certain extent serve as basis for financial term estimation of a brand value since in shares' price there are estimations of future success of a company as well as all brands that company trades. (Vranešević, T., 2007., p170) The approach starts from market

value of a company (which is the sum of all shares), then the value of all “tangible” assets (plants, large workshops, stocks, working capital) is determined. If tangible assets value is subtracted from the total value, the value of “intangible” assets leaves. The following influence its level:

- i. Value of brands
- ii. Value of influences that are not in direct correlation with brand (e.g. started researches, patents that have not been used at the market yet...), and
- iii. Value of activity (how much the activity is propulsive within the company).

Even in such simplified example it is very easy to observe a problem in determining financial value if the company trades with more than one brand and if those brands are in different life cycle, and are traded at different markets.

How big is a possibility for future profit from a brand?

It can be attempted to determine financial value of a brand estimating future profit on the basis of a brand. Knowing future profits would be the best estimation, an indicator of present brand value. Problem is the same as if any observation of future is in question: how such estimation can be made? Market movements should be predicted and current situation observed and future positions of proper and competitive brands estimated. It is quite superficial approach and can serve only as a way of strategic thinking and stimulation for brand management, since it is quite hard to observe all possible future market movements, especially in longer period of time.

### **3. Estimation made by application of profit multipliers**

It is possible to estimate financial value of a brand estimated past profit (earnings) and using future earnings’ multipliers. In the first step past earnings is estimated – out of total earnings all contributions that cannot be connected with a brand trading are subtracted. If it is about products or services that have seasonal or cyclical influence, average earnings realised in past periods is taken. Multiplier is calculated by placing price and earnings (multiplier= $\frac{\text{price}}{\text{earnings}}$ ) in relation per one sold product or service in brand’s ownership. Relations that a brand has achieved in past period and relations that are achieved in whole activity should be taken in consideration to estimate appropriate range of profit multiplier. As an example: multiplier range for a brand can be between 7 to 12, or between 16 to 25, depending on an activity. In other words, brand earnings range from  $\frac{1}{7}$  to  $\frac{1}{25}$ , i.e. from 14% to 4% of achieved price. Cognition of relations of earnings and achieved price ensures shares’ investors to conceive the future of a brand within the framework of an activity – its growth potential, future intensity of competition and threat of substitutable products (substitutes). Certainly, it should be attempted to conceive how much contribution of other influences is there with regards to brand’s contribution in expected future earnings. It is quite hard to separate it, especially to the companies that trade higher number of brands at different markets.

### **4. Interbrand Agency’s approach to measure brand financial value**

Interbrand is one of the numerous agencies, but also the most famous one, that conducts researches of brand value. The model which this agency has created, and which has been broadly used since 1990, takes numerous criteria into account (e.g. price, product quality, availability, service to customers, notoriety, innovativeness, products’ assortment in brand’s ownership) that are considered when multipliers of future earnings are created and based on them financial value of a brand is estimated. Interbrand bases its approach upon: a) Observation of income that have exclusively arisen due to brand ownership; and b) Capitalisation of incomes by multiplying current income as discount (“interest”) rate for future cash inflow.



In all estimations of brand financial value we are faced with a problem of other values of company estimations and their influence on brand value. Tangible assets such as working capital, stocks, buildings, equipment, along with numerous intangible values, corporative culture influence, knowledge, expertise and employees' behaviour influence current value of a company and its market position (brand as well).

#### ***4.1. Brand equity***

Brand equity is considered as a concept that was introduced in marketing literature in 1980s. Importance of brand equity is mirrored in numerous benefits that it ensures for the companies that possess a brand. Brand equity is positive differential effect which recognition of brand's name has on clients' reaction on a product or a service. ( Kotler P., Wong V., Saunders J. and Armstrong G., 2006, p.556 ) Today, there are many different definitions of brand equity but most of the authors agree that it is value with which a brand enriches a product. There are also some attempts to classify different approaches in defining brand equity so it is possible to identify three different approaches to brand equity:

1. Brand value – total value of a brand as non-material property; this approach is called financial one;
2. Brand strength – strength of correlation between a customer and a certain brand; this approach is called behavioural approach;
3. Brand description – associations and beliefs that consumers correlate with certain brand; this approach is called cognitive approach.

Brand strength and description are considered as the elements of brand equity from consumer's viewpoint. It is considered that brand equity is that intangible value of a brand that determines relationship between a brand and a client. That market, intangible brand value is very tangible in financial result of a company, since it is exactly such assumption of future financial brand success so it is understandable that more attention is devoted to brand equity in comparison with financial brand value. (Vranešević, T., 2007, p.177)

Factors that can more or less be sorted in five categories or dimensions: brand loyalty, brand's fame, experienced quality, associations related to brand and other advantages related to brand's ownership can influence brand equity. (Aaker A., D., 1991, p.19)

Each product or service is consisted of numerous "tangible" and "intangible" characteristics, as well as of "basic" and "additional" characteristics that make them complete. Based on information about client's needs and wishes it is possible to consider and manage those characteristics.

### **5. Used methodology**

It is possible to identify key factors of purchase with careful creation of a questionnaire containing important questions related to purchase decisions and socio-demographic characteristic of a consumer. It is especially important to ensure sample representativeness. Stratified random sample was chosen. Stratification is based on characteristics about gender, age, education, average monthly income, and geographical placement of young population in the Federation of Bosnia and Herzegovina, in a such a manner that proportions of chosen characteristics in a sample "correspond" proportions of those characteristics in population (in basic set). A questionnaire as an instrument to conduct a survey is made of series of closed type questions (questions with predetermined answers) and it has following four parts:

1. Introduction,

2. Questions about respondents' socio-demographic characteristics (taking into account not to ask for those data which endanger examinees anonymity),
3. Questions about e-branding and on-line purchasing and use of Internet as the most important e-marketing medium,
4. Questions related to purchase process and factors that determine purchase decision.

The other step is selection of respondents from the basic set using random selection method and respecting defined strata. A thousand questionnaires were sent and respondents filled in 256.

### *5.1. Research results*

The methodology in this paper is based on principal component analysis and R programming language. At the same time R denotes three things: data analysis software, calculator and programming language.<sup>222</sup>

### *5.2. Business intelligence in customers' behaviour analysis*

In the customers' behaviour analysis and sales factors determination we will use business intelligence methods whose aim is to create accurate, concise, and timely information. Most organisations, individuals, companies and institutions have accumulated enormous amount of transaction (primary) data in operational bases. The thing they really want is not enormous amount of stored data but information that can be extracted from those data. They want to learn from data which factors determine sales, how best to satisfy the customers, how to allocate and combine disposable resources in the best way, and/or how to minimise the losses.

The data often present "the forest" that hides information. Therefore the scientists, while researching and looking for answers, create new technologies to support valid decisions making and conclusions bringing from such enormous amount of data. Business intelligence is just such lacking process to great number of organisations that attempt to obtain necessary information from disposable data. Stored data are measured in gigabytes, terabytes or even in petabytes. Such primary data about transactions are clear indicator of a condition, and clear indicator of occurrences in an organisation. They do not give clear answer *why* something is happening. Researching and analysing enormous amount of data with appropriate techniques and methods can diagnose important processes, observe and anticipate direction of changes, interpret financial results of business running, classify and cluster data, model system behaviour, aggregate data, discover changes and deviations in relation to set goals, determine correlation between variables, generate associative rules etc. in an organisation. The responds on such placed questions cannot be given with transactional data directly. Basic task of business intelligence is to respond to mentioned questions using appropriate software tools.

Well-known information value chain is established in that process in which data are stored in transaction data bases and transferred in analytical bases (multidimensional bases and data warehouses). Analytical bases store data in a form which is acceptable for further improvements and analysis. In that way those data end as the information.

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<sup>222</sup> R started as a project by Ross Ihaka and Robert Gentleman at the Department of Statistics University of Auckland, New Zealand, during 1990s. R costs nothing and is completely free. To install R on your computer visit the site 1. <http://cran.r-project.org/mirrors.html> and choose the nearest mirror.

OLAP – multidimensional data bases have key and vital role in that process because they insure direct connection with data (multidimensional data) and models (management, operational researches or statistical models) to an analyst.

The question about relationship between OLAP and data mining is often raised. The answer is that they are different but complement tools. OLAP is the part of broader set of tools to support decision-making. Traditional tools for questions and report, as a part of software tools for business intelligence, describe what is stored in a data base. OLAP goes further. It raises additional question to find out the answer: “Why certain hypotheses can be accepted?” Our research is a part of such process of information and knowledge generation in which data are stored as a dataset. Dataset are respondents’ answers on questions from a questionnaire. The analysis is performed over data in dataset applying analysis of principal components as one of multivariate methods.

### 5.2.1. Principal components analysis in business intelligence system

Principal components method is proposed by Pearson (1901), and Hotelling (1933) to describe the variation of data using a set of mutually uncorrelated variables. Principal component analysis transforms a set of correlated variables (performance indicators) to a smaller set of mutually orthogonal (uncorrelated) variables called principal components. Principal component analysis is a statistical method that belongs to the multivariate analysis. Its essence is reducing the size of a large dataset or the transformation of the initial dataset which represents the vector patterns in a new set of vector patterns with a smaller number of dimensions. Formally, the main idea of principal component analysis can show the following: a set of  $n$ -dimensional vector samples  $X = \{x_1, x_2, x_3, \dots, x_m\}$  can be transformed into a new set  $Y = \{y_1, y_2, y_3, \dots, y_m\}$  of the same size [1] but  $y$  has the property that its largest information content is stored in the first few dimensions.

Suppose that is given data matrix  $X$  with  $n$  rows and  $p$  columns:

$$X = \begin{pmatrix} x_{11} & \dots & x_{1p} \\ \dots & \dots & \dots \\ x_{n1} & \dots & x_{np} \end{pmatrix}$$

The rows represent observations (in our example the answers of respondents in survey) and the columns variables (in our example, the values of answers to the questions). From the matrix  $X$  covariance matrix [1] is calculated:

$$C = \frac{1}{n-1} X^T X = \frac{1}{n-1} * \begin{pmatrix} \sum_{i=1}^n x_{i1} x_{i1} & \dots & \sum_{i=1}^n x_{i1} x_{ip} \\ \dots & \dots & \dots \\ \sum_{i=1}^n x_{ip} x_{i1} & \dots & \sum_{i=1}^n x_{ip} x_{ip} \end{pmatrix} = \begin{pmatrix} c_{11} & \dots & c_{1p} \\ \dots & \dots & \dots \\ c_{p1} & \dots & c_{pp} \end{pmatrix}$$

Covariance matrix  $C$  is symmetric. New variables  $y_i$  are linear combinations of the original variables  $x_i$ :

$$Y_i = a_{i1}X_1 + a_{i2}X_2 + \dots + a_{ip}X_p ; \quad i=1,2,\dots,p.$$

New variables  $Y_i$  are derived in decreasing order of their importance. These are called principal components (principal components). The next step is to calculate their eigenvalues  $\lambda$  and eigenvectors  $e$  of the matrix  $C$ . Then solve the equation

$$A * e = \lambda * e.$$

Eigenvalues  $\lambda$  of the matrix are sorted in descending order:  $\lambda_1 \geq \lambda_2 \geq \dots \lambda_n$ . The aim is to present the data using a new set of mutually orthogonal coordinate (the new base). Each of these directions is a major component or its eigenvector.

Eigenvalues are variances, one for each own vector. Percentage of total variance explained by each component is:

$$\%p = \frac{\lambda_p * 100}{\sum_{p=1}^n \lambda_p}$$

For the main components we will take the Kaiser's criterion: keep the main components whose eigenvalues are above 1.

### *5.3. The principal components analysis in R language*

We are using R language for principal component analysis. “R is a free software environment for statistical computing and graphics. Together they provide a sophisticated environment for data mining, statistical analyses, and data visualization”[6]223. Unlike other programming languages in the R language it is not necessary to declare variable because the type is determined automatically when variable is created with "<-" operator. This programming language commands are intuitive and easy to use. Therefore, we will immediately apply the statements of R language in the analysis of data collected through the questionnaire and stored in a data set called cAnyKon.csv.

### *5.4. Discovering brand influence on sales and purchase*

The first thing that we want to do to analyse our multivariate data will be to read it into R, and to plot the data. We can read data into R using the `read.table()` function. Our dataset contains thirteen answers of respondents to the survey. The questionnaire contains thirty questions. In this part of the analysis we have focused only on questions that are related to reasons for on-line purchase of clothing and food of young population between fifteen to thirty-five years of age. Only those respondents that made on-line purchase were observed. 140 (54.69%) of them conducted on-line purchase while 116 (45.31%) did not.

The most common payment method was universal payment slip at a bank (42.86%), then debit or credit card (41.43%), while the rest was paid through Internet banking, web service account (PikPay and PayPal), and personal payment upon product receipt.

We have observed the following thirteen variables that influence decision-making about on-line purchase:

---

<sup>223</sup> R started as a project by Ross Ihaka and Robert Gentleman at the Department of Statistics University of Auckland, New Zealand, during 1990s. R costs nothing and is completely free. To install R on your computer visit the site 1. <http://cran.r-project.org/mirrors.html> and choose the nearest mirror.

1. Opinion and experiences of a family (MO-Likert's scale 1-5).
2. Opinion and experience of friends (MP-Likert's scale 1-5).
3. Brand (BR-Likert's scale 1-5).
4. Comments and opinions at social networks (MS-Likert's scale 1-5).
5. Frequency of Internet offerings search (FP-more times daily, once daily, more times weekly, once weekly, more times monthly)
6. On-line customers' support (PK – Likert's scale 1-5)
7. On-line payment methods (NP- Likert's scale 1-5)
8. Internet offering broadness (BP- Likert's scale 1-5)
9. Recommendation of friends for certain on-line web service (PP- Likert's scale 1-5)
10. Prize competitions (NI- Likert's scale 1-5)
11. Web simplicity (JW- Likert's scale 1-5)
12. Media advertising (OM- Likert's scale 1-5)
13. Satisfaction with products we purchase on-line (ZP- Likert's scale 1-5)

There is a certain level of correlation and redundancy between the variables. The questionnaire cannot eliminate in advance the correlation between variables. Therefore, with special methodological procedure we will separate components that are not correlated (angle cosines between those variables is zero i.e. they mutually close an angle of 90%) and extract those variables which are the most important for certain principal component.

The basic hypothesis is that brand is the most important variable for decision making about purchase for consumers between 15 and 35 years of age.

Data with examinees' answers is stored in data base C://cAnyKon.csv<sup>224</sup>.

Firstly, the data are downloaded in variable caGK:

```
>caGK<-read.table("C://cAnyKon.csv",header=T,sep=";")
>CAGK
```

	MO	MP	BR	MS	FP	PK	NP	BP	PP	NI	JW	OM	ZP
1	5	4	4	1	5	1	1	1	4	1	4	1	4
2	4	4	4	2	5	1	1	5	2	1	3	1	4
3	2	2	2	2	5	1	1	5	1	2	1	3	4
.....													
138	2	3	3	3	5	1	3	2	2	1	1	4	4
139	2	3	1	4	4	1	2	5	5	1	1	1	2
140	4	2	5	2	1	1	1	2	3	2	5	1	4

Firstly, internal consistency of questions in a questionnaire is tested with Cronbach alpha coefficient of reliability. In R language it is enough to request alpha function () and previously downloaded psych package:

```
> library(psych)
> alpha(caGK)
```

<sup>224</sup> Data are stored in database C://cAnyKon.csv on root disc directory.

Reliability analysis

Call: alpha(x = caGK)

raw_alpha	std.alpha	G6(smc)	average_r	S/N	ase	mean	sd
0.51	0.54	0.62	0.082	1.2	0.067	3.6	0.35

Alpha value is 0.51 which can be accepted as lower limit of reliability (Cronbach alpha < 0.5 is unacceptable).

Those thirteen variables define the reasons for decisions about on-line purchase of clothing and food. The number of variables could, of course, be higher. We are interested in position of brand in area of principal components, and on how many dimensions can this thirteen-dimensional area be reduced. New hypothesis can be derived from the main paper hypothesis: thirteen variables can be reduced on lower number of components that retain the most important information about behaviour of young population in on-line purchase process. The results of principal components' analysis are more realistic if the values of all variables are standardised. Standardised values are calculated when arithmetic mean is decreased for variable's value and the result is divided by standardised deviation.<sup>225</sup>

In R language it is enough to request a function for standardisation of variable caGK and to round up the result on one decimal place to simplify presentation.

```
standardisedValues<-round(as.data.frame(scale(caGK[1:13])),1)
> standardisedValues
```

	MO	MP	BR	MS	FP	PK	NP	BP	PP	NI	JW	OM	ZP
1	2.2	1.1	0.7	-1.7	1.5	-0.5	-0.7	-1.7	-0.8	-0.3	1.6	-0.3	0.2
2	1.3	1.1	0.7	-0.8	1.5	-0.5	-0.7	0.6	-0.8	-0.3	-0.6	-0.3	0.2
3	-0.5	-0.6	-1.0	-0.8	1.5	-0.5	-0.7	0.6	-0.8	-0.3	-0.6	-0.3	0.2
	0.4	0.3	0.7	0.0	-0.1	-0.5	-0.7	0.6	1.3	-0.3	1.6	3.8	-1.0
5	-0.5	-0.6	1.5	0.8	-0.6	-0.5	-0.7	0.6	1.3	-0.3	-0.6	3.8	1.4
.....													
138	-0.5	0.3	-0.1	0.0	1.5	-0.5	-0.7	-1.7	-0.8	-0.3	1.6	-0.3	0.2
139	-0.5	0.3	-1.8	0.8	-0.1	-0.5	-0.7	0.6	1.3	-0.3	-0.6	-0.3	-2.2
140	1.3	-0.6	1.5	-0.8	-1.6	-0.5	-0.7	-1.7	-0.8	-0.3	-0.6	-0.3	0.2

The standardised values of variables have the standard deviation 1 and the mean 0. The total variance is therefore equal to the number of variables.

The next step in principal component analysis is calculation of covariance using the next statement in R language (all the values are rounded up on two decimal places):

```
> covnC<-round(head(cov(standardisedValues)),2)
> covnC
```

	MO	MP	BR	MS	FP	PK	NP	BP	PP	NI	JW	OM	ZP
MO	0.98	0.62	0.23	0.23	0.04	-0.06	-0.04	-0.11	0.12	-0.16	-0.05	0.00	0.01
MP	0.62	0.96	0.33	0.49	-0.05	-0.12	0.03	0.05	0.26	-0.09	0.04	0.05	0.02
BR	0.23	0.33	1.04	0.44	0.06	-0.12	0.03	-0.07	0.20	-0.09	0.04	0.06	0.18
MS	0.23	0.49	0.44	1.00	-0.10	0.02	-0.02	0.16	0.24	-0.15	-0.03	0.09	0.13
FP	0.04	-0.05	0.06	-0.10	1.01	0.02	-0.11	-0.11	0.01	0.15	0.09	-0.19	0.04
PK	-0.06	-0.12	-0.12	0.02	0.02	1.01	0.29	-0.12	-0.12	0.24	0.13	0.09	0.09

In principal component analysis we need to calculate the eigenvalues and corresponding eigenvectors:

<sup>225</sup> Standardised values have standard deviation 1 and arithmetic mean 0.



```

> eigenvalues<-eigen(cov(standardisedValues))
> eigenvalues
$values
[1] 2.4194069 1.6204168 1.4033941 1.3147316 1.0537394 0.9192129 0.9062593
[8] 0.7735003 0.7387222 0.6819469 0.5433774 0.4303068 0.2412411
> eigenvectors<-eigen(cov(standardisedValues))
> round(eigenvectors,2)

```

The results of previous R language's request is presented in the following matrix whose columns are the principal components:

	GK1	GK 2	GK 3	GK 4	GK 5	GK 6	GK 7	GK 8	GK 9	GK 10	GK 11	GK 12	GK 13
MO	-0,41	0,02	-0,29	0	-0,36	0,39	-0,08	-0,16	0,18	0,24	0,04	0,23	0,54
MP	-0,51	0,08	-0,12	0,07	-0,16	0,29	-0,1	-0,12	-0,22	0,04	0,05	-0,13	-0,71
BR	-0,42	0,16	-0,1	0,13	0,27	-0,33	0,16	0,47	0	0,21	-0,27	0,47	-0,07
MS	-0,47	0,11	0,14	-0,03	0,12	-0,09	-0,26	0,28	-0,1	-0,41	-0,01	-0,52	0,35
FP	0,06	0,06	-0,52	-0,14	0,57	0,14	-0,15	-0,26	0,31	0,03	-0,34	-0,24	-0,04
PK	0,15	0,52	0,06	0,05	-0,16	0,03	-0,46	0,06	0,39	-0,4	-0,01	0,35	-0,16
NP	0,04	0,53	0,13	-0,03	-0,25	-0,27	0,08	-0,39	-0,29	0,2	-0,49	-0,17	0,11
BP	-0,08	-0,21	0,54	-0,09	0,36	0,33	-0,35	-0,24	-0,26	0,03	-0,25	0,33	0,07
PP	-0,29	-0,02	-0,03	0,45	0,25	-0,42	0,09	-0,53	0,05	-0,22	0,29	0,21	0,05
NI	0,21	0,32	-0,2	0,39	0,25	0,06	-0,35	0,2	-0,42	0,37	0,33	-0,01	0,12
JW	0,04	0,4	-0,02	-0,06	0,24	0,46	0,59	0	-0,22	-0,36	0,12	0,11	0,1
OM	-0,09	0,16	0,45	0,44	0,14	0,2	0,22	0,11	0,51	0,35	-0,06	-0,24	-0,05
ZP	-0,09	0,25	0,21	-0,63	0,15	-0,12	-0,04	-0,19	0,16	0,29	0,54	-0,08	-0,03

We can use three different methods in order to decide how many components should be retained:

1. Screeplot function and mark the change in slope
2. Kaiser's criterion where we retain components for which is the variance above 1 when principal component analysis was applied to standardised data
3. Keep the number of components required to explain at least some minimum of total variance.

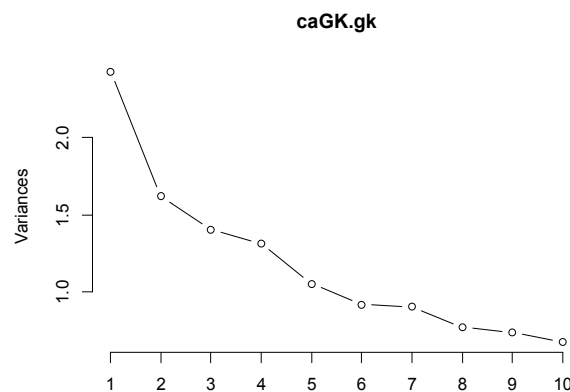
By implementation of plot () function it is obvious that the change in slope occurs at the fourth component.

```

> caGK.gk<-prcomp(standardisedValue)
> plot(caGK.gk,type="l")

```

**Figure 2.** Screeplot function and determining the number of components



We are going to use Kaiser's criterion. Values of the first five components of a variance is above 1 (2.42 1.62 1.40 1.31 1.05). Using Kaiser's criterion we will retain five principal components. Loadings for the first four components are the values of characteristic vectors (eigenvectors.)<sup>226</sup> The result is in form of a matrix whose columns of loadings are for each of five principal components. The first principal component (GK1) is linear combination of variables' values:

GK1 = -0.41 * MO - 0.51 * MP - 0.42 * BR - 0.47 * MS + 0.06 * FP + 0.15 * PK + 0.04 * NP - 0.08 * BP - 0.29 * PP + 0.21 * NI + 0.04 * JW - 0.09 * OM - 0.09 * ZP
GK2 = 0.02 * MO + 0.08 * MP + 0.16 * BR + 0.11 * MS + 0.06 * FP + 0.52 * PK + 0.53 * NP - 0.21 * BP - 0.02 * PP + 0.32 * NI + 0.40 * JW + 0.16 * OM + 0.25 * ZP
GK3 = -0.29 * MO - 0.12 * MP - 0.10 * BR + 0.14 * MS - 0.52 * FP + 0.06 * PK + 0.13 * NP + 0.54 * BP - 0.03 * PP - 0.20 * NI - 0.02 * JW + 0.45 * OM + 0.21 * ZP
GK4 = 0 * MO + 0.07 * MP + 0.13 * BR - 0.03 * MS - 0.14 * FP + 0.05 * PK - 0.03 * NP - 0.09 * BP + 0.45 * PP + 0.39 * NI - 0.06 * JW + 0.44 * OM - 0.63 * ZP
GK5 = -0.36 * MO - 0.16 * MP + 0.27 * BR + 0.12 * MS + 0.57 * FP - 0.16 * PK - 0.25 * NP + 0.36 * BP + 0.25 * PP + 0.25 * NI + 0.24 * JW + 0.14 * OM + 0.15 * ZP
.....
GK13 = 0.54 * MO - 0.71 * MP - 0.07 * BR + 0.35 * MS - 0.04 * FP - 0.16 * PK + 0.11 * NP + 0.07 * BP + 0.05 * PP + 0.12 * NI + 0.10 * JW - 0.05 * OM - 0.03 * ZP

The first principal component has the highest loadings (in absolute value) for MO (-0.41; Family opinion), MP (-0.51; Friends opinion), BR (-0.47; Brand), MS (-0.47; Opinion at social networks). Interpretation of the first principal component could be **customer's communication with environment** and viewpoints of the closest environment about the products and services. It is interesting that analysis results clearly indicate that a brand does not have dominant influence on purchase decision within food and clothing market for young population (aged between 15 -35 years of age). With it the hypothesis on brand as the most important variable for on-line clothing purchase for customers aged between 15 and 35 years of age cannot be accepted. That influence is equal to influence on opinion of participants at the social networks and in quantitative sense is slightly higher than family's opinion and bit lower than friends' opinion.

The second principal component has the highest loadings (in absolute value) for PK (0.52; On-line customers' support), NP (0.53; -On-line payments methods), NI (0.32; Prize competitions), JW (0.40; Web simplicity). Interpretation of the second principal component is **website quality** and services that website ensures for its customers. Simplicity of payment methods and website contents, which ensures necessary level of information about the products, has the highest influence in the second principal component.

The third principal component has the highest loadings for BP (0.54; Internet offerings broadness), OM (0.45; Media advertising) and FP (-0.52; Frequency of the Internet's offerings search). The broader Internet offerings and more intensive media advertising are, so is lower the need for frequent searches. Therefore logical omens of loadings factors for those variables are different. The third component reflects **products' offering** for on-line purchase.

The fourth component has the highest loadings for PP (0.45; Friends' recommendations for certain web service (programme)), NI (0.39; Prize competitions), OM (0.44; Media advertising) and ZP (-0.63; Satisfaction with the products I purchase on-line). The fourth component reflects strength and means of **sales promotion** of a product. Besides, it discovers one paradox. As intensive sales promotion means to which a customer is exposed, so is the satisfaction with

<sup>226</sup> The same result can be obtained by implementation the function `precomp()` on standardised data set named *stanVal*.

purchase lower. Omens of loadings factor for PP, NI and OM variables are different in relation to ZP variable.

The fifth component has the highest loadings for MO (-0.36: Family's opinion about product), FP (0.57; Frequency of Internet offerings search), BP (0.36; Internet offerings broadness). Again, family's opinion has an omen opposite to frequency of Internet offerings search and broadness of an offer that a customer faces during the search. Namely, family's opinion directly influences purchase decision so that Internet search is not often necessary. If a customer does not have family suggestions than search frequency is higher and broadness of an offer, which a customer faces while visiting websites, is higher. The fifth component reflects product selection using web space or based on family opinion.

Standardised values can be calculated by multiplication of every variable's loadings for certain principal component (matrixes of characteristic vectors) and standardised values.

THE NEW STANDARDISED VALUES (SCORES) CAN BE CALCULATED IMPLEMENTING THE FOLLOWING STATEMENT IN R LANGUAGE (FORMED BY MULTIPLYING THE LOADINGS WITH THE ORIGINAL DATA):

```
>GK<-AS.MATRIX(STANDARDISEDVALUES)%*%EIGENVECTORS
>ROUND(GK,2)
```

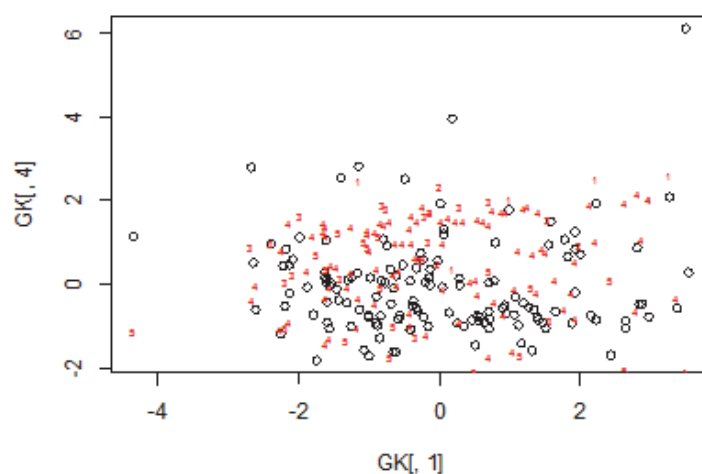
	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]	[,10]	[,11]	[,12]	[,13]
[1,]	-0.58	-0.44	-2.96	-0.84	-0.39	-1.87	-1.72	0.09	-0.82	0.92	-0.22	-0.67	-0.34
[2,]	-0.91	0.84	-1.29	-0.94	0.34	-1.19	0.54	0.24	-0.47	1.19	0.67	-0.50	-0.56
[3,]	1.40	1.30	-0.38	-0.85	0.80	-0.57	0.50	0.54	-0.52	0.33	0.36	0.49	-0.20
[4,]	-1.41	-0.26	1.53	2.55	1.42	-1.42	-2.07	-0.22	-1.46	0.39	0.22	-0.17	0.05
[5,]	-1.62	-0.07	2.74	1.05	1.75	0.89	-0.82	-0.75	-2.12	1.46	-0.68	0.28	0.16
[6,]	0.26	1.08	-0.36	-0.92	0.53	-0.48	0.57	-0.09	-0.45	0.39	0.40	0.15	0.52
[7,]	2.44	-0.31	-1.26	-1.68	1.28	0.15	-2.09	-0.20	-0.93	0.13	-0.81	0.29	-0.40
[8,]	0.29	1.44	-0.03	-0.01	-0.27	-0.48	0.35	-0.60	0.07	0.01	0.68	-0.22	0.60
[9,]	-0.33	-1.68	-0.13	0.40	-2.69	1.04	0.48	-1.38	-0.16	-0.79	0.83	-0.18	-0.09
[137,]	1.40	-0.63	-2.17	-0.77	-0.57	0.15	0.39	-0.52	-2.70	0.40	0.24	-1.43	0.41
[138,]	0.47	-0.37	-1.75	-0.85	0.69	-0.71	-1.44	-0.55	-0.34	-0.63	-0.27	1.11	-0.57
[139,]	0.02	1.92	0.10	1.94	-0.10	-0.13	0.61	0.82	0.58	-1.67	0.27	0.80	0.02
[140,]	-0.39	0.55	-0.77	-0.53	-1.75	0.74	-1.01	-1.70	-0.48	1.14	-0.66	-1.11	0.55

The values of the principal components are stored in a matrix with the principal components, where the first column in the matrix contains the first principal component, the second column the second component, and so on.

Thus, in our example, "GK[,1]" contains the first principal component (*customer's communication with environment*), and "GK[,4]" contains the fourth principal component (*sales promotion*).

We can make a scatterplot of the first and fourth principal components, and label the data points with the satisfaction or how communication of a customer with environment and sales promotion tools influence customer's satisfaction, by typing:

```
plot(GK[,1],GK[,4])
text(GK[,1],GK[,2], caPCA$ZP, cex=0.5, pos=3, col="red")
```

**Figure 3.** Scatterplot of first  $GK[1]$  and fourth  $PC[4]$  principal component

The scatterplot displays the first principal component on the x-axis, and the fourth principal component on the y-axis. It is obvious from the scatterplot that any regularity regarding the values of these two principal components and the customer satisfaction does not exist. The values of the first and fourth principal components do not separate the answers of respondents regarding the satisfaction and are not reasonably useful for distinguishing the answers to a question about the customer's satisfaction with purchased products.

These fifth components retain most of the information provided in the questionnaire about the influence on on-line purchase to consumers at the market of clothing and food. Decision about on-line purchase is determined by these five components: the first is **customer's communication with environment** and opinions of the closest environment about the products, the second component is **website quality**, the third component is **product offerings** for on-line purchase, the fourth reflects the importance of **sales promotion** tools, and the fifth reflects **product selection** using web space or based on family's opinion.

Marketing strategy towards market segment of on-line food and clothing consumers has to be focused on these five components at the market in Bosnia and Herzegovina.

## 6. Conclusion

The research did not confirm the hypothesis that the brand is the most important decision factor in process of on-line purchase for clothing and food for consumers aged between 15 and 35 years of age. The main on-line purchase determinants are derived from thirteen variables, and they are: **customer's communication with environment** and opinions of the closest environment about the products, **website quality**, **product offerings** for on-line purchase, **sales promotion** tools, and **product selection** using website or based on family's opinion.

The research follows „natural and logical” set of activities that are part of business intelligence. That process creates information from data using appropriate methods of data mining. Analysis of the principal components was used in this paper. Based on respondents' answers presented in a form of dataset this analysis reduces multidimensional space on five key components in which process retains all important information. Product promotion strategy oriented towards younger population for food and clothing can be successful if it is based on five derived dimensions in on-line purchase process.

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## BRAND EQUITY OF SNEAKERS ON ALBANIAN CONSUMERS

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### Abstract

*The brand concept has been important to comprehend throughout the years and it holds its validity on a continuous basis. Respective brand discussion has become commonplace nowadays. Individuals prefer to buy brand name products whereas companies tend to build strong brands where as researchers study and draw conclusions relevant for building brands and their meaning for consumers. Since the 80s, researchers have voyered inside the brand concept, turning this concept that was once abstract and imaginary into a real concept which if properly understood, can have many advantages for companies. Managers are also aware of the fact that the brand has become an important asset of the company and have responded through a strong effort in establishing brand equity. A strong brand is one that possesses high brand equity. Studies have shown that brand equity is considered a key factor that can lead to: higher profits, brand extension opportunities, protection against competitors. Furthermore, effective communication should lead to the strengthening of preferences of consumer purchase intention and customer loyalty.*

*The conceptualization and measurement of brand equity including the income derived from it are the main challenges of the global market.*

*The purpose of the following study was to understand the brand relevance of sneakers based on the a preliminary test conducted on 20. The selection of individuals was at random. Each individual was asked to specify four popular brands, desired or preferred by them. Based upon their personal assessment the individuals were asked to rank the respective brands on a scale from 1 – 5. The four most popular brands, based upon the sample selection preference, were the following: Adidas, Nike, Puma and Reebok.*

*Sample selection aimed at interviewing individuals over the age of 18. This category was chosen because individuals over this age threshold have their own disposable income, are active consumers and tend to have high brand consciunes . For the purposes of this study a total of 370 questionnaires were distributed to the students of the Faculty of Economics, University of Tirana and to the students of the College of Electrical Engineering at the Polytechnic University of Tirana. Out of the questionnaires that were distributed we received 356. Thus, the number of valid questionnaires for survey and data analysis were 344 questionnaires.*

*The aim of this article is to highlight how important are brand equity variables in creating a brand and strong brand equity for sports sneakers to Albanian consumers.*

**Keywords:** brand, brand equity, loyalty, brand recognition, perceived quality.

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## 1. Definitions of brand equity

Building a strong brand is now the goal of many companies operating in the market. Today, more than ever, building a brand with significant capital is clearly one of the ways for companies to provide secure income in the long run. The power of a brand lies in what customers have learned, felt, saw and heard about the brand over time. Therefore this can attest to the fact that the power of a brand lives in the mind of the consumer. The reward for marketers in building a strong brand is security provided through consumers who have the right experience with the product and service as well as all marketing programs that companies have undertaken. In this way, companies must discover whether desired thoughts, feelings, images, beliefs, perceptions, opinions are associated with the trademark.

Studying the literature and works completed in the field of building brand equity shows that there are a variety of definitions of the concept of brand equity. It is evident through all the studies that brand equity is considered as a key factor that can bring to the company, profits, brand extension opportunities, protection against competitors, but also strongly effective communication should lead to the strengthening of preferences of consumer purchase intention and customer loyalty (Allaway 2011, Build 2008). The ability to create and build brands and brand equity is considered as one of the main goals of companies today. Conceptualization and measurement of brand equity including resources and the income derived from it are the main challenges of the global market (Kish et al., 2001; Agarwal and Rao, 1996). In summary definitions of brand equity are as follows:

Aaker (1991) - The value that consumers associate with the brand and that is reflected in the dimensions of brand awareness, brand relationships, perceived quality, brand loyalty and other assets associated with the trademark. A set of actives and passives associated with the trademark, name and symbols that increase or decrease the value provided by the product or service to the company and the company's customers.

Barwise (1993) - A benefit that cannot be explained only by measuring attributes. An image clear and differentiated preferences that goes beyond a simple product.

Swain (1993) - An estimate of the mean of consumer brand marks in a market with differentiated in comparison with the brands of undifferentiated markets. Brands act as a signal or as a suggestion regarding the nature of the product, quality of service and reliability and image or status.

Moore (1993) - The combination of brand awareness, acceptance and perception

Keller (1993) - Effects of different brand recognition and consumer response to marketing the brand. Knowing the brand is a complete set of relations associated with the trademark brand in the consumer long-term memory.

Kamakura & Russell 1993 (Lassar 1995) - brand equity is based on the customer when the customer is familiar with the brand and holds some favorable relationship reminder for a strong and unique brand.

Park - Srinivasan (1994) - Value added product equipped with brand value as perceived by the customer.

Broniarczyk - Alba (1994) - The value of a brand name that is added to a product.

Lassar (1995) - The consumer perception of the general superiority of products bearing the brand name when I compare with other products. Five dimensions of brand equity perception include: performance, social image, value, reliability and consent.

Keegan - Moriarty - Duncan (1995) - The value associated with the mark because of the strong relationship that has developed between the brand and customers and other stakeholders over time. The price increase that a consumer would pay for a brand versus price for a comparable product or service that does not have a brand name. A long-term relationship of those people who buy brand loyal so consistently over time.

Aaker (1996) - brand equity is: 1. Fidelity (real brands or potential price premium) 2. Fidelity (based on consumer satisfaction); 3. Comparative perceived quality 4. The brand's perceived

leadership; 5. The perceived value of the brand (brand perceived benefits) 6. The brand personality; 7. The customer perception of the organization (reliable, admired) 8. The perceived differentiation competitive brands; 9. The brand awareness (knowledge and remembrance) 10. Market position (market share), pricing and distribution channels.

Duncan - Moriarty (1997) - Brand accumulated support from all stakeholders and not just from customers and that these relationships are determined by the interactions of all company communications.

Marketing Science Institute (Leuthesser 1998) - A set of relationships and behaviors in relation to customers of the brand, the members of the channel and source of cooperation that allows the brand to gain a greater volume or to higher margins will not be provided without the brand name as well as the brand makes strong, durable and a differentiating advantage over competitors.

Despite differing opinions on the research of many about the value of the brand, the only common denominator in all models is the use of one or more dimensions of the model of Aaker's (Keller 1993; Motameni & Shahrokhi 1998; Yoo & Donthu 2001, Bendixen 2003; Kim 2003). Therefore, brand equity is an asset to the consumer based on the other four dimensions: brand awareness, brand relationships, perceived quality and brand loyalty.

## 2. The research hypotheses

Brand awareness is an important component in building brand equity. This element of brand equity refers to the ability to recognize potential buyers or recall a brand as part of a specific product category (Aaker 1991). According to Keller (1993) brand awareness consists of two sub dimensions categorized as brand recognition and brand memory. Knowing the brand is the first step in the entirety of a company's efforts in the field of communication makes the brand recognizable through product attributes until a brand name is established. And only thereafter placed on the importance of communication and to mark the memory of the goal of establishing a direct relationship between customer and brand. According to Aaker (1991), brand awareness can be a sign of quality and customer engagement or involvement by making consumers become more familiar with brands and helping them in making the purchase decision process.

*H1. Brand awareness has a direct positive effect on brand equity.*

The perceived quality is one of the most important elements of capital evaluation model based on consumer brand (Aaker, 1996; Farquhar, 1989). This is not the real quality of the product but the customer perception of the quality and superiority of total consumer product or service in accordance with its intended purpose or relative alternatives (Zaithalm, 1988). The perceived quality of the brand delivers value in several ways. So the higher the perceived quality the more customers have a good reason to buy the brand and thus create an opportunity to differentiate it from competing brands in the market. Also a high quality brand perceived by the customer of the company creates opportunities for a successful brand extension. It should be noted also that customers are willing to pay premium price to purchase the brand that is characterized by high perceived quality (Aaker 1991). Various studies have highlighted the importance of having indisputable perceived quality and purchase decision of choosing between brands also highlighted the role that perceived quality is customer satisfaction and company profitability (Kotler 1991).

*H2. Customer perceived quality has a direct positive effect on brand equity.*

The definition of who is considered as the most accurate and most comprehensive about brand loyalty is the one given by Jacoby and Olson (1970). They define brand loyalty as a result of the random response but based on long-term behavior and that according to them is a mental process of buying some units formed by certain decision to consider more than one brand. In previous re-

search, the researchers considered the repurchase action as a method to measure brand loyalty. But in recent research, some researchers point out that to measure brand loyalty, the best way is to measure emotional loyalty (Bennett and Rundle - Thiele, 2000). But this one theory over loyalty and there are other theories such as polygamous loyalty which indicate that consumers do not just buy only one brand (Dowling and Uncles, 1997). As noted by Baldinger and Robinson (1996), brand loyalty includes emotional allegiance and loyalty of action. Fidelity refers emotional consumer preferences and attraction to a specific brand, but it cannot affect the actual purchase behavior. Action loyalty shown by actual purchase behavior performed by the customer for a specific brand. Groth and McDaniel (1993) believe that emotional loyalty represents customer loyalty to a specific brand at all costs. Eisman (1990) defines loyalty as customer satisfaction action coupled with the continued purchase of a specific brand. Assael (1993) defines brand loyalty as the repeated purchase behavior based on customer satisfaction from the experience in buying the same brand.

*H3 .Customer loyalty to the brand directly influences the brand equity positively.*

Relationship branding by David Aaker deals with categories of assets and liabilities that include everything related to the brand remembrance. Aaker states that the dimension of brand equity relationships usually include the image dimensions that are unique to the class of product or brand.

The brand personality is regarded as one of the elements which constitute the relationship of the brand being associated in this way with the brand image, perceived value, and brand differentiation against competing brands, country of origin or brand credibility. Brand personality includes symbolic attributes (Aaker, 1996; Keller 1993; Chen 1996) which are intangible features that meet customer needs for social acceptance and approval, coverage or personal appearance and self-respect (Keller, 1993; Hankinson and Cowking, 1993; Pitta and Katsanis, 1995). Symbolic attributes that are generally associated trademarks are:

Social image which includes attributes that a consumer benefit or believes others benefit from the use of a mark (Lassar et al. 1995) .

The perceived value. Choosing a brand by the consumer depends on a balance between the perceived price of a product and the product benefits (Lassar et al. 1995). A customer is willing to pay premium price due to high brand equity (Aaker, 1993).

Reliability refers to the level of confidence that consumers have with the company (Lassar et al. 1995). When a customer buys a product or a new service before you have the experience, reliability was a key driver in building a relationship with the customer (Kinard and Capella, 2006) .

Country of origin affects the relationship with the customer decides depending on brand perception and opinion about the country of origin (Aaker, 1991; Keller, 1993). The image of the country of origin may influence the perceived quality and brand loyalty (Pappu et al .2007). Country of origin refers to the country of origin of a company or a product (Johansson et al. 1985; Ozsomer and Cavusgil , 1991 ).

*H4. Brand relationships directly affect the brand equity positively.*

### 3. Exploratory search

The choice of brands sports sneakers was based on a preliminary test in 20 individuals. The selection of individuals was at random. Each individual was asked to specify four popular brands, desirable or preferable one. For each of the brands selected individuals were asked to give their assessment from 1 to 5. Results obtained from selected brands: Adidas, Nike, Puma Reebok and the four most popular brands or consumer lending preference for asking.

A questionnaire constructed by Buil et al. (2008) was selected as the basis for creating the questionnaire used in this research and in addition was it was completed with a series of questions to the four dimensions of brand equity used by Aaker (2002). In this questionnaire one will also find questions about the categories under the brand relationship dimension, these questions previously used by Pappu et al. (2005) for measuring brand equity. Questions will be grouped under each dimension given by Aaker. To achieve the objectives set, the main purpose of the survey is to identify the degree of importance of each of the dimensions of brand equity. Participants in this study will be asked to determine the degree of importance of each element of brand equity. Before participants complete the questionnaire, there will be a short presentation about research so that they can be aware of the questionnaire and its purpose. People who deal with the distribution of the questionnaire will be with the research participants in order to help ambiguous questions that they may have in enabling the accuracy of their response. People who will help with the delivery and monitoring of the questionnaires will be marketing students and to have enough knowledge about elements of the brand.

The first part of the questionnaire focuses on the variables associated with the brand capital: brand awareness, perceived quality, brand relationships and brand loyalty. Evaluation will be under evaluation Likert scales from 5:1 - never (or at all) to 5 - always (or more). The reason that we refer to 5 - tiered evaluation of Likert -it is because it is the most frequently used in studies made in the measurement of brand equity based on the customer (Washburn and Plank, 2002).

The second part of the questionnaire focused on demographic information such as gender, age, education, income, place etc. Questions for demographic data with choice of alternatives.

The questionnaire was initially tested in 60 people. We distributed the questionnaire and participants were asked to respond to questions asking them also to give their opinion and opinion questions for clarity. All respondents were encouraged to criticize the questionnaire if they see fit, and asked their opinion to specify if vague questions or questions that can be renewed.

Once responses were assessed by individuals selected by taking into consideration their opinions, the final questionnaire was constructed respectively: 5 questions for brand awareness, 5 questions for perceived quality, 14 questions about the relationship of the brand, 7 questions brand loyalty and 3 questions for the generalization of brand equity.

Malhotra (1999) suggests that the minimum sample for research should be at least 200. For this reason, the sample size will be larger than 200 individuals or more accurately the number of valid questionnaires to participate in data analysis to be not less than 200. It also consulted with experts on the methodology for 95% coverage of the population. Therefore to build the sample questionnaire should be about 320. Including a supplement for not accurate or omission blank questionnaire was distributed about 370 sets of questionnaires.

To make this study a total of 370 questionnaires were distributed to students of the Faculty of Economics, University of Tirana to students of Electrical Engineering, Polytechnic University of Tirana. Students were asked to return the completed questionnaires from them, their friends or relatives within two weeks and asked that the questionnaires distributed to others, they were present during the completion of the questionnaire and the questions which may have difficulties to understand them to give appropriate explanation. Of all the questionnaires were distributed 356 questionnaires were able to gather from which 12 of them were invalid (partially completed or damaged). Thus, the number of valid questionnaires for survey and data analysis were 344 questionnaires.

#### 4. Data analysis

Sample selection aimed at interviewing people over 18 years old. This category was chosen because individuals over 18 years old have their own income and make own choice of brands for products they buy or want to buy. It was observed that the highest percentage of respondents belonged to 18-25 years (64 % or 221 individuals) who mainly had a Bachelor's education (53%

or 183 persons). Of 344 individuals asked: 43% (n = 147) were employed and 57% (n = 197) were unemployed, 53 % male (n = 182) Female 47 % (n = 162). 344 selected respondents trademarks of athletes: 42 % - Adidas (n = 145): 34 % - Nike (n = 117): 13 % - Puma ( n = 45 ): 11 % - Reebok ( n = 37 ) .

Data analysis was conducted in SPSS 17.0 statistical software. Factorial analysis was used for the first fundamental determinant variables of a factor, their structure. Statistically significant difference of a set of variables associated with capital, demographic variables regarding buyers and brand buyers were not tested by logistic regression analysis.

Pearson chi square analysis was used to make the testing of hypotheses but also to understand the meaning or connection variables with dimensions of brand equity. Having settled at the beginning of the error rate  $\alpha = 5\%$  and 95 % confidence level , using chi square test say that we will have a significant and important links in those cases where the results of testing the value p ( p - value ) will be smaller than  $\alpha$  . So below we will provide all the elements for each dimension that have strong links with the brand equity of  $p < 0.05$ .

Factorial analysis is used to find the factors of the variables studied by reducing the number of variables as it groups variables with similar characteristics together. So through factorial analysis we can produce small number of factors from a large number of variables enabling explaining the variance in a large number of variables. Reducing the number of variables can be used for further analysis.

Structural equation models (SEMs) is made of the dependent variable and the independent. Variables that have the same direction of arrows or influenced by several variables are the dependent whereas variables that are not influenced by other variables called the independent. Values that express the same direction of arrows are the regression coefficients or two arrows while not constitute direct correlation coefficients, together constitute the parameters of the model and demonstrate the relationships between the variables. SEM also shows how well the model is constructed. On the side of the SEM can see the presence of multicollinearity. For the evaluation of the model were used indicators: Goodness -of - Fit Index (GFI) which measures the relative quantity of variance - covariance, Comparative Fit Index (CFI) that takes into account the size of the sample Brand equity in the summary presented in summary questionnaire by three questions as follows:

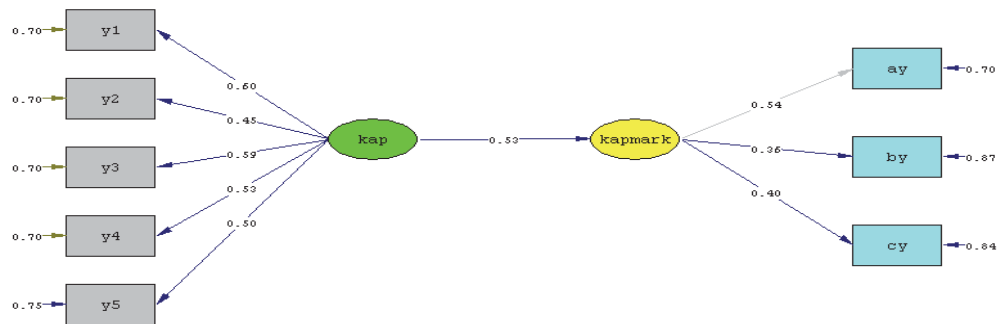
- ay. Even if another brand has the same features as Y brands I prefer to buy brand Y,
- by. If any other brand is no different from brand Y, then it is wise purchase buying brand Y
- cy. Brand Y is more than a product of me.

*H1. Brand awareness has a direct positive effect on brand equity.*

Brand awareness as a sub-category of brand capital were assumed to be measured by a number of factors: Y1-I know this brand, Y2-I know this brand logo; Y3-Some features of this brand more easily remembered; Y4-It brand is distinct from other brands; Y5-This is the first brand that comes to mind when you decide to buy.

It was factorial condition that the weights be much larger than 0.4. According to this coefficient it will be decided which variable will be held in analysis and which is not. Viewing the average we can say who is the most important variable that influences consumers to buy the product. Namely recognition of the logo with a 4.49 average but not very different from other variables influence most of the consumer decisions. On the grounds of the data from the diagram and model tests for the importance of brand capital for the brand but also for any variable in particular that constitutes the brand awareness regarding the sneakers we may say that the brand health awareness has a positive impact on brand capital (0.16) for a 10% coefficient significance. Also by GFI and AGFI tests which are larger than 0.9 or that are approximately one could say that the model is good.

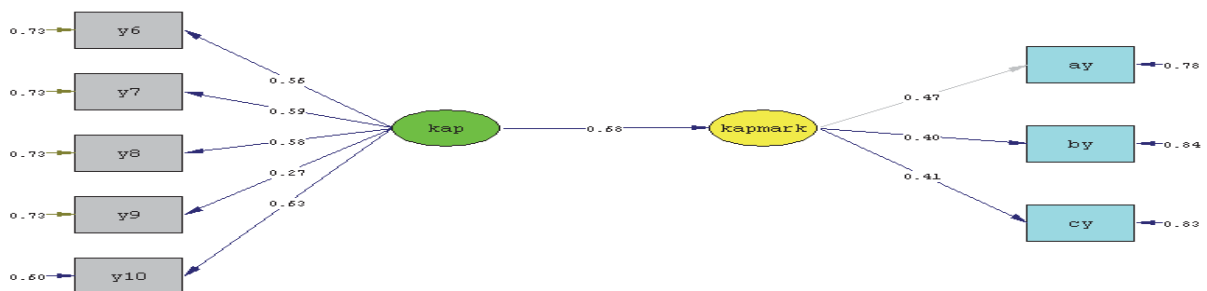




With Y1 to y5 we marked the group variables that constitute the targeted awareness for sneakers and variables ay, by and cy variables constitute the capital of brand. The brand target awareness has a positive impact on brand capital (0.52) and values that demonstrate a good model for a GFI, AGFI are close to 1 (above 0.9).

### *H2. Customer perceived quality has a direct and positive effect on brand equity.*

Group questions on the customer perceived quality are included along with three brand equity questions in factorial analysis. KMO test analysis shows that factor analysis is a good measurement analysis. For sneakers under the weight factor variable multipliers "I have trouble finding the information I need" excluded. For sneakers the last two questions of brand equity have a weight factor coefficient of less than 0.4. Analysis of variables by first chi-square test shows that there is a statistically significant link between perceived qualities from the customer with three brand equity questions. The exception is the variable: "I have no difficulty in finding the necessary information" which is not a statistically significant relation with any of these variables. "Even if another brand has the same features as the brand I will still buy it" with the variable "I have no difficulty in finding the information that I need" there is a negative but not statistically significant. All variables group (Y6-Y10) have a positive impact and statistically significant.



Perceived quality of the consumer group comprised of 5 variables that have a positive impact on brand capital (0.68). GFI is greater than 0.9 and AGFI Minor is more than 0.1 indicates that it is a good model.

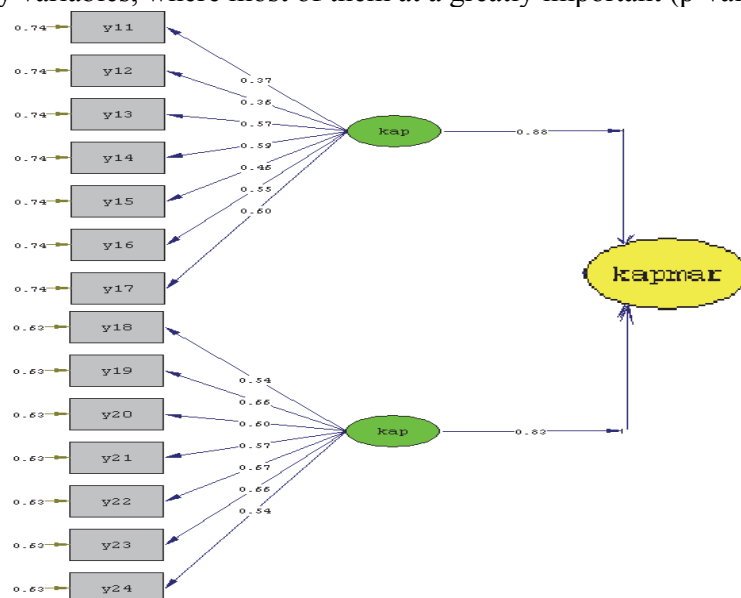
### *H3. Relationships positively impact brand building brand equity.*

Based on the answers given factorial analysis was used to check the connection of the set variables with the three questions of brand equity. According to KMO test since it has a value greater than 0.8 indicates a much better use of factor analysis. Based on chi-square test variable "I have a clear image of the type of person who buys" with "Even if another brand has the same features as the brand I will buy my brand" and "Even if another brand is not different buying my



brand is wise is "not a statistically significant connection. Also variable "This brand is secure and safe to use" with "Even if another brand has the same features as the brand will buy" and "is more than a product of me" there is a statistically about important. Variable "this brand is innovative" and "Even if another brand is not different is the smart buying" does not have a statistically significant connection.

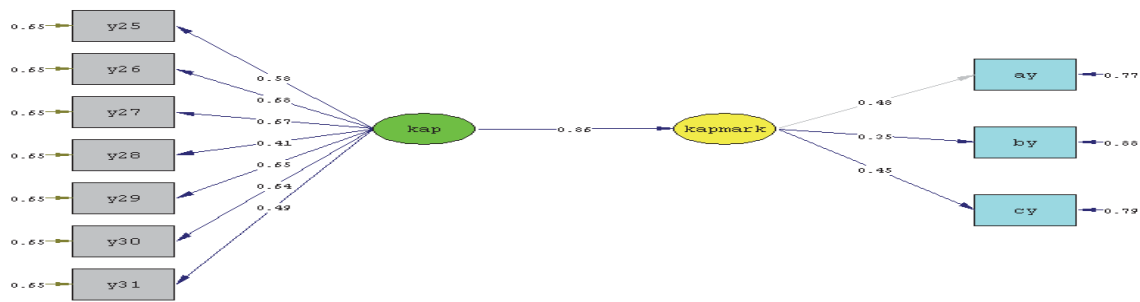
Multipliers based on the correlation of all the variables positively affect the relationship of brand equity variables, where most of them at a greatly important (p-value <5%).



#### *H4.Loyalty by the consumer to the brand directly influences the brand equity positively.*

On the basis of factor analysis in relation to weights and factor coefficient, the following variables are not included in the analysis, "I will continue to buy the brand even if it will be at the highest price", "I will not buy any other brand when I can" "Even if another brand is not different it is still the smart buy" and "is more than a product to me."

Although during the factorial analysis the answers of the individuals leave out some of the variables, we can see that the test of impact of one of the variables over the three questions of brand capital has an important effect on the statistical side. Variables: I'll buy this brand, I will buy this brand again, this brand would be my first choice when I decide to buy, I will continue to buy the brand even if it will be the highest price, shall recommend the brand to others to buy, I'm proud if I buy this brand, I will not buy any other brand when I can buy it, have a very high degree of impact statistically on the questions of brand equity (p-value <0.1%). Variable "I am a brand purchaser" has an important impact statistically but in the amount of 5% and 10%. Also among the variables of consumer loyalty and brand capital for the sneakers statistically there is an important relation equal to 0.1% and in the part of the largest and margin 5%. There is a positive correlation between the variables of consumer loyalty and brand capital i.e. the increase in the opportunity of being a purchaser, or the purchase of the brand again would increase the chance of this brand to buy it even if it has the same attributes as this brand.



The seven variables of customer loyalty have a positive impact on brand capital for sneakers (0.86). GFI and AGFI coefficients are smaller than 0.9, as well as the RMSE is about 0.1, which shows for a poor model through a statistical point of view.

## 5. Conclusion

Brand awareness has a direct and positive relationship with the brand equity (H1). Knowing a brand's logo as a dimension of brand awareness plays an important role in building brand equity. This logo is a fact because of the visual elements that can be perceived, stored and easily remembered by consumers.

Perceived quality or subjective quality has a direct and positive brand equity (H2). Even all the dimensions of quality, including attributes characteristic or uncharacteristic play have a strong connection to the building and strength of brand equity.

Relationships of brand attributes including functional and non-functional attributes have a direct and positive correlation with the equity of the brand (H3).

There is a positive correlation between the variables of consumer loyalty and brand capital (H4) i.e. the increase in the opportunity of being a purchaser, or the purchase of the brand again would increase the chance of this brand to buy it even if it has the same attributes as this brand.

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## ROLE OF THE ENTERPRISE EUROPE NETWORK IN THE ENTERPRISE DEVELOPMENT

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### Abstract

*The Enterprise Europe Network is the key instrument of European Commission to encourage the development of innovative small and medium enterprises and for creating new jobs. Members of the Enterprise Europe Network are chambers of commerce, universities, technology parks, research centers and development agencies. As Europe's largest network for business support, Network offers a set of tools for supporting the development of the enterprises throughout EU and beyond.*

*Institutions of the Republic of Srpska are, through the consortium, eligible to apply for the membership in this association. However, none of the institutions became EEN member, which is a major disadvantage for domestic SMEs and entrepreneurs, particularly innovative ones.*

**Keywords:** Enterprise Europe Network, Small and Medium Enterprises, Entrepreneurship

### 1. Introduction

In order to enable efficient and effective use of business potential of the enterprises (in particular innovative small and medium ones) at the unified European market, the European Commission has established the Enterprise Europe Network (furthermore referred to as: EEN or Network).

The problem that will be analyzed within the scope of this work is the question in which way the EEN instruments could support the enterprises and entrepreneurs in the Republic of Srpska in their effort to improve the quality of their business activities. Therefore, the focus of this research is on the tools for supporting the enterprises and the entrepreneurs developed within the EEN.

Primary aim of this work is to research and discover potential problems, to analyze the possibilities that EEN offers for improvement of the competitiveness of small and medium-size enterprises and entrepreneurs (furthermore collectively referred to as SME-s) in the Republic of Srpska.

### 2. Framework for Competitiveness and Innovation

The European Commission Competitiveness and Innovation Framework Programme (furthermore referred to as the CIP program) is aimed to support the competitiveness of the enterprises, in particular the SME-s (CIP is succeeded by the Programme for Competitiveness of Enterprises and SMEs - COSME, with basically identical goals).

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CIP program supports innovative activities, including eco-innovations, easier access to the capital and services for business support. This Program supports wider use of information and communication technologies and support the development of sustainable, competitive and widely IT-covered society. It is also focused to stimulating renewable energy sources and energy efficiency. This Program is open for participation to all legal entities from public or private sectors (enterprises, research institutions and universities, NGOs, business or scientific associations, chambers of commerce, state or other public institutions, etc.)

EEN is financed through CIP Program, which is also used as promotional channel for all the activities financed through this Program. It is customary for the activities of the consortiums which are part of the EEN, to be financed partly from CIP and partly from the participation fees paid by the members. Practice up to these days has proven that, apart from extremely strong and visible indirect benefits, directly “invested” contribution resources return to consortium members, economies and society on multiplied levels through the tools for the direct support.

CIP beneficiaries can be enterprises in different phases - start-up, expansion or business-transformation, innovative companies and other participants in innovation processes, and support to the decision makers related to latest trends and developments within certain sectors.

**Table 1.** *Sub-programs of the Competitiveness and Innovation Framework*

No.	Sub-program	Sub-program general aim
1	Entrepreneurship and Innovation Programme (EIP)	Supporting the SMEs development by supporting their innovative activities, including eco-innovations, and through enabling better approach to capital and business support services.
2	ICT Policy Support Programme (ICTPSP)	Supporting the innovations and competitiveness through greater and more efficient usage of information and communication technologies (ICT) by the citizens, public administration and business entities.
3	Intelligent Energy Europe (IEE)	Supporting the measures for improvement of energy efficiency and better usage of new and renewable energy resources.

*Source: BiH Directorate for European Integrations, accessed 20<sup>th</sup> March 2014*

### 3. What Is the Enterprise Europe Network?

EEN Network is the mechanism that enables the companies to benefit from CIP programs.<sup>232</sup> EEN Network has been established at the EU initiative with primary aim of supporting the SME and entrepreneurship development. Operative support to EEN is provided by the Executive Agency for Competitiveness and Innovation - EACI, on behalf of the European Commission. EEN Network consists of more than 600 partner organizations and institutions (associations, national agencies, scientific institutes, universities) with more than 4.000 experts from the areas of entrepreneurship, innovations and technology transfers engaged, with the aim of promoting the competitiveness and innovations at local and European level. Therefore, EEN Network simplifies the approach to the wide range of information and enables its members to create contacts and connect with the businesses within more than 50 countries: all EU member countries, Norway, Iceland, EU-candidate countries, EU potential candidate countries, Switzerland, third countries (Armenia, Chile, Russia, Brasil), etc.

EEN goals are:<sup>233</sup>

- Strengthening the competitiveness of the SMEs;

<sup>232</sup> see more at: <http://een.ec.europa.eu/>, access date: 5th November, 2013

<sup>233</sup> see more at: <http://siepa.gov.rs/sr/index/podrska-izvozu/een/>, Access date: 5th November, 2013



- Better access to the information - easier access to the market and transnational economies;
- Innovation support and building the innovation capacities;

EEN opportunities are:<sup>234</sup>

- Unifying the services of providing SMEs with practical information aimed onto:
  - o easier finding potential business partners;
  - o establishing business cooperation;
  - o tenders participation;
  - o easier access to information on legal aspects and EU business regulations;
  - o receiving information on support programs, laws and results related to innovations, on mediation services in technology and knowledge transfer;
  - o receiving information on EU Framework programs for research and technological development;
  - o strengthening the awareness on the importance of innovations and possibilities for technology transfers and competitiveness improvement.
- Informing about the EU market opportunities and participation in building wide European business network;
- Information about local research and technology development opportunities;

*Table 2. The most popular EEN Network services*

Service	Description
<b>Business Cooperation Database</b>	Business cooperation database, as well as international technology base contain thousands of profiles of the companies willing to cooperate. Potential business partners can meet even in person, through the matchmaking events (business meetings).
<b>International B2B meetings/events</b>	Events are based on the concept of connecting businesses directly, through the organization of short meetings scheduled in advance (business2business). Businesses apply for the participation in advance, and the full list of participants, together with their profiles is available at the EEN website at all times. Companies choose potential partners they want to meet at the event on their own, and the network partner are responsible for organization and logistics. Business meetings are mainly arranged during large fairs and other similar events.
<b>Going international</b>	EEN Network also arranges business meetings throughout Europe, where potential business partners can be met;
<b>Technology Transfer</b>	Technology and knowledge transfer is the process that happens between the scientific institutions and businesses, but also between businesses themselves at local or foreign markets. Technology means the product, process or service that is protected as the intellectual property and has commercial potential.
<b>Research and Development (Research Funding)</b>	Innovation is the development process within the organization used for instruction of new products, processes or services. This is the answer to exact market needs, activity of competitors, market demands or using the business opportunities. Innovation support services provided by the EEN Network provide businesses with support in starting up the innovation processes, improvement of their innovation management and especially in the process of business internationalization.
<b>Information and Advisory Services (Advice on EU legal regulations and standards)</b>	EEN Network partners monitor global technology trends, provide advices and support the companies in issues of intellectual property and technology transfer, support and encourage participation in European research and development projects, and support the production technology and R&D potential at the international level. EEN Network provides its beneficiaries with the necessary

<sup>234</sup> see more at: <http://een.ec.europa.eu/>, Access date: 5th November, 2013

**Advices in the area of intellectual property (Intellectual property and patents)**

knowledge and mechanisms for realization of sophisticated and complex technology projects of global importance. Through the number of measures, initiatives and programs, innovative contribution to development of technologies that improve the performance and enrich sustainable practices are supported and financed.

Intellectual property protection is getting more and more significant term in our everyday surrounding and business. It means the protection of material and non-material rights defined by the legislation. Entrepreneurs are particularly interested in this issue, since the holders of intellectual property rights have legal right for time-limited monopoly to economic usage of their products, which means that during the defined time scope, nobody is allowed to use the protected property without prior consent of the author or the holder of intellectual property rights.

Source URL: <http://een.ec.europa.eu/services/overview#sthash.E7G7YBPD.dpuf>, access date: 19 November 2013.

#### 4. Decentralized Enterprise Europe Network Functional Concept

EEN Network functional concept is based on decentralized system. This means that in every country that express interest for EEN Network membership can exist one or more consortiums that are EEN members. Individual consortium can consist of several members (universities, chambers of commerce, development agencies, etc.) that can improve business and entrepreneurship development within certain country. If the country is politically decentralized (e.g. Germany, Spain, Poland, Belgium among others), then the consortium is formed at the lower authority level (entity, region, city, etc.).

##### European Union examples:

EEN Network for business support in Belgium is organized regionally, through three regions: Brussels, Flemish and Walloon region. Each of this region is represented by one or two different consortiums, that can be seen at the official EEN Network website.

Enterprise Europe Brussels consortium is EEN Network member as the representative of Brussels Region. Enterprise Europe Brussels is joint initiative of Brussels Enterprise Agency (BEA) and the chamber of commerce - Enterprises Commerce and Industry (BECI).

There are 13 consortiums operating in Germany only.<sup>235</sup>

##### Examples from neighboring countries

EEN Network in Serbia is EC project within the scope of CIP program realized in Serbia by:<sup>236</sup>

- National Agency for Regional Development (NARD - NARR) - Project Coordinator
- University of Belgrade,
- Mihailo Pupin Institute,
- University of Novi Sad,
- University of Niš,
- Serbian Investment and Export Promotion Agency (SIEPA).

Project observers are:

- Ministry of Economy and Regional Development,
- Ministry of Science and Technology Development,
- European Integration Office.

<sup>235</sup> see more at: <http://een.ec.europa.eu/about/branches/DE>, access date: 5th November, 2013

<sup>236</sup> see more at: <http://www.een-srbija.rs>, access date: 5th November, 2013

Activities of the EEN Network in Serbia are performed through three separate organization units - modules. "A" Module is in charge of dissemination of information on EU market business and EU funds. "B" Module is in charge of innovations and technology transfer, and "C" Module is dedicated to research projects and dissemination of the information and programs for research and development. Chamber of Commerce of Serbia has joined the consortium on January 1, 2011 as full-time member.

New Work Program for 2013-2014 is defined as the frame consisting of ten activities that will enable SMEs to connect with clients and partners abroad and improve their business activities at overseas markets.

Croatian EEN is constituted as the partnership consortium between seven institutions-partners supporting the entrepreneurship and innovation: Croatian Chamber of Commerce, Croatian Business-Innovation Center, Croatian Institute for Technology, Varaždin Technology Park, Technology and Development Center in Osijek, Scientific and Technology Park of the University of Rijeka and the Office of Technology transfer in Split.

Croatian EEN Network was created as the project worth EUR 1,5 million, supported by the EC through the CIP program for period of three years.

CIP membership fee for 2007 was cca EUR 496.000, and the state of Croatia paid 25% from its budget, and the remaining part was supported from PHARE program. For 2008, membership fee was cca EUR 598.000, 10% of which was covered from Croatian national budget, and remaining part from IPA program. Croatian Chamber of Commerce is the coordinator of Croatian EEN Network. Results of Croatian consortium membership in EEN are impressive.

## 5. Bosnia and Herzegovina EEN Network

EEN Network that does not include any consortium members from Republic of Srpska has been established in Bosnia and Herzegovina. This consortium is headed by the Euro Correspondent Center (within the BIH Chamber of Commerce). BIH EEN Network does not have full-power membership within the EEN, it is represented in the form of joint membership of some kind. By analyzing the examples of the other countries members of the EEN Network, it is noticeable that in most of these countries, there are two or more consortiums that are formed/organized based on regional/territorial principle.

Upon the consultation with the government institutions in Republic of Srpska, Republic Agency for SME Development has, back in 2012, initiated the activities for establishing EEN Network of Republic of Srpska. The consortium of institutions from Republic of Srpska has been established with primary aim to apply for the EEN Network membership. Consortium members are:

- Republic Agency for SME Development - consortium coordinator,
- Chamber of Commerce of Republic of Srpska,
- University of Banja Luka,
- University of Eastern Sarajevo and
- Innovation Center Banja Luka.

Observers of the project which are focused on monitoring and activities supervision are:

- Ministry of Industry, Energy and Mining;
- Ministry for Foreign Economic Relations and Economic Cooperation and
- Ministry of Finances of Republic of Srpska.

In near future, the activities aimed onto joining of Republic of Srpska consortium membership in EEN, development of cooperation with EEN Network members from other countries, as well as

creation of the Work Program for the Republic of Srpska institutions that are willing to participate in the EEN Network.<sup>237</sup>

## 6. Conclusion

Performing concrete activities focused on participation (membership) of Republic of Srpska consortium in EEN Network must be set as one of the highest priority short-term tasks for supporting the development of SMEs and entrepreneurship in Republic of Srpska. Having in mind the difficulties that local companies and entrepreneurs are facing, membership in this association should contribute to creation of the better business environment and enable more efficient connecting between the EU companies and those in Republic of Srpska.

Companies and entrepreneurs in Republic of Srpska will, through the EEN Network activities in Republic of Srpska, be able to receive all relevant information related to conditions for entering onto the EU market (relevant legal regulations, directives, etc.), export opportunities, public procurements, new technologies, potential partners, opportunities for technology development and EU Framework programs, as well to have one-spot access to the latest technologies.

These accurate information and adequate ICT solutions for problems that businesses in Republic of Srpska are facing will significantly contribute to SME sector development, in accordance with contemporary dynamism and market openness.

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<sup>237</sup> Including (membership) of institutions of Republic of Srpska in the EEN (i.e. making this support instrument available to the companies and entrepreneurs from Republic of Srpska) has been declared as one of the priority goals in the Draft Strategy of SMEs Development for period 2014-2018.

## PART NINE:

*Small Business/Business Management,  
New Business Model*

## SERVICE ORIENTED ARCHITECTURE AND BUSINESS PROCESS MANAGEMENT - KEY TO SUCCESS

Aida HABUL<sup>238</sup>, Zoran KURET<sup>239</sup>

### Abstract

*21. st century business environment forces organization to move faster, be more efficient and change more frequently than ever before, if they want to keep their position or to gather new markets and new clients. Business agility is the key for success and becomes one of the priorities in strategic goals of every organization. Information systems in organizations should support business processes and strategic goals. This is possible only by complete integration of business processes and information systems, making information technologies one of the key elements for achieving organizational goals, on every business level. Most of the organization today has some kind of Information systems, however, it is very questionable how much are these systems aligned with the business processes and business strategy. In most of the cases, IS implementation is based on 'snapshot' of business processes in some moment in time, but after a while, when there are some changes in business processes, it becomes very difficult or very expensive to preserve this alignment and the final result is information system which does not fully support new and changed business processes inside the organization. The best solution for this problem is using Service Oriented Architecture (SOA) for design and implementation of information systems. Main concepts of SOA are 'Business functions – services' which are direct connection between business and IT. SOA is for the moment most efficient and most effective solution for building effective and sustainable information systems completely integrated and aligned with business processes inside the organization. To use SOA for design and implementation of IS, it is needed to change the way of modeling business processes as well. Only integration of SOA and BPM would give desired results, which will support strategy and increase agility of organization. This paper defines basic concepts of Service Oriented Architecture and Business Process Management, using case study of modeling business processes in microcredit organization. IT shows the simple way to start implementation of SOA concept, at the same time stressing importance of integrate approach which includes Business processes redesign.*

**Keywords:** SOA, BPM, Process, Services, Redesign

### 1. Introduction

21. St Century forces organization huge demand for quick, effective and constant changes in business models, if they want to keep current market positions. Business Agility becomes one of the top priorities and one of the most important strategic goals of every organization.<sup>240</sup>

All business processes in organization, especially core processes in production and services would have to change in order to fulfill these requirements. That is why it is necessary to develop and implement new methodology for business process management which can provide efficient

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<sup>240</sup> Vesna Bosilj Vukšić, Andrej Kovačić, (2004), „Upravljanje poslovnim procesima“, Sinergija-naklad-nišтво d.o.o.



modeling and redesign of processes, implementation of this redesigned processes and measuring results.

IT systems in organization should support business processes and strategic goals. This could be done only by complete integration of Business processes and Information technology.

Although most of the organizations already have IT systems implemented, the question is what is the level of alignment of the IT systems with business processes, or how fast can IT systems follow changes in business processes which are very frequent and sometimes not so simple. In most cases, IS implementation is based on current business processes, but after a while, when business processes are changed, there is a huge discrepancy between IS and Business processes.

One of the best solutions for this problem is implementation of Service Oriented Architecture of IS design and development which is based on concept of ‘Business Functions – Services’ which are direct connection between business and IT. SOA is for the moment most efficient solution for designing effective and sustainable IS which are completely integrated into organizational business processes. In order to properly adopt SOA, it is also needed to redesign Business processes so that basic concept of ‘Services’ can be implemented. Only integrated approach which includes both SOA and BPM can give proper solution.

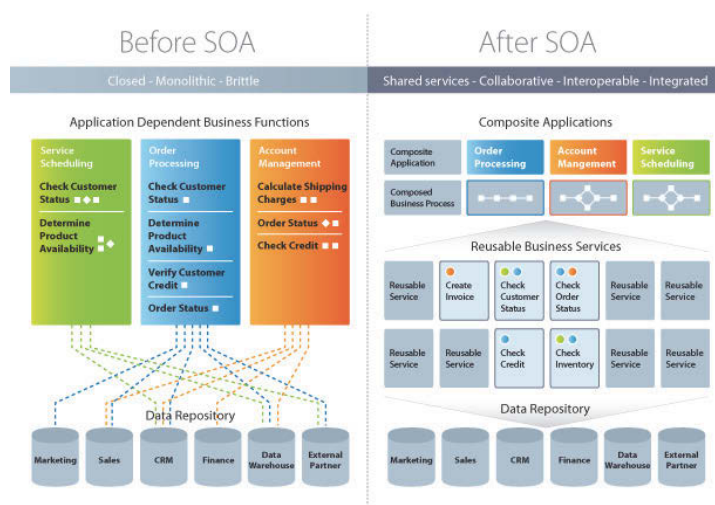
## 2. SOA Basic concepts

SOA is architectural style for building Information Systems (IS) based on concept of Services. Concept of Services is defined as set of independent services, directly related to business functions, which can be combined, and form a higher level business processes and solution on organizational level. There are more than one formal definition of SOA, one of the best is: “SOA is a style of design which defines all aspects of creating and using business services (from concept to end-of-life) as well as defining and planning IT infrastructure which will make possible for different applications to exchange data and collaborate in business processes no matter of different operating system or programming languages of these applications”.

What we can conclude from this definition is following:

- SOA is architectural style for IT which main goal is to enable concept of services
- Basic elements of SOA are Services
- SOA must be integrated and subordinate to business architecture
- SOA is main element in data exchange between incompatible and heterogeneous systems.

**Picture 1.** System architecture before and after SOA implementation



Source: Nicolai M. Josuttis, (2007) „SOA in Practice, The art of Distributed System Design“, O'REILLY

The most important SOA concepts are:

- Services (Services provide business functionality, business value, hide field implementation details and are autonomous)
- Interfaces (users accessing the service via the interface. Interface defines a set of public service operation signatures. Interface is a contract between service providers and service users. Interface is separated from its implementation; it is self-describing and independent of the platform. Description Interface provides the basis for the implementation of the service by service providers, as well as the basis for the implementation of services by service users. Each interface defines a set of operations.)
- Messages (Operations are defined as a set of messages. Messaging specify the data to be exchanged and describe them in a manner independent of platforms and languages , using the scheme. Services only exchanged information, which is different from the object-oriented approach where the behavior, i.e., Implementation code can also be exchanged. WSDL is a language used to describe the message.)
- Loose coupling (loosely coupled services are services that display only the necessary dependencies and reduce all kinds of artificial dependencies. Minimum dependency ensures that in the event of changes in one service are required minimal changes to other related services. Consequence of improving the robustness, which makes systems more resilient in compared to the changes and recommends them for reuse.)
- Registers (service providers publish services in the registers, while users of the service searches the registry to find the required service. Example represents a UDDI service registry.)
- The composition of services in business process (probably the most important SOA concept. Composition service allows us to provide support for business processes in a flexible and relatively easy way. Also allows rapid changes of business processes and with less effort. BPEL is a language for the composition of business processes.)

Web Services, a core component of Service Oriented Architectures may be defined as a set of technologies designed to distribute business functionality in the form of services. The popularity of Web Services in recent years is based primarily on the use in building interfaces for data exchange between different information systems, which are built on different platforms, programming languages and different databases. Organizations around the world apply Web services to enable the functioning of integrated information flows and link disparate systems in the most efficient and simplest way.

SOA, as well as a much broader concept, allows independent building services that can be combined to make business processes implemented within the context of the high level of organization.

### **3. Why SOA?**

Service-oriented architecture is a concept that can radically transform the company and change the way of business activities. SOA is currently a unique concept that largely integrates business and information technology, thus combining the two worlds: business analysts, business process designers and management at all levels with the IT architects, designers and developers of information systems.

The introduction of Service Oriented Architectures in an organization is a complex project which should include all elements of the organization and requires the involvement of the entire organization at all levels.

Properly implemented SOA projects contribute to achieving the following objectives:

**Business agility.** In today's world one of the conditions for the survival of the company is fast-acting and ability to adapt to changes and challenges in the market. SOA enables this kind of agility by introducing the concept of the so-called Web services that constitute the building components and business processes by applying the principle of 're- usability' tends towards the creation of composite components that can be used in multiple business processes at the level of the organization.

**Aligning business and IT.** SOA implies the existence of business architecture, but tends to present business architecture through centralized collection and re- usable business functions. Therefore, SOA requires continuous cooperation of business analysts and IT architects in the process of defining these business functions (which are realized via Web services).

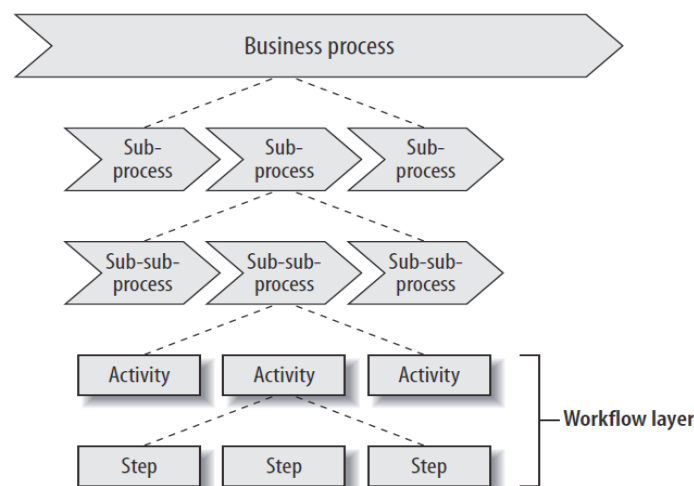
**Increased return on investment in IT.** SOA promises increased return on investment through the creation of a repository of reusable services (business functions). Well designed, recyclable collection services should be increased over time to return the initial investment.

Services are an integral part of business processes. For this reason , a fundamental step in the design of the service is just the modeling of business processes. Business process management is a very broad field, which among other things deals with analyzing the business, implementing and integrating business strategies, monitoring and optimizing business processes, identifying appropriate tools and culture as well as aligning business with information technology .

When we talk about BPM in relation to the SOA, it is clear that the right services are the lowest level of decomposition of business processes. Seen from the business side, no matter whether these services are simple or complex (composite), it is important that the service performs the necessary business function .

The question is, how to identify services that should be present and to be part of a specific business process? How to 'break' the system into smaller components (services) so that we can implement it? And how to ensure that these services are designed in a way so that they can be reused in different business processes ?

**Picture 2.** Example of BP hierarchy with Workflow



Rosen M., Lublinsky B., Smith K., Balcer K., (2008) „Applied SOA, Service Oriented Architecture and Design Strategies“, Wiley Publishing Inc.

Generally, there are two approaches to address these issues:

- In the 'top-down' approach to the problem, system or process is decomposed into smaller pieces until it reaches the level of basic services
- In the 'bottom-up' approach, business processes are built by piling services in higher levels of activity

The common opinion is that in practice, application of any of these two principles cannot you good results. Of course, the process can be designed using a 'top-down' methods to aid understanding of the structure of processes and activities, but ignoring reality, or neglect of the process operating at the lowest level can sometimes lead to wrong conclusions and wrong business model.

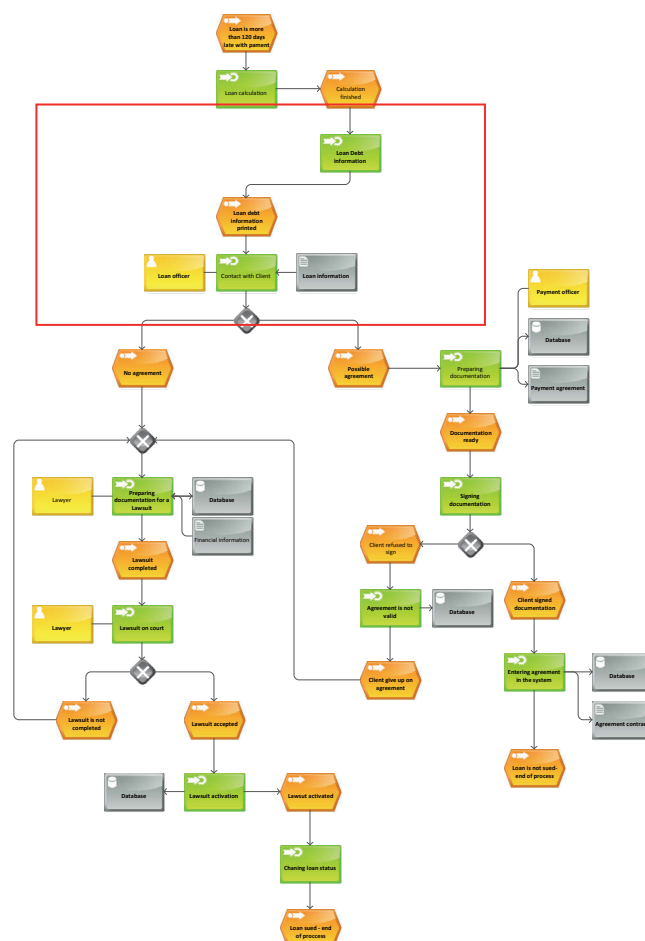
#### 4. Business process examples

Business process 'Initiating a lawsuit' belongs to a group of key business processes in the financial institutions. A special feature of this process is related to the changes that have taken place in the market of the financial sector in the past few years, and are related to a drastic increase in the number of lawsuits for the client who are not paying their loans according to the agreement.

Due to the direct connection with financial flows and results of operations, the business process is one of the key processes in every financial organization.

Figure 3 shows a diagram of this process, done in ARIS Express. As can be seen from the diagram, it is a relatively complex process, which contains activities that are part of the information system of the organization, as well as external activities (correspondence with the court, contacting the client, etc).

*Picture 3. Business process 'Lawsuit'*



As an example of the application of SOA architecture and connectivity with business processes, we'll select the activity entitled 'Calculation of credit amount' and 'Loan balance' which are highlighted on the diagram.

### ***4.1. Calculation of credit amount***

Calculation of credit for the lawsuit includes all the accounting activities at certain selected date, in order to calculate the the full amount of the debt on the loan as of that date. Under accounting activities shall be:

- Calculation of the regular interest rate on the current date
- Calculation of the principal debt on the current date

IT development team, after getting specifications, approached the creation of appropriate functions - a web service that would enable this functionality. The implementation was done in the following steps:

#### ***1. Design and implementation of the functions for calculation***

Within the Oracle database is function which takes as input parameters identification number of the credit agreement and the date.

This function performs all activities from specifications, calls the procedure for the calculation of interest on a specified date, the calculation of principal debt and all other categories which form total debt of the client.

#### ***2. Creating a Web Service***

Based on the developed functions, appropriate Web service is created and published on Oracle WebLogic application server.

#### ***3. Development of applications***

In the module to work with the sued clients in the form of launching lawsuits , a piece of code is created, which calls Web Service and then performs all necessary actions to continue the process.

### ***4.2. Loan Debt information***

This activity should display information about the selected loan and selected date, get total balance of loan that will be the subject of lawsuits and as such remain unchanged on the chosen date. The total balance of loans consists of the following accounting categories:

- The total remaining principal
- Past due and unpaid regular interest
- Daily interest
- Other costs and loan receivables (commissions, fees, etc.)

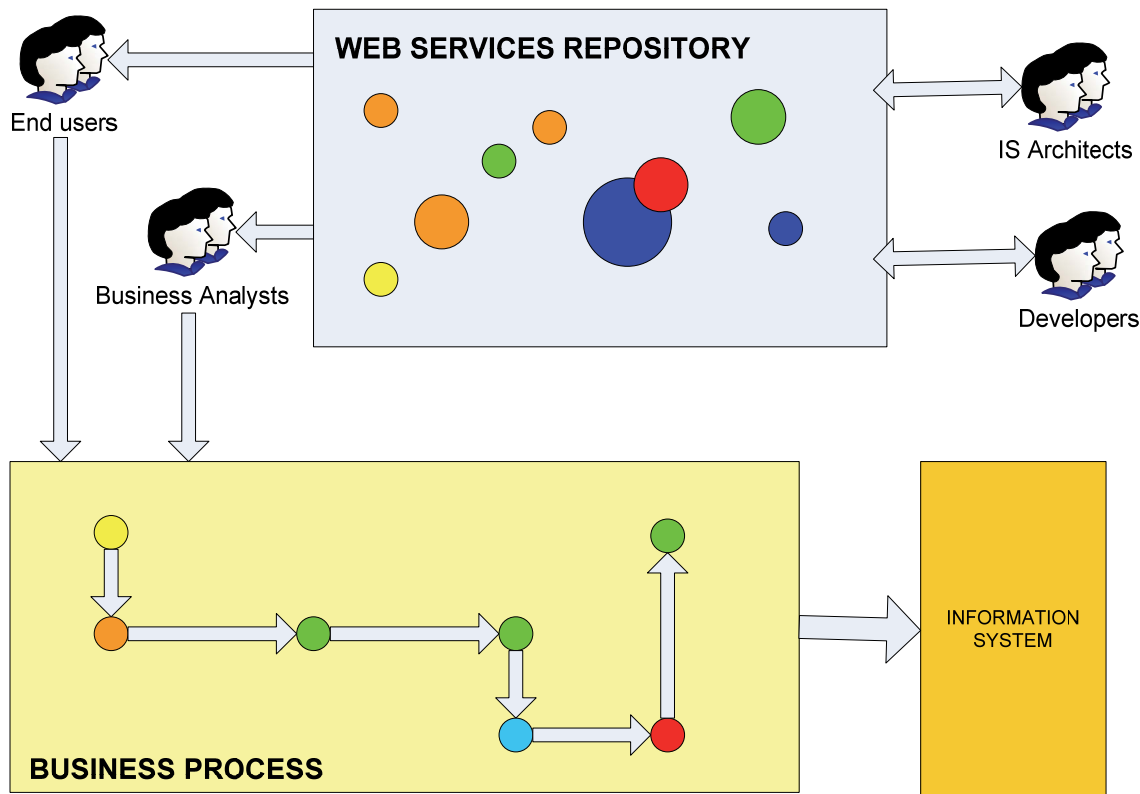
Characteristics of the implementation process:

- Total duration of the deployment and testing: 5 man/day
- The number of engaged resources: 2
- User rating the quality and safety solutions (1-10): 10

## 5. Business Process redesign

One of the main characteristics of Service-oriented architecture is the application of the concept of re-usability ('Reusability') created Web Services.

**Picture 4.** Structure of SOA System



If we look at a simplified scheme applying Service Oriented Architectures, we define that one of the main parts of this system; built 'Repository Web Service' which is a collection created Web Services that are available to all participants in the process of design and creation system: business analysts, end users, with architects and developers.

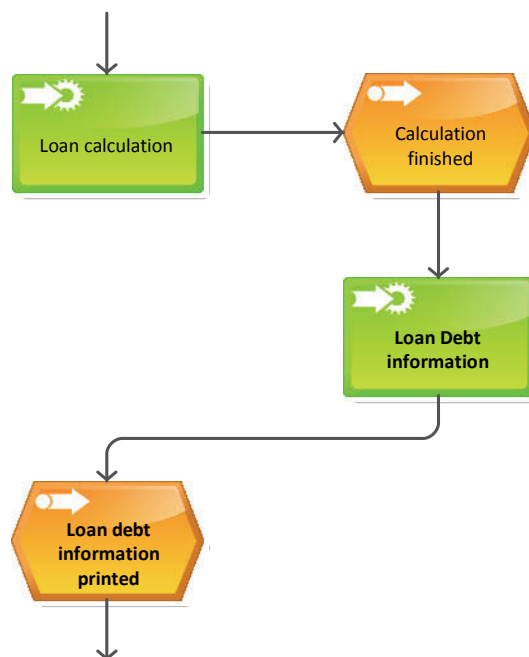
Within the Repository Web Service, the goal is to reduce or completely eliminate redundancy, ensure that each Web service that solves a specific business problem or business function, within the repository appears only once, and to be used as many times as necessary, in various applicative modules and parts of the Information System, which does not necessarily have to be interconnected.

Given that business processes are the fundamental concept of SOA, and that every system design begins with just the design of business processes, it is necessary to incorporate the concept of re- usability and the modeling and design of business processes. In order to align business processes with this concept, in most cases it is necessary to do a redesign of business processes in order to implement the concept of ('Reusability').

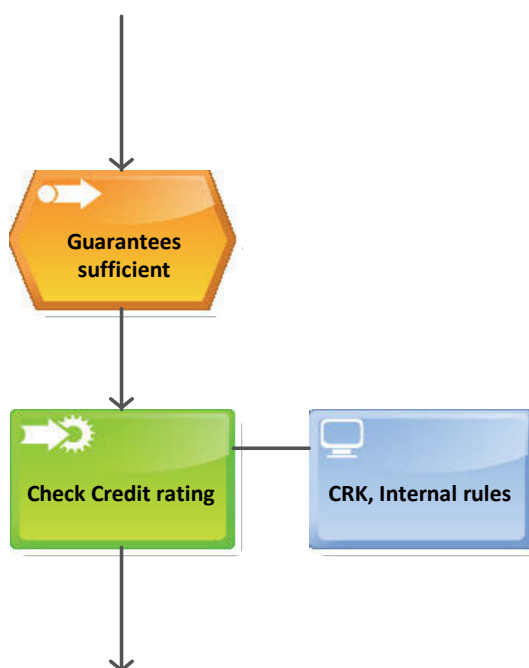
To illustrate this procedure on a concrete example, we will use two previously defined activities from business processes "Lawsuit" and "Credit Committee".

Both processes are designed without taking into account the principle of re-usability, and it is necessary to do the redesign of these processes and align them with this principle. In the process of 'Lawsuit' we will analyze the activity 'Loan debt information'.



**Picture 5. Loan Debt Information**

Within the business process 'Credit Committee' we will analyze the activity 'Check credit rating'

**Picture 6. Check credit rating**

Activity 'Check credit rating ' is defined as follows:

Check credit rating is an activity that aims to carry out all necessary checks for the Loan and provides information whether the client meets the requirements for approval of the requested loan. The activity consists of the following sub-activities:

- Checking the client in the Central Credit Register (CRC),
- Check the status of currently active loans for this client (in the system).

During the implementation of this module the development team has also created a function in the database, corresponding Web service, and enable developers to access this Web service to use it in making appropriate application module.

The aim of the redesigning business processes in order to implement the principle of re-usability is that some business functions - activities are designed in such a way that they can be reused in another business process.

If we analyze these two activities, we can see that they are quite similar, both activities give some indication about the financial status of the selected loans by defined categories.

In the following table are shown financial categories for these two business functions:

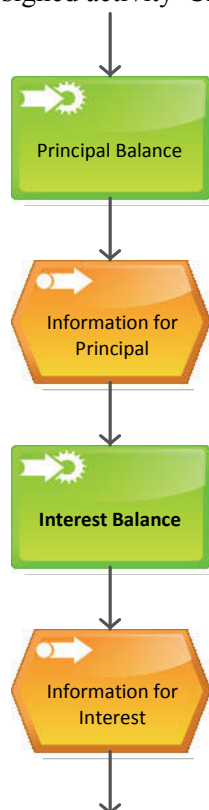
**Table 1.** *Financial categories for business functions*

Loan debit information	Check Credit rating
PRINCIPAL	PRINCIPAL
REGULAR INTEREST	REGULAR INTEREST
PENALTY INTEREST	
COURT AND OTHER EXPENSES	

Based on this, business process redesign would include modification of the sub-activities in such a way that took into account the lowest common denominator of these functions and in this way created a business function.

Specifically, the business function 'Checking Credit rating' will be changed in the following way:

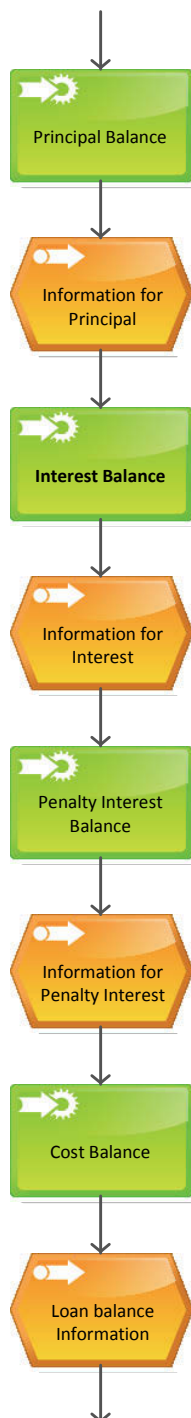
**Picture 7.** Redesigned activity 'Check credit rating'



So instead of one function, we have two, and the final result remains the same, we have information on the status of the loan debt. As a result, the modeled business processes during the implementation transforms into two functions and two Web Services.

Business functions 'Loan debt information' would be modeled as follows:

**Picture 8.** *Redesigned activity 'Loan Debt information'*



During implementation, the development team would not have to re-create all the functions, because functions for Principal and Regular interest already exist, as well as the corresponding Web Services. Therefore, the development team only needs to implement other two functions.

In this process, we can see that the Web Services (business functions) for Principal and Regular interest which were created earlier are re-used in the design and implementation of new business processes and new application modules.

This is the basis of the principle of reusability, which allows all participants in the process of analysis and design of information systems to effectively utilize all previously created business processes and Web services to create new processes and new solutions.

Service Oriented Architecture (SOA) is a concept whose time has come. Through a unique and simple standards, SOA will definitely coming years completely change the way we are today implemented all IT projects, as large as the smallest. Special, perhaps the most important feature of Service- oriented architecture is that it does not belong, and not just addressing the IT world, but equally the business world, defining clear and precise steps how best to combine these two organizations and to solve the many problems that exist in the use of traditional ways of development, implementation and maintenance of information systems in organizations. Business processes as a key element of modern organizations, are an inseparable part of this concept. Only a joint approach, BPM and SOA can bring the desired results and boost the agility and strength of the organization. The proper application of SOA must include the management of business processes , such as the proper redesign and business process modeling must include all elements of Service Oriented Architectures .SOA projects do not have to be big , not require drastic changes or huge funds. Any project that is done by the current SOA standards may be a pilot project for the implementation of Service Oriented Architectures in organizations of all types and sizes. With properly applied the basic principles well established metrics and proper alignment with project objectives and business strategy , SOA will become an essential approach for the complete redesign of information systems, as well as the key business processes of the organization.

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## PERFORMANCE MANAGEMENT IN MICRO AND SMALL ENTREPRISES: CASE OF REPUBLIC OF SERBIA AND REPUBLIC OF SRPSKA

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### Abstract

*According to the report on implementation of the European Commission, it is stated that in the years 2010 and 2011 there were up to 20.8 million of small and medium enterprises in the EU, 19.2 million of which were micro-firms with less than 10 employees. Despite the slight decrease in the number of SMEs, European Commission has concluded that in the years 2010 and 2011 "small and medium enterprises (SMEs) with their turnover have retained their position of "spine" of the European economy". In the Republic of Serbia, in comparison to the EU, percentage stake of small and medium enterprises in the total number of enterprises is larger and according to the figures from National Agency for Regional Development of the Republic of Serbia, in the year 2010 quantified 99.8% of the total number of enterprises. In the year 2011, number of newly established SMEs was reduced in comparison to the year 2010 and the number of closed SMEs increased, while employment rate declined by additional 3.5 percent. Technical and technological lag and lack of competitiveness of Serbian economy are still defined as key limiting factors for more efficient involvement in international trends. In the Republic of Srpska, during the same reporting period, small and medium enterprises and craft shops accounted for 99.6% of the total number of firms, and around 80.15% of total operating revenues. The aim of this paper is to explore ways how to manage the performances within the SMEs sector by focusing on micro and small enterprises and to determine the coherence of performance management with the implementation of the system of quality management. Apart from that, this study also aims at exploring the possibility for application of financial and non-financial parameters within the Balanced Scorecard technique for managing the performances in the enterprises surveyed, and all that in order to increase the competitiveness of a firm and thus competitiveness of the region as well. For the purpose of achieving previously mentioned objective, research has been conducted in the Republic of Serbia and in the entity of Bosnia and Herzegovina, Republic of Srpska. The study was carried out in three cities: Banja Luka, Kragujevac and Belgrade. The process of data collection was executed by surveying the owners or top management representatives of the companies, while the analysis was realized by using standard statistical tools and SPSS software. This paper contributes to the better understanding of managing micro and small enterprises and indicates the impact of standardization on the process of managing and decision-making process. On top of that, this work also stands for raising the awareness regarding the usefulness of the application of methods and techniques of performance management in running micro and small enterprises.*

**Keywords:** performance management, knowledge transfer, micro and small enterprises,

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## 1. Introduction

In the years 2010 and 2011, according to the report on implementation of the European Commission (2012), it is stated there were up to 20.8 million of small and medium enterprises (SME) in the EU, 19.2 million of which were micro-firms with less than 10 employees. Despite the slight decrease in the number of SMEs, European Commission (2012) has concluded that in the years 2010 and 2011 “SMEs with their turnover have retained their position of “spine” of the European economy”.

In comparison to the EU, in Republic of Serbia, percentage stake of SME in the total number of enterprises is slightly larger and according to the figures from National Agency for Regional Development of the Republic of Serbia (NARD,2011), in the year 2010 quantified 99.8% of the total number of enterprises. In the year 2011, number of newly established SMEs was reduced in comparison to the year 2010 and the number of closed SMEs increased, while employment rate declined by additional 3.5 percent (NARD,2012).

According to the data from the official Competitive and innovation small and medium enterprises development strategy for the period of 2008-2013 (2008) entrepreneurs in the Republic of Serbia are aware of the lack of essential knowledge and skills; however they do not adequately use opportunities for additional training. Technical and technological lag and lack of competitiveness of Serbian economy are still defined as key limiting factors for more efficient involvement in international trends (NARD,2012)

In the Republic of Srpska, during the same reporting period, SME and craft shops accounted for 99.6% of the total number of firms, and around 80.15% of total operating revenues. (RARS, 2012). In comparison to the year 2010, when each SME employed 7 employees on average, in the year 2011 average number of employees was 6, which was characterized as the biggest hit in the SME sector in the observed year (RARS, 2013).

Based on the facts related to the decline of the average number of employed people, technical and technological obsolescence and the lack of entrepreneurs’ skills, the question whether these problems can be linked to the methods of management within these companies can be posed.

The aim of this paper is to explore ways how to manage the performances within the SMEs sector by focusing on micro and small enterprises (MSE) and to determine the coherence of performance management with the implementation of the system of quality management. Apart from that, this study also aims at exploring the possibility for application of financial and non-financial parameters within the Balanced Scorecard (BSC) technique for managing the performances in the enterprises surveyed, and all that in order to increase the competitiveness of a firm and thus competitiveness of the region as well.

For the purpose of achieving previously mentioned objective, research process was organised in order to identify the number and type of performance indicators which are used by owners and top management in MSE in the process of performance management, to investigate the existence of statistical correlation and the intensity of eventual relationship as well as to suggest further directions of knowledge transfer in performance management towards MSE.

Research has been conducted in the two cities of Republic of Serbia (Belgrade, Kragujevac) and in one city (Banja Luka) of the entity of Bosnia and Herzegovina, Republic of Srpska. The process of data collection was executed by surveying the owners or top management representatives of the companies, while the analysis was realized by using standard statistical tools(Chi-square test, Cramer's test) and SPSS software.

This paper contributes to the better understanding of managing MSE and indicates the impact of performance measurement on the process of managing and decision-making process. On top of that, this work also stands for raising the awareness regarding the usefulness of the application of methods and techniques of performance management in running MSE.

## 2. Literature review

Performance management can be defined as the process of quantifying action, with measurement as a process of quantification and action leads to performance (Neely et al., 1995). Garengo et al. (2005) indicate that performance measurement system can play a key role in supporting managerial growth especially in SMEs. However, Hvolby and Thorstensen (2000) suggest that only the most critical performance indicators be selected and utilised because SMEs have severely constrained resources.

The BSC is performance management system where object of measurement are divided into four groups of factors: customer perspective, internal business perspective, innovation and learning perspective and financial perspective. Kaplan and Norton (1992), authors of this concept, define that BSC balance both the financial and non-financial measures that a company uses.

According to the literature data, recent scientific articles show increased popularity and usage of BSC. According to CIMA's survey (CIMA, 2009), the BSC is the most popular tool and considered as the one most likely to be adopted soon. Rigby and Bilodeau (2011) found out that BSC was one of the 25 most popular tools management tools and techniques. Giannopoulos et al. (2013) point out that BSC is a performance measurement and strategic management system which appears suitable for use by all types and sizes of business.

Knowledge appears to be widely emphasized as a critical resource for an organizational success, and knowledge transfer in supporting knowledge management initiatives is acknowledged (Albino et al., 1999). Argote and Ingram (2000) defined knowledge transfer as the process through which knowledge is acquired in one situation and applied to another. Same authors argued an organization that promotes the transfer of knowledge among its members is more productive and more likely to survive than an organization that does not.

In case of Serbia, Jankulovic and Skoric (2010) find that SMEs show lower levels of interest in collection performance measures and analysis. Jankulovic and Skoric (2013) found out that the main barriers and obstacles in PMS implementation are employees on the lower level and relationships between owner/management and employees. Finally, same authors point out that individuals that implement knowledge transfer are of a great importance and they are one of the prime motivators for successful implementation of performance measurement systems.

## 3. Research methodology

This research was conducted as a descriptive study. For the purpose of the research process of this study, OM research methodology defined by Forca (2004). Based on the defined aim of the study and the main research question, research process was organised into two directions: a) Is there a correlation between MSE profile and the performance measurement in MSE, and b) Is there a correlation between the profile of the owner and top management in MSEs and the performance measurement in MSEs.

For research purposes, the connection between MSE profile and performance measurement, the following criteria has been used:

- Age of a company
- Type of activity
- Type of the market in which MSE operates
- Possession of a defined quality standard

Correlation of profile of owners and top management in MSEs and performance measurement, the research has been done through the following criteria:

- Gender
- Level of Education
- Working experience

Correlation between both profiles and performance measurement has been done through two criteria: 1) The minimum number of parameters monitored in MSEs and 2) The minimum number of parameters per BSC category monitored in MSEs

The first criteria included the following rules:

- $X \geq 4$  : If the total number of parameters of performance is greater or equal to 4, then it is considered that the MSEs monitor the performance
- $X < 4$ : If the total number of parameters of performance is less than 4, then it is considered that MSEs do not monitor the performance to a sufficient level.

Under the second criterion BSC is defined by the following rules:

- $X_i \geq 1$ ,  $\sum X_i \geq 4$ ,  $i = 1, 2, 3, 4$  - MSEs monitor performance for each category within the BSC model
- $X_i < 1$ ,  $\sum X_i < 4$ ,  $i = 1, 2, 3, 4$  – MSEs do not monitor the performance for each category within the BSC model.

The target sample of this study represents the citizens of the Republic of Serbia and the Republic of Srpska employed in MSEs registered according to the Law on Registering Business Subject (2009) and Law on Registering Business Subjects in Republic of Srpska (2009). The observed discrepancies in the involvement of MSEs in the regions influenced the fact that the research was carried out in the leading regions, Belgrade and Banja Luka. Strategic investments undertaken in the economy of the region of Sumadia have affected the study to include a third area, the area of the city of Kragujevac. In the interest of equal consideration of the situation in these regions, it is defined that in each of the study areas, a minimum of 30 relevant interviews should be done.

Research and data collection was carried out in the form of an interview on the pre-determined questions. The questionnaire was composed of three categories of issues: the profile of MSE, the profile of the respondents, the performance measurement of MSE, and the quality management system in MSEs.

The data collection process was organised for a period of three months from December 2013 until February 2014. The data collection process involved a team of four post-graduate students. In order to increase the quality of research and the data obtained, the moderation techniques were used during the interview.

Analysis of treated data was carried out using the SPSS software version 1.6. Considering that the aim was to determine the association and dependencies between parameters, data analysis was carried out by chi-square test. Chi-square test shows whether there is a connection or not, but does not give an indication of how two variables are related. The general rule is that the results of the chi-square test are valid only if the value of the frequency in each of the contingency table fields are at least 5 (or at least 80 % of the cells must have a frequency of 5 or more). If the significant result is  $p \leq 0.05$ , hypothesis H1 will be accepted (a statistically significant relationship), while in the opposite the hypothesis Ho will be accepted.

The correlation strength coefficient is measured as followed: Contingency coefficient and Cramer's V coefficient. Cramer's V ratio was used for tables greater than 2 times 2, where in the connection strength of the conclusion is made based on the following criteria:

- For the R-1 or K-1=1 is equal to 1-low (small) connectivity strength=0.01, the medium strength connection= 0.30, a strong strength connection=0.50;
- For the R-1 or K-1 is 2 - low (small) connectivity strength= 0.07, medium strength connectivity=0.21, a strong connectivity strength=0.35.
- For the R-1 or K-1 is 3-low (small) connectivity strength=0.06, medium strength connectivity= 0.17, a strong connectivity strength=0.29.

## 4. Results and findings

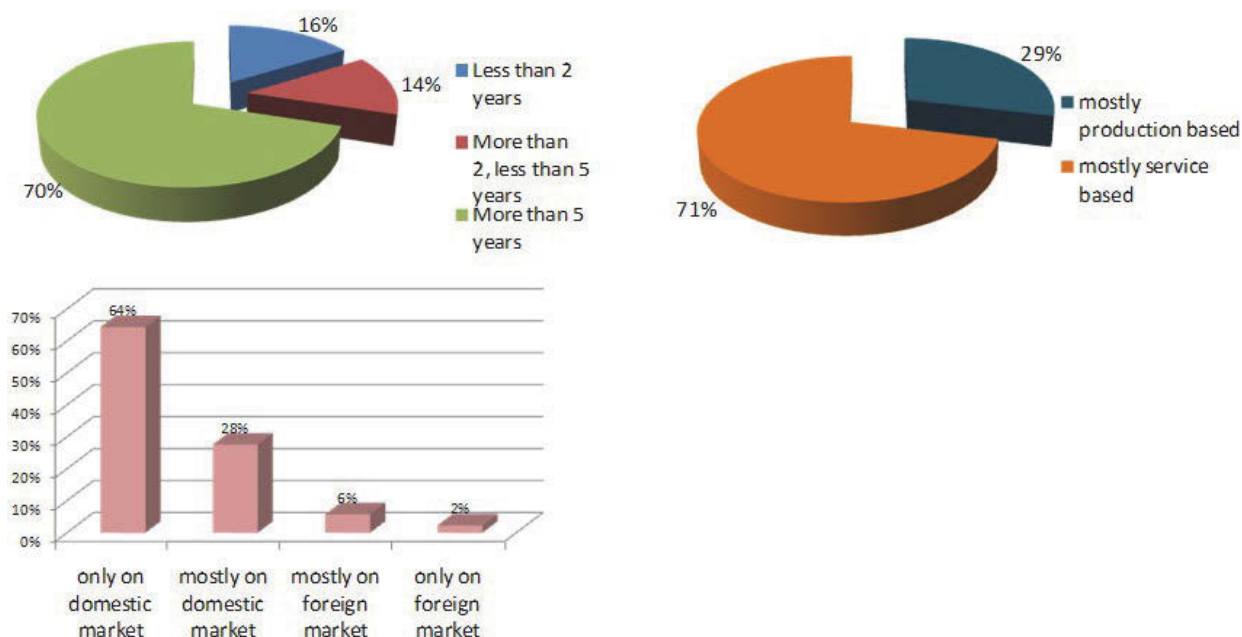
Through the realization of the process of data collection, entering, processing and data analysis 90 relevant questionnaires were obtained, 30 questionnaires per each region being investigated. Based on these answers, results are presented in accordance with defined directions of the research.

### 4.1. MSE profile

The largest number of responses within this research was obtained from MSEs that are older than five years. The percentage of newly-founded enterprises was 16%. From the type of activity of MSE perspective, in this research, enterprises that are dealing with service activities were prevailing (71%). MSE that operate on the domestic market only or in the majority of cases make 92% of the total number of enterprises that were examined, while only 8% of enterprises put its products or services on the foreign market.

Realised percentage ratio between so called ‘‘mature’’ enterprises and ‘‘newly-founded’’ enterprises contribute to the relevancy of conclusions at regional level.

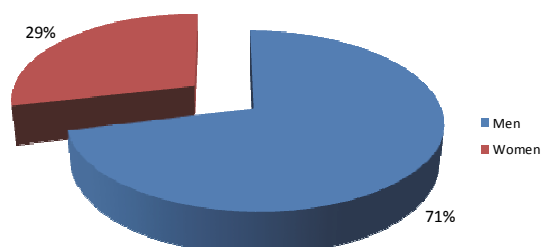
**Figure 1.** Profile of MSE using age of the company criteria type of activity criteria and market on which MSE operates



#### 4.2. MSE owner and top management profile

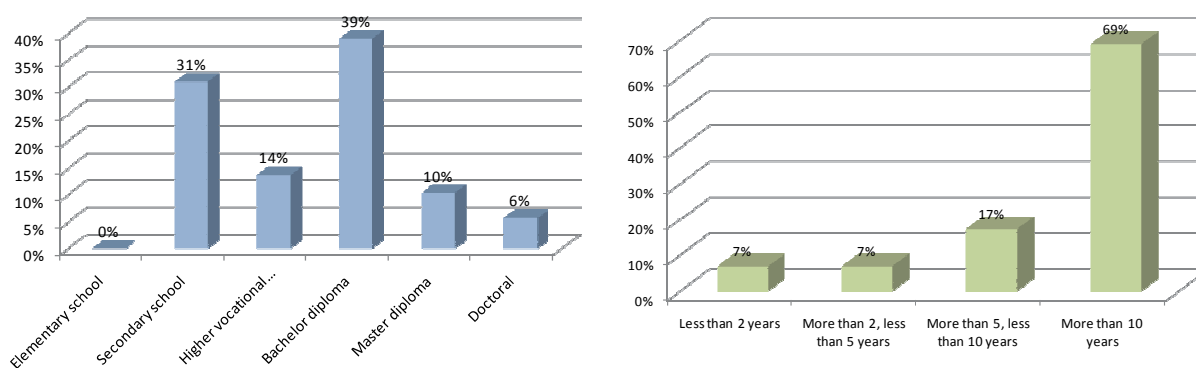
Out of the total number of business entities and shops only 26% are women entrepreneurs (SECONS, 2011). In this research, one in three respondents was female, which is consistent with the current percentage share of women entrepreneurship.

**Figure 2.** Profile of MSE using gender of the owner and top management criteria



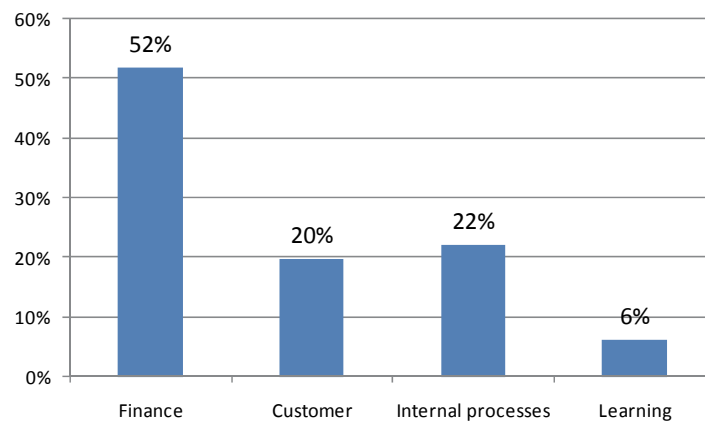
In the survey mostly participated respondents with higher academic education (55%), respondents with higher vocational education (14%) and respondents with secondary education (31%). Within the research no cases were found that an owner neither the representative of top management of MSE finished primary school only. The results show that the vast majority of the owners and representatives of the top management of MSE have significant work experience; actually 69% of respondents have more than 10 years of work experience. In addition, research results show that there is a significant percentage of owners of MSEs that have up to 2 and up to 5 years of work experience (14%).

**Figure 4.** Profile of MSE using level of education and work experience of the owner and top management criteria



#### 4.3. Performance parameters within BSC model

Results show that more than half of performance parameters which owners and top management in MSE are using belong to the group of financial parameters. On the other side, parameters in domain of innovation and learning are neglected. From statistics point of view, this would mean that owners and top managers in MSE would use 3 financial parameters, 1 customer parameter and 1 internal process parameter in average. In case of learning parameters, every third owner of MSE only would use one parameter in measuring performances.

**Figure 5.** Usage of performance parameters in MSE per BSC category

#### 4.4. Correlation between defined profiles and performance measurement

In the first step of descriptive analysis by calculating Pearson's coefficient and the level of significance, it was founded that there is the existence of dependency between the age of MSE and minimum number of parameters that the owners and top management in SME use. In addition, Kramer's coefficient of 0.329 indicates on the existence of medium level link.

**Table 1.** Results of Chi-square test for the criteria minimum number of performance parameters

	Chi square tests					Symmetric measures	
	Pearson Chi-Square	df	Asymp. Sig. (2-sided)	Likelihood Ratio	Asymp. Sig. (2-sided)	Cramer's V (Value)	Cramer's V (Approx. Sig)
<b>MSE PROFILE</b>							
<b>Age of company</b>	9.764	2	0.008	10.447	0.005	0.329	0,008
<b>Type of activity</b>	0.299	1	0.584	0.301	0.584		
<b>Market type</b>	5.172	3	0.160	6.607	0.086		
<b>Quality standard</b>	0.569	1	0.451	0.574	0.449		
<b>OWNER AND TOP MANAGEMENT PROFILE</b>							
<b>Gender</b>	0.907	1	0.341	0.901	0.341		
<b>Education</b>	8.159	4	0.086	9,786	0.044		
<b>Working experience</b>	0.361	3	0.948	0.364	0.948		

In case of the second criteria, by calculating Pearson's coefficient and the significance factor, link between the type of the activity on which SME operates and performance measurement was found. In addition, Cramer's coefficient of 0.445 indicates on the existence of the moderate link, however due to the ordered assumption regarding the minimum cell frequency, this result can be considered as alternative.



**Table 2.** Results of Chi-square test for the criteria minimum number of performance measures by BSC category

	Chi square tests				Symmetric measures	
	Pearson Chi-Square	df	Asymp. Sig. (2-sided)	Likelihood Ratio	Asymp. Sig. (2-sided)	Cramer's V (Value) Cramer's V (Approx. Sig)
<b>MSE PROFILE</b>						
<b>Age of company</b>	0.300	2	0.861	0.334	0.846	
<b>Type of activity</b>	1.593	1	0.207	1.476	0.224	
<b>Market type</b>	17.837	3	0.000	12.174	0.007	0.445 0.000
<b>Quality standard</b>	0.433	1	0.511	0.420	0.517	
<b>OWNER AND TOP MANAGEMENT PROFILE</b>						
<b>Gender</b>	1.007	1	0.316	1.105	0.293	
<b>Education</b>	8.159	4	0.086	9.786	0.044	
<b>Working experience</b>	2.095	3	0.553	3.010	0.390	

Even though previous research papers on performance measurement indicated on the correlation between performance measurement and possession of ISO 9001 standard in SME, results of the chi-square test have shown that in the case when the possession of the certificate is observed from the broader perspective it is not statistically confirmed.

## 5. Conclusion

The results indicate on the existence of correlation between MSE profile and performance measurement, in the domain of minimum number of parameters that are monitored and in the domain of the use of the performance parameters per BSC model.

In the area of the minimum number of parameters that are monitored it is determined that an increase of the number of parameters through which performance of one MSE is measured increases with the number of years of existence of that MSE. Correlation between MSE's profile and first examined condition of performance measurement was not determined through the type of the activity criterion neither through the market on which MSE operates criterion.

The findings of this research do not indicate the existence of the correlation between the profile of the owner and top management of MSE and performance measurement in the domain of minimum number of parameters that are monitored and in the domain of the use of the performance parameters per BSC model category through none of examined criteria.

Considering the poor results of statistical analysis between the profile of the owner and top management of MSE and performance measurement, knowledge transfer should be realized primarily in relation to the profile of MSE.

Knowledge transfer in performance measurement should be realized toward all MSEs, but primarily toward newly-established MSEs and MSEs that are not older than five years. By doing this, goal that MSEs monitor suggested minimum of performance parameters would be accomplished from the very beginning, and at the same time condition for the implementation of new ones would be provided as well. This will have an influence on owners and top management of MSEs to acquire basic knowledge and skills in measuring the performances, and increase likelihood of its use in the early stages of development of one MSE, which will, at the same time, lower the risk of failure or shutdown of MSE in the years that are predefined as risky. In addition, based on the findings on the use of parameters per BSC model category, it is concluded that knowledge transfer should be directed toward MSEs that operate solely or mostly on the domestic market.

Further research can reveal new discoveries in terms of models of performance indicators that are adjusted to the profile of MSE, the method of knowledge transfer from the performance measurement and that way contribute to the development of the unique theoretical research model

regarding knowledge transfer from performance measurement that is applicable in other countries in the region and countries in transition as well.

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## FEMALE LABOUR FORCE PARTICIPATION IN THE WESTERN BALKAN: ALBANIA AND MACEDONIA

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### Abstract

*The aim of this paper is to investigate the determinants of female labour force participation (FLFP) in two transition economies, Albania and Macedonia. The labour markets in these countries have been under continuous restructuring and reforms during the last two decades. However, the gender gap in participation remains still high, and figures indicate that although participation rates fluctuate, there is no clear trend towards a closing of the gap. The figures show that the situation in Albania in 2012 was similar to 2007, and that the gender participation gap has remained stable at about 20 percentage points in the last five years. Macedonia has the lowest participation rate among the working population in the European and Central Asian (ECA) region, while female inactivity rate is twice that of men and the third highest in the ECA region. It also compares very unfavourably to the EU average of 36.7 per cent.*

*The empirical analysis for Albania employs Albanian Living Standards Measurement Survey (LSMS) 2008 data conducted by the Albanian Institute of Statistics (INSTAT) and the World Bank, whereas for the case of Macedonia we use household survey data conducted by the South East European University in cooperation with UNDP Macedonia in 2009. The main objective is the identification of the determinants of FLFP based on the neoclassical economic theory and extending it with contextual factors of the Western Balkans. The statistical significance and effects of the theoretical determinants such as education, remittances, number of children, illness, and other controlling variables are examined estimating a probit model through the conditional mixed process estimator (cmp). This specific model enables the test and control for the potential endogeneity of education, remittances, illness and children in the FLFP equation. Generally our findings suggest that education, age, marriage, ethnicity, income and living in urban areas have positive and significant impact on FLFP. Specifically, considering the results from the cmp for the case of Albania, remittances, education, age and being head of household positively affect FLFP whereas empirical results for the case of Macedonia indicate that ethnic Macedonian women, with higher level of education, and those that do not receive remittances are more likely to be part of the labour force. Different results are found on the effect of remittances (positive for Albania and negative for Macedonia) and on the urban areas (negative for Albania and positive for Macedonia).*

**Keywords:** Female Labour Force Participation, cmp, endogeneity, Albania, Macedonia

### 1. Introduction

This paper aims to examine the determinants of FLFP in two Western Balkan countries: Albania and Macedonia. The motivation for the study is based on the positive impact that a higher FLFP will have on narrowing social disparities with respect to gender as participation in the labour market has been argued to improve the relative status of women in the society.

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In the selected transition economies, FLFP and employment during the socialist period was higher than in OECD countries for several reasons (Saget, 1999). First, employment was considered as a political obligation, but also a necessity, because a household could not maintain a decent standard of living if only one member of household (husband) was employed. Second, an efficient child-care system was in favour of FLFP. However, in the transition from planned to market economy, female LFP declined due to social and economic reforms. In Albania and Macedonia, large gaps of over 20 percentage points exist between LFP of women and men, and these gaps are higher compared to EU countries. These differences warrant investigation on the determinants of female LFP in these countries and comparison between them. Furthermore, Albania and Macedonia face similar economic challenges that influence the economic and social conditions that determine women's ability and willingness to enter and remain in the labour market.

The structure of this paper is as follows. We start with a review of the empirical literature on female LFP. The second section presents the methodology employed for the empirical investigation the female LFP in Albania and Macedonia. The third section is divided in two sub-sections: firstly, the empirical results for the case of Albania, and secondly, the empirical results for the case of Macedonia are presented. The last section concludes and provides recommendations.

## 2. Empirical literature review on FLFP

Neoclassical economic theory postulates that education is a key determinant that has a positive impact on FLFP (Aromolaran, 2004). The empirical evidence tends to confirm the positive correlation between higher levels of educational attainment and FLFP in both developed and developing countries (Saget, 1999; Aromolaran, 2004; Careras and Plaza, 2004; Pagani and Marenzi, 2008; Pastore and Verashchagina, 2008; Contreras and Plaza, 2010; Euwals et al., 2011; Posadas and Vidal-Fernandez, 2012).

Economic theory posits that health may also have a positive impact on productivity and hence on the probability of females being economically active. As health deteriorates with time, it is expected that younger persons have larger labour income than their older counterparts with poorer health conditions (Zhang et al., 2009). In the literature on the FLFP, health conditions are often modelled by including a dummy variable indicating whether a woman is disabled. Pastore and Verashchagina (2008) found a negative correlation between disability and the FLFP.

Another factor that affects FLFP is fertility. Most empirical studies find that the existence of children in households is correlated with a reduction in the incidence of their mothers' labour force participation and in the number of working hours of employed women (Bloom et al., 2009; Euwals et al., 2011; Posadas and Vidal-Fernandez, 2012). The size of the negative effect of having children in mothers' LFP is found to decrease with the age of the child(ren) (Del Boca et al. 2009; Euwals et al., 2011) and it is found to be larger in the presence of more than one child in the family (Euwals et al., 2011). The strongest negative effect is found during the women's fertile years (aged 20-39). Finally, the negative correlation between fertility and FLFP is found in both developed and developing countries (Bloom et al., 2009; Edon and Kamionka, 2009; Pagani and Marenzi, 2008; Pastore and Verashchagina, 2008; Contreras et al., 2010).

Although most empirical studies model fertility as an exogenous variable, independent of the women's participation decisions, recent research argues that these decisions may be endogenous, and use different approaches to address the endogeneity problem. Mishra et al. (2010) used different estimation methods such as panel cointegration, Granger causality, and long-run structural estimation on annual time series of FLFP and Total Fertility Rates from 1960 to 2006 for G7 countries. Aguerro and Marks (2008), on the other hand, use IV and GMM techniques in a study of 6 Latin American countries and find a negative impact of the number of children on FLFP in OLS estimations, but this effect becomes insignificant when the fertility variable is instrumented. This result is interpreted to be consistent with the explanation that both female LFP



and the number of children a woman has are jointly determined by unobservable characteristics, one of which could be ambition. Still, a negative impact of fertility is typically found in both strands of research, i.e. those treating fertility as an exogenous and those treating it as endogenous variable.<sup>248</sup>

Many empirical studies on the determinants of FLFP include the household income/wealth as an explanatory variable, but the empirical evidence on the impact of the household income on FLFP is not conclusive. Contreras et al. (2010) found a positive and significant effect on the FLFP in 1990 and 1996, but a negative effect in 2003; Saget (1999) found no effect; Pagani and Marenzi (2008) found a negative effect of the husbands' income on FLFP. Narayana and Shongwe (2010) controlled for land ownership as a proxy for household wealth and found that it positively affects women's labour force participation in the agricultural sector in Swaziland.

Women's age is also considered as a relevant factor in the FLFP. Models of the FLFP usually include women's age and age square, because the impact of age is expected to have a hump-shaped pattern. This implies that women's participation increases in their youth (aged 20-30), decreases in their 30s as women temporarily leave the labour market to have children and later, in their 40s, they return to the labour market with FLFP reaching its highest level (Balleer et al., 2009). The non-linear effect of age on FLFP is found in both developed and developing countries (Pagani and Marenzi, 2008; Contreras et al., 2010; Balleer et al., 2009; Pastore and Verashchagina, 2008; Del Boca et al. 2009; Narayana and Shongwe, 2010).

Other independent variables include marital status, ethnicity, religion, culture, the presence and/or cost of facilities for child-care and the elderly and regional dummy variables. Women residing in urban communities are more likely to participate in the labour market (Ackah et al., 2009). Empirical evidence tends to confirm this hypothesis (Ackah et al., 2009; Pagani and Marenzi, 2008; Contreras et al., 2010). Furthermore, the labour market literature suggests that different ethnic groups exhibit different patterns of labour participation (Khattab, 2002). Although not many empirical studies control for ethnicity, those that do, find a negative impact of ethnical minorities on the FLFP (Saget, 1999; Ackah et al., 2009). With regards to religion, Klasen and Pieters (2012) indicate that religion matters, by pointing out that Christian women are more likely to work compared to Muslim women other things being equal, a result that is also confirmed in the study of Das and Desai (2003).

Finally, women's care-giving responsibilities toward family members (children and the elderly) as well as family members' assistance may affect their labour participation. Providing assistance to elderly family members is found to have a negative but small effect on FLFP (Pagani and Marenzi, 2008), whilst the receipt of informal family help in raising children is found to have a positive effect (Pagani and Marenzi, 2008; Posadas and Vidal-Fernandez, 2012).

The availability of child and senior institutional care services is found to have a positive effect on female LFP (Del Boca et al., 2009, and Pagani and Marenzi, 2008, respectively), as are (subsidised) lower prices of childcare services, according to a meta-regression analysis by Akgunduz and Plantega (2008). They argue that the effect of price based policies for child care is likely to diminish in countries where female LFP is already high and part-time jobs are available. However, according to Cortes and Tessada (2011), the price of childcare affects the participation of women of different wages/education differently, and it may affect the number of hours worked, even though it may not necessarily affect their LFP.

### 3. The methodology and data

The effects of the potential determinants identified in the theoretical review of labour force participation will be estimated using data from the Albanian LSMS 2008 (for the case of Alba-

<sup>248</sup> For a review of empirical studies on fertility see Edon and Kamionka (2009).



nia); and household survey data for 2009 conducted by the South East European University in cooperation with UNDP Macedonia (for the case of Macedonia). The empirical methodology involves a Probit model, which is based on the assumption that there is an unobserved variable  $Y$ , the value of which is determined by the explanatory variables  $X_i$  (Gujarati, 2003):

$$Y_i = \beta_0 + \beta_i X_i + u$$

In the context of this research  $Y_i$  is a FLFP indicator and  $X_i$  are the explanatory variables that were identified in the literature review. Assuming that  $u_i$ , follows a standard normal distribution (with a mean of 0 and variance of 1), the probability (Pr) of FLFP can be explained by the following model:

$$\Pr(Y = 1|X_i) = \Phi(\beta_i X_i)$$

Where  $Y=1$  if the woman participates in the workforce and 0 otherwise;  $\Phi$  is the Cumulative Distribution Function of the standard normal distribution and  $\beta_i$  are the parameters of the explanatory variables  $X_i$  that will be estimated by maximum likelihood.

Expected endogeneity problems for the Albanian estimations will be solved by using instruments for the suspected endogenous variables. First, the instrumental variable for fertility is a dummy that takes the unit value when all children are male, and 0 otherwise. The instrumental variable for education is a categorical variable indicating the education level of the mother of the women. To instrument for the health variable in our model we propose two instrumental variables. The first one is a dummy variable that takes the unit value if the person has ever smoked which may be related to suffering from chronic diseases, and the second variable indicates the possession of a health card. Individuals who suffer from a chronic disease are more likely to possess this card because it entitles them to governmental subsidies. However, its possession is not expected to be related to labour force participation. To account for the endogeneity of remittances we follow the approach taken by Mora (2013) and instrument it with the use of internet. The author argues that the use of internet at home reduces communication costs, increases the amounts of transfers and the efficiency of the bank system.

The nature of the potentially endogenous variables leads to the consideration of some extensions to the basic probit model. Conventional methods include the maximum likelihood estimation, control function based estimation and the methods of special regressors. Baum et al. (2012) and Lewbel, Dong and Yang (2012) provide a clear discussion of these methods, their advantages and disadvantages, as well as the practical failures of the Linear Probability Model as alternatives to the probit estimator. A simple version of the maximum likelihood estimators of binary outcomes with possibly endogenous independent variables is the following:

$$D = I(X^e \beta_e + X^0 \beta_0 + \varepsilon \geq 0) \\ X^e = G(Z, q, e)$$

Where the vector of characteristics  $X$  is separated into  $X^e$  and  $X^0$  representing the set of endogenous and exogenous variables, respectively. Different from instrumental variable estimation and 2SLS, the maximum likelihood estimation endogenous regressors in  $X^e$  can be measured in different scales (continuous, discrete, limited, etc.), and given that our endogenous variable are of discrete nature, we opt for the use of this estimator. The  $G(\cdot)$  model has to be fully specified (in our case it is a probit) and the joint distribution of the errors  $\varepsilon$  and  $e$  fully parameterized (Baum et al., 2012).

The program used for the estimation is STATA 12 and the respective command for the estimation of these models is `cmp` (Roodman, 2011).

#### 4. Empirical results for the case of Albania

The results of the conditional mixed process estimations are presented in Table 1. The first model has the full specification form, while the second one takes into account the results of the exogeneity test of the potential variables. The table includes estimations of the marginal effects and their standard errors for each of the participation models. The correlation coefficients of the independent variables do not indicate multicollinearity problems. The variable indicating social benefits is automatically excluded from the analysis as it perfectly predicts FLFP participation.

The table includes the results of the exogeneity tests for each of the variables (remittances, education, health and fertility). If the correlation between the errors of the two equations,  $\varepsilon_i$  and  $\xi_i$ , is zero, then the null hypothesis of exogeneity cannot be rejected. In the first model, the coefficient of correlation  $\rho$  between the FLFP equation and remittances and FLFP and education are highly significant. Thus, the exogeneity of remittances and education are rejected at one percent level of significance. The exogeneity of the health variable may be rejected at the 5, but not at the 10 percent level. Concerning the fertility variable, the results indicate that it does not cause endogeneity in the models. These results were incorporated in the second and third model and the effects of the independent variables in the final model (Model III) are interpreted below.

The results of Model III indicate that living in a remittance recipient household, is associated with about 35 percentage points higher probability of FLFP compared to non-recipient households. Education also has a positive effect on participation; increasing education by one level, increases the probability of participation in the LF by 12 percent. Suffering from a chronic disease decreases the probability of being economically active by 0.11. The presence of children under 5 years old negatively affects the probability of FLFP by 0.04. Age is a significant determinant and is non-linearly related to FLFP, following the expected hump-shaped relationship. As expected, being the head of the household positively affects participation. A female head of the household has approximately 14 percent higher probability of being a participant.

Women living in households with more members have higher probabilities of participation in the labour force. An additional member increases the probability of participation of a female member by 1.8 percentage points. The effects of the gender and dependency ratio are also significant at the 10 and 5 percent levels respectively. The gender ratio is negatively related to FLFP (the effect is significant at the 10 percent level), while a higher dependency ratio (i.e. more females in the household) is associated with a higher FLFP.

The household asset index is used as a proxy for household wealth, and its effect on FLFP is negative as expected. Another proxy for household wealth is per capita consumption, but the results indicate that once wealth is controlled for, current consumption has no effect on FLFP. Only one of the three proxies used for social capital is significant. Belonging to one more social group increases the probability of participation by 3.3 percentage points. Informality as proxied by the community's grey economy rate has a marginally significant positive effect on FLFP, but the magnitude of the effect is small. The local wage effect as measured by the median wage of community male members is negatively related to FLFP: the higher the median, the lower the probability of the FLFP. The household male employment rate positively affects FLFP. The power of women, as measured by a self-evaluation of their power and level of rights has a negative effect, indicating that women that feel that they have more rights are less likely to be economically active. Women that live in households whose members own a business are 0.075 more likely to participate in the labour force compared to their counterparts. With regard to the regional variables, living in the mountain area is associated with a 13 percent lower probability of participating in the labour market compared to the Tirana area, while the other two regions do not show any significant differences. Furthermore, living in urban areas results in a 7.2 percentage points lower probability of being economically active.

**Table 1.** Results from the conditional mixed process estimations for the case of Albania

	MODEL I		MODEL II		MODEL III	
	dy/dx	Std. Err.	dy/dx	Std. Err.	dy/dx	Std. Err.
Remithhm	0.328***	0.052	0.323***	0.059	0.345***	0.052
highest_diploma	0.111***	0.012	0.111***	0.012	0.116***	0.011
Chronic	-0.258**	0.102	-0.245**	0.110	-0.109***	0.019
child15	-0.033	0.031	-0.036***	0.012	-0.037***	0.012
Age	0.051***	0.005	0.052***	0.005	0.052***	0.004
Agesq	-0.001***	0.000	-0.001***	0.000	-0.001***	0.000
Married	-0.021	0.028	-0.019	0.023	-0.009	0.024
Ethnic	0.094	0.054	0.098*	0.055	0.084	0.055
Religion	0.001	0.021	0.001	0.021	-0.001	0.021
for_lang	-0.016	0.044	-0.015	0.044	-0.014	0.045
Headhh	0.136***	0.043	0.138***	0.039	0.140***	0.039
Sizehh	0.018**	0.008	0.018***	0.007	0.019***	0.007
Elderly	0.013	0.012	0.014	0.012	0.016	0.012
Rcons	0.000	0.000	0.000	0.000	0.000	0.000
Asset	-0.020***	0.005	-0.020***	0.005	-0.021***	0.005
Toilet	-0.030	0.025	-0.030	0.025	-0.025	0.025
g_rat	-0.071*	0.043	-0.069	0.044	-0.076*	0.044
dep_ratio	0.118**	0.048	0.123**	0.050	0.149***	0.042
no_groups	0.034***	0.010	0.034***	0.010	0.033***	0.010
close_friends	-0.006	0.004	-0.006	0.004	-0.006	0.004
partic_act	-0.027	0.026	-0.027	0.027	-0.022	0.027
psu_grey_rate	0.001**	0.001	0.001**	0.001	0.001*	0.001
day_wage_m	-0.009**	0.004	-0.009	0.004	-0.009**	0.004
hh_m_emp_rte	0.001***	0.000	0.001	0.000	0.001***	0.000
pri_sch_dist	0.000	0.001	0.000	0.001	0.000	0.001
doct_dist	0.000	0.001	0.000	0.001	0.000	0.001
Snsfrdm1ow	-0.021	0.015	-0.022	0.016	-0.024	0.015
snsfrdmhigh	-0.038*	0.022	-0.038*	0.022	-0.035	0.022
Business	0.073***	0.022	0.073***	0.022	0.075***	0.022
Central	-0.002	0.028	-0.001	0.028	-0.002	0.029
mountain	-0.129***	0.029	-0.130***	0.030	-0.126***	0.030
Coastal	-0.033	0.029	-0.032	0.030	-0.032	0.030
Urban	-0.067**	0.031	-0.069**	0.031	-0.072**	0.031
rho_12	-0.628***		-0.617***		-0.652***	
rho_13	-0.220***		-0.216***		-0.224***	
rho_14	0.295*		0.2682*			
rho_15	-0.015					
N	4638		4638		4638	

Source: Author's calculations using data from Albanian LSMS 2008. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## 5. Empirical results for the case of Macedonia

The dependent variable in the model used is FLFP, which is equal to one if the respondent is already in employment/looking for a job; whereas the independent variables are the female level of education (*education*), the number of children under the age of 15 (*children*), if the household have received any remittances (*remithhm*), is the female suffers any chronic disease (*illness*), female age (*age*), age squared (*agesq*), marital status (*married*), the ethnicity of the female (*maced*), if the household rents or owns any land used for farming or production of food (*ownfarm*), the access to clean water (*access\_w1*), amount of time spent in other social contact (not family)(*soc\_contact*), per capita income in thousand of denars (*pc\_incometh*), per capita income

squared (*pc\_incometh2*), unemployment rate in Macedonia by region, regional control dummies and urban control dummy (*urban*).

Similar to the previous model, we consider education, remittances, illness and children as potentially endogeneous. These variables are instrumented with how well do you read and understand English (*english*), access to health services (*health\_s*), if the household has a car (*Hh\_car*) and if the household have bedroom for children (*child\_bedroom*), respectively. The cmp regression analysis indicated that none of these variables (education, remittances, illness and children) is endogenous.<sup>249</sup> Given this, the final model employs the probit technique. The probit regression results are presented on Table 2.

*Table 2. Probit model regression results for the case of Macedonia*

Independent Variables	Probit regression		Marginal effects	
	Coef.	Std. Err	dF/dx	Std. Err
<b>remithhm</b>	-.2283**	.1051	-.0831**	.0397
<b>edu2</b>	.2739***	.0226	.0954***	.0077
<b>Illness</b>	-.0261	.0781	-.0091	.0274
<b>children</b>	.0085	.0375	.0029	.0130
<b>Age</b>	.3146***	.0167	.1096***	.0059
<b>agesq</b>	-.0040***	.0002	-.0014***	.0000
<b>married</b>	.2797	.0715	.0991***	.0256
<b>maced</b>	.4016	.0737	.1457***	.0276
<b>ownfarm</b>	-.1786**	.0766	-.0640**	.0281
<b>access_w1</b>	-.0674	.0767	.0232	.0260
<b>soc_contact</b>	-.047	.0471	-.016	.0164
<b>pc_incometh</b>	.033***	.0081	.0115***	.0028
<b>pc_incometh2</b>	-.0005***	.0001	-.0001***	.0000
<b>unemp_rate</b>	.0081	.0274	.0028	.0095
<b>Skp</b>	-.6184	.5154	-.2266	.1937
<b>vardar</b>	-.306	.6905	-.1127	.2648
<b>NEreg</b>	-.695	1.374	-.2661	.5391
<b>polog</b>	-.8103***	.3517	-.3065	.1347
<b>Ereg</b>	-.1948	.1368	-.0704	.0510
<b>pelagonia</b>	-.4211	.5150	-.1562	.1994
<b>Swest</b>	-.5733	.5012	-.2156	.1960
<b>urban</b>	.1746**	.0885	.0627	.0328
<b>cons</b>	-6.034407	.52114		
<b>Observations</b>	3233			
<b>Wald chi2(22)</b>	854.43			
<b>Prob &gt; chi2</b>	0.000			
<b>Pseudo R-squared</b>	0.2883			

After generating the probit model for LFP we calculated the marginal effects. We find significant coefficients for remittances, education, age, marital status, ethnicity, owning a farm, income, Pollog region and urban area.

The coefficient of the education level is positive. This indicates that a change from one level (primary education) to another higher (secondary education) level of *education* increases the probability of FLFP by 9 percentage points.

With regards to the *age* variable, labour force participation initially rises with age and reaches a maximum and decreases afterwards when effect of age becomes negative. These findings are consistent with those found the literature.

<sup>249</sup> Considering illness, according to the study by Kalwij and Vermeulen, (2005), who argue that endogeneity is due to self-reported health or mental health status, the variable used in this model is more likely to be exogenous since it is based on medical diagnosis.

Contrary to our expectation married females are 9 percentage points more likely to participate in the labour force. Taking into consideration the economic situation on Macedonia, women after getting married may face the difficulty of covering family expenses, given low real wages, and find themselves in need of participating in the labour market in order to financially support family. Having children under 15 does not reduce their participation.

Ethnic Macedonian females are 10 percentage points more likely to participate in the LF than other ethnicities. Women in households that have indicated that they own or rent a farm have 0.06 lower probability of participation. Females living in urban areas are 6 percentage points more likely to participate compared to those in the rural areas.

The coefficient of remittances is negative. It indicates that households that receive remittance have 8 percentage points lower probability of participation in labour force compared to those that do not receive remittances.

## 6. Conclusions and recommendations

Increasing participation of females in the labour market is an important step towards narrowing the gender gaps, poverty reduction, women empowerment, etc. The labour market in Albania and Macedonia has been under continuous restructuring and reforms during the last two decades. This paper analysed the determinants of FLFP in Albania and Macedonia, by applying the cmp technique and using instrumental variables. The findings of this research suggest that the low demand for labour represents a major impediment to employment and labour force participation. However, there seem to be factors that affect female labour force participation specifically, some of the major ones being related to stereotypical gender roles, both in the family and at work.

The empirical tests indicate that the instruments for the suspected endogenous variables are statistically valid. The tests of endogeneity of remittances, education, health and fertility variables indicate that education, remittances and health are endogenous in the models of Albania. In Macedonia, none of the variables is endogenous at the five per cent level.

The results for the case of Albania indicate that living in a remittance recipient household, is associated with higher probability of the participating in the labour market. Education also has a positive effect on LFP. Suffering from a chronic disease decreases the probability of being economically active. Age is a significant determinant and is non-linearly related to FLFP, following an inverted U-shape. As expected, being the head of the household positively affects participation.

Women living in households with more members have higher probabilities of participation in the labour force. The household asset index is used as a proxy for household wealth, and its effect on FLFP is negative as expected. Belonging to one more social group increases the probability of participation, while informality as proxied by the community grey economy rate has significant and positive effect, but the magnitude of the effect is small. The local wage effect as measured by the median wage of community male members is negatively related to FLFP.

The household male employment rate positively affects FLFP. The power of women, measured by self-evaluation of their power and level of rights has a negative effect, indicating that women that feel they have more rights are less likely to be economically active. Women that live in households whose members own a business are more likely to participate in the labour force compared to their counterparts. With regard to the regional variables, living in the mountain area is associated with a lower probability of participating in the labour market compared to the Tirana area, while the other two regions do not show any significant differences. Furthermore, living in urban areas is associated with a lower probability of being economically active.

From the regression analysis for the case of Macedonia some general conclusions can be drawn. Younger ethnic Macedonian women, that have higher level of education, that do not receive remittances, that don't own or rent a farm, that live in urban areas and are married are the ones who more likely to participate. Given the economic situation in Macedonia and its culture and family relationships, it is likely that females who are not married live with their families from



where they cover their expenses (and probably study) and have less necessity to participate in the labour market.

These two economies differ in the context of remittances received (positive for Albania and negative for Macedonia) and on the urban areas (negative for Albania and positive for Macedonia).

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## NEW APPLICATION ON THE ENTERPRISES MANAGEMENT MODEL IN SERBIA

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### Abstract

*Business in contemporary economic conditions, especially in times of economic crisis, is exposed to a number of challenges. In order to ensure the existence and development on the market, companies must adapt to and confront these challenges. Such a process must be controlled and directed by the management and all employees through a clearly defined model of enterprise management. Doing business in the modern and successful economies emphasizes the production and quality management models, which would not have been successful without the proper cultural and social background. Decision-making with the applicable management model, allows managers to eliminate personal opinions and emotions in management process, and thus make decisions that are best for the company, customers, employees and the achievement of financial goals.*

*Production management is the core business of each enterprise, company or entrepreneurial activity. Once you understand and overmaster the technology of production management, you can consider the overall management and relationships among all the factors that affect it.*

**Keywords:** production management, enterprise, management, employees

### 1. Introduction

The importance and position of each organization within the economic and social communities can be seen through successful business and employee satisfaction. The key to achieving and maintaining these two elements is a quality production management.

Production management is the core business of each enterprise, company or entrepreneurial activity. Once you understand and master the technology of production management, you can perceive the overall management and relationships among all the factors that affect it.

A good model of production management is actually a great organization that achieves and maintains an excellent level of performance to meet or exceed the expectations of all its stakeholders. Company management or any entrepreneurial activity has been undoubtedly limited by the legal and institutional arrangements of the country. However, a big influence on this activity comes from the culture and social system of the country. Each of the concepts is important in itself, but the maximum benefit is achieved when it can be integrated into the culture of the country in which they are committed.

This application will be based on already applied to international models, of which there are several, taking into account the applicability of certain segments of the Serbian cultural and social environment. Bearing in mind that the Japanese economy as one of the most developed in the world based on the American and European advanced technology, we are bringing the Japanese import of American and European experts, after opening the door of Japan, and that their mana-

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gement system cannot be implemented partially in Serbia because of cultural differences, these applications need to present a model that is based on the Japanese-European-American model of production management embedded in the Serbian cultural and social situation.

## 2. Japanese, American and European model

All experts in Serbia who deal with production management, use or advocate in their work for one of the world models (Japanese, American or European). Each of these models is undoubtedly the foundation of the success of each of the economies of the countries where applied. But, as noted in the introduction, culture and social system have a major impact on the production management. We shouldn't even mention our culture and cultural influence since it's well-known how it affects all spheres of life in Serbia, including the production management as well. And keeping in mind that in Serbia there is almost no social system, at least not a meaningful one, these two areas cannot be ignored. Definitely, models that function in Japan, America and Europe cannot be applied as such in Serbia. But what is possible is to "sieve" these models and experiences through "a sieve of cultural and social conditions", and golden nuggets, which will contribute to the success of the Serbian economy, will be produced.

However, let's meet with these models and their similarities and differences.

American experts, based on the principles of scientific work organization set up by Taylor in the mid-twentieth century, have built a model that was based on quality assurance in production and management. At that time this concept was an exceptional *know-how* that has been very seriously understood and accepted. Influenced by the growing economies, primarily of Japan, Americans have adapted and improved their model, adding to it another quality, the dynamism.

Contemporary American model, we can say, is based on the following principles: customers' satisfaction, strengthening financial and marketing performances, developing performances of products and services, productivity, operability, efficiency, accountability, human resource development, supplier development and social responsibility.

After the World War II, American experts presented this model to Japanese experts. Having seen the first concrete results, Japanese experts have continued to further develop the model, and the Japanese economy, as well as the entire society, experienced an extremely rapid and successful development. Today, Japan is a world economic superpower and rightfully represents a particular model of the economy and governance.

So what's the difference? The difference is definitely in adaptation of the American model to thousands of years old Japanese culture, social conditions and resources.

The issue of economic progress and development was interpreted by the Japanese from the standpoint of achieving national strength and size, while personal interest, comfort and general standards were not the primary reason.

The European economy was also influenced by Japanese competitiveness and quality, which has resulted in the introduction of a new model. The new European model is based on: the orientation towards results primarily to customers and then to staff and society, processes, human resources development, leadership and public accountability.

### 1.1. Concepts of Japanese, American and European models

The concept of Japanese model:

- The establishment of a clear mid-term and long-term vision and strategy under the strong leadership of top management.
- A clear use of concepts, values, and scientific methods.

- Observation of human resources and information as vital organizational structure.
- Under the right management system, effective implementation of the quality assurance system and cross-functional management system that includes the cost, delivery, environment and safety.
- With the support of fundamental organizational forces such as technology, speed and vitality ensuring a balanced relationship with customers, employees, community, suppliers and shareholders.
- Continuous implementation of the objectives of the organization through the mission of building respect towards it and through continuous provision profit.

The concept of the American model:

- Strategic Planning
- Focus on Customers
- Measures, Analyses and Knowledge Management
- Focus on Human Resources
- Focus on Operations
- Results
- Leadership

The concept of the European model:

- Adding value to clients and customers with understanding, anticipating and satisfying their needs, expectations and opportunities.
- The creation of a sustainable future and a positive impact on the world around them through the improvement of labor, while, at the same time, improving the economic, environmental and social conditions in the communities.
- Development of organizational capacities by changes within and across organizational boundaries,
- Use of creativity and innovations.
- Leadership with the vision, inspiration and integrity.
- Leaders who are shaping the future and serve as role models for their values and ethics.
- Agile managing and the ability to recognize and efficiently and effectively respond to opportunities and threats.
- Human resources, evaluating of its staff and creating a culture to achieve both organizational and personal goals.
- Maintaining the good results that meet the short-term and long-term needs of all stakeholders, in the context of their work environment.

*Table 1. Comparison of differences between Japanese, American and Serbian culture and social situation*

JAPAN	AMERICA	SERBIA
<b>Justice is more important than wealth</b>	Wealth is more important than justice	Wealth is more important than justice
<b>The group is the most important part of the society and its motivation is emphasized</b>	The individual is the most important part of the society, team motivation grows	There is no relationship towards individual or group, profit at any cost is in the first place. Motivation is irrelevant.
<b>Relationships within the family are harmonious and firm and extend to distant relatives; society with a strong network of social connections</b>	Central and mobile families, mobile society that does not emphasize social connections	Central family is still functioning, but it is stationary and with minimal social ties
<b>The society is motivated by work and highly disciplined</b>	The refusal of "Protestant working moral and hierarchy"	Working moral and motivation at a very low level, the rejection of hierarchy at all levels
<b>Investment in education is a matter of prestige and economic well-being of the entire family</b>	Education is an investment in personal success	Investments in education are far behind investment in the possibility of a quick profit (sports and entertainment)
<b>Protocol and status are important</b>	Informality and competence are important	Status is important
<b>Personal conflicts should be avoided (small number of lawyers)</b>	Conflict is the driving force that should be overcome (lots of lawyers)	Conflicts are almost brand image and is completely irrelevant to overcome them (lots of lawyers)
<b>Service to the community is a moral obligation</b>	lack of trust in the government and bureaucracy	Apriori lack of trust in the government, the bureaucracy and the system
<b>Social status is resolved</b>	Social status is partially resolved	Social status is not resolved

### 3. Serbian model

The secret of the success of the mentioned countries' economies is certainly in the strict application of the adopted models. Confirmations that such action is correct are: product life cycle, satisfaction, health and safety, minimum consumption of resources, but the profit as well.

It is also essential that all prosperous countries have recognized the importance of the application of production and quality management, and that with their activities significantly encourage and support enterprises to implement it. In the long term, each of these models has suffered changes depending on external influences and the state of the economy of the country which applied it. Essential qualities of each of these models are dynamism and adaptability. From these experiences we have come to the conclusion that in creating of this model we should start from three basic assumptions: the first one- compliance with the current situation in the Serbian economy; the second one- dynamism and adaptability; the third and most important, compliance with cultural heritage and social status.

**Table 2.** *Comparative overview of approach to the concept of enterprise and quality management in the U.S., Japan and Serbia*

CHARACTERISTIC	JAPAN	USA	SERBIA
<b>Mechanical fleet</b>	New, sophisticated, highly productive machines	Already existing quality machines	Outdated low-productive machines
<b>Market</b>	Orientation to the global market	Analyzing market needs	Orientation to the domestic market, often without the needs analysis
<b>Education of employees</b>	Continuous education of all employees	Education in specialized institutions, specialization of functions	Education is left to the will of the employees, the human resources sector is almost non-existent
<b>Specialization</b>	high according to function in a hierarchy	low, each worker supervisor	low, each worker supervisor
<b>Organization</b>	Combined, the corporate management	Mechanistic, bureaucratization	In most cases, completely unclear, bureaucratization
<b>The influence of employees</b>	High, particularly comparing to quality	Low, particularly comparing to quality	none
<b>Innovations in Quality</b>	A large number per each employee	A small number per each employee	Almost none
<b>Employment</b>	Planned and well-regulated	According to production needs	Political and family recommendations
<b>Sureness</b>	High, lifetime	Low, related to the production needs	None

### 3.1. The key to success

As a result of analysis of the situation in the Serbian economy and studying the existing global models, as well as their "sieving through the sieve" of macro-culture, micro-culture and social condition, we get 10 gold "nuggets". Ten key activities that should be applied in order to rapidly begin with the recovery of Serbian economy are called THE KEY TO SUCCESS.

The key to success is totally focused on the customer, the frequent changes in the organization, the organization at the minimum number of levels, continuous improvement of all processes, tracking all forms of costs, managing by teamwork, improvement of employees' satisfaction, and environmental protection.

- |                            |                                |
|----------------------------|--------------------------------|
| <b>C</b> - Customers       | <b>U</b> - Use of simple tools |
| <b>H</b> - Human Resources | <b>S</b> - Strategic planning  |
| <b>M</b> - Mutual trust    | <b>P</b> - Processes           |
| <b>C</b> - Cleaning        | <b>E</b> - Ethics              |
|                            | <b>H</b> - Hierarchy           |
|                            | <b>A</b> -Analysis             |

## 4. Application of the model by segments

### *C – Customers*

"His Majesty the customer" is an attitude that has taken root in all models. Customer occupies a high position in all the world models, its requirements are the drivers of all processes. Information obtained from customers is fundamental for future analysis and strategic planning. They represent a roadmap for achieving quality. In the Japanese model, the customer is treated as



”sacred”; in the American model, the customer’s satisfaction is the driving force of what happens further in the production process.

In Serbia, the customer is the least important. Marketing tricks are the basis for gaining profit. The state is not interested in the protection of the customer; even the existing legal framework does not provide the possibility to protect customers. While in the modern and advanced economies enterprise protects the customer, since they strive to achieve business success through quality, the motto in force in Serbia is to become rich overnight. Relationship towards customers must be changed fundamentally.

### ***H – Human Resources***

In Serbian economy, human resource management is at the lowest level. While in other world countries the science of human resource management is very well developed, this segment in Serbia is almost completely neglected. The sector of Human Resource Management, even if somewhere established, usually does not serve its real purpose, but is compliant with the wishes of management.

The human resource development requires very patient administration, time and money, but it should always be kept in mind that the successful promotion of the work depends entirely on the skills of all employees. Businessmen and their management in particular, must realize that human resources are the most important ”assets” in the company. You may have unlimited funds and you may buy the most sophisticated equipment, but not the human resources.

### ***M – Mutual trust***

Mutual trust is certainly the result of good work of the people responsible for working with human resources. But in companies, the trust is at such a low level, that same segment deserves a special place in this model. In Serbia, misunderstanding and mistrust between management and employee, and often even between employees themselves, is very pronounced. Lack of trust between management and employees, mainly arose from the lack of transparency. Quality assessment models are generally not available to the employees, and management is largely guided by personal animosities in the reward, promotion and evaluation processes. If we add the uncertainty of earnings, contributions, and the use of labor rights, it is clear why these relations are at a low level, and why it is necessary to pay special attention to them.

### ***C – Cleaning***

If the customers represent front door, and human resources one of the supporting pillars, then the cleaning would be the key to high-quality products and services at any company. This segment is essential for the safe and efficient work as well as for creating a sense of comfort during labor. Seeing such a company, the visitors wish to work there. What would be the purpose of cleaning? Making the workplace clean and tidy in order to work enthusiastically and effectively, absolutely eliminating the waste and unnecessary spending of materials, equipment, machinery and people, and therefore money.

### ***U – Use of simple tools***

Management must analyze the management methods of the region under its governance, and must adopt any new method or management tool that would be useful for productivity and quality improvement. Each tool can be useful, and if it is even easy to use in practical work, if we are aware of two important elements which it must contain, then we have the tools to create success. It basically must contain and must use the statistical methods, in order to be verifiable. Also, you must set a goal to achieve by using this tool. The goal must be the easily accessible one, and expressed in numbers. Without such tools there is no success.

***S – Strategic planning***

Well-designed plan increases the chances of reaching desired results from day to day. Planning helps employees to focus on the priorities, which improves the working process of people who work together on accomplishing the priorities. The Plan should be realized and applied so that produces results.

***P – Processes***

Quality processes within the company have a major impact on the rational use of working time, the efficient quality control and therefore on an increase in profit. Processes must be clear and easily enforceable.

***E – Ethics***

„When requests for job duties performing come into conflict with morals or welfare of the society, the business world is the one who needs to step back, and it is, perhaps, the ultimate meaning and purpose of business ethics.“ R. Solomon

***H – Hierarchy***

Hierarchy like bugaboo is circulating throughout Serbia. Out of one thousand of respondents, only few have a good opinion of their superiors and the way in which they thrive. Therefore, the hierarchy and its establishment deserve a high place in the model which should improve the production management in Serbia. Every employee in enterprises in Serbia seeks to advance in the business no matter if he/she deserves this step in the hierarchy or not. They all have a high opinion of themselves regardless of the fact that they do not have neither intellectual nor professional capacities to perform certain tasks. Ways to climb the hierarchical ladder are diverse, ranging from real professional abilities, that an employee demonstrates during business hours (when he/she really deserves a certain progression), to kinship, friendship, personal and political relationships with the help of which he/she reaches a high ranking positions.

Sometimes the management sees the professional incompetence of employees, but in order to avoid confrontation with the very employee or superior, does little to suppress it. How to solve such a complex and serious problem? The solutions are experts outside the company. What is their advantage? First, the employer can always send a person who is employed through connections to a consulting firm or hired consultant, and partially alleviate the pressure exerted on him. Consultants are personally not interested to give preference to anyone in the selection process for any reason other than professionalism.

***A – Analysis***

Market research is a very important part of the development of any organization. The quality of the business decisions largely depends on the quality of information and interpretation of the results of market research. The information is important not only for monitoring the surroundings and predicting the movements in the surroundings, but also for creating the changes that might improve operations and enhance the competitiveness of enterprises. The right business decisions can be made only on the basis of quality information. The main purpose of market research is to collect valid and reliable information that will help while deciding on market operations, planning activities, solving specific difficulties or controlling of business performance.

## **5. Conclusion**

Although the philosophy of production management and quality management is fully involved in many business areas of economically successful countries, in our country is deficient or almost nonexistent. A particular problem is the long-term purpose of this philosophy, because its application does not bring the profit "overnight". The situation in our companies is significantly differ-

rent from that of the companies in the world that have long experience of business based on the principles of quality production management and with established TQM. Due to its two main characteristics, (adaptability to any type of organization and the possibility of implementation in the current state of each user) this application can be used whenever the user sees the need for it. Specifically, in consultation with the consultant, users can use all proposed modules or just those that would complement the existing ones. The production management application will increase the commitment of top management and employees to the improvement of the process, but also the customers, employees, shareholders, suppliers and the community will be more satisfied. This will also produce the improvement of business results of the enterprises, which will serve as a driving force for further development. Yet, it must be constantly kept in mind that without the education of top managers, and through them of all employees, together with a dynamic production management subjected to examinations and changes; it is difficult to keep pace with the world economy. Beside the education, motivation is also an important driving force for the implementation of production management. When employees realize that such a model works and brings well-being, and not just in financial terms, then our success is within reach. Incentive system, as an integral part of production management and quality, with consistency and fairness in its application, is the first step on the road to success. Identification of employees with the company and their commitment to the constant development is also one of the main objectives of this application.

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## ANALYSIS OF THE RESTRUCTURING PROCESS OF COMPANIES IN THE REPUBLIC OF SRPSKA

Valentina DUVNJAK<sup>252</sup>

### Abstract:

*In this paper we examine the process of company restructuring from the perspective of the market, financial and organizational restructuring. Restructuring in the privatization process is aimed at increasing efficiency through: the spread of shareholding, resource allocation, the adjustment of existing economic structure, attracting new investment and new technologies. In order to define market restructuring, it is necessary to establish market orientation. The objective of market restructuring is to acquire and maintain competitive advantage and market attractiveness. Financial restructuring seeks to establish solvency, and then growth and development in the future. The most common measures of financial restructuring are debt restructuring and short-term refinance. Organizational restructuring seeks to make organizational changes through: organizational transformation, downsizing, outsourcing, and business process reengineering.*

*Based on the survey and analysis conducted in companies in the Republic of Srpska, organizational restructuring gave the best results. This indicates that a number of interrelated organizational changes had been made. Given the findings of the research, the priority in the process of restructuring is financial restructuring, which resolves financing of the company in the future. Negotiations on the postponement or rescheduling of debt payments, which were chosen as measures by most managers in the survey are not realistic and they slow down restructuring of the company and weaken the financial discipline.*

*The state as a regulator of economic trends and business conditions should create an environment in which the company will be successful in restructuring.*

**Keywords:** company, restructuring, analysis, measures, state

### 1. Introduction

The basis for the development of an economy is its successful and flexible enterprises. Economic organizations of each country should be: powerful, disciplined, flexible and competitive. Some of them operate more and less successfully and some have failed. Today's economic conditions (with its requirements for better quality, cheaper products, introduction of scientific and technological progress and market opening) have made companies in the Republic of Srpska difficult to achieve and maintain business success due to the political and economic instability, inadequate privatization process and the lack of foreign direct investment. The consequences are the financial problems that threaten companies' survival. As there is an increasing number of failed companies, studying the process of their restructuring is of great importance.

The paper will first define the strategies of enterprise restructuring. It will then interpret the findings of the research process of restructuring and analyze the impact of the significant factors

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in the restructuring of the Republic of Srpska. Based on the data analysis, the aim of the research and paper in general is to create an adequate theoretical framework and the foundation for the study of problems of restructuring. The ultimate goal is to provide theoretical basis for defining appropriate strategies to eliminate the crisis. The specific objective of this paper is to help managers to quickly and accurately perceive the crisis, eliminate the causes and manage the changes that are happening within the company.

## **2. Restructuring strategies**

The restructuring is a key component of many strategies for revitalization. The company may decide to restructure the business as a way of responding to the crisis that has befallen the company. Mergers, acquisitions and downsizing are present in companies in the United States due to changes in the external environment which create the fear of deterioration. The causes of changes are increased market liberalization, competition and the rapid growth of technological innovation. Internal reasons for restructuring are due to the pressure from business owners for the organization to create a higher level of well-being of companies. Restructuring is the process of unwinding the business portfolio, strategy and management systems, redesigning of macro-organizational structure and reformulation of technology portfolio in order to establish a better relationship with the new environment and the constellation of interests of all stakeholders, as well as creating new conditions for achieving competitive advantage. The restructuring aims to reduce the gap between actual and expected performance of companies. Each company in a certain stage of its development needs to change and adapt to new circumstances if they prefer to survive and achieve competitive advantage (Duvnjak, 2010). The strategies of restructuring include activities of market, organizational and financial restructuring.

### ***2.1. Market restructuring and its directions***

Market restructuring could be defined as a redefinition of the target market, remodeling of the structure of supply, adjustment of strategy to the company objectives and the repositioning of the role of marketing in the mix of business functions in order to gain and maintain a competitive advantage and market attractiveness (Todorovic, Đuričin and Janošević, 1997, p. 602). For evaluation of determining directions of market restructuring it is necessary to analyze the following areas: general macroeconomic environment, market, customers, competition, distribution channels, suppliers and the public; marketing strategy, organization of marketing functions of the company, marketing information systems and marketing mix of the company (Kotler, Gregor PW and Rodgers, 1989, pp. 49-62). The market orientation is very important in the process of market restructuring. The market orientation of the company is based on the notion that the essence of achieving the objectives of the company is in an effort to become more effective than competitors in creating, delivering and communicating value to customers in selected target markets. The market orientation of the company can show as the focus on customers and a focus on competitors. By combining these two, we have the matrix shown in Figure 1.

**Figure 1. Market orientation matrix**

MATRIX OF MARKET ORIENTATION		Focus on customers	Focus on customers
		High	Low
Focus on competitors	High	Strategically integrated	Marketing fighters
Focus on competitors	Low	Preoccupied with consumers	Strategically inert

*Soruce: Heiens, 2000*

Companies that emphasize activities related to the collection of information on consumers at the expense of information about competitors are classified as consumer preoccupied companies. This orientation is useful in markets with high growth rates, fragmented markets and in the case of the low purchasing power of consumers. The focus on consumer will cause a decline in profits and will lead to a crisis in dynamic markets where the barriers move and where there are many competitors and high segmentation of end - user products. Companies that stress competition in the analysis of external market are called marketing veterans. The emphasis on the competitors requires identifying competitors, technology at their disposal and testing the extent to which they appeal to the target consumers. In situations where the market demand is predictable, competitive structure is concentrated and stable and where there are several large customers it is necessary to focus on competitors. Companies that are equally focused on consumers and competitors are strategically integrated. This balance is desirable and it requires flexibility in resources shift as market conditions change quickly. Detailed observation of consumers and competitors creates high costs. Shifting the focus to consumers increases market share, but creates ROI (return on investment). The inability to develop a market-orientation adversely affects on the effects of the company. In some cases, a company can be successful if it focuses on internal operations, technological advances and establishing key competencies. This option can increase the ROI on stable markets. Strategic inert are those enterprises that are not oriented to the market and have no internal power.

## **2.2. Financial restructuring and its directions**

Financial restructuring could be defined as the process of inducing discontinuities and significant changes in capital structure based on changes in the relationship between equity and long-term debt, or changes among the internal relationships in each of these two sources of funding (Duvnjak, 2013, p.115). Financial restructuring is mostly carried out proactively as part of a long-term program of revitalization and further by improving the efficiency of the company. Financial restructuring can be implemented as an integral part of broader restructuring program, as a result of previous use of other forms of restructuring, or to allow the use of other forms of restructuring. The ultimate goal of financial restructuring is to achieve an appropriate relationship between their own and borrowed capital and thus enabling enterprise application strategy of revitalization and achieving solvency. If a company is thriving, the main responsibility of managers is to increase the value of the company. The proposed financial restructuring options should assure all interested parties that it is in their interest to support the plan and their financial structure. Refinancing is a process that usually consists of two stages which are short-term financing of survival followed by long-term financial reorganization of the capital structure. Sometimes there is the third stage, as the refinancing is performed until the best alternative is found. Short-term funding enables funding of the development of business plan and refinance proposal. Financial restructuring generally includes the following activities: the conversion of all or of a part of the debt to the bank



property or company shares, conversion of unpaid interest into corporate debt, changes in payment terms of debt, restructuring of the public debt and new borrowings. The key issues in debt negotiating are: what value to give to each creditor and which financial instrument each creditor should receive.

The aim of the banks during the financial restructuring of the company is to maintain a preferred position in the collection of receivables and to minimize conversion of debt into shares of the company. In some cases, banks are trying to secure a controlling stake in the company. Debt restructuring demands a constructive approach and focusing on the value of the company. When debts are concentrated among a relatively small number of companies, consolidation of bad loans into one entity facilitates the process of restructuring. In addition to debt restructuring, debt relief is possible through auction. Auction includes non-cash offers by creditors through debt forgiveness part. Debts must be reduced, in the short term, to a tolerable level and the current owners prefer to keep control. The process is carried out by creditors offering a part of debt that will be forgiven, by the principle of less debt - greater opportunity for rapid charging. In the Republic of Srpska financial restructuring of debt of all the companies that were in the process of privatization is possible, regardless whether they are strategic or where the state is a minority owner. Financial restructuring is done by conversion of debt of companies, resulting from taxes and contributions and other obligations to the state and public funds into the shares of the company. The aim is to facilitate the revitalization by debt reduction in companies that have the conditions for survival and thus can become attractive to potential buyers.

### *2.3. Organizational restructuring and its directions*

Organizational restructuring of companies represents their radical internal changes and reorganization of the structure. Activities of organizational restructuring are: organizational transformation, reduction of the number of employees, the impact on the work process and changes in the structure of work (downsizing), focuses on profitable processes. Other processes are left to suppliers (outsourcing) and business process reengineering. Organizational transformation represents a complete change in strategy and organizational changes in enterprises in order to adapt to the environment (Janićijević, N, 2004). For restructuring of companies, there are three important types of changes: decentralization of the organization through the establishment of profit centers, centralization of key functions and the development of super structure above the existing organizational structure. By creating of profit centers, responsibility for losses is clearly defined, and thus the problems of organizational confusion are overcome. Decentralization empowers managers at lower levels of the hierarchy and allows detailed measurement of the employees' performance. The division of the business units makes performance transparent and facilitates the process of allocation of resources in the enterprise as general. Centralization of functions allows a manager more power and control over key areas of operation. Creating a super structure only occurs when a large company merges with a company in crisis. This situation is for a very short time until the business is evaluated. After that, the entire management team of the company in crisis is usually dismissed. Changes in the organizational structure can be implemented as a result of the acceptance of specific revitalization strategies, such as reducing costs and increasing operational efficiency.

*Downsizing strategy* is a set of activities that require: organizational action, reducing the number of employees, the impact on work processes and it leads to redesigning of work processes and guidance to the efficiency and effectiveness of the company. Downsizing can be successful or unsuccessful for the enterprises. A number of companies following this strategy of organizational restructuring stagnated and there was a decline in productivity, employee ethics and trust.

*Outsourcing strategy* consists of focusing on profitable processes only, in which the company has a comparative advantage and letting other processes to suppliers in order to achieve lower costs, higher quality and to reduce the time period to achieve the restructuring. Outsourcing has

failed to make the anticipated financial results with 70 % of companies that applied this strategy because of low employee morale (Pomeroy, 2004, p.24). Outsourcing the major components of the product destroys the possibility of gaining and maintaining competitive advantage.

Re-engineering is a process that entails to start all over again and re-design of the core business process.

### **3. Analysis of the restructuring of the privatization process in RS**

Restructuring in the privatization process involves statutory or organizational changes or settlement of debtor - creditor relations, as well as all other changes in the company being privatized allowing its privatization. Restructuring in the privatization involves the ownership, organizational and financial restructuring, as well as measures to increase equity in the company and measures to reduce and increase the number of employees. In organizational restructuring process, independent business units are separated or connected, the property, accounting and shareholder issues are regulated, the optimal staffing levels are determined and social programs are prepared. Under financial restructuring there are negotiations with creditors to reduce, reschedule or write off debts and to create positive value of equity. Ownership transformation of enterprises in the RS must be accompanied by their organizational transformation and modernization because the system of these companies is weak and ineffective. Maintaining such a system until privatization is done means a loss to the national economy. Profit decentralization is also important solution in the field of internal organization. Modern corporatised companies that are exposed to strong competition profit decentralization allows the maximum use of available resources, participation in domestic and international markets. Profit decentralization involves decomposition into individual business organization and accounting entity with a certain degree of autonomy in their work. Profit decentralization increases business success because it encourages entrepreneurship and entrepreneurial initiatives at the lower levels of the organizational structure of the company and transfer the responsibility for the results achieved in parts of the company where those results can be affected (Lukic, 2008, p.172). Since privatization is expected to increase the efficiency by resource allocation, there will be adjusting the economic structure, attracting new investment and new technologies and the spread of shareholding. If privatization is implemented effectively, there is the benefit at the macroeconomic level. By privatization of enterprises the state realizes the funds that are channeled to the budget, which is not the primary goal of privatization. Privatization aims to take over the company from the state so it is given to entrepreneurs who are economically rational actors. Privatization has positive effect on the efficiency of the national economy because it increases competition and relieves the governments from obligations to subsidize enterprises that operate with losses, reduce the need for public sector loans, reduce the deficit and it leads to the development of the financial sector, but also leads to a reduction in the number of employees due to restructuring. In RS the choice of the privatization concept was bad as it meant the rapid privatization. The rapid privatization in the countries in transition led to the destruction of businesses and the rise of “mafia capitalism”. The RS changed legislation in 2006 and the remaining state capital was included in the portfolio of the Stock Fund RS. It was entrusted to the management of the Investment and Development Bank of the Republic of Srpska, which, in 2007, took on the role of authorized seller of state-owned capital in enterprises. The Law on Privatization of State Capital enabled financial restructuring of the companies which were the subjects of privatization and which should have contributed to the increase in the attractiveness of privatization deals with the restructuring initiatives coming from the companies. The privatization was considered successful when a company or a large number of its business units were commercially sustainable (Law on Privatization of State Capital in Enterprises (Official Gazette of RS "No. 51/06, 01/ 07 , 53/ 07)).

In the Republic of Srpska, the analysis of restructuring of companies was carried out and it will be interpreted in the continuation of this paper. (Duvnjak, 2013, pp.276-277). Out of all the surveyed companies, 54.54 % were incorporated, i.e. socially-owned or state –owned capital was converted into shareholders` ,9.09 % still had state-owned shares, while 27.27 % of the companies were single-member limited company and 9.1 % of companies had all the public stocks sold.

Out of the total number, 67 % of surveyed executives indicated that their company had been a single corporation before the start of the transformation, while in 33% of cases there were corporations with relatively independent business units.

For the purpose of getting out of the crisis, according to the managers, the process of restructuring should go to the financial direction in 42.11% of cases, proprietary in 26.32% of cases, with organizational 15.79%, 10.52% in the control and in the business 5.26% of cases.

The changes in the existing or introduction of new services by managers are not listed as a priority segment of revitalization, although managers had the possibility to opt for more than one of the solutions. This suggests that the foundation for a stable business could be enabled if there were some financial resources provided with the debt reduction and controlled current cash flows with appropriate ownership structure. In order to improve their businesses, private owners and managers need to introduce new technologies and products, be efficient in obtaining and using funding and effectively manage the company.

The managers` forecasts in the surveyed companies about the expected period of ownership transformation is illustrated in Table 1.

**Table 1. Company Sales Period**

Ord. number	The transformation of companies The emergence of a new owner - PERIOD	Manager forecasts
1.	Within 1-3 months	20%
2.	From 3 to 6 months	20%
3.	From 6 months to 1 year	-
4.	More than 1 year	60%
5.	In total	100%

Source: Duvnjak, 2013, p.277

The privatization is a long process, thus more than a half of the surveyed believe that it will take more than a year for the new business owner to appear, which is to be expected considering the current transition process of companies. According to the managers surveyed, the activities which the new owners will have to face are: unification of separate segments (common commercial), addressing redundancy by law, the settlement of arrears, buying new technology, restructuring of the entire company, finding new markets, reducing operating costs and greater distribution and accountability.

The managers` forecasts on the time needed to achieve the company efficiency in accordance with market standards of competition is illustrated in Table 2.

**Table 2. The expected improvement of company business**

Ord. number	Expected improvements	Manager forecasts
1.	After a year	66,66%
2.	In the first 3 years	16,67%
3.	From 3 to 5 years	16,67%
4.	After 5 years	-
5.	More than 5 years	-
6.	In total	100%

Source: Duvnjak, 2013, p.278

Most managers believe, under the assumption of successful restructuring after a year, that they would improve the operations of the companies through European ISO standards 9001/ 200. After a year, it is realistic to expect that a company in the process of overcoming the crisis will create the basis for long-term growth and survival. From 1 to 5 years, it is possible to turn in those companies whose problems can be solved with the financial investment by the new owners.

Research results by Boone and Mulherin showed that the average period of time for the restructuring process of the company is 345 days (Boone, and Mulherin, 2002, p.10). Depending on the method of restructuring and sample, small time variations are defined. If the acquisition had been the goal of restructuring, restructuring would have lasted 369 days, disinvestment 330, while the companies that declared bankruptcy would have been on average 391 days in the process of restructuring. This research included the effects of restructuring on the value of the company and found that the average increase in value of the company being successfully transformed was 7%. The effects of the restructuring of 20 companies were negative and businesses went bankrupt. Since the restructuring is an expensive process, it should be adequately estimated whether restructuring is desirable or not.

#### 4. Analysis of Financial Restructuring in RS

Financial restructuring represents negotiations with creditors about write-offs and rescheduling of debts. The main objective of financial restructuring is to reduce liabilities and to create a positive equity value. In order to achieve financial consolidation of the company, a separation of business units that carry a part of the total debt plays an important role. The activities envisaged within the financial restructuring include a range of activities (see Table 3).

*Table 3. Activities under a financial restructuring*

Ord. number	Measures	Number of companies
1.	Postponement of payment or rescheduling of debts of companies	64,28%
2.	The transfer of liabilities from one subsidiary to another within the related companies	7,14%
3.	Write-off of debt principal, accrued interest and other receivables	7,14%
4.	Conversion of monetary claims by creditors with majority state capital in the company to the company's capital	-
5.	Other measures (asset restructuring of companies and ensuring liquidity of assets and reducing operating costs)	21,43%

Source: Duvnjak, 2013, p.279

Under the financial restructuring, the majority of managers (64.28 %) consider deferral of payment or repayment of debt of companies. In 52.64 % of the cases the character of the crisis is financial, and in 50 % of cases the cause of the crisis is strong indebtedness. Thus, inadequate funding policy is the primary cause of the crisis, and with debt forgiveness, managers that didn't do their job well would be rewarded rather than punished. This form of financial restructuring slows down the process of revitalization of the company, as it weakens financial discipline of enterprises. Other measures such as reducing costs and generating revenue by selling parts of the company should enable returning parts of debts. Postponement or rescheduling of debt payments is an opportunity for companies that have the potential to generate revenue to service the debt in a short period, or in the near future. Due to the financial situation of the majority of surveyed companies, the question is whether the measure that is expected among 64.28 % of managers could contribute to the revitalization of the company. It is believed that the number of companies that had a realistic chance through debt rescheduling to provide the basis for establishing solvency is much smaller than the expectations that managers have expressed. The transfer of liabilities

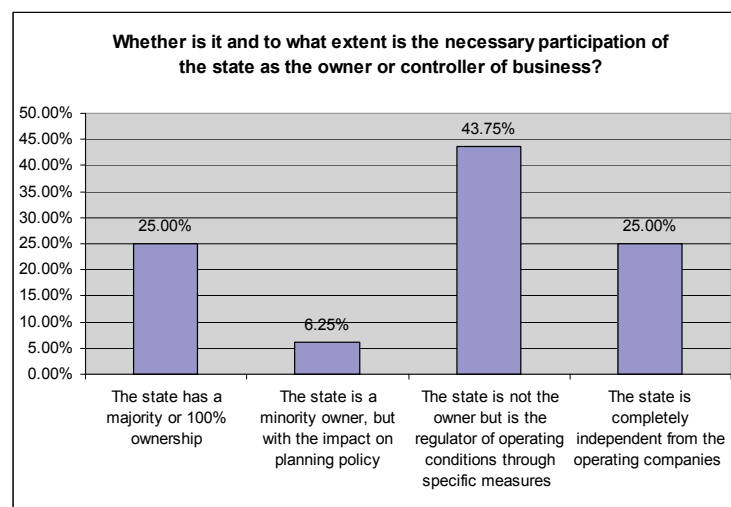
from one subsidiary to another aims to motivate potential investors to buy a part of the company and is scheduled for 7.14 % of the company. Substitute debt for equity stake in the company is made only by creditors with majority state capital and by the state to collect budgetary obligations of companies. This measure is formulated considering that most of the debts of the socially-owned enterprises refer to debts to the state and by substituting debt for a share of these companies in the equity, the state becomes the owner of a portion of capital of these companies before the privatization process.

## **5. Analysis of the organizational restructuring in RS**

Organizational restructuring includes changes in the organization and status of the company, the introduction of new organizational models and preparing for its implementation. Organizational changes can be made by changing the internal organization of enterprises by cancelling unprofitable business units and by termination of performance of non-unprofitable activities, by selling the part of the company, by changing the shape, by dividing the company into several legal entities, by merging subsidiaries by downloading or establishing, by transfer of assets and the consolidation of production units. The most appropriate measures to overcome the crisis are the elimination of unprofitable business units, the elimination of unprofitable business enterprises, selling the part of the company and the sale of the property business units in which the sold part becomes part of the organizational structure of the customer (Weston, Mitchell and Mulherin, 2004, p.288). The interviewed managers see ownership transformation as an owner - operator manager. The changes in the organizational structures and ways of doing business, improving efficiency and adapting to market requirements will result in increasing of the competitive capacity of enterprises.

## **6. Effect of significant factors in the process of restructuring and justification of the process of restructuring in RS**

The results showed that the state should be the regulator for operating conditions of enterprises through specific measures, but it should not have a stake in the company property (43.75 %), while 25% of the managers believe that the state should be completely independent from companies operating. The report analyzes that 25% of managers believe that the state should be the majority or 100% ownership. Managers of strategic manufacturing and service companies that are being privatized under a separate regulation of privatization believe that participation in the property should be left entirely i.e. returned to the state. Only 6.25 % of managers believe the state should be a minority owner, but should still have an impact on planning policy of the company. (see Figure 2).

**Figure 2.** *The share of the state as the owner or controller of business*

Source: Duvnjak, 2013, p.281

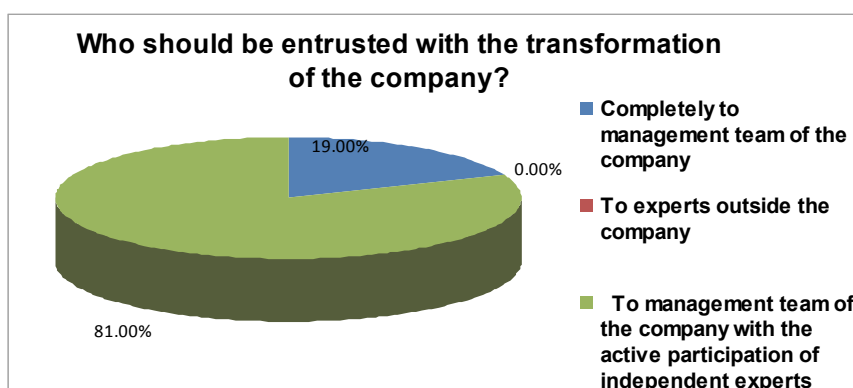
**Table 4.** *Proprietary or commercial cooperation with foreign enterprises*

Do you think that your company should be commercially and equity linked with certain companies from abroad?	
1. Exclusively commercial cooperation	46,46%
2. Agreement on business and technical cooperation	26,66%
3. Your company should become a subcontractor of a foreign company	6%
4. Foreign company should take over the whole company	13%
<b>In total</b>	<b>100</b>

Source: Duvnjak, V. 2013, p.281

The current management of the companies believes that the companies in 46,66% of the cases should be linked exclusively commercially with companies abroad. The managers had a choice over the options, so in 26.66 % of cases they deemed it was necessary to have a foreign agreement on technical cooperation, while 6% of the managers believe that the company should become a subcontractor of a foreign company. In 13 % of the cases, the managers believe that the foreign partner should fully take over the company, which would mean to provide capital and technical assistance and to retain the existing management structure, while 13 % of companies have been already owned by foreign companies. Thus, it can be concluded that the state should affect the process of restructuring the company through its measures, but should not have a share in the property, while the foreign partner should be exclusively commercially connected with local companies. In most of the cases, or 81 % of the managers considered that the transformation of enterprises should be entrusted to the management team of the company with the active participation of independent experts (see Figure 3).



**Figure 3. Implementation of enterprise transformation**

Source: Duvnjak, 2013, p.282

The replacement of management can be expected in those companies in which it was determined that the managers had been the main culprits for the collapse of the company. The research results showed that 47.06 % of managers think that their company had a fully satisfactory quantitative and qualitative composition of the labor force. Only 11.76 % of the managers believe that there is a lack of specialists in certain areas and that they should be engaged on the contract. The structure of the workforce by companies is illustrated by Table 5.

**Table 5. Structure of the workforce**

What is the structure of the workforce in your company?	
1. Qualitatively and quantitatively fully satisfies	47,06%
2. Quantitatively we have enough workers, but with unsatisfactory qualification structure	29,4%
3. We are missing key high qualification professionals	11,76%
4. We lack specialists in certain areas that we could engage on the contract	11,76%
In total	100

Source: Duvnjak, V. 2013, p.283

The results showed that managers are satisfied with the existing skills and capabilities of their key people, and that in 33.33% of cases they should be improved only when necessary, as illustrated in Table 6

**Table 6: Direction in training key people in the company.**

Based on the professional development of the key people in the company (the members of the supervisory board, the board of directors, management, etc..) in which direction should their training develop?	
1. Training in their own profession	16,67%
2. The development of general knowledge (science, foreign language management skills, etc.).	27,78%
3. Specialization of its own, and especially new areas (reengineering, capital markets, e-business)	22,22%
4. Self improvement when needed	33,33%
In total	100

Source: Duvnjak, 2013, p.283

To analyze staff opportunities in RS, we should have the following elements in mind: the required qualification structure of the company, the existing qualification structure, the current system of evaluation of work and rewarding employees, existing systematization of jobs, the method and system of selecting new employees, development policy which involves improving knowledge, attitudes and skills, and the rate of oscillation and its causes. The warning problems in the field of human resources in an organization are: increased oscillation of employees, conflicts in groups, dissatisfaction with salaries and bonuses, unclear rules of work, irrelevant quality to the staff, poor standards of recruitment of new employees, the lack of training and development, the lack of key skills and competencies and conflicts between parts of the company. Although, according to the results of research, the surveyed companies do not have qualified - personnel problems in the field of vocational training, it may be noted that the warning problems in the field of human resources, represented above, exist. It must also be noted that, with the effects of globalization and the new information age, there are lots of new work areas and that the work in production requires a much higher level of knowledge and education, which again requires training and learning throughout life. This factor must be taken into account when conducting both the personnel policy of enterprises and the state one. Human resource management involves the maintenance and development of the fundamental values of the company.

## 7. Conclusion

Based on the surveys and analyzes, it can be concluded that the companies surveyed need restructuring to a greater or lesser extent.

Globalization and economic integration have resulted in greater competitiveness of enterprises, so that consumers have higher demands due to greater choice. They led the companies in RS into a financial crisis and increasing pressures. For these companies, market restructuring should go in the direction of redefining the target market, remodeling the structure of supply, adjustment strategies, repositioning the role of marketing in the mix of business functions in order to gain and maintain a competitive advantage and market attractiveness. For the evaluation of the directions for market restructuring, it is necessary to determine the market orientation. Companies in RS also should connect with foreign companies which may be the competition. The collaboration can go in the direction of execution of common tasks and the opening of joint ventures engaged in the same or similar activities and that would eliminate competition from foreign companies. In order to enhance the competitive ability, enterprises in the RS must accompany technological changes.

The warning problems in the field of human resources in an organization are: increased oscillation of employees, conflicts in groups, dissatisfaction with salaries and bonuses, unclear rules of work, irrelevant quality to the staff, poor standards of recruitment of new employees, the lack of training programs and development, the lack of key skills and competencies, and conflicts between parts of the company. Although, according to the results of the research, the companies surveyed have no qualified - personnel problems in the field of vocational training, it may be noted that there are warning problems mentioned above in the field of human resources.

According to the established legal and institutional framework, the study of the restructuring process gave the best results in organizational restructuring, which indicates that there had been a greater number of inter-related organizational changes.

The priority in the process of restructuring of the company is a financial restructuring, which resolves the future financing of the company. Negotiations on the postponement or rescheduling of payment of debts as expected measures are not realistic and slow down the revitalization. With debt forgiveness, the managers who didn't do their job well, would be rewarded rather than punished. This form of financial restructuring slows down the process of revitalization of the company, as it weakens financial discipline of enterprises. Other measures, such as reducing costs and generating revenue by selling parts of the company, should be allowed in order to return parts of the debts. Postponement or rescheduling of debt payments is an opportunity for companies that

have the potential to generate revenue which would service the debt in a shorter period or in the near future. Due to the financial situation of the most companies, the question is whether the postponement of payments or debt rescheduling may contribute to the revitalization of the company. It is believed that a number of companies which stand a realistic chance to provide the basis for establishing solvency through debt rescheduling is much smaller than managers expressed and expected.

When the financial and organizational problems in the process of restructuring are resolved, the new owners are faced with a new set of problems such as overstaffing, outdated facilities, the necessity of buying new technologies, finding new markets, reducing operating costs, the settlement of arrears, the unification of the separate segments and so on. The capacity upgrade involves a large financial investment. Only when a regular business is established, can one use the strategy of conquest of new markets and the introduction of new services or the expansion of the product range.

The state has a large impact on the effectiveness of restructuring. The state is the main regulator of the market and of creating business conditions. Consequently, the state should create an environment in which the restructuring of the company will be successful.

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## MARKET ORIENTATION AND BUSINESS PERFORMANCE: THROUGH THE PRISM OF MACEDONIAN SMEs

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### Abstract

*This paper analyses the importance of market orientation degree for the competitiveness, i.e. business performance of small and medium sized enterprises (SMEs). The degree of market orientation is considered to be especially important for company's competitiveness in markets where most of the competitor companies are still using outdated practices that are 60 years behind market trends, as in Macedonia. The main objective of the study is to address three main research aspects that explore the significance of market orientation for companies' performance and market competitiveness: 1. "Key elements of market orientation"; 2. "Market orientation of SMEs in transition economies market - the case of Macedonia"; 3. "Market orientation's link with performance, i.e. market share". The methodology includes quantitative and qualitative methods that explored the degree to which 38% of the registered companies in the confectionery industry in Macedonia practice market orientation. Primary data was derived from questionnaires and semi-structured follow-up interviews. Secondary data was collected from books, journals and academic articles. Data was analyzed with IBM Statistical Package for Social Sciences (SPSS) 19. The results of the study suggest that some of the particular areas of market orientation like reaction on consumer's demands (reaction to dissatisfaction and complaint management), analysis of competition (their strengths and weaknesses) and inter-functional information exchange (distribution of information between sectors) are preferred by companies, while on the other side, analysis of consumers (market research) is less practiced. Most of the small companies have informed of very low degree of market orientation, while medium – sized companies have reported higher degree of market orientation. The tests also indicated that on average, the degree of market orientation in small companies is lower than the degree of market orientation in medium – sized companies. Furthermore, significant correlation and linear dependence between the level of market orientation (independent variable) and the size of the market share (dependent variable) was found, which leads to the conclusion that higher degree of market orientation in the company, leads to larger market share for the company. The limitations of the research arise from sample's size and the chosen industry, but the findings can be useful to entrepreneurs and managers of SMEs, since they provide a more accurate perspective of the different areas of market orientation and the way that it affects business performance.*

**Keywords:** Market orientation, Market share, Competitiveness, SMEs

### 1. Introduction

SMEs are often considered to be the forefront of positive change. This is so, even in times of recession and pessimism. Nowadays, they are in the main focus of scientific research and analysis, including the study of their competitiveness and the key elements that create it. SMEs

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have specific characteristics which separate and differentiate them from the rest, such as (Kenneth and Van Voorhis, 1980): personal commitment to the consumer, short communication channels, specialization in products and services, low total cost, initiative for achieving profit, realizing the interest of the community. On the other hand, SMEs, in terms of their competitiveness, mainly face problems arising from their general characteristics - limited customer base; limited finances; lack of qualified staff; limited marketing activities, knowledge and influence; excessive dependence on the knowledge and skills of the owner/manager, etc. The importance of the factors which may influence the work of the enterprise, always inevitably indicate personal characteristics, technical abilities and management skills, mostly in terms of knowledge and skills in the field of marketing (Stokes and Wilson, 2006). Studies reveal additional reasons for failure, including a high percentage (75.13%) of ignorance in the field of marketing, for example (Cromie, 1991): Satisfactory level of sales - 31%; pricing policy - 22%; distribution - 0.06%; competition - 12% ; promotion - 10%; other - 0.07%. Development factors relating to small-business strategy are additionally mentioned, where typical marketing activities are brought up as key requirements for the development of an enterprise, such as (Storey, 1994): market positioning, market adjustment, introducing new products, competition, etc. In fact, a growing number of research studies highlight the shortcomings in terms of marketing activities, i.e. say that the success of SMEs depends not only on the presence of their products/services on the market, but also on the effective marketing of these products within their markets (Smith, 1990).

In the context of seeing marketing as necessity for business success, the marketing concept itself can be explained as a way the organization thinks about its products and customers in terms of a business philosophy, while marketing orientation is about taking the actions necessary for marketing concept implementation (Wren, 1997). On the other hand, market orientation is defined as "business culture which: 1. Attaches the highest priority to the profitable creation and maintenance of superior value for customers, taking into account the interests of other stakeholders and 2. Provides norms of behaviour in terms of generating extensive market intelligence for current and future needs of customers, allocation of intelligence through departments, and a comprehensive response to these by the organization, which provides a competitive advantage and superior organizational performance in the long run" (Kohli and Jaworski, 1990). Additionally, market orientation is defined as "the degree to which a business unit: 1. Possesses and uses information about consumers, 2. Develops a strategy that meets the demands of consumers, 3. Implements that strategy by responding to consumer needs and desires" (Ruekert, 1992).

In the main, the definitions of market orientation agree in the following: market orientation results in the actions of individuals to the market they serve, guided by information obtained about that market (customers and competitors), and they take place in all sectors/departments of an organization. Accordingly, it can be said that market orientation is a part of the marketing concept as a philosophy of business, and it facilitates the execution of the marketing orientation expressed through business activities, at the same time uniting both these terms. Accordingly to the aforementioned, this paper analyses the importance of market orientation degree for the competitiveness, i.e. business performance of small and medium sized enterprises.

## 2. Research methodology

This paper aims to prove the significance of market orientation for the competitiveness of SMEs, linking it to business performance (market share). The methodology included quantitative and qualitative methods. Primary data derived from structured questionnaires about attitudes on market orientation statements, measured on a 5-point Likert scale (1- strongly disagree to 5-strongly agree), whereas for market share a subjective scale was created (1- insignificant/very



small to 5- significant/very large). In addition, a semi-structured interview was conducted with the managers of 38% (19) of the registered companies in the confectionery industry in Macedonia. Also, a comparative analysis was applied on the market activities of foreign companies that have completed the transition process as opposed to business operations in domestic companies in Macedonia

Market orientation is presented by a model of four components: Consumer analysis (CA); Reaction to consumer requirements (RCR); Orientation towards competition (CO); Internal market information sharing/inter-functional orientation (ISI). The model is created with the help of popular measurement scales used in the measurement of market orientation, i.e. MKTOR (Narver and Slater, 1990) and the revised MARKOR scale of 20 variables (Kohli et al, 1993) and (Farrell and Oczkowski, 1997). Also, a few new points emerged from previous research, which found that (Marjanova and Conevska, 2011): macedonian companies, most often small enterprises, conduct market research minimally, irregularly, often inappropriately, and as a result they have raw data and do not know how to turn into information; they have minimal insight into the actual requirements and needs of consumers and show rigidity in the process of changing existing practices. The rationality of this model for market orientation testing is based on the following set requirements: Monitoring of the overall behaviour of consumers, and the extent to which companies understand consumers through analysis of information, not only through collection and distribution of data (a common practice in Macedonian enterprises); Measurement of the implementation of the changes caused by the factors of influence that change consumer requirements; Measurement of the extent of analysis and response to competitive actions; Measurement of the degree of transfer of information that are essential for appropriate and timely business decisions.

Secondary data derived from books, journals and academic articles. Data was analyzed with IBM SPSS19. The conclusions are given on the base of descriptive and deductive statistics.

The focus of the analysis is the confectionery industry for several reasons (Economic Chamber of Macedonia, 2013): it employs a significant part of the workforce in the state; the highest share among registered companies in terms of size are SMEs; as a part of the consumer goods market the activities of enterprises should be characterized by a proactive approach to marketing. Regardless of these facts, the current market situation shows that the domestic enterprises are faced with a number of weaknesses (Jovanov, 2009): they identify the competitors from industrial rather than a market point of view, they have a false idea of the current market conditions, (they believe in the general opinion that customers prefer companies with full product lines, the sales force is the only marketing tool, the price is the most important factor when buying, etc.).

Consequently, it is important to prove the significance of market orientation for company's performance and identify the key steps for its implementation in business plans, by providing sufficient knowledge on three key aspects: 1. "Elements of market orientation"; 2. "Market orientation of SMEs in transition economies market - the case of Macedonia"; 3. "Market orientation's link with performance".

### **3. Elements of market orientation**

Most of the enterprises do implement market orientation to some degree (aware or not). The only question is whether they do it in planned manner or instinctively. Elements that constitute a market orientation can be extracted from the very definition of market orientation. Namely, Narver and Slater (1990) suggest that market orientation consists of three behavioural components:

- Orientation towards the consumer (Understanding the targeted consumers now and over time, in order to create superior value for customers and understanding of the economic and political constraints of the channels);



- Orientation towards competitors (Gathering information on existing and potential competitors, and an understanding of the short-term strengths and weaknesses and long-term capabilities of current and potential competitors);
- Inter-functional coordination (Coordinated use of company resources in creating superior value for target customers)".

A set of characteristics by which the extent of the use of market orientation can be recognized are additionally established (Wrenn, 1997):

- Focus, i.e. consumer analysis (Demonstrating understanding and commitment resulting in an offer of greater value to the consumer);
- Market Intelligence System (Systematic and integrated approach to data collection, their analysis and conversion into market information and storage and appropriate response);
- Orientation towards competitors (Expansion of views in terms of competition from the aspect of competition within the industry towards the so-called generic competition that satisfies the need that has occurred);
- Inter-functional orientation (Everyone's full commitment to build and introduce marketing philosophy and integration of marketing activities in the enterprise that will create value for consumers);
- Focus on long terms (It provides a basis for the development of effective strategic plans and ensures progress in creating loyal customers through identifying and overcoming difficulties and identifying and implementing new products and services).

Some of the elements can be classified as common: customer focus, orientation on competitors, inter-functional orientation. Implementation of these features in business allows identification of the application of the market orientation process. Their adoption also means wide acceptance of a new kind of organizational culture based on shared values and similar or same understanding of the market and its needs, as well as distribution of inter-organizational decision-making power.

#### **4. Market orientation of SMEs in transition economy – the case of Macedonia**

In firms in transition, regardless of their size, we can generally notice changes that have occurred under the influence of the change of the economic system and the business environment in which they operate (Kotler, 1999). For example, certain companies in the world that have undergone transition have different experiences in relation to the past (Table 1).

*Table 1. Comparative analysis of changes in enterprises in transition (past vs. present)*

Past	Present
Everything takes place within the company.	Outside assistance is increasingly used (outsourcing).
The enterprise undertakes improvements in its operation on the basis of their experiences.	Improvements are made by monitoring the experiences/practices of others (benchmarking).
It acts independently.	It cooperates with other enterprises (networking).
The organization is divided into functional departments.	The business is organized through multidisciplinary teams.
The focus is on the domestic market.	The focus is on the global and on the local market.
The starting point is the product.	The starting points are the consumer and the market.
Production of a standardized product.	Production of and adjusted product.
The focus is on the product.	The focus is on the value chain.
Mass marketing is used.	Targeted marketing is used.
Finding sustainable competitive advantage.	Constantly seeking new advantages.
The development of new products is slow and careful.	The development of new products is accelerated.
A lot of suppliers are used.	A few suppliers are used.
The managing hierarchy is vertical – from top to bottom.	The managing goes in all directions- from top to bottom, from bottom to top, and horizontally.

The comparative analysis of the activities of companies that have completed the transition process and the operation of enterprises in Macedonia shows numerous gaps, i.e. delays in following these changes. Concerning these same points, Macedonian companies demonstrate the following activities:

- They strive to complete most activities within the company - they believe that they themselves will best do the job.
- Most follow the steps of their direct competition and imitate the market leader, but not in the capacity of improving certain practices, but above all, it is a matter of simple copying – of a logo, brand colors, packaging, etc.
- They still appear mostly alone on the market, while clusters on the level of an industry are being judged as ineffective.
- Divisions on different and separate from each other departments prevail, with a slow flow of information from one department to another.
- The focus is mostly on domestic and regional market.
- The starting point is still the product, with slightly increased attention to the consumer.
- Adaptation of products for different markets is rarely performed, i.e. the same products are launched on all markets (domestic and foreign).
- The focus is on the product and the price, or cost of production and sales.
- The use of traditional mass marketing still largely dominates, even with small enterprises.
- The development of new varieties of products within the same product line is rapid, but the expansion of the assortment is slow.
- Several suppliers are used, with whom close ties are maintained.
- Vertical hierarchy dominates from top to bottom mostly in small enterprises, while in medium and large enterprises the employees are empowered.

From the analysis it can be seen that Macedonian companies are still in a state of profound transition, with more similarities with past experiences of firms in the world, than with their competitive situation today, after the transition. All elements listed in the table as features for an enterprises in transitional period, are actually features of market-oriented firms, which compared to the condition of Macedonian companies indicates that they are far from market orientation.

Descriptive statistics shows that the share of the enterprises by size (small, medium and large) in the purposive statistical sample of 19 enterprises (38% of the registered companies in the confectionery industry) are nearly equal (Table 2). The analysis is focused primarily on SME's, and large companies are included in the sample as a benchmark, i.e. examples of success in achieving growth and development on the market.

**Table 2.** *Descriptive statistics of the sample*

<b>Enterprises by size</b>			
	Frequency	Percent	Cumulative Percent
<b>Valid</b>	small	6	31.6
	medium	7	36.8
	large	6	31.6
	Total	19	100.0

Scale reliability was tested with coefficient Cronbach alpha ( $\alpha$ ), separately for each part of the scale, as well as for all variables of the scale together. It is obtained that all the individual parts of the scale (CA -  $\alpha = 0,935$ ; RCR -  $\alpha = 0,862$ ; CO -  $\alpha = 0,837$ ; ISI -  $\alpha = 0,854$ ) have internal consistency over the acceptable level, and the scale in its entirety has an excellent level of internal consistency, i.e.  $\alpha = 0,967$  (Gliem and Gliem, 2003). This means that the test can simply be repeated in future research.

The degree of market orientation as a whole and of the variables in the model separately, are defined through measures of central tendency (Aaker, Kumar and Day, 2007), in this case - arithmetic mean of the responses of managers for each of the variables that make up the scale. The results of the degree of market orientation by company size are as shown in table 3.

**Table 3.** *Level of market orientation by companies' size*

<b>Size of the enterprise</b>	<b>Average level of market orientation activities</b>
<b>Small</b>	CA – 2.7
	RCR – 3
	CO – 3.04
	ISI – 3.39
<b>Medium-sized</b>	CA – 4.07
	RCR – 4.25
	CO – 4.28
	ISI – 4.24

It is shown that small enterprises have the lowest level of implementation of all of the activities that describe market orientation. Medium-sized enterprises, on the other hand, showed better results with higher average values on all of market orientation activities. Overall, the most and least practiced activities of market orientation by Macedonian SMEs are shown in table 4.

**Table 4. Most and least practiced market orientation activities by SMEs (average values)**

Most practiced	Least practiced
<b>Consumer analysis:</b> <b>CA 3 - 4.00 (The company often takes action based on the information about the preferences of consumers)</b>	Consumer analysis: CA 4 (The company has a structured program for gathering consumer feedback) - 3.32
<b>Reaction to consumer requirements:</b> <b>RCR 1 - 4.53 (The company responds very quickly to information about consumer dissatisfaction.)</b>	Reaction to consumer requirements: RCR 3 (The company reacts very quickly to changes in the factors that affect its market.) - 3.63
<b>Competition orientation:</b> <b>CO 1 - 3.79 (Management regularly analyses the strengths and weaknesses of the competition)</b>	Competition orientation: CO 3 (In the case when a competitor launches a campaign oriented towards our customers, we will immediately take action) - average 3.58
<b>Internal information sharing:</b> <b>ISI 2 - 4.16 (When one department finds out something important about consumers or competition it quickly informs other departments)</b>	Internal information sharing: ISI 1 (Future consumer needs are discussed in all affected departments) with an average 3.53

The analysis indicates that SMEs tend to respond to consumer reactions, with an average of 3.9, but on the other side, few of the enterprises have a structured program for getting hold of consumer feedback, with an average value for CA on a medium level (3.32). Competitor orientation with average of 3.8 is on a higher level, but the response to a competitor's campaign is not prompt (3.58). The internal communication is also on a higher level (average of 3.9), but with a weakness when it comes to conversing about future consumer needs (3.53).

The total average degree of market orientation (MO) from the analysis of the enterprises showed a level of 3.8, which at first glance looks satisfactory, but when we look at the average of micro and small enterprises responses, we will see that among them the level is from 2.5 to 2.77 or an overall average of 3, while medium-sized enterprises have higher averages ranging from 3.21 to 5 or an overall average of 4.2. Large companies have reported the same average level of MO as medium – sized companies, which demands further research on the causes of this situation.

The independent samples test (-3.143), with *P*-value of approximately 0 (Carver and Gradwohl Nash, 2012), indicated that on average the degree of market orientation in small companies is lower than the degree of market orientation in medium – sized companies (table 5).

**Table 5. Comparative analysis of the degree of market orientation (small vs. medium-sized companies)**

Group Statistics										
		Size of enterprise	N	Mean	Std. Deviation	Std. Error Mean				
Market orientation		small	6	3.0600	.59127	.24138				
		medium - sized	7	4.2129	.71086	.26868				
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
		Lower	Upper							
Market orientation	Equal variances assumed	.698	.421	-3.143	11	.009	-1.15286	.36674	-1.96005	-.34566
	Equal variances not assumed			-3.192	10.997	.009	-1.15286	.36119	-1.94785	-.35787

In this case it can be seen that the degree of implementation of market orientation is proportionate to the size of the enterprises, but only to a certain level, because no significant difference was found between the level of market orientation in medium – sized companies and the level of market orientation in large companies.

Additionally, significant correlation between the size of the company and the average degree of market orientation has been found (table 6).

**Table 6.** Correlation analysis (MO and size of the company)

Correlations		
		Size of the enterprise
Market orientation (MO)	Pearson Correlation	.521*
	Sig. (2-tailed)	.022
	N	19
*. Correlation is significant at the 0.05 level (2-tailed).		

## 5. Market orientation's link with performance

The impact of market orientation as a business philosophy and process, regardless of companies' size, can be felt on many levels: 1. Efficiency/performance of the business (profitability, return rate of investment - ROI, market share, etc.); 2. Consumers, i.e. possibility to increase the level of satisfaction and to retain existing customers (Krepapa et al, 2003); 3. Distribution channels, expressed through trust and closer cooperation with distributors and getting greater bargaining power in the distribution channels (Day, 1994); 4. Public, i.e. market orientation enables a firm to timely notice the changes in the views of the public as one of the company's stakeholders, and to implement these in operation, for example: increasing importance of corporate social responsibility (Narver and Slater, 1990) etc.

Given that consumer satisfaction can greatly depend on the competing offers, it is expected that market orientation has an even greater impact on consumer satisfaction in cases where the degree of market orientation at the industry level is low, or when companies are generally not market-oriented (Krepapa et al, 2003). This paper examines in detail the relationship of market orientation (MO) with the size of the market share (in a given period of time), based on the assumption that with the implementation of market orientation and focus on the consumer, an increase in customer base is expected, and as a result - an increase in the market share of the enterprise. Market share was measured at a 5-degree subjective scale from 1-5, where 1 is - very low (negligible), 5 - very high (significant).

The subjective scale is taken as a measure for several reasons: 1. Managers' avoidance to provide accurate data that reflect their performance; 2. Some companies do not know the exact number/percentage of their market share and can express it only subjectively and descriptively; 3. Studies show a high level of convergence between subjective and objective scales for measuring business performance, including this particular scale (Dawes, 1999).

The analysis is based on the assumption of a linear dependence of phenomena, according to which it is assumed that the size of the market share of the enterprise is a linear function of the degree of market orientation which the enterprise applies in its operations. Primary zero hypothesis of the existence of nonlinear dependence between the events ( $H_0: p=0$ ) is set in order to refute, i.e. to prove that the correlation is not zero ( $H_1: p \neq 0$ ). Several measurements were performed using correlation and linear single regression analysis, in order to examine the isolated impact of market orientation on the size of the market share.

Prior regression analysis, it was important that some of the underling conditions for linear regression are met: 1. Linear relationship between the dependent variable and the independent one (confirmed by significant correlation association of phenomena and F-test); 2. High reliability of

the test (Gilem and Gilem, 2003) for measuring of the independent variables (determined by the values of Cronbach's alpha  $\alpha = 0,967$ ); 3. There is no multicollinearity between independent variables ( $VIF < 5$ ).

Correlation analysis shows that there is significant direct correlation between market orientation (MO) and market share (table 7).

**Table 7.** Correlation analysis (market orientation and market share)

Correlations		
Market share	Market orientation	
	Pearson Correlation	.598**
	Sig. (1-tailed)	.003
N		19
**. Correlation is significant at the 0.01 level (1-tailed).		

Additionally, during a one sided test, a simple linear regression analysis with critical value of the test  $t_{df;\alpha} = 2.539$ , according to the rule of decision-making:  $t > t_{df;\alpha}$  (Newbold, Carlson and Thorne, 2007), confirmed the linear dependence of market share of MO, i.e. that the size of an enterprise's market share depends proportionately on the degree of market orientation (table 8).

**Table 8.** Regression analysis

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.598 <sup>a</sup>	.358	.320	1.059	.358	9.459	1	17	.007
a. Predictors: (Constant), Market orientation									
	Coefficients <sup>a</sup>								
Model				Unstandardized Coefficients		Standardized Coefficients		t	Sig.
				B	Std. Error	Beta			
1	(Constant)			-.529	1.089			-.486	.633
	Market orientation			.848	.276			.598	3.076
	a. Dependent Variable: Market share								

With the F-test for testing the statistical quality of the regression ( $F=9.459$ ;  $df_1=1$   $df_2=17$  and critical value of the test  $F_{1, 17} = 8.40$ ) (Newbold, Carlson and Thorne, 2007) the relation between the market share and the market orientation is statistically significant. The relation of MO and market share expresses the importance of the higher degree of MO for better performance and competitiveness of companies, hence larger market share also implies higher profits and possibility to reinvest for growth and development of the enterprise.

## 6. Conclusion

With regard to the aforementioned relevant theory and the extent of the application of market orientation measured by the four model sectors (CA, RCR, CO, ISI), the analysis leads to some suggestions for SMEs.

In the area of consumer analysis (CA) companies should: 1. Create appropriate measures for regular communication with consumers; 2. Become familiar with clients' attitudes, perform market research and satisfaction analysis, study changes in the wider surroundings and trends in consumer preferences.

In the area of responding to consumer demands (RCR) it is recommended to: 1. Maintain a system for dynamic monitoring of consumer complaints and devote special attention to post-sales services; 2. Perform market research and testing, which includes: systematic methods for the



organization of current information, a network for collecting and providing information within the organization, systematic approach to the collection of new market information through quantitative and qualitative methods and analysis of information for decision making; 3. Preserve ignoring of consumer dissatisfaction and complaints to a minimum by finding ways for their prompt resolution.

In the area of competition orientation (CO) they should: 1. Provide a rapid and appropriate response to the steps taken by competition, by creating schemes for competition forces, for timely exploitation of their weaknesses and responding to their activities; 2. Identify competitors' strategies in each of the target markets and identify current market opportunities, appropriate to their own competing forces; 3. Analyze marketing variables (product, price, promotion, distribution) in a regular and periodic manner, to provide information for determining the steps of the competitors.

In the field of internal sharing of market information (ISI): 1. The entire staff, regardless of the size of the enterprise, in various departments of the company must be coordinated in a way that can create value for customers through mutual cooperation and assistance, or the company should organize multifunctional teams rather than separate departments; 2. Internal cooperation should be presented through participation in the creation of company's plans and strategies, distribution of information obtained from/about clients across sectors, as well as knowledge about offering superior value to the customer.

The main conclusion states that market orientation should be implemented in the operations of SMEs as there is an evident impact on the size of the market share, i.e. on better performance and competitiveness of the enterprise on the market.

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## BUSINESS RISKS, POSITION, MOTIVATION AND ATTITUDES OF SMEs IN THE CZECH REPUBLIC AND SLOVAKIA

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### Abstract

*Small and medium-sized enterprises (SME) have specific features and fulfill important tasks in the economic system. SME have significantly contributed to an employment and GDP, help to create more intense competitive environment which has a great importance in relation to prices and quality of products and services. SME help with their flexibility to fill the market space and they often are bearers of important innovations. The aim of this article is to define a current business risk for SME in the Czech Republic and Slovakia. In this context, our own research has been prepared and gradually implemented, where the intensity of individual business risks, status, motivation, feelings of entrepreneurs in SME segment, relationship to the state and business optimism have been analyzed. The research of the business environment of SME has been conducted in 2013 through questionnaire survey in selected regions of the Czech Republic and Slovakia. Data was obtained from 180 SME in Zlin region and from 164 SMEs of Zilina region and provided by their owners. Zlin region has an area of 3 964 km<sup>2</sup>, has about 600 000 inhabitants, GDP per capita is around € 11 720, unemployment in 2012 was about 8 %. Zilina region has an area of 6 800 km<sup>2</sup> and has about 700 000 inhabitants. Population density represents 102 inhabitants per km<sup>2</sup>. Unemployment in 2011 was raised to 11,91 % and GDP per capita per person was € 10 794 in 2011. The conducted research has proven that nowadays, the most important business risk for SMEs is the market risk. According to opinions of Czech and Slovak entrepreneurs, average value of market risks was more than 40 % in selected regions of the Czech Republic and Slovakia. Due to the global financial crisis of SME in the Czech Republic and Slovakia, conditions for SME business have become worse. Due to deterioration in the business environment of SME segment, commercial banks tightened credit conditions. Despite the deterioration in the business environment the Czech and Slovak entrepreneurs are very optimistic; because the dominant part of them believes that they are able to manage financial risks properly in their companies and their business will survive in the next five years.*

**Keywords:** *small and medium enterprises, the business environment, business risks, status, motivation, feelings of entrepreneurs in SME segment*

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## 1. Introduction

Small and medium-sized enterprises (SME) have specific features and fulfill important tasks in the economic system. SME have significantly contributed to an employment and GDP, help to create more intense competitive environment which has a great importance in relation to prices and quality of products and services. SME helps with their flexibility to fill the market space and they are bearers of important innovations.

Share of SME in total number of active enterprises in the Czech Republic in 2012 was 99,86 %. Share of added value in 2012 was 53,81 %. Share of SME's employees in total employment in business sector in the Czech Republic in 2012 was 59,43 %. In Slovakia, share of SME in total number of active enterprises was 99,2 %, in total employment was 72,2 %. Share of added value was 55,6 % and share of SME in profit before taxes was 51,6 %.

SME segment has its own characteristics and disadvantages, which are transformed into business risk. This risk can be divided into market risk (lack of market space for the realization of own production), financial risk (poor access to finance businesses), operational (risk of failure to deal with the processes in the production of goods and services), personal risk (risk due to poor staff) and other risks.

Important factor today, that has influence on existential ability of SMEs, is narrowed market space due to the causes of the global economic crisis.

In this article there were examined the current SME business risks in the Czech Republic and Slovakia, position, motivation and feelings of entrepreneurs in the SME segment.

## 2. Business risks in the SME Segment

SME have become an increasingly important component of economic development representing a substantial proportion of the national economies all around the world (Karpak and Topcu, 2010). In this context, Weiler and Handerson (2010) indicate that SME can be characterized as major engine of economic growth.

International context of business of SME was investigated by many authors in their works. E.g. Thai nad Chong (2013) proposes that the internationalization process of these firms is largely influenced by their current experience rather than past experience because of frequent shifts in the institutional environment. Volchek, Jantunen and Saarenketo (2013) suggest that the initial decision of a SME is to pursue an international strategy, is influenced by condition in the cognitive institutional environment and the SME's internal ability to innovate.

Many authors have investigated the regional context of business of SME. E.g. Huggins and Williams (2011) test the extent to which regional policy in less competitive regions is accounting for issues relating to entrepreneurship and enterprise development as a tool for improving regional competitiveness. In this context Jayawarna, Jones and Macpherson (2011) show that social capital (strong, weak and brokerage ties) is important for access to bootstrapped resources. A key outcome for developing appropriate regional policy is that 'brokers' provide a link between socially disadvantaged entrepreneurs and external resources.

Customer orientation is considered to be an essential element for small firm success. (Brockman, Jones, and Becherer, 2012). Their results support the overall positive influence of customer orientation on performance and indicate that the influence is stronger as risk-taking, innovativeness, and opportunity focus increase. Interestingly enough, customer orientation does not positively influence small firm performance under low levels of risk-taking, innovativeness, and opportunity focus.

For SME their own entrepreneurial orientation has a significant role. Soininen, Martikainen, Puumalainen and Kyläheiko (2012) consider as essential characteristics of entrepreneurial orientation, innovativeness, risk-taking and proactivity. The results of their study do not support the assumption that entrepreneurial orientation is positively related to profitability of small firms. On

the other side, there is a positive relationship between the entrepreneurial orientation of the firm and the company's rate of growth. According to Eggers, Kraus, Hughes, Laraway and Snyckerski (2013) to drive firm's growth, the company will need to deploy a strategy centered on entrepreneurial orientation or else risk stagnation. In this regard Lasagni (2012) stated, that her results indicate that innovation performance is higher in SME and that they are proactive in strengthening their relationships with innovative suppliers, users, and customers.

Avlonitis and Salavou (2007) state, that those active entrepreneurs unlike passive business owners adopt a more aggressive orientation characterized by willingness to undertake action of high risk and before that of competition. Nonetheless, pro-activeness contrary to risk-taking is found to be an important contributor to the performance of new products introduced by both groups.

Keh, Nguyen and Ng (2007) examined entrepreneurial orientation and marketing information on the performance of SME and state that entrepreneurial orientation plays an important role in enhancing company's performance. Information utilization has positive impact on firm performance, and there is a positive relationship between utilization to make marketing decisions and subsequent firm performance.

Particularly important problem of SME is a financial gap, because many of these companies have very limited access to external financial sources. Even before the economic downturn some small businesses were having trouble accessing the funds necessary for growth and innovation. As the consequence of the financial crisis, banks in many countries even less willing to lend to businesses, which further escalates the problems companies facing. (European Commission, 2011)

Garcia-Turuel and Martínez-Solano (2010, p. 230) indicate that the trade credit offered by suppliers is particularly important for SMEs, in view of the greater difficulty they have in obtaining finances through credit institutions and larger firms (which have better creditworthiness) finance their customers' purchases more than smaller firms.

In this context Dierkes, Erner, Langer and Norden (2013), state that companies in the segment of SME are smaller, more informationally opaque, riskier, and more dependent on trade credit and bank loans. According to Canales and Nanda (2012) small businesses, and particularly young small businesses, have little internal cash flow to finance their operations and are also associated with significant asymmetric information.

Di Giuli, Caselli and Gatti (2011) state that for small and medium enterprises credit availability is a very important element for their development. Covaci (2008) adds that SME are perceived as being more risky than big companies, because they present a high sensitivity to economic shocks while disposing of an inferior capacity to absorb variations.

Neuberger a Rätke (2009) report, that small firms are characterized by higher information asymmetry and credit risk. This point of view is also supported by Kirschenmann and Norden (2012).

Albu and society (2013) show that bankers they interviewed were not satisfied with the quality of SME accounting information. These problems are mentioned in following sources Paseková et al. (2011), and Müllerová et. al. (2011).

As per Moro and Fink (2012) banks play an essential role in financing firms, especially SME since they have more difficulty accessing equity capital markets. The process used by banks to decide whether and how much to lend relies on different lending technologies and banks usually tend to use more than one technology at a time.

Analysis of methods for credit risk management in commercial banks is analyzed in detail in our previous works (Belás, Cipovová, Novák, Polách, 2012, Cipovová, Belás, 2012)

The aim of this article is to define and compare current business risk of SME in the Czech Republic and Slovakia. In this context, our own research has been prepared and gradually implemented where the intensity of individual business risks, status, motivation and feelings of entrepreneurs in SME segment are analyzed. Within a research, quality of financial risks management in SME segment and attitudes of banks to SME are being analyzed as well.



### 3. Methods and Resources

Research on basic determinant of the financial stability of SMEs was carried out in 2013 in selected regions of the Czech Republic and Slovakia through a questionnaire survey. In the Zlin region data from 180 SME was collected and in the Zilina region data from 164 SME was obtained in total. Data for companies was provided by their owners.

Zlin region has an area of 3.964 square km, has an about 600.000 inhabitants, GDP per capita is around 11.720 EUR; unemployment in 2012 was about 8%.

Zilina region has an area of 6.800 square km with total population of 700.000 and the population density of 102 inhabitants per square kilometer. Unemployment in 2011 was raised to 11.91%. GDP per capita in the Zilina region was 10.794 EUR in 2011.

In our survey in the Zlin region was the largest share of SME, which undertook the business activities (35%), followed by manufacturing firms (29%), construction companies (12%), transport companies (4%) and agricultural holdings (3%). Rest was presented by firms, which undertook in other sectors.

In Zilina region, the structure of companies was as follows: in manufacturing and production was involved 17%, in trade activities 21%, 17% were construction companies, transport enterprises 6%, only 1% was presented with agricultural holdings and the largest share was formed by companies, which undertook in other sectors (38%).

In this research, there were set the following six comprehensive sets of scientific assumptions through estimation techniques:

Due to the action of the crisis the most perceived risk by entrepreneurs was a market risk. Profitability of SME in the Czech Republic and Slovakia was reduced by at least 10%.

Due to a credit risk rising banks' approach to fund SME in the Czech Republic and Slovakia has worsened. Only 20% of businesses felt that the access to banks' funds during the period of crisis has become better.

The most important motive for starting a business was money and the most important feature of entrepreneurs was to be not afraid to risk.

Education does not constitute an important prerequisite for business. Less than 50% of businessmen had a university degree and less than 20% of entrepreneurs felt that the theoretical sphere offered them a lot of useful knowledge for their business.

Perception of entrepreneurs in the Czech Republic and Slovakia is not correct, because less than 20% of businessman felt that their company appreciates and less than 20% thought that the state fulfills its role in promoting entrepreneurship and helping SME. Entrepreneurs considered correct if the State promotes entrepreneurship, but less than 30% of the companies benefited from government support. Entrepreneurs also perceived high levels of corruption in business since more than 50% of them met with corruption and cronyism in business.

Despite the deterioration in the business environment were the Czech and Slovak entrepreneurs very optimistic. More than 90% of them said that their company will survive in the next 5 years.

The associations in contingency tables were analyzed by Pearson statistics for count data. Calculations have been performed in statistical packages XLStatistics and R. There were also used the tools of descriptive statistics: percentages, averages and indexes.

### 4. Results

Table 1. shows results of survey of SMEs' business risks in selected regions of the Czech Republic and Slovakia.



**Table 1. Identification of business risks in the Czech Republic and Slovakia.**

<b>You are facing many risks in your job. Which of them do you consider as the key ones? Please select maximum of three answers.</b>	<b>Czech Republic in %</b>		<b>Slovakia in %</b>	<b>p-value I<sub>x</sub></b>
<b>1. Market risks (lack of contracts)*</b>	79.44	56.00	80.49	0.9150
<b>Average value**</b>		44.49	51.30	1.092
<b>Adjusted average value***</b>			41.29	1.077
<b>2. Financial risk (poor access to financing)*</b>	57.22	34.00	58.54	0.8910
<b>Average value**</b>			32.95	1.032
<b>3. Operational risk (inability to handle processes)*</b>	20.56		22.56	0.7480
<b>Average value**</b>	26.00		30.09	0.864
<b>4. Personnel risk (poor staff)*</b>	43.33	29.00	38.41	0.4140
<b>Average value**</b>			30.89	0.939
<b>5. Legal risk*</b>	30.56	34.00	37.20	0.2350
<b>Average value **</b>			28.76	1.182
<b>6. Security risk (accidents, incidents, etc.)*</b>	21.67	35.00	32.93	0.0260
<b>Average value**</b>			24.73	1.415

Note: \*data are calculated as the ratio of number of respondents who reported a given answer to the total number of companies; \*\*average of values reported by entrepreneurs in different regions; \*\*\*means the average value of the total data set.

Entrepreneurs in the Czech Republic and Slovakia perceived market risk as the most significant business risk, followed by financial and personal risks accordingly.

In the Czech Republic 79.44% of businessmen reported market risk as a key business risk at present. The average share of the market risk, which has entrepreneurs stated in their questionnaires, was 56.00% and the average share of the market risk in total was 44.49%.

In Slovakia, 80.49% of businessmen reported market risk as a key business risk at present. The average share of the market risk questionnaires of entrepreneurs was 51.30% and the average part of market risk in total was 41.29%.

Statistically significant differences between regions excluding security risk were not detected.

Table 2. shows how much the profitability of SME in the Czech and Slovakia has decreased (according to opinions of entrepreneurs) in 2013 in comparison with the pre-crisis period.

**Table 1. The development of SMEs' profitability in the Czech Republic and Slovakia**

<b>How your company's profitability has changed compared to the pre-crisis period?</b>	<b>Czech Republic in %</b>	<b>Slovakia in %</b>	<b>p-value</b>
<b>1. Significantly decreased (more than 20%)</b>	23.89	26.22	0.7084
<b>2. Slightly decreased (0-20%)</b>	34.44	37.20	0.6752
<b>3. Is stable</b>	21.67	21.34	1.0000
<b>4. Slightly increased (0-20%)</b>	12.22	12.80	1.0000
<b>5. Significantly increased (more than 20%)</b>	3.89	2.44	0.6480
<b>6. I was not doing business before crisis</b>	3.89	0.00	-
<b>p-value=0.2019</b>			

Average decrease in the profitability amounted in 10.44% in the Czech Republic (had a share of average of upper values of individual intervals). Average decrease in the profitability was 12.01% in Slovakia.

Values of test criteria confirmed that there were no statistically significant differences between both countries in relation to decrease or increase in performances.

Due to increasing market risk, which has gradually transformed into growth deteriorated credit risk of commercial banks' access to credit financing of SME. In table 3. is presented how Czech and Slovak entrepreneurs experienced a change of attitude of commercial banks during the crisis.

Pivot table analysis did not demonstrate differences in the structure of responses in each country, which was also confirmed by analysis of the proportions of individual responses by Czech and Slovak entrepreneurs.

By proportional test H0 is rejected in favor of the alternative hypothesis (p-value=0.0252 in the Czech Republic, 0.0082 in Slovakia). Our data show that the share of clients who think that the approach of banks has improved is less than 20%.

*Table 3. Change in banks' approach to fund SME during the crisis*

How different is banks' lending approach today in comparison to 2008?	Czech Republic in %	Slovakia in %	p-value
1. Cannot evaluate	43.33	42.07	0.8990
2. Banks' approach has slightly improved	12.22	10.98	0.8479
3. Banks' approach has slightly worsened	21.67	18.90	0.6157
4. Banks' approach has markedly improved	1.67	1.22	-
5. Approach of banks has dropped significantly	10.00	12.20	0.6337
6. Banks' approach has not changed at all	11.11	14.63	0.4148
p-value=0.8820			

Motives for starting a business are shown in the Table 4.

*Table 4. Motivation to start business in the Czech Republic and Slovakia*

What was your motive for starting a business?	Czech Republic in %	Slovakia in %	p-value
1. Money	21.11	48.78	<0.01
2. I perceive it as a mission	20.56	10.98	0.0230
3. I wanted to have a job	29.44	21.95	0.1438
4. I had no choice	10.00	7.92	0.6297
5. Other reasons (independence, flexibility, etc.).	18.89	10.37	0.0385
p-value<0.01			

Motives to start business in the Czech Republic are different like those motives in Slovakia, which was confirmed by the test value (p-value). Entrepreneurs in Slovakia significantly pointed to money as the most important motive for starting their own business. Entrepreneurs in the Czech Republic compared to entrepreneurs in Slovakia reported significantly more the motive of own mission.

*Table 5. The most important characteristics of entrepreneurs*

What qualities and skills must entrepreneur have? (Please give up to three answers)	Czech Republic in %	Slovakia in %	p-value
1. Not being afraid to risk	17.61*/51.67**	17.49*/51.83**	1.0000
2. Persistence	16.29/47.78	12.96/38.41	0.1007
3. Creativity	4.55/13.33	9.26/27.44	<0.01
4. Imagination	0.76/2.22	2.47/7.32	-
5. Professional knowledge	15.34/45.00	16.88/50.00	0.4125
6. Quality education	0.38/1.11	1.23/3.66	-
7. Intelligence	4.55/13.33	4.12/12.20	0.8775
8. Responsibility	15.24/45.00	15.85/46.95	0.7992
9. Intuition	5.11/15.00	2.67/7.93	0.0607
10. Decisiveness	12.69/37.22	5.97/17.68	<0.01
11. Patience	4.17/12.22	8.02/23.78	<0.01
12. Optimism	2.65/7.78	2.88/8.54	0.9524
13. Other	0.57/1.67	0.20/0.61	-

Note: \* means % of total responses, \*\* means % of total number of respondents, which gave this answer.

Entrepreneurs in both countries most often mentioned as the most important characteristic of a businessman is not being afraid to risk. Structure of responses of Czech and Slovak entrepreneurs is basically similar. Czech businessmen compared to Slovak significantly more put decisiveness as the most important characteristic of an entrepreneur, and significantly fewer reported two qualities: creativity and patience.

*Table 6. Levels of educational attainment of entrepreneurs*

What is your education?	Czech Republic in %	Slovakia in %	p-value
1. Secondary school	13.33	8.54	0.2130
2. Secondary with graduation	41.67	40.85	0.9654
3. Higher education	45.00	50.61	0.3511
$\chi^2=0.3061$			

There could not be found any differences in educational attainment of entrepreneurs in Czech Republic and Slovakia. In both countries, the proportion of entrepreneurs who have a college education is less than 50% (Czech Republic: p-value=0.8974, in Slovakia: p-value=0.4689)

In Table 7. are shown points of views of entrepreneurs on the possibility of application of gained theoretical knowledge into business practice.

*Table 7. the possibility of application of gained theoretical knowledge into business practice*

Do you think that academic sphere provides useful solutions to business practice?	Czech Republic in %	Slovakia in %	p-value
1. No, because it is detached from real life	41.67	31.71	0.0719
2. Some findings are helpful to us	50.56	56.71	0.3010
3. In my practice I use a lot of theoretical knowledge	7.78	11.59	0.3104
$\chi^2=0.1219$			

Structure responses of the Czech and Slovak entrepreneurs were not different. Most often, entrepreneurs thought that some of the lessons learned at the university are useful to them. In both countries, fewer than 20% of businessmen thought that in their practice they are using a lot of theoretical knowledge (p-value <0.01 in the Czech Republic and Slovakia).

An important factor that has a positive impact on the business environment is the perception of business position by society and also the state's relationship to the entrepreneurs.

**Table 8.** *Perception of entrepreneurs in the Czech Republic and Slovakia*

Do you think that our society (politicians, public opinion, media) perceive the position and activities of entrepreneurs correctly?	Czech Republic in %	Slovakia in %	p-value
1. No, our society perceives us negatively	20.56	15.85	0.3238
2. Society perceives us incorrectly	42.22	43.30	0.9272
3. Society perceives us positively	7.78	6.70	0.8618
4. I am not thinking about it	29.44	34.15	0.4121
p-value=0.6165			

The perception of entrepreneurs by society is not significantly different when Czech Republic and Slovakia are compared. In the Czech Republic and Slovakia the proportion of companies who thought that their business appreciates less than 20% (p-value < 0.01 in Czech Republic and Slovakia).

**Table 9.** *The state approach towards entrepreneurs' needs in the Czech Republic and Slovakia*

How do you evaluate the state's approach toward entrepreneurs' needs?	Czech Republic in %	Slovakia in %	p-value
1. I feel that the state is just bullied us	42.22	53.05	0.0574
2. The state is not fulfilled its duties	42.22	38.41	0.5427
3. The state fulfills its duties	12.78	5.49	0.0324
4. The state helps us in our business activities	2.78	3.05	1.0000
p-value=0.0605 (Monte Carlo simulation of p-values)			

Czech entrepreneurs evaluated the state approach towards entrepreneurs differently in comparison with Slovak entrepreneurs, which confirmed p-values. In the Czech Republic fewer business owners believed that their state only bullies and statistically more entrepreneurs felt that the state fulfills its tasks.

While in Slovakia less than 20% of businessmen have thought that state fulfills its obligations and helps entrepreneurs (p-value < 0.01), in the Czech Republic this cannot be claimed though (p-value=0.08113).

In our research, more than 70% of Czech and Slovak business owners said they considered it correct if the state financially supports entrepreneurs. The use of state support for business in the Czech Republic and Slovakia are presented in Table 10.

**Table 10.** *The use of state support for business in the Czech Republic and Slovakia*

Have you used in your business any form of state financial support?	Czech Republic in %	Slovakia in %	p-value
1. yes	34.44	22.56	0.02076
2. no	65.56	77.44	0.02076
p-value=0.0208			

Czech entrepreneurs statistically significantly more indicated that they have used government support in their business. Less than 30% of Slovak businessmen said they used the state support in

their business (p-value=0.0231). In the Czech Republic this assumption did not apply (p-value=0.8887)

The business activities of the state are often accompanied by corruption and cronyism. In Table XI is presented the experience of Czech and Slovak entrepreneurs with corruption and cronyism.

*Table 11. Perception of corruption by businessmen*

Have you ever met within your business activities with the corruption and cronyism?	Czech Republic in %	Slovakia in %	p-value
1. yes	53.33	71.95	<0.01
2. no	46.67	28.05	<0.01
<b>p-value&lt;0.01</b>			

The perception of the corruption was different in both countries, which have confirmed values of the test criteria. While in the Czech Republic there is no evidence to suggest that more than 50% of entrepreneurs met with corruption and cronyism (p-value = 0.2061), however in Slovakia we can confirm that (p-value <0.01).

The level of business optimism has been obtained through following questions. Results are shown in Table 12.

*Table 12. The level of business optimism*

Do you believe that your company will survive in next five years?	Czech Republic in %	Slovakia in %	p -value
1. yes, absolutely	49.44	40.85	0.1360
2. no	0.56	2.44	0.3140
3. with some concerns	45.56	49.39	0.5430
4. with great concerns	4.44	7.32	-
<b>p-value=0.1784</b>			

Entrepreneurs in our research showed large dose of business optimism. In the Czech Republic, up to 95 % of entrepreneurs stated in surveyed research, that they believed that their company will survive in next five years. This share was represented by 90 % in Slovakia accordingly. The level of business optimism in the Czech Republic and Slovakia is very similar.

Using testing for a proportion (p-value=0.0174), the null hypothesis was rejected for Czech companies where it stated that portion of optimistic companies is higher than 90 %. In the case of Slovakia, the null hypothesis is not rejected (p-value=0.5000) and therefore it cannot be stated that portion of optimistic companies in Slovakia is higher than 90 %.

## 5. Conclusion

The results of our research confirm the validity of SA1. The greatest perceived risk on the side of entrepreneurs in the Czech Republic and Slovakia was a market risk. The profitability of SME in the Czech Republic and Slovakia was reduced on average by at least 10%.

The research has confirmed the validity of SA2. Less than 20% of the Czech and Slovak entrepreneurs thought that banks' approach during the crisis has got better.

SA3 has been confirmed partially, because Czech entrepreneurs most frequently indicated that their motive for business launch was an attempt to have a job.

The research has confirmed the validity of SA4. Less than 50% of the Czech and Slovak entrepreneurs indicated their university degree and less than 20% of them thought that the theoretical sphere offered them a lot of useful knowledge for their business.

Our research confirmed partial validity of SA5. Less than 20% of the Czech and Slovak entrepreneurs felt that society perceives them positively. While in Slovakia less than 20% of

entrepreneurs thought that the state fulfills its obligations and assists businessmen in their needs, in the Czech Republic we cannot claim so. In our research, more than three-quarters of the Czech and Slovak entrepreneurs indicated that they consider it to be right if state financially supports entrepreneurs, but less than 30% of Slovakian businessmen benefited from state support of entrepreneurship (in the Czech Republic there were more of them). Entrepreneurs also perceived a high rate of corruption in business since more than 50% of them have faced corruption and cronyism when conducting business in Slovakia. In the Czech Republic this percentage was lower.

Our research confirmed the validity of the SA6 partially. More than 90% of the Czech entrepreneurs said that their company will survive in the next 5 years. The Slovak SA did not apply despite the fact that the rate of entrepreneurial optimism was high.

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## THE ROLE AND FUNCTION OF THE CHAMBER SYSTEM AS AN INCENTIVE FOR DEVELOPMENT OF SMES SECTOR

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### Abstract:

*Under the Chambers of commerce, by definition, there are involved the interest, independent, professional and business organizations, entrepreneurs and other forms of organization, which are conducting a business and they have a mutual business interest in a particular area. The importance and role of the chamber system in the economic system of Serbia is: advocacy and promotion of the interests of the economy by monetary policies, the promotion of the local economy in the country and abroad and the promotion of business and domestic companies. The first part discusses the key role in the operation and organization of the chambers, which have small and medium-sized enterprises, a leading force for economic development. SMEs stimulate private ownership and entrepreneurial skills, they are flexible and can quickly adapt to market changes. The second part of the paper discusses how SMEs generate employment and create diversified economic activity. Thereby, contributing to an increase in GDP, more balanced regional development, job creation – reducing unemployment and by introduction of modern technologies they are increasing the level of innovation, substituting imports and contributing to greater export competitiveness. This is followed by concluding remarks.*

**Keywords:** Chamber, Regional Economic Development, Small and medium-sized enterprises, competitiveness

### 1. Introduction

Global changes in the business and social environment, initiated by the process of globalization, deregulation, competition and the expansion of IT in the early eighties, influence the creation of new approaches to business, and new business tools. All of this affects the change in value of the existing elements of the business system, due to the changed circumstances in which it operates require modification and its change. It is quite logical that these changes affect the work of chambers of commerce. Chambers of developed market countries, by definition, are a service industry, that represents and promotes the interests of its members, and as such it is a democratic body, established by its members and works on the principle of self-government (by its founding members). The guiding principle in the work of the Chamber is the best possible representation, coordination and harmonization of the interests of its membership. Independence from political actors (in the world) is enabled through: self-financing by its members, the achievement of market revenue, self-management and organizational management. Market positioning of chambers requires innovation mode, since membership can no longer be the sole or sufficient funding. In order to successfully cope with the current global trends and to be in line with them, the chamber must redefine its value system. Market positioning of chambers requires innovation mode, since membership can no longer be the sole or sufficient funding. Key determinants of value system of

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ventricular missions, particularly in terms of small and medium enterprises and entrepreneurs as the dominant segment of the economic structure of the Republic of Serbia are: (Zelenović and Lukač, 2010, p.4):

*a) Market research (competition, clients and for client's needs)*

The modern way of doing business is characterized by dynamic changes that require the "top" management that, in addition to survive in the market, ensures the chamber their steady growth and development, which is possible only if the chamber is constantly adapting to market demands and the needs of their clients. The demands and needs of clients, whose views are discovered in market research, are woven into the policies of chamber, through the performance of certain services provided by the Chamber, and the amount of fees that are acceptable to customers and sustainable in relation to competition.

*b) Comprehensive implementation of IT*

In terms of large institutional, organizational and functional changes in the world's economy, the need for use of information systems and IT integration in a globalized market is much more expressed. The new company's business philosophy is characterized by focus on clients. Although, it started a long time ago, the process of transition from traditional to new computer access is still going on, both in developed and in countries in transition. Viewed in terms of the rapid development of information technology, which led to the creation of the information society and the information economy - an economy based on knowledge, it is necessary to impose the development of electronic commerce in modern organizations, regardless of size, activity and/or property.

*c) Human Resources*

Today, in the era of globalization and widespread reform, when capital is favored, it can confidently be said that the main driver of economic development is labor productivity, which is based on knowledge, innovation, insight, namely the development of human capital. Understanding the process of individual and social transformations, that carry fundamental changes in the way of organizational life, are of great importance, because their intensity and coverage reaches the scale of fundamental changes in the structure of society. Therefore, the transformation of human resources should be experienced in moving forward, where knowledge becomes the most important form of property (companies or economy) of the new economy that is based on high information technologies, as opposed to material factors, which accounted for the dominant share of capital in the industrial economy. Qualification of human resources is provided by the different types of knowledge and skills, acquired by education and values, attitudes and habits. Improved tools allow employees in the chamber system to focus on real, practical problems, and not on collection and verification of data, all with the aim of accelerating progress and improvement of the ventricular system.

Protection of the common interests of Chamber's members, is achieved through unique performance of the overall chamber system with respect to state authority, local government, trade unions, various associations of employers, trade associations and other institutions. Also, the Chamber expresses and represents the common interests of its members in cooperation with chambers of commerce and business associations in other countries. From all the foregoing, derive the fundamental determinants of the development of the ventricular system of Serbia, and in the function of entrepreneurship, and the economy as a whole (Lukač, 2012, p.142):

1. European Partnership - Strengthening institutions for the implementation of the European Charter for Small and Medium Enterprises (SMEs)
2. The Stabilisation and Association Agreement
  - harmonization of legislation, its implementation and the competition rules
  - standardization and participation in the company's work on standardization
1. The policy of cooperation: industrial cooperation, SMEs, regional and local development

General association of entrepreneurs in the Republic of Serbia are established in areas of regional chambers of commerce and the Belgrade Chamber of Commerce, for one or more of the relevant activities, and the reason for establishment should be searched in need for:

- Joint improvement of work and business
- Reconciliation of special and common interests
- Proposing measures for improvement of business conditions, economic status and social security
- Considerations and solving other issues of great importance for entrepreneurs.

## 2. Theory

The period of transition in the former socialist countries is significantly reflected in the transformation of the existing chamber system. It is logical that the economic transformation, that included the transition to market production and the establishment of capitalist relations of production, where private property became the dominant form of ownership, influenced and led to changes in the working methods and organization of commerce in these countries. The role of the ventricular system in the economic system of Serbia should be viewed in the context of its functions and needs, both in businesses, and public institutions, primarily government agencies. For great achievement of each national companies in the domestic and international markets in the face of global competition, it is required:

1. Productive entrepreneurship
2. Effective education
3. Motivated workforce

Entrepreneurship is the process by which an individual or a group of individuals use organized effort to take advantage of opportunities and create value, and to expand by fulfilling the requirements and needs through innovation and uniqueness. This involves finding good opportunities and resources for exploitation. Today, most people share the opinion that entrepreneurship and small and medium enterprises are basic and the most important factor in solving many problems in ensuring the success of economic dynamism and overall economic development. Entrepreneurship and SMEs undoubtedly have great significance in solving the problem of unemployment, business success and the economic development of the society, but they are not the only, nor the most important factor in solving these problems.

A key role in the operation and organization in the most successful Regional Chamber of Commerce Novi Sad (RCC Novi Sad), as well as other chambers, have small and medium enterprises, which are one of the leading forces of economic development. They stimulate private ownership and entrepreneurial skills, they are flexible and can quickly adapt to changes in the market. Also, they generate employment, create a diversified economic activity and contribute to: an increase in GDP, balanced regional development, job creation - reducing unemployment, the introduction of modern technologies, increase the level of innovation, import substitution and increased export competitiveness. It should be noted that small and medium enterprises (SMEs) account for nearly 99.8% of the enterprises in the territory of Serbia, moreover, that there is a strong concentration in Belgrade and South Backa District - 40% of the total number of registered small and medium enterprises. Attention should be paid to the strengthening of the less developed regions, because the SMEs sector in Serbia accounts for 67% of employment, 55% of GDP and almost 50% of exports.

Analysis of the level of development of small and medium enterprises in Vojvodina show that it is becoming an increasingly important segment of the economy, that it is the main driver of innovation and employment and an important factor in the process of European integration. With a dominant share in the number of active companies (99%), the sector with more than 60 %

contributes employment and to the formation of total turnover and with over 50% in gross value added of the economy of Vojvodina. In 2005, the development of SMEs has already reached countries with fast transition process, which is a good basis for their further dynamic development and growth. In the current circumstances functions ventricular system, where in the South Backa region, Regional Chamber of Commerce Novi Sad has the most important role. Due to great importance of the development of SMEs, Regional Chamber of Commerce Novi Sad in 2002 established the Centre for small and medium Enterprises, which is constantly dealing with issues of particular interest to small and medium enterprises. Activities of Center help to create a more favorable business environment for the establishment and development of SMEs and entrepreneurship. The main activities of the Centre are (Center for small and medium enterprises, 2011):

- Overview of the effects of economic policy measures and regulations on the operations of SMEs and suggestion to competent state authorities for the adoption of new ones, or changes to existing policies and legislation
- Assisting SMEs to secure funding at more favorable terms from the Development Fund of the Republic of Serbia and Vojvodina, Capital Investment Fund of AP Vojvodina, the National Employment Service, business banks, funds of the European Union and other international institutions and organizations
- Monitoring and analysis of the impact of tax policy on the economy and development of enterprises and entrepreneurs, and proposing tax breaks and incentives to invest funds for the construction, expansion and modernization of production capacities
- Organization of education, in collaboration with educational, scientific and professional institutions (seminars, presentations, training courses, workshops...) are essential to encourage the development of existing and establishment of new SMEs
- Encouraging the development of SMEs through the interconnection of clusters, incubators and technology parks
- Promoting entrepreneurial culture and values among unemployed women (especially young women), in order to establish a large number of enterprises and businesses owned by them
- Organizing joint participation in trade fairs at home and abroad, for which SMEs are interested in

Within the Center actively operate Union general associations of undertakings and Group for women entrepreneurship. Group for Women entrepreneurship was founded at the end of 2007 with the aim to help entrepreneurs to improve existing or start their own business through information, acquirement of new knowledge, skills, contacts and networking at local and regional level. Services provided by the Center for small and medium enterprises are the following (Services of Center for small and medium enterprises, 2011):

- Assistance in establishing companies and stores
- Information on programs and competitions for financial support for the establishment and development of small and medium enterprises and entrepreneurs
- Organizing seminars, workshops and preparatory classes and other kinds of trainings for professional development
- Information about legislation and the interpretation of certain legal provisions at the request of business entities
- Mediation in co-operative and business networking of small and medium enterprises and entrepreneurs
- Organize the presentation of products and services of small and medium enterprises and entrepreneurs



- Organize participation and visit to fairs at home and abroad
- Providing data from the RCC Novi Sad database at the request of business entities

Within the Center operates Community of general associations of entrepreneurs. The community of entrepreneurs is a form of organization and work of entrepreneurs, who established shop or other form of business in order to perform economic activities and who are, through their general associations of entrepreneurs, members of the Regional Chamber of Commerce Novi Sad. Members of the community are general associations of entrepreneurs from the area of the region. Associations are established for the joint promotion of work and business of entrepreneurs, harmonization of specific and common interests, proposing measures for improvement of business conditions, economic status and social security, as well as, for the purpose of considering and resolving other issues of common interest to entrepreneurs.

Over the years, Serbian experience in the field of entrepreneurship was in many ways followed by many misconceptions, negative results, outdated approaches and ineffective solutions. The main problems that are facing small and medium enterprises in Serbia are (Avlijaš, 2008, p.180):

1. Competitiveness
2. Financial stability and ability to invest in growth
3. Human resource management
4. Risk management in small and medium enterprises

Challenges that SMEs will face in the next period in globalized economy in the world, is primarily related to (Entrepreneurship in the global economy, 20??):

1. SMEs struggle to stop its economic decline, as a kind of generators of the development of the economy, by increasing the innovative spirit and employment
2. Taxes and Tax Policy
3. Costs of Health Insurance
4. Attracting and retaining a quality workforce
5. Global competition

Modern business conditions are characterized by rapid and continuous changes that affect the organization's effectiveness, an entrepreneurial management and its strategic options and choices. In terms of changes, the role of entrepreneurial management modifies significantly, and adapts to the needs of the company, to company's goals and efforts to maintain or improve operations. More than ever, the entrepreneur is burdened by the need to respond quickly and anticipate changes in the environment, and to give the right response to pressure from various groups and individuals (stakeholders). According to the character of the changes the entrepreneur and his team members are required to develop response and prepare program of action that facilitates the position of the company and focuses on the protection of vital economic interests and market positions. Of great importance to environmental and developmental requirements of small businesses is, in addition to mutual cooperation, collaboration between big and small companies. Small company is below big company- as a part of it or it is next to big company as a participant in the sales and service. Big companies are aware of the importance of loyalty and reliability of their suppliers and the sales assistant, and for this reason they are more focused on long-term cooperation than on a misuse of it.

Greater systemic support from the state on the one hand, and logistical support from chambers on the other hand, are essential prerequisites for the development of the SMEs, whose potentials are of great importance at this time, because they can become a major driving force



behind the development of Republic of Serbia and thus directly affect the reduction of unemployment.

### 3. Methods

Research and dynamic structural analysis of small and medium enterprises and entrepreneurs in Vojvodina were conducted on a database of relevant economic and governmental institutions, in the first place from the the Regional Chamber of Commerce Novi Sad. Relevant data regarding the structure, employment and income generated in the SMEs sector in given period, were obtained by method of content analysis and statistical methods of data processing.

### 4. Findings

Implemented dynamic and structural analysis of small and medium enterprises and entrepreneurs in Vojvodina clearly indicate the importance of investigating market conjuncture of SMEs. This is especially important if we take into account the necessity of internationalization of successful small-scale business entities, and their share in exports.

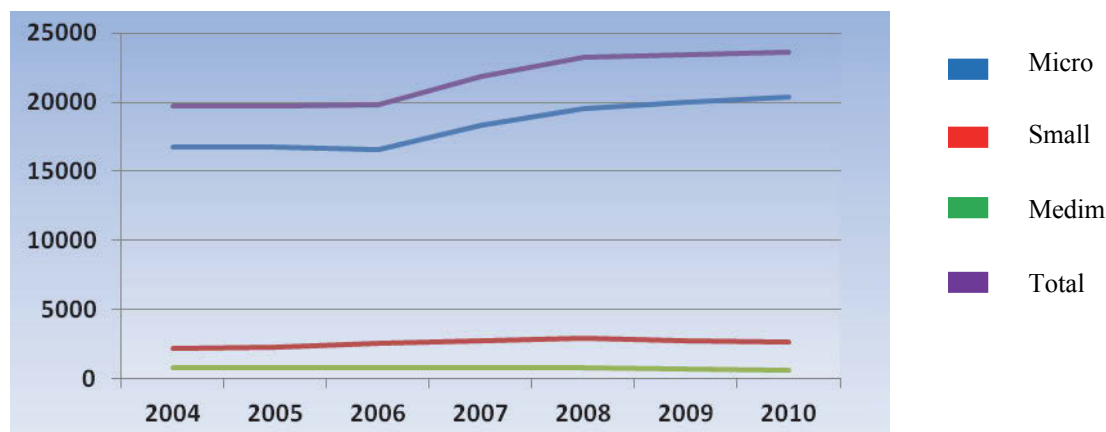
*Table 1. Structure of enterprises in Vojvodina, arranged by size, from 2004-2010*

	2004	2005	2006	2007	2008	2009	2010
<b>Micro enterprises</b>	16.785	16.751	16.557	18.317	19.543	20.027	20.387
<b>Small enterprises</b>	2.154	2.236	2.536	2.755	2.911	2.742	2.619
<b>Medium enterprises</b>	786	761	767	771	791	704	638
<b>Total</b>	19.725	19.748	19.860	21.843	23.245	23.473	23.644
<b>Total number with big enterprises</b>	19.928	19.927	20.028	22.001	23.391	23.606	23.769
<b>Total number of micro enterprises in percentage</b>	85.09%	84.82%	83.37%	83.86%	84.07%	85.32%	86.22%
<b>Total number of small enterprises in percentage</b>	10.92%	11.32%	12.77%	12.61%	12.52%	11.68%	11.08%
<b>Total number of medium enterprises in percentage</b>	3.98%	3.85%	3.86%	3.53%	3.40%	3.00%	2.67%
<b>Total number of SMEs in percentage</b>	98.98%	99.10%	99.16%	99.28%	99.38%	99.43%	99.47%

Source: Regional Chamber of Commerce Novi Sad, 2004-2010

The table shows that micro enterprises since 2007 have continued to grow, despite the crisis in those years. On the other hand, the elements of the crisis are evident in small and medium enterprises, which in the year of crisis, recorded a downward trend. SMEs percentage of the total number of enterprises is still very high, 99.47%.

**Figure 1. Structure of enterprises in Vojvodina, arranged by size, from 2004 to 2010**



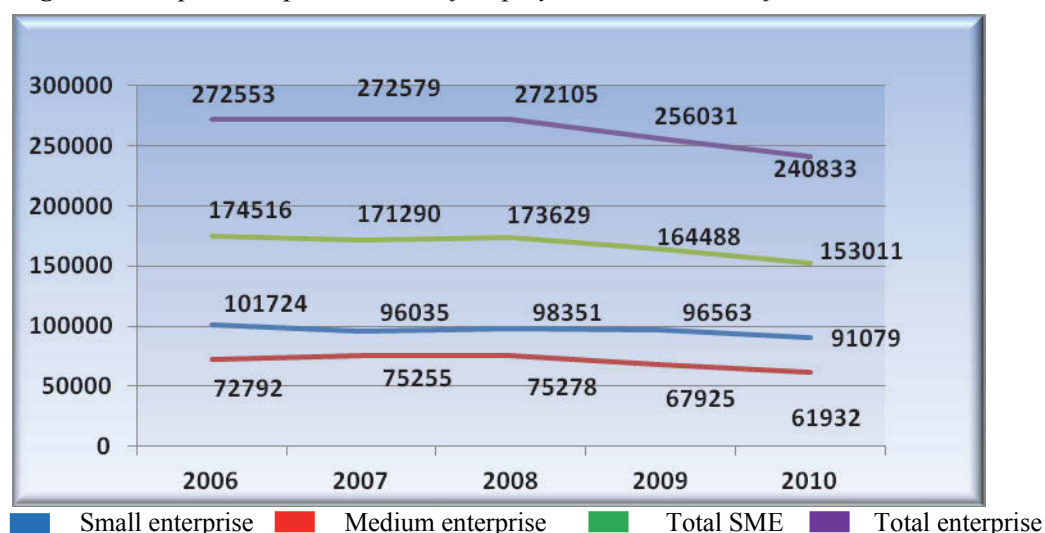
Source: Regional Chamber of Commerce Novi Sad, 2004-2010

**Table 2. Employment in the SMEs from 2006 to 2010**

	2006	2007	2008	2009	2010
1. Small enterprises	101.724	96.035	98.351	96.563	91.079
2. Medium enterprises	72.792	75.255	75.278	67.925	61.932
3. Total (1+2)	174.516	171.290	173.629	164.488	153.011
4. Total number with big enterprises	272.553	272.579	272.105	256.031	240.833
5. Total number of small enterprises in percentage	37.3%	35.2%	36.1%	37.7%	37.8%
6. Total number of medium enterprises in percentage	26.7%	27.6%	27.7%	26.5%	25.7%
7. Total number of SMEs in percentage	64.0%	62.8%	63.8%	64.2%	63.5%

Source: Regional Chamber of Commerce Novi Sad 2009, p.7

**Figure 2. Graphical representation of employment in the SMEs from 2006 to 2010**

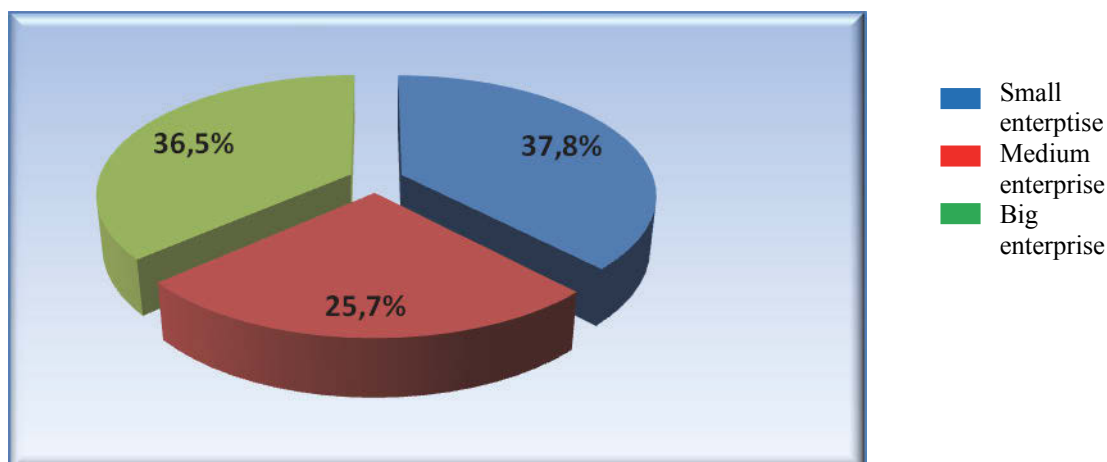


Source: Regional Chamber of Commerce Novi Sad 2011, p.8

In 2010 in the economy of AP Vojvodina were employed 240 833 workers. Of this number, 63.5% or 153,011 workers were employed in the SMEs sector. With 91 079 employees, small enterprises employed nearly 37.8% of employment in SMEs, while 25.7% or 61,932 workers

were employed in medium-sized companies. In the large companies were employed 87 822 people, or 36.5% of total employment in the AP Vojvodina.

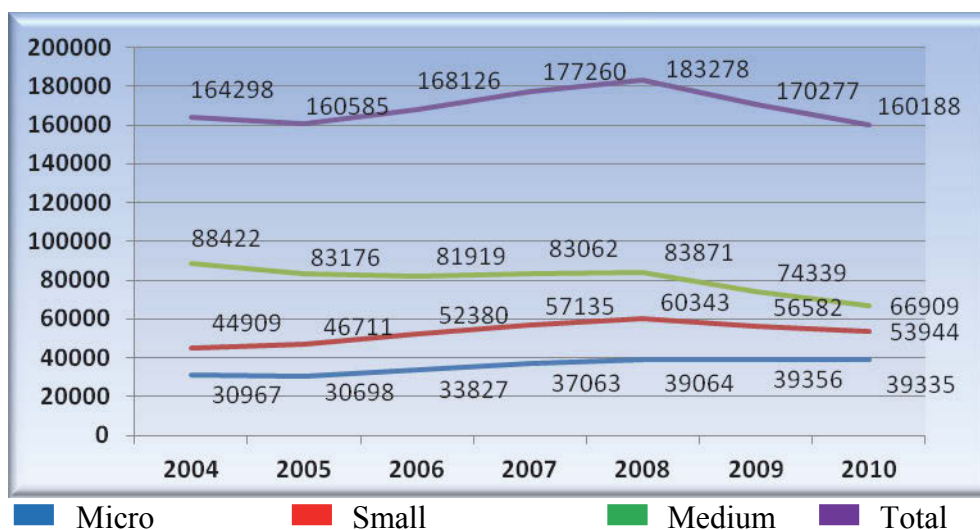
**Figure 3.** Structure of employees in the companies, arranged by size in 2010 in AP Vojvodina



Source: Regional Chamber of Commerce Novi Sad 2011, p.8)

Micro enterprises recorded a continuous trend in employment growth, even in the years of crisis. Small and medium enterprises are losing significantly positive trend of employees in the last two years of crisis, in 2009 and 2010. The same trend is present when it comes to the percentage of the total number of SMEs employees, trend growth which has been continuous from 2004 to 2008, and then terminated at the beginning of the crisis and is still ongoing.

**Figure 4.** Trend in employment in SMEs from 2004 to 2010



Source: Regional Chamber of Commerce Novi Sad, 2011, p.10

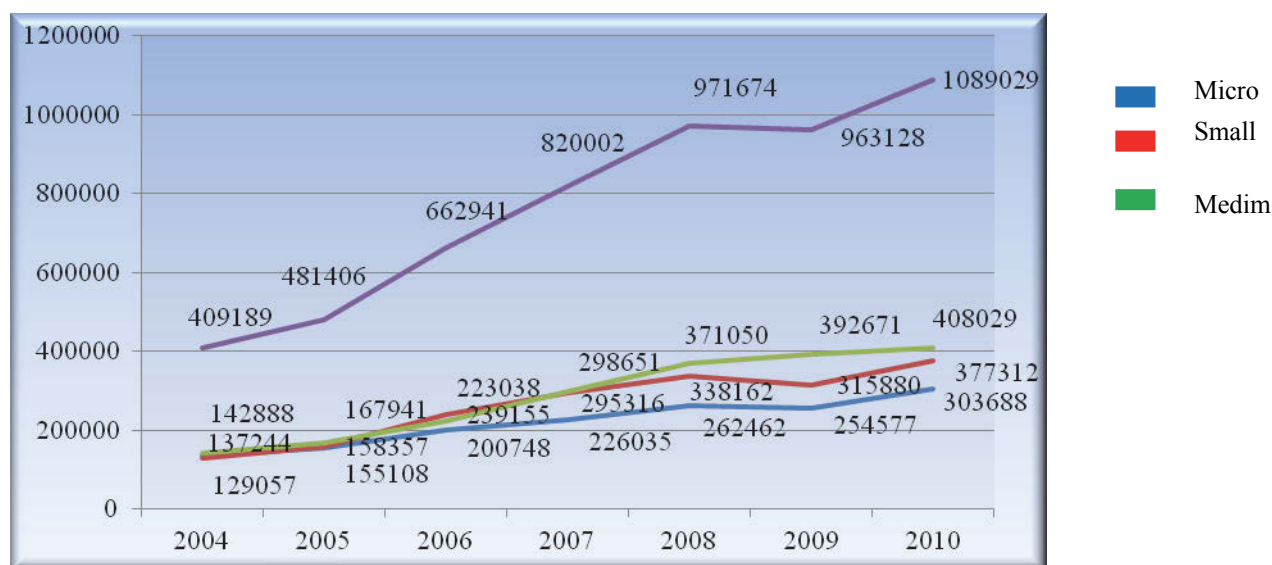
**Table 3.** Business income in small and medium enterprises in AP Vojvodina in the period from 2006 to 2010 (in thous. RSD)

	2006	2007	2008	2009	2010
<b>Small enterprises</b>	392.264.523	373.296.972	428.065.761	439.238.502	508.105.873
<b>Medium enterprises</b>	243.747.996	304.445.657	371.956.924	366.931.305	378.119.596
<b>Total (1+2)</b>	636.012.519	677.742.629	800.022.685	806.169.807	886.225.469
<b>Total number with big enterprises</b>	1.418.414.746	1.618.792.605	1.929.468.421	1.696.030.156	1.998.373.476
<b>Total number of small enterprises in percentage</b>	27.6%	23.1%	22.2%	25.9%	25.4%
<b>Total number of medium enterprises in percentage</b>	17.2%	18.8%	19.3%	21.6%	18.9%
<b>Total number of SMEs in percentage</b>	44.8%	41.9%	41.5%	47.5%	44.3%

Source: Regional Chamber of Commerce Novi Sad 2011, p.5

Overall, small and medium-sized companies recorded a share of 44.3% of total business income of AP Vojvodina, while in the previous year, share amounted to 47.5%. Large companies dominate the business income and are accounted for 55.7% and recorded a growth in participation compared to 2009 when it was 52.5%.

**Figure 5.** SMEs income in the period from 2004 to 2010



Source: Regional Chamber of Commerce Novi Sad, 2011

The picture shows that micro enterprises income has an upward trend, except for 2009, when there was a decline, due to the crisis. The same trend we have for small businesses, while medium enterprises recorded a continuous growth trend in all observed years. The largest share of income in percentages of the total number was recorded in 2009, while in 2010 the income declined of nearly 4%.

**Table 4. Profitability of SMEs in Vojvodina in the period from 2004 to 2010**

	<b>Profit of SMEs by year (in millions of USD)</b>	<b>Share of profit of APV in profit of SME sector in Serbia</b>	<b>The rate of return per year in APV</b>
<b>2004</b>	24.110	26.7	36.70
<b>2005</b>	34.092	25.9	40.07
<b>2006</b>	41.344	25.0	38.12
<b>2007</b>	73.012	26.3	33.90
<b>2008</b>	83.251	26.1	38.39
<b>2009</b>	76.425	25.9	36.52
<b>2010</b>	87.221	29.5	40.02

*Source: Regional Chamber of Commerce Novi Sad, 2004-2010*

Table shows that the largest profit (nominal) was realized in 2010. Profit over eighty thousand, was also realized in 2008, whereas the decline in profit of SMEs was recorded in 2009, the year of crisis in Serbia. On the other hand, the rate of return, which recorded a decline since 2005 (and variations of decline), in 2010, which is still a year of crisis, reached the level of profitability from 2005.

## 5. Discussion

Research has shown that small and medium enterprises are the engine of growth and a solid secure support in times of crisis (the lowest rate of return in 2007 was 33.90%, and the following year IRR of SMEs was increased, which contributes to rapid adaptation to new circumstances. Obtained results suggest that investing in the development of small and medium enterprises enables: an increase in GDP, increase in the number of business entities, balanced regional development, jobs creation - unemployment reduction, import substitution and increased export competitiveness of domestic economy. The fact that the highest concentration of SMEs is in Belgrade Chamber of Commerce and RCC Novi Sad, 40% indicates that there is a close interrelation between the successful work of the Chamber and the SMEs.

## 6. Conclusions and implication

The role and importance of entrepreneurial organizations (SMEs) is increasing, since the size is no longer a key factor in increasing revenue, but specialization, which raises aggregate productivity. Small and medium enterprises are efficient when it comes to innovations and technologies that are emerging, for which large systems are not interested in because they can not capitalize on them in the short term. In entrepreneurial organizations barriers to innovation may be in their size, administrative barriers and access to start-up capital. Problems arise when they have to attract skilled workforce and highly educated workers, which is more easily achieved in big companies.

In all successful economies, efficient chamber system is one of the decisive factors directing economic progress and development and the creation of a prosperous business climate. Chamber system in Serbia, after a number of trials in one of the longest transition to a modern market economic system is still moving through evolution, adaptation and reform in order to be better in servicing the needs and interests of the economy. An incremental approach to these interventions is an important condition for preserving the trust of members and expanding the base, from which chambers get innovative ideas for improving their daily activities.

Conducted research showed the importance of the ventricular system in identification of real needs of entrepreneurial sector in transition on the one side, and consistent set of services and support, on the other side. This is especially necessary in dealing with the state, which is responsible for policy and strategy development in this sector, in accentuated unstable and competitive conditions in the domestic and international markets, as well as for the entrepreneurs in an effort to face and promptly respond to all threats, along with opportunities that come from the dynamic environment.

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## PART TEN:

*Entrepreneurial Capacities,  
Human Capital, HRM*

## THE IMPORTANCE OF ENTREPRENEURIAL SKILLS IN SMEs IN CROATIA AND POSSIBILITIES FOR IMPROVEMENT

Predrag BEJAKOVIĆ<sup>261</sup>, Irena KLEMENČIĆ<sup>262</sup>

### Abstract

*The exploitation of knowledge and ideas play a crucial role in a knowledge-based economy. A key component is the development of human capital, i.e. knowledge, competencies and capabilities of employees. The competitiveness of the Croatian economy can be protected only with improvement in competitiveness of the labour force and entrepreneurial skills. This is particularly important in the context of SMEs and craft businesses. The current paper presents the findings of theoretic and empiric surveys showing that the development of education has long-term positive impacts on economic development and GDP growth.*

*The situation regarding education of employees is still not satisfactory in Croatia. However, there have been changes and improvements. The paper shows that even though the process of formal education is long-lasting and needs time for changes in educational structure, it should be persistent in implementation of educational policies as well as in monitoring of positive, but also negative consequences. Possible changes can be observed only throughout several years with constant promoting of education and importance of entrepreneurial skill. The enterprises stress that the most important area they are facing is the access to finance and capital, followed by attitudes and working behaviour of employees. The role of the state in the financing of education and professional training is of particular importance. Tax incentives may provide companies with additional encouragement for investments in education by enabling tax allowances for education, but as studies show, those possibilities are used insufficiently.*

*The surveys show that enterprises are aware of the importance of skill development of employees. Considering still unsatisfactory awareness about the possibilities of using the state support and participation in educational programmes, there is need for informing about the importance of education and available educational programmes conducted by the state and other bodies, and the possibilities for encouraging their funding and co-financing. It is also important to intensify co-operation between firms and chambers. At the same time, it is necessary to continue the research on the need for education of entrepreneurs in general, in order to understand the effects, monitor progress, identify defects and propose measures for improvement.*

**Keywords:** SME, entrepreneurial skills, tax incentives, Croatia

### 1. Introduction

In global business competition the importance of knowledge became the key for the competitiveness and success of a firm and an economy as a whole (Bassani and Scarpetta, 2001). In achieving competitiveness of the economy entrepreneurial skills in small and medium enterprises (SME) are particularly important. Due to their business adaptability and flexibility SMEs are

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becoming the bearers of development and employ the majority of the labour force. Entrepreneurship and innovative approaches are important factors for the whole economy, particularly SMEs.

The development of the SME sector in Southeast European (SEE) countries, and providing the necessary support that this sector needs, is an important issue. International experience suggests that an efficient SME sector is conducive to rapid industrial growth and flexible industrial structure. SMEs help economies stay resilient in times of economic crisis (United Nations Inter-Agency Network on Women and Gender Equality, 2011). In order to achieve the goals defined in the countries' SME policy documents and increase the competitiveness of the enterprises, the first thing that should be done is raising the enterprises' capacities and considering what their real needs are in terms of trainings and skills for their employees. The priority is defining training needs because they can contribute to finding appropriate training programmes. Drafting better national policies and making the regional products and services more competitive on the domestic and foreign markets can be achieved by increasing the effectiveness and efficiency of the enterprises.

The employees of various educational backgrounds and professions could be competitive on the labour market, particularly in the knowledge economy and society. Expertise (formal education and training) alone is not sufficient: employees today have to be capable of creating, analysing and transforming information, communicating effectively as well as organizing and coordinating business activities. Developed communication skills, computer knowledge, and the ability and willingness to engage in further education and training are all sought-after qualities (Miyamoto, 2003).

In Croatia, in spite of improvements in qualification structure, there is still an insufficient level of education, skills and knowledge of employees. Also, there are weak connections between education, economy and the labour market. The participation in adult education and lifelong learning is also unfavourable (Agency for adult education, 2009). Entrepreneurial knowledge and skills did not reach the level required for successful participation in the international economic competition and still are not accepted as dominant factors for the success of the firms (CEPOR, 2007). Although the state provides for the financial support of investments in education through tax allowances, they are not used enough due to the administrative complexity.

Furthermore, without having a proper analysis or feedback from the SME sector, it is difficult to prepare policy documents as well as develop programmes and projects to tackle these issues. This also refers to the Training Needs Analysis (TNA). Although TNA is part of the SME policy documents, most of them are based only on desk research and thus do not always correspond to the needs of the enterprises. This creates a market for the training providers within which they cannot sell their products and services on the one hand, and enterprises that require trainings not offered by the market on the other hand.

## 2. Theoretical framework

Joseph Schumpeter (Schumpeter, 1947) known as the father of entrepreneurship, emphasized the importance of innovations for the economic growth and development: "Whenever successfully appears the new way of production, or when emerges a new thing which solves main problems in the business, becomes a lot simpler to the other people to do the same thing or even on the same base to improve it." Concluding that novelties in the way of the product, qualities, production possibilities, market, methods of managements and discovering of new resources are basic impulses which move the capitalistic engine, and entrepreneurs are *producers* of these novelties, Schumpeter puts the entrepreneurship on the central place of the market economy system. Entrepreneur is the bearer of change who with his engagement and mobilization of personal creative strengths puts the innovation in the function of the economic development.

The issue of whether entrepreneurship and related new technology lead to revolution or evolution is often discussed. Kranzberg (1986) provides Kranzberg's second law: "Necessity is the

mother of invention and entrepreneurship". He points out that one technological innovation will spur a necessity for others. In Kranzberg's third law he states that "Technology comes in packages: big and small." The fundamental point is that technology can be collected of a number of related subsystems that behave synergistically to produce the desired result. According to the Kranzberg's fourth law, entrepreneurship and technology may be the prime issue in many public discussions, nontechnical factors take precedence in technology policy decisions and they should not be neglected. His fifth law is "All history is relevant, but the history of technology is most relevant." From the mentioned statements and every day experience it is impossible to firmly provide an answer to the question of cause and effect. However, it is without a doubt that entrepreneurship is an activity which comprehensively satisfies the market needs and enriches supply, opens new workplaces, brings the necessary changes and provides new products, new markets as well as new consumers and new needs.

### 3. Institutional contexts on entrepreneurship and education

Although sometimes one can hear that entrepreneurs *are born and cannot be made*, there is no doubt that education and promotion of knowledge are important factors that contribute to the success of entrepreneurial activities. The first step of institutional context analysis is related to the description of current level of SME development and the existing business climate in Croatia in comparison with the situation in other SEE countries. The second step encompasses the activities directed to lifelong learning. In the third step the realised activities in entrepreneurial learning are explained.

#### a) First step: Level of SME development and existing business climate

*The Small and Medium-Sized Enterprises Policy Index*, prepared by the OECD, is a benchmarking tool for countries in SEE which evaluates progress in implementing the main policy framework for SME development elaborated in line with The Small Business Act for Europe. The 2010 edition of the SME Policy Index updates the 2007 and 2009 assessment, taking into account the effects of the global economic and financial crisis and includes a special section on promoting innovative, high-growth SMEs. The Index was developed by the OECD Investment Compact for SEE in co-operation with the EC, the European Bank for Reconstruction and Development and the European Training Foundation. It is based on the broader Investment Reform Index in methodology and construction, and adapted to the Small Business Act for Europe. The Index assesses the following policy dimensions:

- education and training for entrepreneurship
- cheaper and faster start-up
- better legislation and regulation
- availability of skills
- improving online access for tax filing and company registration
- getting more out of the Single Market
- taxation and financial matters
- strengthening the technological capacity of small enterprises
- successful e-business models and top class business support and
- developing stronger, more effective representation of small enterprises.

The OECD Investment Compact for SEE and its partner organisations first designed the SME Policy Index self-evaluation toolkit. Governments commented on preliminary scorings and final decisions on scores were made by the partner organisations. Final results of the SME Policy Index have been published in a comprehensive report *the Investment Reform Index* (OECD, 2011).

A broader measure of business climate is the World Bank (World Bank, 2011, 2012, 2013) *Doing Business Report*. It takes the perspective of domestic, primarily smaller companies and measures the regulations applied to them through their life cycle. The report ranks economies on the basis of 10 areas of regulation - for starting a business, dealing with construction permits, getting electricity, registering property, getting loans, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency (formerly closing a business). In addition, data are presented for regulations on employing workers. All SEE countries except the FYR of Macedonia and partially Montenegro are ranked relatively low, with almost no improvement.

**Table 1. Ranking of SEE countries in “Doing Business Report”**

Country	Ranking 2011	Ranking 2012	Ranking 2013	Ranking 2014
Albania	77	82	85	90
Bosnia and Herzegovina	127	125	126	131
Croatia	79	80	84	89
Kosovo*	117	117	98	86
the Former Yugoslav Republic of Macedonia	34	22	23	25
Montenegro	56	56	51	44
Serbia	88	92	86	93

Source: *Doing Business Report*, 2011, 2012, 2013

The third indicator is the *GEM 2011 Global Report* (CEPOR, 2011) which focuses on entrepreneurs and entrepreneurial employees across the globe. More than 140,000 adults (18-64 years of age) in 54 economies, spanning diverse geographies and a range of development levels were surveyed. Based on the survey, GEM estimated that 388 million entrepreneurs were actively engaged in starting and running new businesses in 2011, which appears mostly in factor driven economies. It is less frequent in the efficiency-driven and innovation-driven economies. From SEE countries Bosnia and Herzegovina, Croatia and Turkey have been included and sorted into *Efficiency-Driven Economies*, with the following rankings.

**Table 2. Entrepreneurial Perceptions, Intentions & Societal Attitudes in B&H and Croatia, 2011.**

	Perceived Opportunities	Perceived Capabilities	Fear of Entrepreneurial Failure	Entrepreneurial Intentions	Entrepreneurship as a Good Career Choice	High Status to Successful Entrepreneurs	Media Attention for Entrepreneurship
BH	20.5	48.9	30.5	17.2	82.2	71.0	42.7
HR	18.3	49.0	34.3	17.9	65.3	46.9	40.9

Source: *GEM 2011 Global Report*

Note: All other SEECEL member countries, except Turkey, are not included in the evaluated economies.

Briefly, business climate in Croatia is not favourable, while entrepreneurship is mostly deemed with suspect, which causes a lack and/or insufficient level of adequate learning.

### b) Second step: Level of development of lifelong learning

No adequate attention in Croatia nor in SEE countries has been directed towards promotion of lifelong education and learning. Lifelong learning can be defined as “all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective” (Commission of the European Communities, 2001). It may occur at all stages of life and in any form – formal or informal.

However, the situation in Croatia is gradually improving. The Lifelong Learning and Adult Education Strategy as a part of general Strategy of Development of Education Science (Vlada RH, 2014) is being prepared within the Croatian Qualifications Framework. This comprehensive document considers lifelong learning as the basis of the education sector whose goal is creating a knowledge-based society.

### c) Third step - Realised activities in entrepreneurial learning

Despite some improvements, there is still an insufficient level of education, skills and knowledge of employed persons in Croatia and in SEE countries. There are also weak connections between education, economy and the labour market. Furthermore, the participation in adult education and lifelong learning is unfavourable. The Croatian labour force does not have the knowledge and skills required for a modern competitive economy. The education and training systems, particularly entrepreneurial education, have not yet taken adequate steps to remedy this situation. The accession to the EU put further onus on Croatia to concentrate on its education system. The Croatian work-force should move towards knowledge-based industries and jobs and innovation-driven economic growth. Alongside this, workers should be able to change jobs quickly, manage themselves and others, and engage in continuous learning. Students and employees should learn to work together by developing a team spirit and appropriate social behaviour while at the same time allow their individual preferences to develop as a precondition for successful entrepreneurial activities (Bejaković, 2005).

The Croatian education system is slowly making the transition from a system that favoured rote-learning (memorising facts without applying them), discipline and lecturing to a system that fits the needs of democracy with globally integrated free-market that needs problem-solving skills, creativity, communication skills, and flexibility. Curricula and syllabi at all levels should be reformulated to bring them into closer correspondence with economic needs. Problem-solving abilities should be improved, teamwork should be encouraged and learning skills should be enhanced. Curricular reform should be accompanied by new textbooks, teacher guides and learning materials, changes in teaching methods and new measures of learning outcomes.

In response to the need for full support of the Lisbon goals with the goal to prepare citizens in knowledge-based economies, the EU published *Key Competences for Lifelong Learning European Reference Framework* (EU, 2014). Competences are defined here as a combination of knowledge, skills and attitudes appropriate to the context. Key competences are those which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment. The Reference Framework sets out eight key competences: communication in the mother tongue; communication in foreign languages; mathematical competence and basic competences in science and technology; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; and cultural awareness and expression. These key competences are all considered equally important as each of them can contribute to a successful life in a knowledge society. Many of the competences overlap and interlock: aspects essential to one domain will support competence in another. The Commission of the European Communities (2006) has outlined a set of recommendations aimed to enhance the role of education in creating a more entrepreneurial culture in European societies. Starting from an early age, school education should stimulate young people's awareness of entrepreneurship as options for their



future, and help them to be more creative and self-confident in whatever they undertake. At a later stage, universities and technical institutes should integrate entrepreneurship as an important part of the curriculum.

#### 4. The results of education needs survey in Croatian SMEs

In the past three years the Croatian Chamber of Economy (CCE) conducted an on-line survey on the educational needs in SMEs and craft businesses with attention to entrepreneurial skills. The used method was a self-response questionnaire upon own initiative of a firm after receiving the questionnaire. In 2010, 973 (or 26.6%) of total 3656 SMEs from the CCE database responded to the questionnaire, while 784 (21.4%) completed the full questionnaire. 399 of total 2661 craftsmen entities from the Croatian Chamber of Trade and Craft database responded to the questionnaire, while 359 (13.5%) completed responding. The main goal of the research and analysis was to identify skills, training and education needs. The survey questioned the importance of the following traits: readiness and openness for the improvement of business processes; readiness for facing the changes; capability of clear communication; capability and readiness for co-operation; taking own initiatives for discovering and proposing new solutions; readiness and dedication to lifelong learning; personal responsibility and readiness for the risk taking for own initiatives in the work; orientation towards the result, persistence and efficiency in the work, and positive attitude and readiness for work in multi-ethnic and multicultural environment. According to the results, orientation towards the result, persistence and efficiency in the work is the most important characteristic, followed by readiness for facing changes.

In the 2011 survey, a new on-line application was used for the first time, which allowed easy review of questions and multiple accesses to filling in the questionnaire. For this reason the questionnaire was divided in 3 categories: General data on SME/craft entity, financing of education and the future need for development. The participation in the interview (survey) was not obligatory, the examinees received the invitation and decided on their own whether to take part or not. Therefore a relatively low response to fulfilment of the questionnaire is not surprising. The questionnaire was responded by 510 (or 17.7%) of total 2,882 SMEs from the CCE database, while 455 (15.8%) completed responding. The questionnaire was responded by 250 of total 3,856 craftsmen entities from the CCTC database (or 6.5%), while 223 (5.8%) completed responding. The analysis proposed two main hypotheses that have been accepted at the end of the survey. The first hypothesis is that there is a need for employees' training, improving and education regardless of the size and/or activities in SMEs and crafts. The second tested hypothesis is that the system of state support is not fully appropriate. Thus, it is important to continue with the promotion, availability and simplicity of state support – particularly financing and fiscal - for human resources development and education.

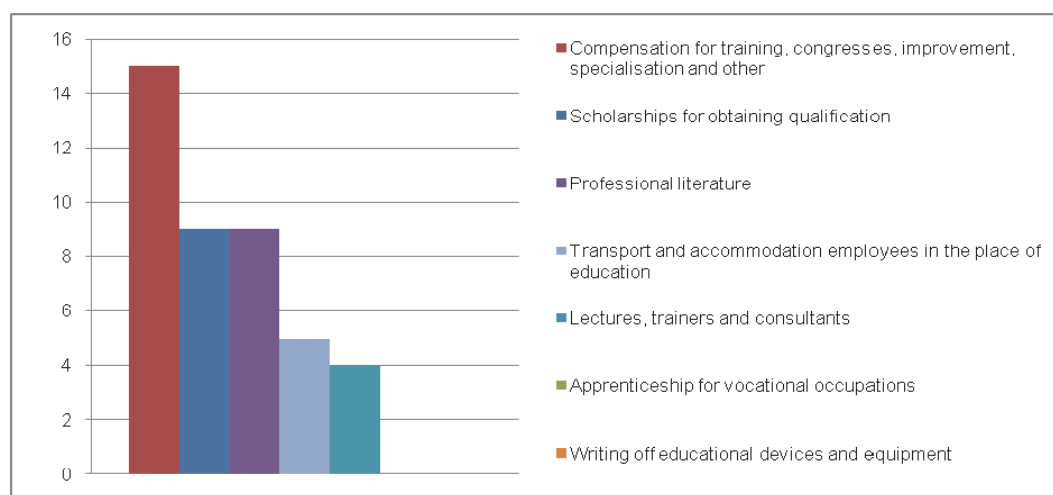
The 2010 questionnaire contained a question on the most common form of usage of governmental subsidies as tax incentives for educational programmes, used on average by 15% of enterprises from the SMEs sample. In the second place regarding the share of governmental subsidies usage was co-financing (5%), while the least in total financing of employees' development and education programmes (3%). Medium size enterprises use significantly more governmental subsidies than micro and small enterprises, which is a direct consequence of the need for constant development of employees' competencies, confirmed by the fact that strategic plans are more often prepared in medium size enterprises. Furthermore, it can be assumed that medium size enterprises are better equipped and educated for monitoring the trends and usage of governmental subsidies, while with micro and small enterprises it is illusionary to expect that they could pay adequate attention to this issue next to everyday business activities. Table 3 shows a comparison between results from year 2010 and previous year analysis regarding use of governmental subsidies for development and education of employees.

**Table 3.** Comparison regarding use of governmental subsidies for development and education of employees according to the type of subsidy, 2009-2010 (in %)

	2009	2009*	2010	2010/2009	2010/2009*
<b>Total financing of educational programmes</b>	1.28	1.72	3.29	257.0	191.3
<b>Co-financing of educational programmes</b>	5.24	6.87	5.29	100.9	77.0
<b>Tax incentives for educational programmes</b>	7.23	9.21	14.58	201.7	158.3

In 2009 three possible answers were provided on each category of governmental subsidies from the Table 3. First answer tackled the use of governmental subsidies for development and education of employees in the last 12 months, second on non-use, and third on insufficient information regarding the existence of governmental subsidies. As the methodology has been changed in comparison to 2009, Table 3 provides two results from 2009. The first result (2009) shows the share of positive answers in the total sample (*yes, no, not aware of their existence*), while the second (2009\*) presents the share of answers in the total sample that responded with *yes* or *no*, because non-information about the existence of governmental subsidies was excluded from the second analysis in 2009. In 2010, in comparison to 2009, there is an obvious increase in the use of governmental subsidies in the form of tax incentives for educational programmes and co-financing of educational programmes. At the same time the share of governmental subsidies in the form of co-financing of educational programmes stagnated according to the first indicators and decreased according to the second indicator by 23%. Regardless of the increased trend in the use of governmental subsidies, there is still a significant part of the entities that do not use the mentioned subsidies. Thus, there is a need to promote available possibilities to the broader public, as well as to inform business managers about the importance of education for successful economic action.

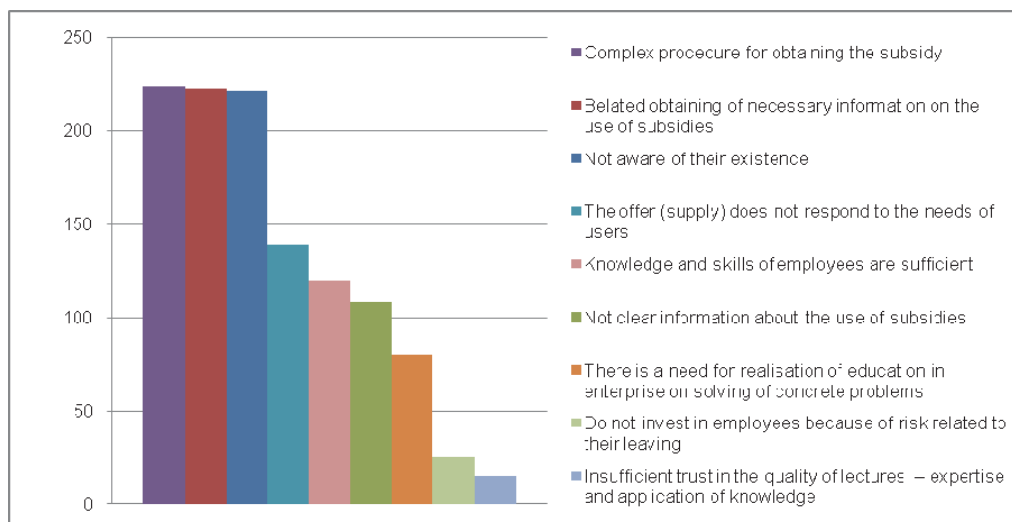
In the further text all three forms of governmental subsidies as well as their use and main reasons for non-utilisation are specified. In each of the Figures answers are ranged according to their shares, from the highest to the lowest.

**Figure 11.** The use of total financing of educational programmes

Governmental subsidies in the form of total financing of educational programmes were almost fully neglected and not at all used. In other words, from only three percent of enterprises in the sample that stated the use of total financing of educational programmes, the majority (65%) mentioned that they use it for training, congresses; skilling and specialisation, while 39% use it as scholarships for obtaining qualifications and for buying the technical literature. It is interesting

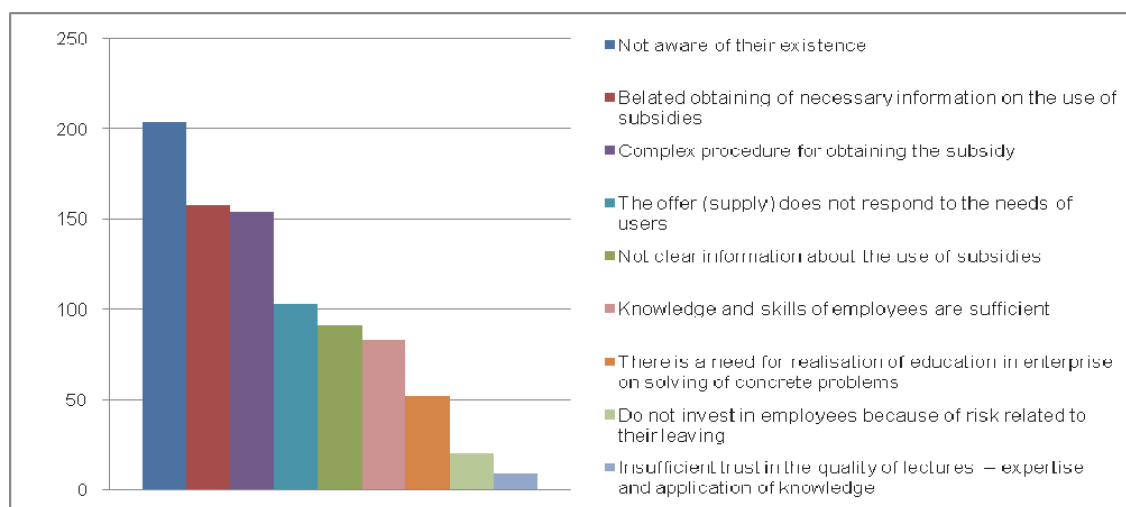
that total financing of educational programs were not at all mentioned for covering the costs of apprenticeship for crafts occupation and educational devices and equipment depreciation.

**Figure 2.** *The reasons for not using of subsidies in the form of total financing of educational programmes (axis y: number of firms)*



The main reason for neglecting subsidies is the complex procedure for obtaining one. This could be a reason why interviewed persons obviously did not have the motivation to use them. The interviewed persons believe that complex procedures and bureaucracy require a lot of time and pay such programmes from their own resources. A further important reason for not using existing subsidies is the users' lack of information or belated obtaining of information or complete lack of knowledge thereof. Micro enterprises more often lack the information about the existence of total financing of educational programmes (38%) in comparison with small (31%) and medium size enterprises (25%). The blame for the lack of information and the culprit for their non-usage is not only on SMEs, but also on the bodies responsible for provision of subsidies. It can be assumed that a permanent and relatively cheap presentation campaign of subsidies in the public would enable significantly better results in their usage. In all related activities state, local and regional bodies as well as other business associations and organisations should have a more active role. It is interesting to stress that 18% of the interviewed persons from the entities non-users of total financing of educational programmes stated that knowledge and skills of their employees are sufficient, and thus, there is no need for subsidies.

Similar results can be seen in the implementation of co-financing of educational programmes. Out of five percent of enterprises in the analysed sample that use subsidies, 61% mentioned that they use it for training, congresses; skilling and specialisation, while 39% use it as scholarships for obtaining qualification.

**Figure 3. Reasons for not using subsidies in the form of co-financing**

The main reason for not using subsidies is a lack of information on existing governmental subsidies in the form of co-financing of educational programmes, mentioned by 37% of the interviewed persons that had not used them in the last 12 months. A significant part of interviewed persons had not used them because of the delayed obtaining of necessary information about their use (28%) as well as complex procedures for obtaining the subsidies (28%).

## 5. Fiscal support for human resource development and education

As mentioned, the Croatian tax system provides a possibility of tax allowance for investing in education. In 2007 changes were introduced to encourage companies' investments in education of their employees. Previously, the provisions on tax reductions were a part of the Profit Tax Act, but the harmonisation with the *acquis communautaire* lead to introduction of state aid for education and training. The Profit Tax Act enables the tax payer to reduce their corporate tax base by the amount of state aid in the form of tax allowance, as further set out by the Act on State Aid for Education and Training<sup>263</sup>. The state aid may be used by all taxpayers incurring expenses for education and training (Amidžić-Peročević, 2013).

The Act distinguishes general and special education and training. General education and training is not directly and primarily intended for the present or future position of the worker with an employer using the tax allowance, but enables the worker to acquire qualifications mostly transferable to other employers and hence significantly improves the employability of the worker. Special education and training is directly and primarily intended for the current or future position of the worker with the entrepreneur using tax allowance and enables acquiring qualification non-transferable or only partly transferable to other employers or work procedures. Eligible costs for education and training include tuition fees for educational institutions (only for general education), seminar and course fees, expenses of tutors, counselling regarding educational projects, technical literature (books, journals) and depreciation of devices and equipment used for education and training. Eligible costs of general and special education and training may only be paid for workers employed by beneficiaries of state aid and must be related to their business activities. If

<sup>263</sup> Zakon o državnoj potpori za obrazovanje i izobrazbu, only available in Croatian in Narodne novine (Official Gazette) Nos. 109/07, 134/07, 152/08

general or special education and training are held outside the place of the worker's residence, eligible costs include transport and accommodation as well as a daily allowance. In practice, general education and training is more frequent than special (Amidžić-Peročević, 2013).

Large entrepreneurs may reduce their tax base for up to 50% of eligible costs for general education and training and up to 25% of costs for special education and training of workers. A small or medium sized entrepreneur may reduce their tax base by up to 70% of eligible costs in the case of general education and training and up to 35% of costs in the case of special education and training.

An additional increase of the state aid of 10% may be used for entrepreneurs from Central, Eastern or Adriatic parts of Croatia. A reduction of 5% is provided for users from Northwestern Croatia. State aid users performing activities of maritime transport may reduce their tax base by up to 100% of eligible costs for education and training, regardless whether education and training is general or special, under the condition that the education is performed on registered ships and that the educated person is a reserve member of the crew. For workers in an unfavourable position, the user of the state aid may increase the reduction of tax base by 10 percentage points.

An entrepreneur organising apprenticeship for craft professions in their workshops may reduce the tax base by the amount of paid rewards to the apprentices during their training (approximately 210 EUR per month). Entrepreneurs holding one to three apprentices may reduce the tax base by 5% and those holding more than three apprentices may increase the reduction by one percentage point per apprentice, up to 15% of the tax base.

The aim of the described state aid is to allow the cost of education to be used twice as a tax base reduction – once as it regularly reduces corporate income tax base as tax allowance and the second time as a state aid in the form of tax allowance (Guzić, 2007). A similar system is applied in Austria, the allowance being equal to 20% of the eligible costs. Lithuania allows the educational costs for employees to be capitalized as intangible fixed assets which may be amortized over a period of 4 years under the straight-line method (IBFD, 2013). Šimović lists this form of state aid as one of the fiscal system instruments with the goal of building a competitive economy (Šimović, 2008).

## 6. Conclusion

Innovations have been perceived as crucial for the economic growth and development. Hence, the process of globalization, economic restructuring and development of competitive economy, demographic factors and the building knowledge-based society and economy make it imperative for Croatia to effectively plan and manage its education system and pay more attention to long-term forecasting of labour market needs and its improving.

Keeping up with the rest of developed countries requires investments in human capital and development of high skills. Although Croatian workers are perceived as mostly well educated, employers are frequently faced with the challenge of finding appropriate and skilled workers. The improvement of workers' education and skills is the key element in overcoming the problem of such a skill mismatch. Participation rates in education should be raised throughout the educational system, particularly lifelong learning and adult education at all levels.

Although some improvement has been achieved since 2009, users are still insufficiently informed about the state supports for employee education and development. Medium size enterprises use more state supports for employee education and development than micro and small enterprises. Tax reductions are the most used forms of state supports, while the scope of co-financing and total financing of programmes for employee education and development is almost negligible. No doubt that there is a need for constant promotion of existing support and elimination of bureaucratic hindrances that impede their broader usage.

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## KNOWLEDGE AND SKILLS OF MANAGERS IN MODERN ECONOMY

Slaviša KOVAČEVIĆ<sup>264</sup>, Dragana DOŠENOVIC<sup>265</sup>, Dijana BOJIĆ<sup>266</sup>

### Abstract

*Managers' possession of the necessary level of knowledge and skills in modern business systems is key to the success of business and the achievement of objectives of each organization. Just for this reason the purpose of this study is to show the existence of different knowledge and skills the managers require, as well as to point out to their importance for achieving positive business results.*

*Although different classifications of managerial knowledge were made in literature, it can be certainly said that every manager needs a certain managerial and non-managerial knowledge that is technical, interpersonal and conceptual knowledge. In addition to the mentioned classification, we often come across the classification of knowledge on the functional, systemic and knowledge from the situation analysis. When it comes to management skills, it can be said that personal, interpersonal, communication and group skills are certainly necessary for effective realization of business activities.*

*Based on the performed analysis and research, the study concluded that the existing level of knowledge and skills of managers in business systems directly affect the performance of the entire business system whereby the importance of selecting managers in every business is emphasized.*

**Keywords:** managerial knowledge, managerial skills, business system, business result

### 1. Introduction

The question of what actually causes the unsuccessful functioning of business systems in the Republic of Srpska, but also of numerous business systems of the world often arises nowadays. However, the answer to this question comprises numerous reasons that are often lacking progress and positive business results. However, it can be surely said that one of the biggest causes is certainly not enough professional management that is on the top of business management system, or at the head of its organizational units.

If different procedures and ways in which managers come to their positions are ignored, it is obvious that in most business systems there is a huge gap between those who currently perform managerial functions and desirable managers who are able to successfully run the company. Existing differences are usually related to lack of various knowledge and skills that the managers should possess in order to be able to successfully carry out their activities.

Based on the aforesaid, the research problem in this study, could be defined most easily in the form of question: *Whether and how the level of existing knowledge and skills of managers affects the operating result in the companies?*

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In view of the defined research problem, which is economic in nature, the area of economy can be specified as *the subject of research* in this study, especially the part that is related to the management, with a focus on human resources management, but also the area of sociology, psychology and other sciences that deal with the study of a man itself, his traits and behaviors.

Based on the previously defined problem and subject of the research, the main objective it is started from in this study can be defined as well, and that is: *to establish and explain the impact of the current level of knowledge and skills of managers on the operating result in business systems.*

As a response to a question that is formulated in the research problem, it has been hypothesized in this study that states: *the current level of knowledge and skills of managers in business systems directly affect the operating results of the entire system.*

In order to achieve the objectives of this study, it is necessary to test the hypothesis. The analysis of domestic and foreign literature, previously conducted research in this area, thematic articles and databases on the Internet will be executed. A wider insight into the observed phenomenon will be provided by collection, processing, analysis and synthesis of the stated secondary data, which will allow clarification of the existence and intensity of the cause-and-effect relationship between the level of knowledge and skills of managers and performance of the company. Several general scientific methods of research will be used at the stage of data and information collection and they are: method of induction, method of deduction, method of analysis, method of synthesis, method of classification and method of comparison. The technique of classification and the technique of content analysis will be used out of the techniques of data collection.

## **2. Managerial knowledge and managerial skills**

### ***2.1. Defining managerial knowledge, concept and importance of managerial skills***

As the management considers the profession and managers professionals who are trained to carry out their activities in a professional manner, it can be said that this profession possesses a specific set of knowledge as well. In order to have the company successfully running a business, and managers efficiently and effectively carrying out their activities, it is necessary that they have a certain knowledge which is usually acquired through an educational process, or education at colleges, various business schools, courses, seminars, etc. In order to be successful besides possessing adequate knowledge, it is necessary that they apply their knowledge adequately and effectively in carrying out their activities.

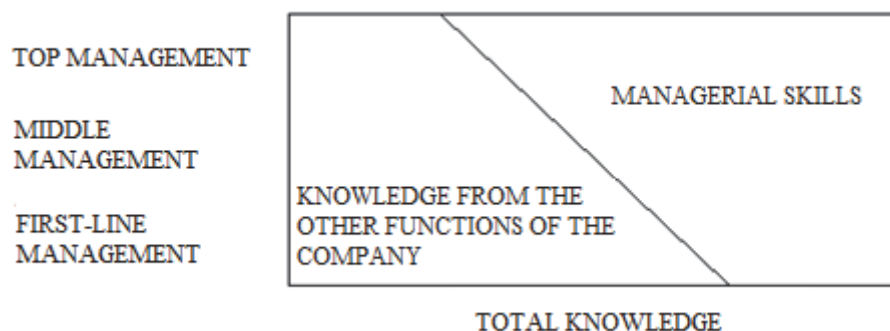
Since the managerial profession is one of the most attractive and the best paid in the world, it is not surprising that many authors have attempted to define and classify the required general knowledge or there are some specialized knowledges that are required of every manager. As an answer to this question it is often pointed out that the knowledge that individual managers require varies depending on their position in the organization, so the managers at the highest level need general knowledge, while the middle-level managers and especially the first -level managers require possession of specialist knowledge.

### ***2.2. Classification of managerial knowledge***

Managerial skills, i.e. the knowledge that managers need to carry out their business activities were already defined in the past by the famous theorist Henri Fajol. He considered that in every

company all managers must possess certain knowledge from the functional spheres of work (function) of the company: technical, commercial, financial, security, accounting and administration. However, although all managers must possess knowledge of the functions described above, they don't have to be the same with every manager. This knowledge varies depending on the type of manager or i.e. the manager level in the organization, so the skills required for the highest level of management (top management) can be distinguished from the knowledge needed for the middle level, or the first (lowest) level of management. The following figure shows the knowledge that different levels of management should have according to Fajol.

**Figure 1.** Knowledge necessary to managers at different levels according to Fajol



Source: Bađuh, M; Jlykuh, Z. (2009)., *Management - Theories, functions, institutional aspects and corporate governance*, Belgrade: Kiz "Center", Faculty of Economics, University of Banja Luka, p. 28

It is visible from the previous picture that the managerial skills are present with the top-level managers. They are dominant and they form the core of their work, while the required level of knowledge from the other functions of the company is significantly lower. Unlike the highest, with the lowest level of management the high level of required knowledge from other functional areas of the company is noticeable while the share of managerial knowledge is more modest. From the above it can be concluded that, according to Fajol, the level of required managerial skills increases with the increase of the level in organization, while the level of knowledge from the other functions of the company decreases, and vice versa.

Robert L. Kac (Robert L. Katz) performed the classification of managerial knowledge besides Fajol. According to this theorist every manager in order to be successful in carrying out its activities must possess the following knowledge:<sup>267</sup>

1. technical knowledge,
2. interpersonal knowledge,
3. conceptual knowledge.

Technical skills are knowledges from the basic business the business system deals with, and they refer to the ability of using tools, resources and existing technology. One can say that this knowledge is identical with Fajol's knowledge from the defined functional areas of work, besides the knowledge from the managerial functions. Just like Fajol, Kac claims as well that all managers must have some technical knowledge regardless of the hierarchical level at which they are located.

Interpersonal, i.e. humanistic knowledge are those knowledges related to the ability to work with people, their conduct and coordination. These knowledges allow managers to be acquainted with immaterial elements of the organisation, such as relationships between people, the existence

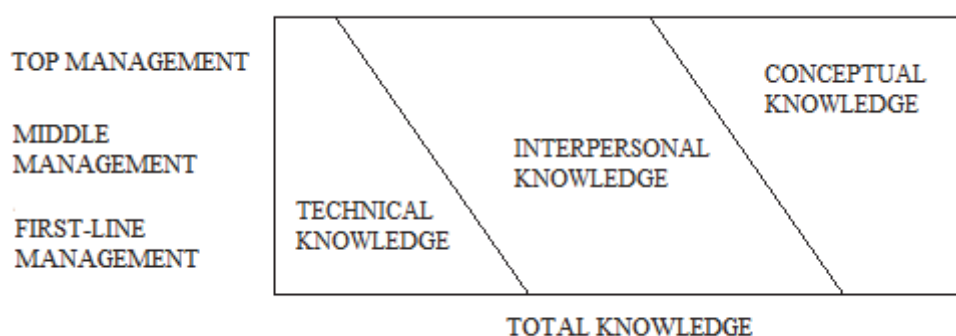
<sup>267</sup> Babic, M, Lukic, Z. (2009)., *Management - Theories, functions, and institutional aspects of corporate governance*, Belgrade: Kiz "Center", Faculty of Economics, University of Banja Luka, p. 29

of groups within the organization, the importance of the formation of informal groups, internal communication, ways of solving conflicts, and so on. All managers need equally this kind of knowledge, regardless of hierarchical level, because all of them must be able to work with people from their environment (those ones who are at the same, higher or lower hierarchical level).

Conceptual knowledge present the group of most important knowledges as they enable the recognition of the organization as a whole, i.e. the whole complex system which consists of several subsystems, and which is at the same time connected and dependent on its environment. Possessing this kind of knowledge manager is able to make quality decisions and effectively manage any business system, its parts, and individuals.

As Fajol, Kac also believes that every manager must possess the mentioned knowledge, but that their share in the totally necessary knowledge is variable depending on the hierarchical level in the organization, or that is on the position of manager. Share of this knowledge in the total required knowledge is represented by the following figure.

**Figure 2.** Knowledge necessary to managers of different levels according to Kac



Source: Babic, M, Lukic, Z. (2009). *Ibid*, p. 29

Based on the previous figure it is evident that the conceptual knowledges are most important for top managers, while technical knowledge dominates at lower levels. Interpersonal knowledge has the same significance for each level in the organization. Based on the aforementioned it can be concluded that with the increase of the hierarchical level in the organization increases the level of necessary conceptual knowledge for managers as well, decreases the level of technical knowledge, while the level of human knowledge remains the same.

According to modern theories a successful manager should have the following knowledge:

1. functional knowledge,
2. system knowledge,
3. knowledge from the situation analysis.

Functional skills enable managers to use the basic managerial functions in their work: planning, organizing, human resource management, influencing and controlling, while systemic knowledge enables analyzing and managing business system as a complex system that consists of several parts, which are directed jointly towards the achievement of the set objectives. Knowledge from the situation analysis enables a manager to use the previous two groups of knowledge to analyze and solve general tasks, but also the individual ones and specific situations and problems. In this way, each control situation is especially considered and adequate solutions using functional and system knowledge are sought for it.

### ***2.3. Defining managerial skills, concept and importance of managerial skills***

Besides the mentioned knowledge the managers require in order to successfully carry out their business activities they must possess certain skills that can be defined as a set of specific skills that result from knowledge, information, practice and talent.<sup>268</sup>

Different authors state different skills that are necessary to the managers in the organization. However, the importance of certain skills is not the same for all managers, it depends on the position of a manager in the organization and the nature of the work that managers perform, thus the level of skills required for the various positions in the organization is variable. Thus, managers must develop different skills if they want to effectively perform the assigned tasks and achieve the set objectives.

### ***2.4. Classification of managerial skills***

There are many classifications of managerial skills that can be found in the literature, and one of the most commonly used is the classification that includes the following skills:<sup>269</sup>

1. personal skills,
2. interpersonal skills,
3. communication skills,
4. group skills.

#### ***2.4.1. Personal skills***

*Personal skills* every manager should possess are usually classified into two groups that are including time management skills and the art of delegation.<sup>270</sup>

*Time management skill* is one of the personal skills that every manager should possess. This skill is essential for every human being and especially for the managers because their business success, but also the business success of the organization as a whole depends just of good organization of the time. The reason for this lies in the fact that time is scarce, limited and ir retrievable resource, but that the good time management skill can be developed and improved. For manager's business this skill is very important because those who know how to manage their time, perform easily their activities, without stress and on time. In contrast, the managers who badly manage their time are always late, do not complete their work on time and therefore are constantly exposed to stress.

In order to have the manager manage his time well, it is necessary to make a difference between the activities that are important from those that are less important for business success. So it is necessary that he divides his activities into several groups: priorities, time obligations, preferred activities and activities that waste time (so called the time-eaters).<sup>271</sup> Priorities are related to the most important manager's activities that contribute most to the achievement of the set objectives of the organization, while the time obligations are much less important activities that include

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<sup>268</sup> Han, S. (1981). Epistemological approach to organizational sciences, Director 11-12, p. 93

<sup>269</sup> Bahtijarević-Siber, F., Sikavica, P., Pološki Vokić-N. (2008). *Modern management - skills, systems and challenges*, Školska knjiga, Zagreb, p. 1

<sup>270</sup> Bahtijarević-Siber, F., Sikavica, P., Pološki Vokić-N. (2008)., Ibid, p. 2

<sup>271</sup> Taylor, H. L. (1991). *Delegate, the key to successful management*, Warner Books, New York, p. 38



various meetings, business trips, phone calls and conversations, writing letters and reports etc. Preferred activities include that group of activities that make the business environment more comfortable and beautiful, but which are not essential for the success of the organization. Activities that waste time are irrelevant and undesirable activities that do not contribute to achieving the organization's objectives, and which relate to the search of forgotten things, perfectionism, idleness, tumbling paper, non-listening, caring, inability to say "no" to others, irresolution, procrastination, forgetting, etc.

The importance of good time management skill originates from the numerous benefits that this skill allows, and numerous tips that can help managers to properly use time are defined in practice.

One more of personal skills is certainly *the art of delegation*, which refers to the ability of transferring the authorization and responsibility to associates, i.e. to the lower levels of management. The need for delegation originates from the fact that there is always only one person on the top of any organization, regardless of its size. With the growth of the organization this top manager is not itself able to carry out all its activities, and he must delegate part of its duties, authorizations and responsibilities to his subordinates. The same happens with the other managers in the organization, so we can say that the importance of delegation increases with the growth of the company but also with the manager's advances towards the top of the company. Some authors consider delegation as even the most important managerial skill because a good manager can be exactly distinguished from a bad one by the ability to accomplish its tasks with the help of other people, or by delegation. The same authors hold that delegating is not a talent someone is born with, but it's a skill that must be learned.<sup>272</sup>

Although delegating brings many benefits for the organization, many managers avoid this process because regardless of transferring tasks, authorizations or rights of decision-making, they retain part of the responsibility for the results achieved. However, studies have shown that these are precisely those managers who have problems and difficulties in carrying out their activities. For this reason it is considered that the skill of delegating is one of key ones to the success of any manager.

#### 2.4.2. Interpersonal skills

Looking at the development of interpersonal skills through history, it can be concluded that they are at the present time, i.e. at the time of information technology more complex, but also more important than they were in the past. The reason for this is the fact that together along with the increase of possibilities and forms of communication and interaction also increases the required degree of sensitivity in interpersonal interactions, and therefore interpersonal skills are considered as 21 century skills. The proofs for this are numerous studies which exactly associate the failure in business with the lack of these skills.

Interpersonal skills comprise a multitude of skills and competencies required to successfully perform the job. These skills enable the harmonious and successful work with people, thus they can be most briefly and simply defined as the skills of establishment of good relations and cooperation with others. In a broader sense, the interpersonal skills imply the abilities and skills of managers and leaders, and others as well, to develop good relations and cooperation with others, to influence their behavior, to encourage, develop and promote others, as well as to successfully manage interactions and networks of relationships. Usually the interpersonal skills include: the skill of developing good relations and cooperation, the skill of influencing others, counseling and training skill, and networking skill.<sup>273</sup>

<sup>272</sup> Jenks, J. M. Kelly, J. M. (1995). *Don't Do. Delegate!*, 2nd ed., Kogan Page, London, p. 11-16.

<sup>273</sup> Bahtijarević-Siber, F., Sikavica, P., Pološki Vokić-N. (2008)., Ibid, p. 52

*The skill of developing good relations and cooperation* is one of the essential skills as it is believed that good relations between managers and employees bring many benefits. Organization with good and quality relationships has higher productivity, solves problems more easily and better, provides higher quality of products and services, and has fewer conflicts as well. Certainly one of the most important skills of each manager is *the skill of influencing others* through which the manager provides the performance of activities with the help of colleagues by directing their behavior.

It is believed that successful and powerful are those managers who can achieve more personally and provide resources and incentives needed to make their associates achieve more. *Networking skill* refers to the process with the help of which a manager can achieve a competitive advantage thanks to groups of individuals or groups it is often in contact with and whom it trusts to. The importance of networking originates from the fact that the networks of acquaintances are still necessary for the success besides the talent, knowledge, dedication, ability and self-confidence. They allow faster and easier solving of various disturbances and problems. For managers, the networks of contacts are very important because they allow them to expand the influence and success as well as to reach various information.

### 2.4.3. Communication skills

Numerous surveys indicate how important communication skills are which show that the managers spend most of their time (80 %) on communication. This applies to all managers, regardless of their level or position in the organization.

Communication skills are crucial for most activities of managers, while the inability to communicate is considered one of the ten biggest obstacles to the success of managers. Regardless how good a manager is and how large his knowledge is, his ideas remain unapplied if he passes badly his ideas to the others.

Communication can be most easily defined as a process of conveying information, thus the communication skills are related to the ability of sending and receiving information, thoughts, feelings and attitudes. Those are the skills of clear and concise formation and transmission of thoughts, ideas and messages to the others verbally and in writing.<sup>274</sup>

Communication skills comprise written communications and oral communications. Written communications relate to the ability of a clear expression and transmission of ideas, views and information in a written form. The importance of these skills for managers is growing with the development of information technology, because the written form becomes the main form of modern communication. On the other hand, vague message creates confusion and devalues other managerial skills which are expressed in communicating, and it is counterproductive.

Considering that managers are constantly in contact with other managers, their associates, clients and various interest groups, oral communication skills are one of the most important means for achieving business success.

Communication skills are a prerequisite of successful performance of all managerial activities and they are the assumption of individual and organizational success. On the other hand, as a result of poor communication various problems with motivation, fluctuation, absenteeism, lack of innovation and low operating performance arise. Communication skills can be divided into three groups which comprise: interpersonal communication skills, presentation skills and negotiation skills.<sup>275</sup>

*Skills of interpersonal communication* are skills of open. That is of cooperative communication whereby a message is conveyed accurately, emphasizing the mutual respect and cooperation,

<sup>274</sup>Bahtijarević-Siber, F., Sikavica, p., Pološki Vokić-N. (2008)., Ibid, p. 94

<sup>275</sup>Bahtijarević-Siber, F., Sikavica, p., Pološki Vokić-N. (2008)., Ibid, p. 98

encouraging good relations and understanding between people who communicate. The importance of these skills is demonstrated by the fact that in the world there are numerous institutes of cooperative communication skills. *Presentation skill* is very important for managers who as part of their work must represent the organization; give speeches on different occasions, present their ideas and business information, problems, projects and plans, both in the organization and outside it. In such a way presentation becomes an important segment of communication between managers and other parties. Numerous books and professional literature that are used to help managers to make a successful presentation tell how important the presentation is.

*Negotiation skill* refers to a process in which two or more persons who have different and conflicting interests meet to reach an agreement. During negotiations the ways are found to gain something from the person who wants something from us. In this way, various disputes and conflicts are solved with the help of negotiation and the desired objectives are achieved. When it comes to organizations, the negotiation is related to managers who daily negotiate within, but also outside the organization. In the organization they negotiate with superiors, subordinates, associates, various groups and individuals, while the negotiations with customers, suppliers, business partners and others are held outside the organization.

#### 2.4.4. Group skills

When group skills the managers in the organization need are in matter, they can be classified into the following skills: group management, conflict management and change management.<sup>276</sup>

In modern time the work in teams and groups becomes a fundamental way for the reorganization of work and organization. In fact, groups and teams are the main characteristics of organizational life and a fundamental element in the structure of each organization. Each large organization is "team of teams", and a small group or team is incomplete and simplified model of the organization as a whole. Thus understanding of teams and groups is of great importance for managers, and *skills of managing groups and teams* are the basis for successful running of the company.

One more of the essential skills that every manager needs to have is *the conflict management skills*, because they are an inevitable part of human activity and natural phenomenon that happens every day in private and work environment. Conflicts are situations in which thoughts, desires, or actions of individuals or groups are incompatible, and arise when individuals or groups believe that others are trying to prevent them in achieving their goals.

The necessity of *the change management skill* is the result of contemporary market conditions that are characterized by dynamic, unstable and chaotic. In order to make the organization operating successfully, it must constantly adapt to the changes that come from the environment, but also to the changes that come from inside the organization itself. However, in order to achieve the competitive advantage it is not enough just to adapt, but it is necessary to create changes as well. Responsibility change holder in organizations is certainly the management, and their skills, i.e. the ability of successful change management becomes the key to a successful business. Changes that occur in the organization are related to the process of changing, i.e. adapting the existing organization, whereby the new ideas or behavior of the organization are accepted.

### 3. Conclusion

When we look at the business systems around the world, studies have shown that a large number of these systems do not achieve significant progress, do not reach the set objectives, do not

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<sup>276</sup>Bahtijarević-Siber, F., Sikavica, P., Pološki Vokić-N. (2008)., Ibid, p. 148

achieve planned results, and often operate with the occurrence of certain losses. Numerous studies have been performed in order to determine which are the most common causes of unsuccessful business of enterprises, and their results, among other things, indicate the incompetent management of business systems as one of the major causes.

Based on the surveys done in order to make this study it can be concluded that the existing knowledge and skills of all managers in the organization are of crucial importance for the overall operation of the whole system. It can be said that it is necessary that every manager, regardless of the position it is placed on, possesses a certain level of not only managerial, but also of non-managerial knowledge. These knowledges comprise different technical, interpersonal and conceptual knowledge. On the other hand, according to modern theories managers should possess different functional, systemic and knowledge from the situation analysis as well. Besides the mentioned knowledges, the managers should possess the appropriate skills such as personal skills, interpersonal skills, communication skills and group skills as well in order to successfully perform the business activities.

The main purpose of this study is to provide an insight and draw attention to different knowledge and skills that are needed for managers in business systems, and that in that way, with the help of the existing theoretical solutions, the selection of appropriate managers is to be enabled and facilitated. Choosing the managers of appropriate profiles, but also motivating the existing managers to develop the necessary knowledge and skills by using various methods and programs will lead to the realization of many benefits that come along with more efficient business. For this reason, the importance of not only formal, academic education, but also of all other forms of non-formal education through which new knowledge and skills that are necessary for conducting business activities can be achieved is emphasized.

If managers in business systems do not possess the appropriate level of specified knowledge and skills, managerial activities are carried out in less efficient way, and as a result many negative effects occur on the overall result. On the basis of the aforesaid it can be concluded that the set hypothesis is correct, i.e. that the existing knowledge and skills of the managers in business systems directly affect the operating results of the company.

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## MANAGERIAL POSITIONS AND ACADEMIC CAREERS IN HIGHER EDUCATION

Dražena GAŠPAR<sup>277</sup>, Mirela MABIĆ<sup>278</sup>

### Abstract

*The paper presents results of research related to the effect of managerial positions on academic careers in higher education made by the authors at the public universities in Bosnia and Herzegovina. This research was based on a survey of representative number of former and actual rectors, vice rectors, deans and vice deans at public universities in Bosnia and Herzegovina. The authors developed questionnaire in order to investigate the perception related to the effect of managerial position on development of academic careers in the public higher education institutions in Bosnia and Herzegovina. Namely, today is not possible to think of a single field that has not faced yet the transformations triggered by global competitiveness. Higher education is no exception. The traditional system of education appears to be inadequate to keep up with the speed of developments and to come up with quick solutions. Surviving, performing and thriving on the global market largely depend on the capacity of the education system to adapt to the multiple changes in the environment. There is no surprise that universities must turn to a different managerial approach if they seek a higher rate of success and a high degree of competitiveness on the market. So, positions like rector, vice rector, dean or vice dean have become real managerial positions and full time jobs. But, at all public universities in Bosnia and Herzegovina on these positions could be elected only academic staff with adequate academic titles, regardless to managerial knowledge and/or experience. Since managerial positions are full time jobs that do not leave a lot of time for academic work, it is not unusual that younger academic staff avoid these positions because of fear that they could threat their academic careers.*

*Namely, promotion criteria for academic titles in higher education in Bosnia and Herzegovina are defined by laws (state, entity and cantonal) and they do not evaluate engagement on managerial positions like rector, vice rector, dean or vice dean, bur just contribution in academic field.*

*The aim of this research was to investigate what is perception of former and actual rectors, vice rectors, deans and vice deans related to the effect of their managerial positions to their academic careers.*

**Keywords:** Higher education, Management, Academic careers

### 1. Introduction

Last fourteen years the European Commission has continuously emphasized the role of universities in contributing to the knowledge society and economy (EC; 2005a, Eurydice; 2008), stressing that “Europe must strengthen the three poles of its knowledge triangle: education, research and innovation. Universities are essential in all three” (EC, 2005b). Appropriate governance struc-

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tures and processes are frequently regarded as a precondition to achieve these goals. Sound governance, competent and accountable management, transparent and coherent institutional quality processes have risen to the top of the work agenda of European university leaders last decade. They have to cope with the major challenges of change (Bologna reforms, the building of the European research and higher education area (EHEA and ERA) and increasing global competition) which higher education institutions across Europe are facing (EUA, 2007). Universities are competing for funding and resources in a global marketplace and responding through the adoption of more ‘business-like’ approaches to leadership, management and performance. With an increasingly competitive environment at institutional level, it is likely that universities will attempt to enhance organisational performance and outputs in ways that are aligned with organisational strategy whether or not they match the values, identities and/or aspirations of academics per se. This dynamic will inevitably put pressure on ‘academic leadership’. Concerns relating to institutional brand, market position and performance may drive academic management in ways that meet ‘corporate’, rather than ‘academic’, priorities.

A corporate approach to management and leadership in higher education tends to bring with it a focus on the accomplishment of institutional goals and objectives through processes of alignment and a narrowing of what is regarded as high-quality academic work through the application of metrics and performance targets, thereby diminishing opportunities for academics to self-determine their own sense of direction and in so doing undermining their commitment to the institution and the profession (LFHE, 2012).

At a round-table discussion held by the Leadership Foundation for Higher Education (LFHE) in May 2013, senior academic and managerial staff debated how successful higher education institutions will be governed, managed and led (OBHE, 2013). One of the conclusions was that decisive leadership requires centralisation of purpose and functions. But there is a trade-off: the movement of decision-making upwards from individual departments to senior managers’ impacts on the autonomy of academic staff. When university leaders do not have academic staff on board for major initiatives, things go wrong. Likewise, governing bodies, which should be the location of risk assessment, impact on management. Within all of these dynamics, balances need to be found. Finding the best balance between fostering academic autonomy and adopting a culture of greater accountability requires skill. Leaders and managers need not only to uphold the core missions and values of their institutions; they need to communicate these effectively to staff and students (OBHE, 2013).

It is obvious that universities across Europe have to reflect on their role, develop strategies and review their delivery and management. At the same time it has also shown the wide differences that exist between European HEIs in national context, structure and culture and the many barriers to institutional management (EUA, 2007):

- A lack of institutional identity, of vision and strategy,
- High resistance to change and to performance evaluation,
- Absence of people management and development, and knowledge thereof,
- The difficulty inherent in abandoning the comfortable dependence on government for the more challenging aspects of true autonomy.

Higher education institutions are somewhat unusual organisations. There are some reasons for that (OBHE, 2013):

- Most of them have long histories (even some of the ‘so called’ new ones), so it is important to respect the traditions and values which have developed over time.
- HEI’s are complex organisations; unlike many other bodies they do not have a single, or simple, set of criteria which define ‘success’.
- HEI’s employ bright individuals, and people who often have very well developed skills of critique. Many on the academic side also have a limited association with their organisation



whilst at the same time having a much stronger connection with colleagues in their field of academic enquiry.

- Fourth, a wide range of professional and academic sub-cultures predominate, and anyone attempting to exert influence will need a very good appreciation of these cultural similarities and differences.
- For many academics, the role of manager-leader is often a part-time role and one which is held for a limited period of time.
- Processes of leadership and management are subject to a complex set of checks and balances through several governance, executive and academic bodies. Attempting to make change happen and be sustainable over time therefore requires high levels of influencing skills together with political awareness and astuteness.

The most of the recent research (EU and non EU) related to leadership and management of higher education (LFHE, 2012; OBHE, 2013; OECD, 2013) and human resource management (AH, 2012; TEMPUS 2012) have recognised that the acquisition of management and leadership competences is pivotal for institutional autonomy and the shaping of an organisation. Namely, people management is a task which cannot be delegated and which requires leaders who are aware of the demands of their position and who are prepared to take charge (OBHE, 2013).

But, general conclusion is that universities still tend to give little relevance for requirement of successful managers and leaders.

Some problematic issues concern the lack of open competition for positions in senior management, their often politicised selection or appointment, the lack of adequate selection criteria based on the managerial skills needed by the institutions, the lack of training opportunities or training requirements and the different kinds of political pressures that institutional management may be subjected to.

One of the problems, very often neglected, is that in the most EU countries the main requirement for university management positions is adequate academic title (per example – full time professor for rector position), not managerial skills. Since managerial positions are full time jobs that do not leave a lot of time for academic work, it is not unusual that younger academic staff avoid these positions because of fear that they could threat their academic careers.

## **2. Recruitment for management position at BH universities**

Universities in Bosnia and Herzegovina have a weak tradition of leadership and management. Leaders as rectors, deans, and heads of departments traditionally have operated in a way those professors are ‘taking turns’ for a few years on this kind of tasks. It is an impossible option for the universities today, at least for those which have aspiration to be part of European Higher Education Area. Bosnia and Herzegovina showed its readiness to implement the reform of higher education by signing the Bologna Declaration in 2003. But, next four years was spent in arguing about state Framework Law for Higher Education (Framework Law). This Law was finally adopted in August 2007 under high pressure of international community.

Since Bosnia and Herzegovina is a country with complex structure, this complexity also reflects on state governance in higher education. Namely, in Bosnia and Herzegovina there is no ministry for education at the state level, because education is responsibility of the entity Republic of Srpska, cantons in Federation of Bosnia and Herzegovina and District Brčko. Result of such constitutional organization is existence of 14 different ministries and bodies which are competent for education, and, of course, higher education.

Consequence of such complex constitutional structure is that the process of implementation of the Framework Law is proceeding very slowly and six years after the adoption of the Framework

Law, legislation has not been fully introduced and the functional integration of the higher education institutions has not been implemented.

Although main trends in European higher education systems are more institutional autonomy, accountability and strengthening of institutional leadership which is leading towards shift to more managerial model of institutional governing, the Framework Law effectively allows complete denial of business autonomy of public universities in Bosnia and Herzegovina. Namely, Article 15 of this Law (OGB&H, 2007) allows for all members of the Governing Board (the Rector reports to this Board in business matters under Article 17) to be appointed by the founder of the university (in cases of public higher education institutions, the founders are governments). What this means is that a higher education institution can be effectively deprived of its rights which are provided for under Article 19 of the Framework Law (OGB&H, 2007), which is completely in contrast to the European trends.

The election of the Rector and Dean is regulated by Framework Law, entity, cantonal laws and universities' acts. The process of selection for all management functions at public BH universities is in detail described in statutes and other acts of these institutions.

The Article 18 of the Framework Law states "The rector of the public university shall be elected by the Senate based on a public competition. The person elected to be rector may be a teacher in the scientific and lecturing function of the full-time professor, meeting the requirements for such function at the university of their application" (OGB&H, 2007). It is important that Law stressed the need for public competition, but the main requirement for rector position is not experience in management, but academic title of full time professor. The most of BH universities in their acts stated that rector's candidate should propose some kind of Institutional plan for their mandate. But, there are no efficient mechanisms for monitoring of implementation of proposed plan or eventual penalties for its nonexecution.

During the process of election of rector/dean there is no obligation for potential candidates to prove their managerial skills. So, it is obvious that, at least in institutional acts, the urgent need for increased managerial approach in higher education has not been yet recognised in Bosnia and Herzegovina.

Hence, it is not strange that academic staff is mostly concentrated on fulfilment of requirements necessary for appropriate academic posts. The minimum requirements for election of academic staff into scientific posts are defined in Framework Law, entity and cantonal laws and institutional acts and they focus mainly on the length of publication lists.

While increasing attention is being paid to the training of academic staff, systematic training of management-level staff is still very rare. Where training is available, it often concentrates on management skills, quality systems or, in some cases, languages. The majority of such trainings have been organized in the framework of different international project (mostly Tempus projects).

In such situation it is hard to expect younger staff at managerial positions at BH public universities because they have to focus on development of their academic careers, firstly, to keep their jobs, secondly to fulfil requirements for eventual managerial position.

Namely, promotion criteria for academic titles in higher education in Bosnia and Herzegovina are defined by laws (state, entity and cantonal) and they do not evaluate engagement on managerial positions like rector, vice rector, dean or vice dean, but just contribution in academic field.

The research is presented in this paper which investigated what is perception of former and actual rectors, vice rectors, deans and vice deans related to the effect of their managerial positions to their academic careers.

### 3. Research methodology

The research was based on a survey of representative number of former and actual rectors, vice-rectors, deans and vice-deans at public universities in Bosnia and Herzegovina. Survey was

conducted online (online survey) and offline (questionnaires in paper form) during January and February 2014.

Generally, questionnaire had two main parts. First part contained general information about respondents (gender, current managerial position, etc.) while second part contained set of claims related to the effect of managerial position on development of academic careers in the public higher education institutions (HEI).

Data were analyzed in Microsoft Office Excel 2007 and SPSS for Windows, version 17.0. Results were expressed in absolute (F) and relative frequencies (%). The differences in the attitudes of former (F) and actual (A) rectors, vice-rectors, deans and vice-deans at public universities in Bosnia and Herzegovina were tested by  $\chi^2$  test. In the absence of the expected frequencies, Fisher's exact test was used. The level of significance was  $p=0.05$ . P values that could not be expressed by three decimal places were reported as  $p<0.001$ .

#### 4. Research results

The study included 36 respondents, 27 (75.0%) males and 9 (25.0%) females. Three quarters of respondents (27 i.e. 75%), at this moment, is on the managerial positions in the higher education institutions - 22 (81.5%) males and 5 (18.5%) females. Distribution of respondents (27 of them) according to the current management position is as follows: 7 (25.9%) deans, 9 (33.3%) vice-deans, 2 (7.4%) rectors, 5 (18.5%) vice-rectors and 4 (14.8%) heads of department.

Distribution of respondents according to the agreement or disagreement with the claims related to the harmonization of scientific and managerial career is shown in the table 1.

**Table 1.** Agreement/disagreement with the claims

Code	Claims	F (%)		P*
		Disagree	Agree	
T1	One can be a good scientist and a good manager at the same time	10 (27,8)	26 (72,2)	0,008
T2	Scientific activities suffer if the teacher is on the managerial position in the HEI	9 (25,0)	27 (75,0)	0,003
T3	HEI should be managed by professional managers	19 (52,8)	17 (47,2)	0,739
T4	Scientists cannot manage HEI	17 (75,0)	9 (25,0)	0,003
T5	Scientists cannot be good managers	28 (77,8)	8 (22,2)	0,001
T6	To perform managerial functions in the HEI, one needs to have management practices in the other companies	19 (52,8)	17 (47,2)	0,739
T7	To perform managerial functions in the HEI one should have been trained in management	10 (27,8)	26 (72,2)	0,008
T8	Development of academic career together with the management functions at the HEI seeks additional personal efforts	0	36 (100,0)	-
T9	Engagement on managerial positions should be evaluated for academic titles promotion criteria.	15 (41,7)	21 (58,3)	0,317
T10	Scientific activities could prevent a person who is on the managerial position in the HEI to completely devote to managerial activities	9 (25,0)	27 (75,0)	0,003
T11	Scientific and managerial career (managing HEI) could be well matched	5 (13,9)	31 (86,1)	<0,001

\* $\chi^2$  test

The results show that respondents have inconsistent views on simultaneous scientific and managerial career. On one hand, less than half of respondents believe that the HEI should be lead by professional managers. About three quarters of respondents believe that the scientists can manage HEI and be good managers, i.e. that one can simultaneously be a good scientist and a good manager. On the other hand, respondents think that for the managing HEI managers should have been trained in management. Experience in managing other companies, according to respondents, is not necessary. Respondents believe that the scientific activities "disrupt" the managerial activities, but with the additional efforts, scientific and managerial career (HEI management) can be well matched. All respondents believe that the simultaneous success in both fields (scientific and managerial) requires extra personal efforts. Respondents have divided opinion about the need to evaluate the time spent on the managerial positions in promotion criteria for academic titles.

Although the research was conducted on a small sample it was interesting to compare the views of former and active HEI's managers. Distribution of respondents according to the agreement or disagreement with the claims according to their current managerial position (former (F) / actual (A)) is shown in the table 2.

**Table 2.** Agreement/disagreement with the claims according to managerial position – former/actual

Code of the claims	A – F (%)		F – F (%)		p*
	Disagree	Agree	Disagree	Agree	
<b>T1</b>	10 (37,0)	17 (63,0)	0	9 (100,0)	0,039
<b>T2</b>	7 (25,9)	20 (74,1)	2 (22,2)	7 (77,8)	1,000
<b>T3</b>	14 (51,9)	13 (48,1)	5 (55,6)	4 (44,4)	1,000
<b>T4</b>	22 (81,5)	5 (18,5)	5 (55,6)	4 (44,4)	0,184
<b>T5</b>	22 (81,5)	5 (18,5)	6 (66,7)	3 (33,3)	0,384
<b>T6</b>	14 (51,9)	13 (48,1)	5 (55,6)	4 (44,4)	1,000
<b>T7</b>	7 (25,9)	10 (74,1)	3 (33,3)	6 (66,7)	0,686
<b>T8</b>	0	27 (100,0)	0	9 (100,0)	-
<b>T9</b>	10 (37,0)	17 (63,0)	5 (55,6)	4 (44,4)	0,343
<b>T10</b>	8 (29,6)	19 (70,4)	1 (11,1)	8 (88,9)	0,396
<b>T11</b>	4 (14,8)	23 (85,2)	1 (11,1)	8 (88,9)	1,000

\*Fisher's Exact test

The results of the analysis show that statistically significant differences exist between former and actual HEI's manager for the first claim. All former managers believe that someone can be both, good scientist and a good manager at the same time. Ratio of agreements and disagreements in the group of respondents who are active manager in HEI is different - part of the respondents disagreed with the offered claim. For other claims statistically significant difference was not found, but the results show differences in attitudes of two observed groups of respondents.

Relatively equal proportion of respondents in both groups believes that the scientific activities suffer if the teacher is on the managerial position in the HEI (A: 74.1% vs. F: 77.8%).

A little disagreements exist between the two statements "HEI *should be managed by professional managers*" and "Scientists cannot manage HEI". In both groups, the relatively same percentage of respondents also agreed and disagreed that professional managers should manage HEI. More than three quarters of respondents (81.5%), active managers, believe that scientists cannot manage HEI, while in the group of former manager half of them (55.6%) have such an opinion.

Actual managers slightly more disagreed with the claim that scientists cannot be good managers. "To perform managerial functions in the HEI, someone needs to have management practices in the other companies" - distribution of respondents who agree with this claim and who

do not agree is relatively equal in both groups. Most respondents in both groups believe that the person who manages the HEI should have an education in the field of management.

Observation of managerial positions at the HEI in the context of scientific advancement shows that all respondents believe that every scientist who manages HEI should make extra effort if, at the same time, he wants to have progress in the field of science and with this effort it is possible to harmonize the scientific and managerial career. Such an opinion is present in more than 80% of respondents in both groups. Although the majority of respondents from both groups believe that scientific activities prevent a person who is on the managerial position in the HEI to completely devote to managerial activities, but extra effort should eliminate the negative effects of overlapping activities. In the group of the active managers more respondents believe that time spent on management functions in the HEI should be evaluated in promotion criteria for academic titles, while in the group of former managers ratio Yes/No is slightly higher on behalf of disagreement.

## 5. Instead of the conclusion

According to the respondents it is not necessary for professional managers to manage HEI, but scientists in management positions should have some knowledge in the field of management, while experience in the management of other companies, according to them, is not necessary. It was found that for the success in both areas one should invest a more effort and in that case academic career will not suffer. Respondents have divided opinion about the need to value the time spent on managerial positions in promotion criteria for academic titles.

## 6. Further research

As it could be seen, the results of the study are quite diverse, especially when comparing the responses of former and current managers in the HEI. Therefore this conducted study is a starting point for further research in the field of harmonization of managerial and scientific careers. It should include more former managers, and also make a comparison of attitudes of scientists/managers and “pure” scientists, i.e. academics who have never been on managerial position.

Adequate increase of the sample should allow a comparison of attitudes toward multiple criteria - by gender of respondents, reasons for accepting the managerial position at HEI, areas of science. Besides that, the further research should include questions about the possible reasons for regret and remorse for accepting managerial positions and whether and how HEI managers invest in their training in the field of management. Of course, in analyzing all of these themes further research should take into account the rules on the financing of public universities, and the complex legal framework of the higher education system in Bosnia and Herzegovina.

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## COMPARATIVE ANALYSIS OF COMPETITIVENESS INDICATORS IN SELECTED TRANSITION COUNTRIES

Lejla TERZIĆ<sup>279</sup>

### Abstract

*In recent years, competitiveness of countries has been a topic that receives a growing attention among policy/decision makers worldwide. In order to implement a comparative analysis of reliable competitiveness indicators, it is very important that the concept of competitiveness is well understood. Competitiveness indicators can contribute to the identification of standards between countries if the competitiveness analysis is reliable. The country rankings contribute economic policy makers to evaluate and improve competitiveness results. Therefore, competitiveness indicators developed by the World Economic Forum, World Bank, European Bank for Reconstruction and Development and Heritage Foundation make it possible to analyze factors that best represent the economic performance and competitive strengths and weaknesses of analyzed countries.*

*The aim of this paper is to analyze competitiveness indicators obtained by the application of different methodologies that effect a better comprehension of the competitiveness in selected transition countries (Albania, Bosnia and Herzegovina, Montenegro, Macedonia, Serbia, Romania and Bulgaria) and selected post-transition countries (Croatia, Slovenia, Estonia, Latvia, Lithuania, Hungary and Poland), as well as the correlations of rankings based on various surveys and the consistency of their results. The reason for comparing the selected transition countries with post-transition countries stems from the similarity of developmental assumptions and the way of economic development.*

*Comparative analysis of the competitiveness indicators in selected transition countries is based on a comparison of results obtained by the application of different methodologies, the valorization of their advantages and the determined statistical correlation between certain countries' positions regarding different competitiveness surveys and macroeconomic indicators.*

*Relevant national competitiveness indicators are identified and used to construct national rankings for selected transition countries. The results indicate significant changes in their relative rankings from these previous surveys, and provide key recommendations to policy/decision makers. Also, the comparative analysis of competitiveness indicators has suggested a variety of starting points to tackle the shortcomings and constraints to future economic development in selected transition countries.*

**Keywords:** comparative analysis, competitiveness, indicators, methodology, transition countries

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## 1. Introduction

In the globalized world, the competitiveness has been gaining an unprecedented importance in recent years. Competitiveness is the aggregate expression of global characteristics (micro, meso and macro) that are specific for economy of each country, while the competitive advantage is a combination of corporate and sector-specific and general national characteristics. The models that are used for the competitiveness measurement of different countries are based on this definition. Among the most sophisticated methodologies for measuring countries' competitiveness are those developed by the World Economic Forum, World Bank, European Bank for Reconstruction and Development and Heritage Foundation.

In order to understand competitiveness in transition countries, it will be given an overview of different competitiveness methodologies. If the competitiveness analysis is valid, then competitiveness indicators can help determine standards of comparison between countries. Competitiveness indices obtained by the application of different competitiveness methodologies in selected transition countries (Albania, Bosnia and Herzegovina, Montenegro, Macedonia, Serbia, Romania and Bulgaria) and selected post-transition countries (Croatia, Estonia, Latvia, Lithuania, Slovenia, Hungary and Poland) were analyzed. The data have been drawn from different competitiveness surveys and statistical sources. The goal of the analysis is to determine the causes and differences of transition countries' competitiveness, as well as the differences or similarities in the results of an analysis based on macroeconomic statistical indicators and competitiveness data obtained by the application of different methodologies.

## 2. Literature review

Assessing a country's competitiveness is a challenging task because of the sheer number and variety of influences on national productivity. Correlation among many of the indicators makes disentangling the impact of individual indicators complex from statistical standpoint. It is precisely because of these challenges, as well as the fact that most studies highlight a subset of influences rather than seek a comprehensive model, that the academic literature has not achieved consensus on the causes of productivity. According to Porter, competitiveness is defined by the productivity with which a nation utilizes its human, capital and natural resources. To understand competitiveness, the starting point must be a nation's underlying sources of prosperity. The standard of living, that is prosperity, is determined by an economy's productivity level, which is expressed by the value of goods and services produced per unit of human capital, physical capital and natural resources used in their production (Porter, M., Delgado, M., Ketels, C., & Stern, S., 2008). GDP per capita adjusted for purchasing power parity (PPP) is the broadest measure of national productivity and economic growth (WEF, 2013).

The Global Competitiveness Index (GCI), published by World Economic Forum, is concentrated on the determinants of the productivity level that a national economy can sustain, which is the ultimate driver of national prosperity. The GCI is based on a single model that is firmly grounded in the latest academic research while designed to extend research and yield practical insights for policy-makers. Competitiveness is an aggregate term of global characteristics specific to each national economy, while the competitive advantage is a combination of corporate and sector-specific and general national characteristics. Based on these definitions are developed the models used to measure the competitiveness of different countries (Dragičević, 2012, p.23).

A vast empirical literature stresses the strongly positive relationship between economic growth, business conditions and export diversification. Similarly, consensus appears to emerge recently that the structure of exports or their diversification is crucial for productivity and resource allocation to achieve economic growth (Bienkowski, 2007, pp. 13-31). A decomposition of the countries export growth can inform about the role of structural and competitiveness factors as drivers of exports. Certain analysts point out the impact of economic freedom on economic

development and business conditions (Vukotić and Baćović, 2006, pp. 81-91.). A number of studies have linked a nation's competitiveness with economic growth and favorable business conditions. Kovačić (2007) emphasizes that a combination of statistical data and indicators of international institutions is the best way to measure national competitiveness. The WEF Report contributes to an understanding of the key factors that determine national competitiveness and economic growth, helps to explain why some countries are more successful than others in raising income levels and offers policymakers an important tool for formulating improved economic policies. Sustaining faster economic growth in a small open economies like selected transition countries depends on improving export performance and enhancing competitiveness.

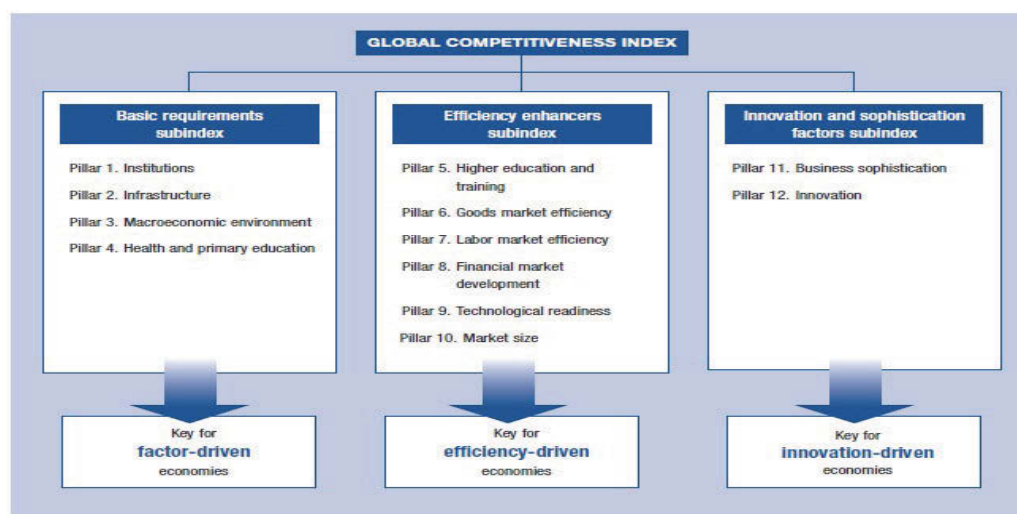
### **3. Competitiveness Indicators developed by different international organizations**

Competitiveness indicators developed by different international organizations, such as: the World Economic Forum, World Bank, European Bank for Reconstruction and Development and Heritage Foundation make it possible to analyze factors that best represent the economic performance and competitive strengths and weaknesses of analyzed countries, as well as the correlations of rankings based on various surveys and the consistency of their results.

#### ***3.1. Competitiveness Indicators developed by the World Economic Forum***

The World Economic Forum bases its competitiveness analysis on the Global Competitiveness Index (GCI), which includes both microeconomic and macroeconomic bases of national competitiveness. Competitiveness is what determines the productivity with which a nation's endowments are used to create goods and services. Competitiveness arises from both macroeconomic and microeconomic factors. Macroeconomic competitiveness factors create opportunities for productivity but are not sufficient for high productivity to emerge. Microeconomic competitiveness factors have a direct impact on company productivity. (Sala-I-Martin, Blanke, Drzeniek, Geiger, Mia and Paua, 2007, pp. 3-50). The GCI starts from the premise that competitiveness is a complex phenomenon, influenced by many factors, which are grouped into 12 pillars of competitiveness (figure 1): institutions, infrastructure, macroeconomic stability, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market efficiency, technological readiness, market size, business sophistication and innovation), organized into three stages of economy (factor-driven, efficiency-driven and innovation-driven).

The significance of individual groups of competitiveness pillars depends on the stage of country development, while for middle developed countries (including transition countries), besides the basic factors, efficiency factors are of great importance. The Global Competitiveness Report (GCR), assesses the competitiveness landscape of 148 economies, providing insight into the drivers of their productivity and prosperity. According to the Global Competitiveness Report for 2013 (selected transition countries), Bulgaria was ranked 57th out of 148 countries, followed by Montenegro in 67th place, Macedonia in 73rd place, Romania in 76th place, Bosnia and Herzegovina in 87th place, Albania in 95th place and Serbia in 101th place.

**Figure 1. The Global Competitiveness Index framework**

Source: *The Global Competitiveness Report (2013-2014)*, World Economic Forum, pp.9.

The Global Competitiveness Report has long been a globally recognized ranking of country competitiveness. In an effort to continually introduce the best available methodology in preparing the rankings, there has been a series of improvements in the methodology over the years. The Growth Competitiveness Index, was based on a stronger academic foundation in economic growth theory. The World Economic Forum and Professor Porter have embarked on another important stage in the development of the Global Competitiveness Report. Under Professor Porter's leadership, the aim is another step-change improvement in both the Index methodology and the quality of the Executive Opinion Survey, which provides many proprietary data used in preparing the Report (WEF, 2013). The selection of competitiveness indicators is pragmatic. Candidate indicators are identified that capture aspects suggested by theory. The GCI model developed by World Economic Forum requires the availability of recurring annual data for a very large number of countries, in contrast to a one-time analysis covering a limited number of countries. Each indicator is then tested for a statistically significant relationship to GDP per capita adjusted by purchasing power parity (Porter et al. 2008).

### 3.2. Competitiveness Indicators developed by the World Bank

The Doing Business (DB) data, published by World Bank, are collected in a standardized way. The DB team, with academic advisers, designs a questionnaire. The questionnaire uses a simple business case to ensure comparability across economies and over time—with assumptions about the legal form of the business, its size, its location and the nature of its operations. The DB methodology has 5 limitations that should be considered when interpreting the data (World Bank, Doing Business, 2013):

- First, the collected data refer to businesses in the economy's largest business city (which in some economies differs from the capital) and may not be representative of regulation in other parts of the economy. To address this limitation, subnational Doing Business indicators were created.
- Second, the data often focus on a specific business form—generally a limited liability company (or its legal equivalent) of a specified size—and may not be representative of the regulation on other businesses.

- Third, transactions refer to a specific set of issues and may not represent the full set of issues a business encounters.
- Fourth, the measures of time involve an element of judgment by the expert respondents. When sources indicate different estimates, the time indicators reported in Doing Business represent the median values of several responses given under the assumptions of the standardized case.
- Finally, the methodology assumes that a business has full information on what is required and does not waste time when completing procedures. In practice, completing a procedure may take longer if the business lacks information or is unable to follow up promptly. Alternatively, the business may choose to disregard some burdensome procedures.

According to the World Bank (2013) methodology, the Doing Business index analyzes indicator values by areas: 1) Starting a business (legal procedures for starting a business, average time necessary to complete procedures, costs, paid-in minimum capital); 2) Dealing with construction permits (number of all procedures for legal construction, average time spent on procedure, procedure costs); 3) Employing workers (difficulty of hiring index, rigidity of hours index, difficulty of redundancy index, redundancy cost); 4) Registering property (legal procedures for property transfer, time necessary to complete procedures, costs); 5) Getting credit (strength of legal rights index, depth of credit information index, public registry coverage, private bureau coverage); 6) Protecting investors (extent of director liability index, ease of shareholder suits index, extent of disclosure index); 7) Paying taxes (company tax payments per year, time necessary to comply, total tax rate); 8) Trading across borders (necessary documents to export and import, time necessary to perform all necessary export and import procedures, costs of all export and import procedures); 9) Enforcing contracts (contract enforcement procedures, procedure completion time, costs); 10) Closing a business (time and costs of bankruptcy procedures, recovery rate). According to the Report of the World Bank (Ease of Doing Business) for 2013, Macedonia was ranked 23th out of 185 countries, followed by Montenegro in 51st place, Bulgaria in 66th place, Romania in 72nd place, Albania in 85th place, Serbia in 86th place and Bosnia and Herzegovina in 126th place.

### *3.3. Competitiveness Indicators developed by the Heritage Foundation*

The Index of Economic Freedom, published by Heritage Foundation (HF), focuses on four key aspects of the economic environment over which governments typically exercise policy control (HF, 2013): Rule of law, Government size, Regulatory efficiency and Market openness. To provide as comprehensive a picture as possible of conditions in these four categories, the Index measures 10 specific components of economic freedom, each of which is graded on a scale from 0 to 100. Scores on these 10 components of economic freedom, which are calculated from a number of sub-variables, are equally weighted and averaged to produce an overall economic freedom score for each economy. The Index of Economic Freedom represents an average of ten individual freedoms (HF, 2013): business freedom, trade freedom, monetary freedom, government spending, fiscal freedom, property rights, investment freedom, financial freedom, freedom from corruption and labor freedom. The business freedom score is based on 10 factors, all weighted equally, using data from the World Bank's Doing Business study. The quantitative score is derived from an array of measurements of the difficulty of starting, operating, and closing a business. Heritage Foundation overtakes several indices of the Doing Business which makes them sensitive to the same problems. According to the methodology that encompasses measurements of the degree of freedom in ten relevant fields among 177 economies for 2013, Macedonia was ranked 43rd out of 177 countries, which ranks it among "mostly free countries." Albania ranks below Macedonia, which



is 58th, Romania at number 59, Bulgaria at 60, Montenegro at 70 and Serbia at 94. Only Bosnia and Herzegovina is ranked worse, at number 103.

### ***3.4. Competitiveness Indicators developed by the European Bank for Reconstruction and Development***

The EBRD has been analyzing and summing up transition countries' structural and institutional reforms and improvement in their macroeconomic performances. Each year, the EBRD's transition report presents each country's position on its transitional road. Nine transition indicators encompass four main elements of a market economy: enterprises (large-scale privatization, small-scale privatization and governance and enterprise restructuring), markets and trade (price liberalization, trade and foreign exchange system and competition policy), financial institutions (banking reform and interest rate liberalization and securities markets and non-bank financial institutions) and infrastructure (overall infrastructure reform). The EBRD report publishes indicators that show a country's transition progress, and allows comparison across countries. Indicators range between 1 and 4+, where 1 represents small or non-existent changes in transition, while 4+ represents the standards of developed market countries.

The transition indicator scores reflect the judgment of the EBRD's Office of the Chief Economist about country-specific progress in transition. The scores are based on the classification system, which was originally developed in the 1994 Transition Report, but has been refined and amended in subsequent reports. "+" and "-" ratings are treated by adding 0.33 and subtracting 0.33 from the full value. Averages are obtained by rounding down, for example: a score of 2.6 is treated as 2+, but a score of 2.8 is treated as 3-. The EBRD considers that transition countries has progressed significantly in the direction of regional and European integrations during the past several years, and that this has occurred thanks to the strengthening of the financial sector and trade liberalization. According to the EBRD's transition report for 2013 (selected transition countries), Macedonia was ranked 7th out of 25 countries, followed by Albania in 9th place, Romania in 12th place, Bulgaria in 13th place, Serbia in 14th place, Montenegro in 19th place and Bosnia and Herzegovina in 20th place.

## **4. Competitiveness indicators in the selected transition countries obtained by application of different methodologies: A comparative analysis**

A comparative analysis of indicators of competitiveness in selected transition countries is based on a comparison of results obtained by the application of different methodologies, the valorization of their advantages and shortcomings and the determined statistical correlation between certain countries' positions regarding different competitiveness surveys and statistical indicators. On the basis of the said methodologies of different international organizations, a comparative analysis of competitiveness indices was performed, on the basis of an analysis of secondary data and Spearman's correlation coefficient. In the analysis shown in table 1, which compares the rankings of transition countries and selected post-transition countries according to different competitiveness surveys for 2013, the best ranked countries are the post-transition countries (Lithuania, Estonia and Latvia). Compared to them, Bosnia and Herzegovina, Serbia and Albania are the worst ranked. According to GCI for 2013, the best ranked countries are post-transition countries (Estonia, Poland and Lithuania). Compared to them, Bosnia and Herzegovina, Serbia and Albania are the worst ranked transition countries. The best ranked countries according to DB indicators for 2013 are: Estonia, Macedonia and Latvia. Compared to them, Bosnia and Herzegovina are Serbia the worst ranked. According to HF indices for 2013, the best ranked country is Estonia. According to EBRD indices for 2013, the best ranked country is Croatia and Bosnia and Herzegovina is the worst ranked.



**Table 1.** Comparison of the rankings of selected transition countries and the post-transition countries according to different competitiveness surveys for 2013.

	<b>Rank GCI (148) 2013</b>	<b>Rank DB (185) 2013</b>	<b>Rank HF (177) 2013</b>	<b>Rank EBRD (25) 2013</b>	<b>Average rank - Competitiveness</b>	<b>Standard deviation</b>
<b>Albania</b>	13	12	7	8	12	2,943920
<b>Bosnia and Herzegovina</b>	12	14	14	14	14	1,000000
<b>Montenegro</b>	8	6	10	13	10	2,986079
<b>Macedonia</b>	9	2	3	7	4	3,304038
<b>Serbia</b>	14	13	13	11	13	1,258306
<b>Romania</b>	11	10	8	9	11	1,290994
<b>Bulgaria</b>	5	9	9	10	8	2,217356
<b>Croatia</b>	10	11	12	1	9	5,066228
<b>Estonia</b>	1	1	1	12	2	5,500000
<b>Latvia</b>	4	3	5	4	3	0,816497
<b>Lithuania</b>	3	4	2	2	1	0,957427
<b>Slovenia</b>	6	5	11	3	7	3,403430
<b>Hungary</b>	7	7	4	5	6	1,500000
<b>Poland</b>	2	8	6	6	5	2,516611

Source: Calculated on the basis of data published by the World Economic Forum, World Bank, Heritage Foundation and the European Bank for Reconstruction and Development 2013.

Based on the standard deviation, we can see that the greatest discrepancies present in cases of Estonia (5,500000), Croatia (5,066228), Slovenia (3,403430) and Macedonia (3,304038) mostly in relation to the competitiveness rankings according to EBRD. In the case of Bosnia and Herzegovina ranks competitiveness by different institutions varies from 12 to 14 places. To illustrate the relationship among research and "hard" statistical data, see table 2.

**Table 2.** Comparison of the rankings of selected transition countries and the post-transition countries according to key macroeconomic indicators for 2013.

	<b>GDP PPP per capita</b>	<b>FDI inflow</b>	<b>EXPORT</b>	<b>Average rank – Macroeconomic Indicators</b>	<b>Standard deviation</b>
<b>Albania</b>	14	9	14	13	2,886751
<b>Bosnia and Herzegovina</b>	13	12	13	14	0,577350
<b>Montenegro</b>	10	11	8	11	1,527525
<b>Macedonia</b>	11	13	7	12	3,055050
<b>Serbia</b>	12	4	11	10	4,358899
<b>Romania</b>	9	3	10	8	3,785939
<b>Bulgaria</b>	8	5	5	5	1,732051
<b>Croatia</b>	7	7	9	9	1,154701
<b>Estonia</b>	3	14	2	7	6,658328
<b>Latvia</b>	6	6	6	6	0,000000
<b>Lithuania</b>	2	8	3	3	3,214550
<b>Slovenia</b>	1	10	4	4	4,582576
<b>Hungary</b>	5	2	1	1	2,081666
<b>Poland</b>	4	1	8	2	3,511885

Source: Calculated on the basis of data published by the World Bank 2013.

It analyzes the statistical indicators comparing ranks of selected transition countries and selected post-transition countries according to certain macroeconomic indicators for 2013, which include GDP PPP per capita rankings, inflow of foreign direct investment and the share of exports in GDP for 2013. According to GDP PPP per capita, the best ranked countries are the post-transition countries (Slovenia, Lithuania, Estonia, Poland and Hungary). Compared to them, Albania, Bosnia and Herzegovina and Serbia are the worst ranked transition countries. The best ranked country by inflow of foreign direct investment (FDI) is Poland, while Estonia is the worst ranked. Hungary is the best ranked country according to the share of Exports in GDP for 2013, while Albania is the worst ranked. According to the key macroeconomic indicators for 2013, the best ranked countries are Hungary, Poland, Lithuania and Slovenia. Compared to them, Bosnia and Herzegovina, Albania and Macedonia are the worst ranked. Beside Estonia, significant differences in rank are presented in the case of Slovenia, Serbia, Romania, Poland and Lithuania.

Further analysis will show the significance of the characteristics of the perception of research studies, which are largely used to construct the index of competitiveness of various international organizations, for the determination of a relatively poor position of selected transition countries towards certain aspects of competitiveness. The interdependence of rankings according to different studies and hard statistical indicators is shown in table 3, as represented by Spearman's rank correlation coefficient. The data was processed via the SPSS statistical software package.

**Table 3.** Spearman's correlation coefficient for analyzed indicators for the presented countries

	GCI	DB	HF	EBRD	GDP PPP per capita	FDI	EXPORT
GCI	<b>1,000</b>	,745**	,644*	,279	,829**	,002	,785**
DB	,745**	<b>1,000</b>	,771**	,266	,618*	-,349	,772**
HF	,644*	,771**	<b>1,000</b>	,253	,446	-,081	,636*
EBRD	,279	,266	,253	<b>1,000</b>	,569*	,301	,348
GDP PPP per capita	,829**	,618*	,446	,569*	<b>1,000</b>	,130	,807**
FDI	,002	-,349	-,081	,301	,130	<b>1,000</b>	-,029
EXPORT	,785**	,772**	,636*	,348	,807**	-,029	<b>1,000</b>

\*\* . Correlation is significant at the 0.01 level (2-tailed). \* . Correlation is significant at the 0.05 level (2-tailed).

Source: Author's own calculations.

Several conclusions can be drawn from the analysis of Spearman's rank correlation coefficient for the presented countries' analyzed indicators:

- Rank interdependence is especially pronounced between the GCI and GDP PPP per capita, with a correlation coefficient of 0,829, which represents a very strong positive correlation between these indicators. Methodology of the World Economic Forum captures the progress in transition countries in the most reliable way which was evidenced by very strong positive correlation between the GCI (obtained by application of WEF's methodological approach) and macroeconomic indicator GDP PPP per capita as a broadest measure of national productivity and economic growth.
- A strong positive correlation between the GDP PPP per capita and Export, with a correlation coefficient of 0,807, has indicated that sustaining faster economic growth in a small open economies like selected transition countries depends on improving export performance.
- There is a statistically significant relationship between the GCI and Export expressed through a strong positive correlation (0,785). Statistically significant relationship between Export and WEF indices (GCI) has suggested that improving export performance requires enhancing competitiveness.
- Rank interdependence is pronounced between DB indices and the GCI, with a correlation coefficient of 0,745, which represents a strong positive correlation between these

indicators. Positive correlation between these two indicators has suggested that achieving higher level of competitiveness depends on favorable business conditions.

## 5. Conclusion

Analysis of the competitiveness indicators in selected transition countries, based on a comparison of results obtained by the application of different methodologies, was conducted to determine statistical correlation between certain countries' positions regarding different competitiveness surveys and macroeconomic indicators. Based on this analysis, it is determined that methodology of the World Economic Forum captures the progress in transition countries in the most reliable way. The obtained results indicate as well as obligate transition countries, to identify problems and to try to find solutions that stimulate competitiveness and faster economic growth. The creation of a highly competitive economy is a complex and continuing task for each country that wishes to develop and, in that context, the role of the state in creating favorable business conditions that will stimulate competitiveness is extremely significant. On the basis of the above, it can be concluded that, for prosperity of transition countries, it is necessary to perform more active comparisons with the best practices of post-transition countries, as well as recognizing the development of one's own competitive strengths. The Global Competitiveness Report published by WEF has long been an important instrument for measuring competitiveness across countries. The ambition to continually integrate new conception must be balanced with the need for a framework that has the stability needed for consistent rankings and to gain the trust of policy/decision makers. The GCI promises to reveal important new insights into the causes of competitiveness. It will unravel the relationships between prosperity and competitiveness, giving countries a way to detach the impact of externally given conditions from their own policy choices. It will help countries to identify whether macroeconomic or microeconomic competitiveness, each of which requires different policy process.

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## THE IMPACT OF PUBLIC-PRIVATE PARTNERSHIP ON ENTREPRENEURSHIP – SUCCESSFUL FRAMEWORK OF INTERACTION

Albena VUTSOVA<sup>280</sup>, Olga IGNATOVA<sup>281</sup>

### Abstract:

*In the context of contemporary challenges, small and medium enterprises (SMEs) are vital for the development of innovation and the generation of an effective competitive environment. Proactive actions aimed at public-private partnerships (PPPs) create the environment and form successful partnerships between science, government and business; they are the basis for the implementation of innovative solutions and economic prosperity, both at SMEs in general.*

*The role of different stakeholders - research organizations that contribute to the development of new research, business, providing protection to absorb new products and services and government, developing and implementing policies to promote entrepreneurship and create new jobs guarantee to build dynamic and competitive society of a new type.*

*This article aims to present a new framework of cooperation between the PPP and entrepreneurship through which to encourage the introduction of innovations in SMEs which are crucial to achieve sustainable economic growth.*

**Keywords:** PPP, entrepreneurship, interaction, innovation, economic growth, effect

### 1. Introduction

In recent decades, public-private partnership is developing very dynamically and affecting many areas of economic and social life. Globalization characteristics of the new economic order provoke institutional features in its center placed public-private relations, aimed at providing a higher standard of living. This for its part is a prerequisite for the creation of new organizational structures providing services and tangible presence of local authorities in partnerships that bring together the activities of various non-profit organizations.

Collaboration between the private and public sector through public-private partnerships allow the creation of new kind of strategies that help SMEs become more competitive globally.

### 2. Public-private partnership in the 21st century - challenges and trends

According to OECD, the contemporary challenges that are faced by any management are climate change, the need to shift wealth/resources, an increasingly growing trend towards population aging, migration and demographic changes as a whole, increasing scarcity of natural resources,

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rise in unemployment, inequality, etc. All these affect the social and economic development, but public-private partnership requires new type of relationships that are relevant to this development. Governments introduce new legislation helping to overcome the major problems through the application of new innovative solutions that minimize resources and increase the effectiveness of the results. Solving such problems is very often not possible for a country or organization, however powerful it is. There is a growing need for joint efforts of the public and private sectors. The aim is not only to reduce government spending but to create an environment of collaboration with businesses, to provide joint investments and introduction of new types of services from the private sector. The selection and implementation of different types of incentives to encourage businesses to conduct a collaborative behavior is a primary task for the government. Through them, not only cooperation but also appropriate conditions for sustainable development and growth of the business can be achieved.

One of the tools for achieving this goal is the systematic application of innovative solutions. Partnership between government and business becomes a continuous exchange of best practices, sharing of resources and responsibilities, ultimately reflecting to a new type of labor market.

PPP is more widely used but it is not universal. There are many models that require continuous development to meet the market and social needs. Basic models, which are applied by the European Commission, are:

1. **Service agreements** as agreements between public agencies and the private sector specifically adapted for simple, short-term operational requirements. This is a very limited form of PPP where the private partner buys, makes and maintains a facility for a short period of time. Responsibility for managing and investing in the project remains in the public sector, which takes the financial and residual risk, but benefits from the technical expertise of the private operator, saving money without transferring control over the quality of the final product. Service agreements often are used to charging service for roads, supply and maintenance of vehicles and other technical activities.

2. **Agreements to operate and manage** - arrangements under which the responsibility for the operation and management of the facility is transferred to the private sector. The duration is generally short, but it is possible to be prolonged through an additional agreement. The private partner is remunerated on the basis of a fixed amount or based on the initiatives taken by premiums relating to specific performance targets. The public sector takes the investment and financial risk. This type of agreement leads to significant benefits in terms of efficiency and investment in more complicated technology as the private sector has a strong interest in improving the quality of services in order to reduce both the total cost and risk for searching of a service during the exploitation phase. This type of arrangement can also be used to stimulate greater private sector participation in the subsequent phases.

3. In **leasing agreements**, the private partner buys income streams generated by publicly owned facilities in exchange for fixed lease payments and the obligation to operate and maintain the facility. Because the commercial and demand risks of the service are transferred to the private sector, it is the private partner's interest to achieve operational efficiency. The private partner benefits only if it can reduce the operating costs by achieving the planned levels of service. On the other hand, the public partner bears the risk associated with network expansion (construction) and takes part with equity and financially. Leasing is particularly suitable for infrastructures that ensure independent revenue streams, as is the case with public transport. More complex leasing schemes as BBO (stock exchanges and operations), "Lease- Develop-Operate" (LDO) or "Wrap-Around Addition" (WAA) transfer greater risk for development of the private sector and thus reduce the burden on the public partner.

4. **Operation "turnkey" or Build - Operate - Transfer (BOT)** is an integrated type of partnership in which the private partner assumes responsibility for the design, construction and operation of the facility. The combination of these individual responsibilities for a single unit boosts deriving greater efficiency benefits and eliminates an important responsibility for funding support from the public budget. This integrated scheme requires the private operator to take into



account the cost of operation of the facility during the design phase and operation and thus promote better planning and management of the service. Here again, the public partner bears the financial risk: yet, despite what is seen in other types of PPP, the public partner gives control over the important phases of the life cycle of the facility. Since ownership of the facility as a whole remains public, the specifics of the end product quality is vital to achieve the desired results.

5. With **Design-Build Finance-Operate scheme (DBFO)**, the private partner designs a service or a facility as required by the public participant, also provides funding of construction/implementation of the facility/service after the design phase, and at eventually operates the facility. At the end of the PPP agreement, the service or facility can be returned back to the public sector hands under the original PPP agreement, otherwise the agreement is renegotiated. DBFO is the most complicated type of PPP because it ensures the effectiveness of the implementation and operation of previous models, but at the same time provides new sources of capital. The most commonly used model is the DBFO concession where private investors design, finance, build and operate revenue-generating infrastructure in exchange for the right to collect revenue for a specific period of time, usually 25-30 years. Ownership of the facility remains to the public sector. This model is particularly suitable for road, water and waste projects, mainly for services where user charges can be implemented. Conversely, with versions bearing the term “private divestiture”, the facility is fully or partially sold to the private sector, while the government retains only a regulatory role in order to protect consumers from monopolistic prices and restrictions on final products. The transfer may also be partial if the government retains ownership to any portion of the facility to ensure a certain standard of service while transferring a significant portion of the total cost of the private partner. DBFO model can be mitigated or adapted in various ways to meet the characteristics of the services provided.

PPP development in European countries in the last two decades is based on:

1. Need for development of transport, environmental and social infrastructure to meet the increased needs;
2. Need for extensive investments;
3. Achieve better value for public money invested using the effectiveness and efficiency of the private sector in providing public services;
4. Reorient the public sector to seek a final result - a service rather than acquisition of assets;
5. Ability to make payments from the public sector after receiving a desired service;
6. Implement a comprehensive approach to the design, financing, construction and operation, as the public sector begins to focus on its invested funds throughout the project cycle;
7. Provide opportunity to share project risks between the public and private partners.

### 3. Entrepreneurship in the context of PPP

Different authors consider entrepreneurship in different contexts.

According to Josef Schumpeter, entrepreneurship combines the capabilities of innovation, introduction of new technologies, increase in efficiency and productivity, or generation of new products or services. The entrepreneur is an innovator who implements change within markets through provision of new solutions that consist of:

1. Introduction of a new product or quality improvement,
2. Introduction of a new production method,
3. Opening of a new market niche,
4. Use of a new source of supply of new materials or parts,
5. Induction of a new organization for a type of industry.

Peter Drucker (Drucker, 1985:28) argues that an entrepreneur is characterized by the behavior of someone who is “always looking for change, responds to it and use it as an opportunity”. According to him, the entrepreneurs must learn to practice systematic innovation, which “consists in the purposeful and organized search for changes, and the systematic analysis of the opportunities such changes might offer for economic or social innovation”.

It could be assumed that entrepreneurship is the process of creating something different in value, together with giving the time and effort under financial and moral hazard and receiving moral and financial compensation as compensation (Robert Hirsch, 2013).

Each individual perception and definition of entrepreneurship or entrepreneur emphasizes the need for it to be considered as a process of combining resources, financial investment, labor, infrastructure, customers, suppliers.

In the context of the PPP, the definition of entrepreneurship is used in the following way: “discovery, enactment, evaluation and exploitation of opportunities across national borders to create future goods and services” (Oviatt & McDougall, 2005:540).

In developing the structure of PPP it is necessary to define the objective of the project/ activity and the expected result. On this basis, relations, form of participation and responsibilities of each party are defined, so that the risks to be taken by the party that is able to monitor, manage and influence them. Under the PPP, the entrepreneurs from the private sector become a long-term supplier of a service and not just in media assets. They are responsible for the design, construction, operation and maintenance as well as for the overall financial administration of the project, so as to provide services to the public sector. Thus, the central and local authorities can concentrate on service planning, performance monitoring and management arrangements.

In early 2013 the European Commission presented the “Action Plan for Entrepreneurship 2020” which is in a wider range of activities to promote entrepreneurship and innovation culture in Europe. The Action Plan proposes:

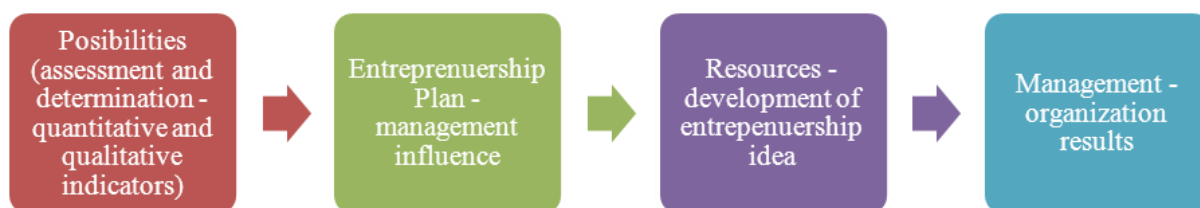
- to strengthen the framework conditions for entrepreneurs, by removing existing structural and institutional barriers
- to provide support for entrepreneurs in the critical phases of the business
- to focus on the culture of entrepreneurship in Europe.

In the presence of such initiatives, it is important for the state to create two conditions:

- Freedom of entrepreneurship, which is based on the removal of administrative barriers to increase the involvement of the private sector in PPP projects.
- Responsibility for the quality of business services, with a focus on consumer interests.

In order to understand the place of entrepreneurship in PPPs, it is necessary to pay attention to the entrepreneurial process. Howard Stevenson states in 1983 that the entrepreneurial process is: identifying and evaluating opportunities, developing the entrepreneurial plan, identifying the necessary resources and enterprise management. Graphic illustration of this theory would look like this:

**Figure 1. Entrepreneurial Process**



The study of modern entrepreneurship in the context of PPP stands its role as a means for channeling financial resources from less efficient to more efficient manufacturing operations well. In times of financial and economic crisis that can be observed in recent years, entrepreneurship is gaining a greater role in public-private relationships, focusing on the promotion of knowledge transfer and innovation through various entrepreneurial deployment plans by filling the existing market niches through presentation of new solutions. Entrepreneurship takes the risk of ending bankrupt or gaining profit, capital, etc. That's what puts entrepreneurship at the heart of development of public-private partnerships and the development of economic competitiveness.

#### 4. Framework of interaction between PPP and Entrepreneurship

According to the European Investment Bank, the legal and regulatory framework that supports public-private partnership aims to facilitate investments in complex and long-term arrangements for PPP in order to create conditions to reduce costs and to provide legal and economic mechanisms allowing the authorization of any contractual disputes. The legal framework for PPPs in different countries varies depending on existing laws. A legal framework for PPPs should include:

1. Provisions for PPP, projects and/or activities that facilitate its functioning (e.g. establishment of legal rules, terms and conditions under which public assets can be transferred to non-public entities, the possibility that a company can choose subcontractors);
2. Provisions that allow governments to provide funding where applicable (e.g. provision of subsidies or making long-term commitments of public expenditure for the period, etc.).

The legal framework for PPPs is reflected in laws and regulations, but also in policy documents, explanatory notes, as well as in designing PPP contracts. The nature of the legal and regulatory framework, applicable to a transaction, also depends on the envisaged financing mechanisms and scope of responsibilities assigned to an organization or company. The role of the public sector is to provide know-how by suitably qualified experts.

The successful framework of interaction between PPP and entrepreneurship is oriented towards improving cooperation based on government strategies and corporate policies to increase the competitiveness of the economy and building business organizations as trusted partners and socially responsible participants in the economic life of the society. The main components of the frame are:

1. **Strategies** – for investing in public goods and services that develop markets, for support and building of infrastructure (scientific, educational, transport, communication), joint development of new products and institutional capacity building.
2. **Regulatory environment** - to promote business to new ideas and take risks;
3. **Technology transfer and innovation** - new tools for improving efficiency and productivity of the business, create products and services essential to economic growth.
4. **Improve access to financing and create conditions for long-term funding market** - through joint activities and initiatives that encourage partnership between the public and private sectors.

Long-term economic development depends directly on the support for innovation, creation of high technology, manufacturing of green products, and everything related to the development of efficient industries to create conditions for improving the quality of life. This necessitates the need for effective tools which stimulate innovation for creating new type of products and services to ensure economic prosperity.

It is believed that the framework of interaction not also provides legislation but creates joint research ventures with a balanced distribution of costs and return on investment, exchange of information and knowledge. This allows for creation and operation of SMEs that use innovative value-added products for the whole economy.

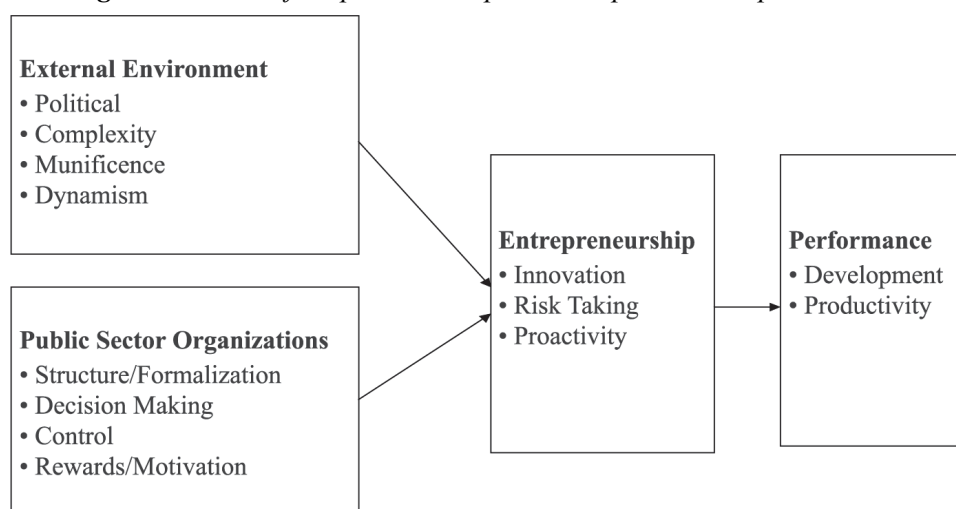
In terms of macroeconomics, this includes construction of regional economic and political networks aimed at mobilizing of resources in order to organize and develop the economy in a sustainable manner, including supply and demand of certain services, as part of the social economy and to promote the relationship between suppliers, manufacturers and customers.

In macroeconomic terms, a framework is required to build social boundaries consistent with the economic viability of the global economy in which the market plays a key role in the distribution and capital increase. (Carpi, 1997:265)

The development of this framework will depend more on the provision of relevant knowledge and organizational culture, rather than the supply of capital, capacity to form an institutional matrix or environment in which firms operate. This framework will depend on the provision of grants, organizing of specific advantages and abstract space of resource flows, so that local capital generates local economic growth (Willke, 1986:458).

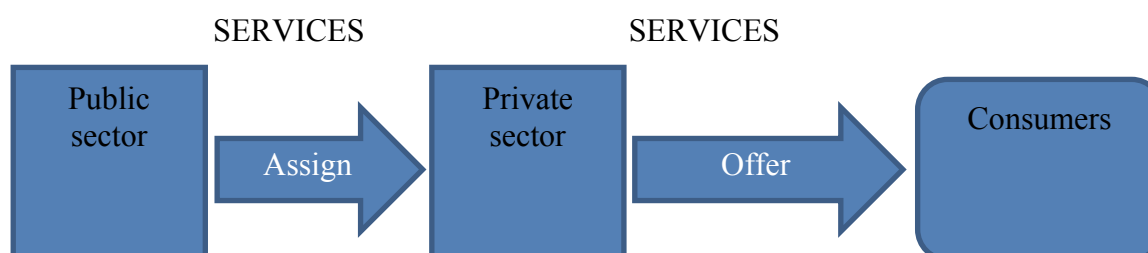
The current model of the interplay frame is illustrated as follows:

**Figure 2.** Model of corporate entrepreneurship within the public sector



According to the principles of PPP, the main objectives of the public sector are to maximize value of the procurement of services for implementation by the private sector, to maximize usefulness and efficiency of the service, eligibility of expenditure by service and achieving efficient public interest. The main objectives of the private sector are cost recovery, market realization through sustainable demand and efficient application.

**Figure 3.** Principles of PPP



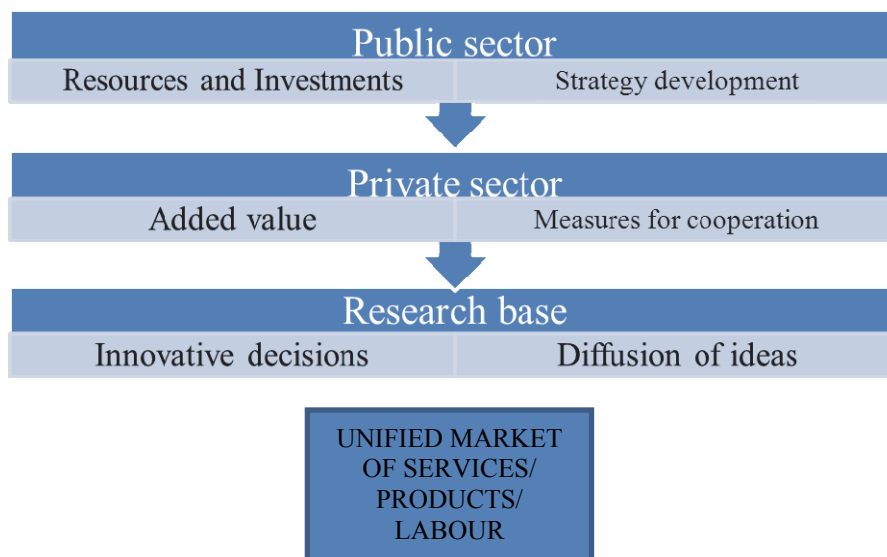
When considering the interaction between PPP and entrepreneurship we can identify several key elements to ensure the following results:

- Creation of a friendly environment for the promotion of innovation processes and cooperation of individual entities in the private and public sector;
- Encouraging entrepreneurial ideas to supplement public initiatives for private sector development;
- Creating a long-term vision for partnership;
- Establishing mechanisms for monitoring and control of PPP;
- Identification of potential risks;
- Selection of an appropriate model.

In modern days innovations have a key role to economic prosperity. They are seen as activities which result in achieving successful implementation of creative ideas that lead to improvements in technology, services, products, etc. to the benefit of society. Research institutions are accepted as one of the generators of innovation while the private sector is responsible for the implementation and commercialization of innovative ideas in the form of products or services, but this does not limit it to also act as a generator of various innovative ideas. Therefore the successful framework of interaction between PPP and entrepreneurship should include:

1. Greater concentration of public resources and targeted investments in scientific organizations and sustainable cooperation with SMEs developing innovative solutions;
2. Integrated scientific innovation policy or adequate coordination of policies for research and innovation, building strong relationships between the public and private sectors to achieve sustainable economic growth;
3. Effective involvement of the private sector in scientific innovation and related social processes;
4. Sustainable development of public and private research organizations.

**Figure 4.** Framework of interaction between PPP and Entrepreneurship



The framework for interaction between entrepreneurship and PPP should contribute to the establishment of a unified market for services and products, provision of investment in new cross-border links, and removing barriers to competitiveness and creation of new jobs. It would meet the primary objective of Europe - strengthening the leading position of the industry in innovation

i.e. more investment in key technologies, access to technology products, capital and support for SMEs which produce real commercial potential through PPPs.

The **framework** is an essential tool for attracting and realization of investments for implementation of infrastructure measures, providing favorable conditions for the development of social and market economy through:

- Raising funds for technological renovation in enterprises in order to create sustainable jobs. The opportunities for impact are high quality administrative service, building and maintaining economic and social infrastructure, depending on the business needs, creating conditions for new production and expansion of existing ones;
- Development of business infrastructure associated to various branches of the economy (research and innovation, telecommunications, ICT, environment, energy and transport).
- Regional development targeted to construction and development of industrial centers in both large and small cities i.e. even distribution of entrepreneurship and decrease in economic and social development of the economy.

## 5. Conclusion

The interplay between the PPP and entrepreneurship is the basis for building a competitive economy and coordination of European policies. Within this framework, the government is able to provide the necessary conditions and resources for effective management. The private sector is increasingly focusing on the development of cooperation with the public sector and in particular with research centers, providing value added services and products. It enables research centers to have the opportunity to unfold their potential and experience in various initiatives whose main goal is the expansion of the market for goods and services, so necessary for socio-economic development of any society. This framework of interaction is a means of finding support for the development and launch of business for SMEs, access to markets and technologies. Channeling private investments towards priority areas allows for achieving a link between the results of research and innovation needs of the economy and quality of life.

At the core of that framework, the focus is on improving the quality of services awarded/-offered by the state to/through the private sector, achieving long-term objectives of the enterprises reflecting the ways of action and allocation of necessary resources, finding innovative solutions through research organizations and finally to ensure equal treatment of users of these services.

Effective cooperation between the public and private sector would undoubtedly have a positive impact on the strategy "Europe 2020". The interplay between the PPP and entrepreneurship combines coordinated efforts to build a unified European market for goods and services and more investments for transnational cooperation. Achieving these results is part of a strategy to build an economic model based on smart, sustainable and inclusive growth.

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## THE CHALLENGES FOR YOUTH ENTREPRENEURSHIP: THE CASE OF YOUTH ENTREPRENEURS IN SERBIA

Dubravka ŠKUNCA<sup>282</sup>

### Abstract

*Youth entrepreneurship is crucial for future Serbia's economy. Youth entrepreneurship as a form of self-employment can give power to young people in a country with very low employment rates. This paper aims to come to better understanding of the constraints and opportunities for young entrepreneurs in Serbia. Thirty young entrepreneurs based in Serbia are being interviewed in a period of 3 months. Their responses have been analyzed and key findings will be presented. Research will identify challenges for young entrepreneurs. The results will show that weak contract enforcement and business invoices payment delays, high payroll taxes, financial problems in terms of getting credit, insufficient business training programs and lack of entrepreneurial mindset teaching in schools are major constraints that young entrepreneurs encounter. Youth entrepreneurship is a critical issue for Serbia's economic and social future. With traditional job opportunities scarce, self-employment can serve as an important means for young people to join the labor force, in addition to supporting Serbia's economic growth. Improving the environment for young entrepreneurs is crucial because a number of important constraints remain, most notably with regards to the policy environment, the lack of financing opportunities, the lack of entrepreneurial culture, and youths' need to obtain business skills and information. All interviewed entrepreneurs accented importance of business incubators, especially in the start-up phase of business. Interviewees saw incubators as a key way of expanding entrepreneurship. Incubators offer a wide range of free or subsidized services including office space, administrative resources, connections to finance, and ongoing training that address nearly all of the constraints faced by a youth-owned start-up.*

**Keywords:** youth entrepreneurship, constraints, opportunities, Serbia

### 1. Introduction

This paper consists of introduction, four chapters and conclusion. First part of the paper *Youth entrepreneurship in Serbia* consists of theoretical framework and literature review. Second part *Interviews*, third part *Problems of youth entrepreneurship* and fourth part *Opportunities of youth entrepreneurship* are empirical and represent author's research. Author had interviewed thirty young entrepreneurs based in Serbia in a period of 3 months. Their responses have been analyzed and key findings presented in third and fourth part of the article. The problem facing young entrepreneurs is lack of finance in new or an already existing business. High interest rate charges on loans by banks scares off potential small and medium scale entrepreneurs. Entrepreneurship encourages competition and economic growth. At the early stage of entrepreneurship entrepreneurs have a problem either with time control, setting goals, measuring performance, finding and retaining qualified employees, accessing and getting useful information. In this study is given

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analysis of youth entrepreneurship development in Serbia. Youth entrepreneurship as a form of self-employment can give power to young people in a country with very low employment rates. This paper aims to come to better understanding of the constraints and opportunities for young entrepreneurs in Serbia. Thirty young entrepreneurs based in Serbia are being interviewed in a period of 3 months. Their responses are being analyzed and key findings will be presented. Research will identify challenges for young entrepreneurs and for establishing sustainable entrepreneurship environment. The results will show that lack of state support, as well as good role models, among other factors, are constraints that young entrepreneurs encounter. The study concludes with recommendation that will promote and sustain the growth and development of youth entrepreneurship in Serbia which can be achieved by implementing effective strategic measures to form base for sustainable environment for young entrepreneurs as well boost the economic growth of the country. Youth entrepreneurship is a critical issue for Serbia's economic and social future. With traditional job opportunities scarce, self-employment can serve as an important means for young people to join the labor force, in addition to supporting Serbia's economic growth. Improving the environment for young entrepreneurs is crucial because a number of important constraints remain, most notably with regards to the policy environment, the lack of financing opportunities, the lack of entrepreneurial culture, and youths' need to obtain business skills and information.

## 2. Youth entrepreneurship in Serbia

According to the Global Competitiveness Index rankings in the Global Competitiveness Report 2013-2014 issued by World Economic Forum, Serbia is ranked 101 out of 148 countries. The "Burden of government regulation" indicator ranks Serbia very low at the 142<sup>nd</sup> place and according to the "Transparency of government policymaking" indicator, Serbia is at a low 118<sup>th</sup> place. Serbia has absolutely unacceptable evaluations for the "State of cluster development" – 129<sup>th</sup> place, "Nature of competitive advantage" indicator - 145<sup>th</sup> place and "Country capacity to retain talent" – 146<sup>th</sup> place. The most problematic factors for doing business in Serbia are corruption, inefficient government bureaucracy and access to financing (World Economic Forum, 2013). Bureaucratic obstacles and excessive administration harm entrepreneurship and small businesses, forcing them into a gray area of operations and enhancing corruption. It is very difficult for potential entrepreneurs in Serbia to gain initial funds from banks. Banks mostly lend money to the companies that have been in business for more than three years and have a strong guarantee. One of the important questions for young potential entrepreneurs is adequate informing. Better information exchange contributes to a better understanding of problems and results. Regional chambers of commerce provide some support in terms of information, but much still remains to be done before these institutions can fulfill their role to full capacity. Also the local authorities in many municipalities are not sufficiently involved.

Entrepreneurship is the willingness and the ability of an individual to seek investment opportunities, set up and run an enterprise successfully. It is as the ability to organize a business undertaking and assume the risks for the sake of profit, also as the willingness of one to start, control and direct the processes of production of goods and services and bear the risks too. Entrepreneurs introduce new products and ideas, establish unknown needs and create employment opportunity. Entrepreneurship is characterized by innovation and risk taking and it is essential factor of a nation's ability to succeed in changing and more competitive global market place. It is the capacity and willingness to undertake organization and management of a productive venture with all co-occurrence risks while making effort to make profit as a reward. The entrepreneurial process involves all the functions, activities and actions associated with perceiving opportunities and creating organizations to pursue them. The term entrepreneur has been in existence since 16<sup>th</sup> and 17<sup>th</sup> century and it was formed from the French word "entreprendre", meaning "to undertake". Entrepreneur is a person who is active and who get things done, an independent thinker who has

the boldness at all times to be different and innovative. The main entrepreneurial characteristic is personal initiative, the ability to combine resources, management skills, risk taking, a desire for autonomy while some other characteristics includes aggressiveness, reality-based actions, competitiveness, goal-oriented behavior, confidence, intuitiveness, ability to learn from mistakes and the ability to use human relation skills. In essence, the entrepreneur appreciated risk-taking, innovations, and maximizes opportunities and the range of freedom to perform these functions varies for each economy. Especially, it depends mostly on how much the economic policy permits and enhance development of entrepreneurship. The concept of entrepreneurship is linked with several operations of innovation, risk bearing, identifying the investment opportunities, deciding the opportunity to work excessively hard on how to promote and set up the business enterprise, gathering the scarce resources required for production and distribution, organizing and management of human and material resources to meet up with the set goal. A nation economic development depends on the successful entrepreneurship.

### 3. Interviews

The purpose of the research is to provide strategic guideline for successful youth entrepreneurship in Serbia. Research objectives are to explore strategies for achieving successful youth entrepreneurship. A total of 30 entrepreneurs were interviewed in Serbia for the period of 3 months. The businesses owners interviewed are younger than 40 years old. There were 20 male and 10 female entrepreneurs interviewed. From 20 male entrepreneurs 15 are involved in trade and stationed in Belgrade and 5 are involved in services and stationed in Novi Sad. From 10 female entrepreneurs 5 are stationed in Belgrade and involved in production and 5 are from Kragujevac and involved in services. All of the interviewed entrepreneurs had training in entrepreneurship and 10 male entrepreneurs were involved with business incubators. Respondents were told to be very open with their answers to the questions. They were asked two questions. These questions are “*What are the main problems for youth entrepreneurship in Serbia?*” and “*What measures can be adopted to boost youth entrepreneurship success?*” Youth unemployment is a critical issue for Serbia. High unemployment rates mean that many young people are forced to either search for part-time work, often in the grey market, or make plans to emigrate. At the same time, evidence suggests that the interest in self-employment among young people is high and remains unmet. Young people in Serbia currently face major economic challenges. Recent estimates indicate that unemployment for youth (ages 15-30) is as high as 46%, leading many young people to either search for work in the gray market or make plans to find work outside of the country. Even while undergoing an average GDP growth rate of 5.8% between 2000 and 2008, Serbia’s net job creation remained stagnant. While traditional employment will continue to play a key role, providing avenues for entrepreneurship will also be an important part of allowing youth to join the formal economy. In 2011, youth made up roughly 25% of the 20,000 people who inquired about Government of Serbia - sponsored start-up grants from the National Employment Service and 25% of the 12,000 people who completed National Employment Service two-day business training in 2011. In addition, a recent survey shows that 33% of young people would prefer to have their own business rather than the safe but low-paying jobs that are generally available; however, these young people feel that a wide range of constraints make it difficult to realize their entrepreneurial aspirations. Creating employment opportunities for self-employed youth as well as the other young people they employ and capitalizing on the fact that young entrepreneurs may be particularly responsive to new economic opportunities and trends. Just as young entrepreneurs offer distinct benefits to a community, they tend to face unique challenges. Youth entrepreneurs are more likely to face problems of access to resources such as capital and are more likely to start their enterprises with lower levels of initial capital (Stamatović, M., Zakić, N., Marković, Z., Stamatović, Lj., 2012).

#### 4. Problems of youth entrepreneurship

The data collected through interviews with 30 young entrepreneurs in Serbia over a three months period gave important insight into problems of youth entrepreneurship. Every entrepreneur identified one constraint as a major. The major problems being identified are weak contract enforcement and business invoices payment delays (12 entrepreneurs), high payroll taxes (7 entrepreneurs), financial problems in terms of getting credit (5 entrepreneurs), insufficient business training programs (4 entrepreneurs) and lack of entrepreneurial mindset teaching in schools (2 entrepreneurs). Entrepreneurs must pay the Value-Added Tax (VAT) on an invoice from the moment it is issued instead of on the day when sales revenue is actually collected. It often takes a long time for owners to recover payment, which makes it hard for businesses to manage cash flow. Payment terms in Serbia currently average over 200 days, and have forced a lot of businesses to shut down. As a benchmark comparison, the European Union average is 35 days for both domestic and foreign payments. Entrepreneurs who pursue payment in court can expect to wait an average of two years for a settlement. Many youth-owned start-ups cannot afford to hire extra employees because of the high payroll tax rate (health insurance, pension, etc.). Owners are required to pay roughly 65% of the gross salary of one employee as payroll tax. High interest rates are the primary reason that the young entrepreneurs do not take out commercial loans. The typical interest rates applied by banks to youth businesses are more than 20%, while the rates for non-collateral micro loans can be as high as 35%. While both National Employment Service grants and Fund for Development claim their loans are given based on the soundness of the business plan, information about how the money is disbursed and its results are not made publicly available. Moreover, there is currently no external monitoring and evaluation of how these public programs are managed. There is currently no government funding that targets youth businesses exclusively, and those that are available to start-ups are often insufficient to motivate young people to start their business. There is lack of entrepreneurial culture and the lack of successful youth entrepreneurs who could serve as role models. In Serbia's short history with a market-based economy, there have been relatively few successful entrepreneurs, and youth look to role models to motivate and inspire them in all aspects of their lives. The most famous examples of successful entrepreneurs in Serbia are ones who acquired success under questionable circumstances. There is the need to move beyond technical business trainings for older youth outside of school and to incorporate entrepreneurship training directly into schools for younger children. The European Union has clearly identified the incorporation of entrepreneurship into all levels of schooling as a key area with the 2006 Oslo Agenda, which sets out best practices for integrating entrepreneurial training into primary, secondary, and tertiary school curriculums. Incorporating entrepreneurship training into schools therefore not only will built this specific sector in Serbia but will also furthers Serbia's alignment with EU norms and allows for a number of integration and best practice exchange opportunities (USAID, 201

#### 5. Opportunities of youth entrepreneurship

By answering the question “*What measures can be adopted to boost youth entrepreneurship success?*” 30 young entrepreneurs helped define opportunities of youth entrepreneurship. Out of 30 interviewed entrepreneurs 10 male entrepreneurs were part of business incubators. But, all interviewed entrepreneurs accented importance of business incubators, especially in the start-up phase of business. The concept of business incubators has received a significant amount of attention in Serbia in recent years. Serbia now has over 20 incubators across the country. Interviewees saw incubators as a key way of expanding entrepreneurship. Incubators offer a wide range of free or subsidized services including office space, administrative resources, connections to finance, and ongoing training that address nearly all of the constraints faced by a youth-owned start-up. For those entrepreneurs with access to the resources offered by an incubator, there are generally



large benefits, and these benefits can be publicized to cause a positive spillover effect of increasing attention for entrepreneurship in general. First, creating a strong national network of incubators will serve multiple purposes. One, it would allow incubators to share best practices. Two, it would allow for standardization to ensure that all incubators are following some of these best practices and to allow for scaling the model effectively. Quality incubator manager is the most important factor of success. Managers must be able to understand needs of the businesses being incubated as well as the needs of the incubator organization as a whole, and as such, must have a very specialized set of skills. Lastly, an innovative way to reduce the resource intensity of incubators is to repurpose underutilized public spaces and to provide business services through corporate or government volunteer programs. Reducing the cost of doing business is important because start-ups tend to lack the working capital that is necessary to survive both the costs of doing business and the costs of filling customer orders, in comparison with existing businesses. Municipalities, which are responsible for imposing the majority of quasi-fiscal charges, can relieve much of this financial burden. One exemplary regulatory environment is the municipality of Indjija, located in the northern part of Serbia. It is listed as 18th of the 25 best investment locations in Europe according to the Financial Times, beside cities such as Amsterdam, Warsaw, Madrid, Frankfurt and Budapest. In Indjija, the municipal government has been able to attract the largest amount of investment per capita among all Serbian municipalities. There are over 2700 businesses (85% small, 14% medium and 1% large). Foreign investors include Monus, Henkel, Thyssen Krupp, Tradeunique, Farmina, Embassy Group, Grundfos, Metalcinkara and Baurhein. Much of this success is owed to a set of business-friendly policies: the lowest corporate tax rate in Europe, tax credits for investments in fixed assets up to 80% of assets value, various government subsidies and tax exemptions for creating new jobs, and industrial parks with turnkey infrastructure. The Italian Industrial Park will serve as the largest and technologically most sophisticated distribution center in Eastern Europe for goods produced on its premises, and is valued at a total of EUR 500 million. There should be established multi-sector selection panels at National Employment Service and Development Fund and such panel will be able to select recipients based on standardized criteria for judging the business plan. The panel should consist of municipal-level experts from the private sector and public sector to ensure that the selection process is depoliticized and to stamp out favoritism. This opportunity is important for the European Union integration process for two reasons. As an European Union accession candidate, Serbia will be required to have transparent policies and laws for all of its public programs. Additionally, in the National Strategy of Serbia for European Union Accession, the important precondition for successful implementation of the Employment Strategy is the reform of the National Employment Service. In fact, several of the respondents expressed that entrepreneurship education was their number one recommendation for developing a culture of entrepreneurship in Serbia. Entrepreneurial education has many benefits. Entrepreneurial education allows youth to think in a way where they are developing personal competencies such as responsibility, risk-taking and problem-solving, which are important for a productive workforce, regardless of whether or not they decide start a business in the future. Moreover, as previously mentioned, entrepreneurship education is an especially important focal point for the EU integration process for Serbia (USAID, 2012).

## 6. Conclusion

Youth entrepreneurship is a critical issue for Serbia's economic and social future. Self-employment can serve as an important means for young people to join the labor force, in addition to supporting Serbia's economic growth. Serbian state authorities have been trying to improve the conditions for small business and self-employment, but there are still numerous obstacles. The data collected through interviews with 30 young entrepreneurs in Serbia over a three months period gave important insight into problems of youth entrepreneurship. Every entrepreneur identified one constraint as a major. The major problems being identified are weak contract



enforcement and business invoices payment delays, high payroll taxes, financial problems in terms of getting credit, insufficient business training programs and lack of entrepreneurial mindset teaching in schools. Entrepreneurs must pay the Value-Added Tax (VAT) on an invoice from the moment it is issued instead of on the day when sales revenue is actually collected. It often takes a long time for owners to recover payment, which makes it hard for businesses to manage cash flow. Payment terms in Serbia currently average over 200 days, and have forced a lot of businesses to shut down. As a benchmark comparison, the European Union average is 35 days for both domestic and foreign payments. Entrepreneurs who pursue payment in court can expect to wait an average of two years for a settlement. By answering the question “*What measures can be adopted to boost youth entrepreneurship success?*” 30 young entrepreneurs helped define opportunities of youth entrepreneurship. Out of 30 interviewed entrepreneurs 10 were part of business incubators. But, all interviewed entrepreneurs accented importance of business incubators, especially in the start-up phase of business. The concept of business incubators has received a significant amount of attention in Serbia in recent years. Serbia now has over 20 incubators across the country. Interviewees saw incubators as a key way of expanding entrepreneurship. Incubators offer a wide range of free or subsidized services including office space, administrative resources, connections to finance, and ongoing training that address nearly all of the constraints faced by a youth-owned start-up. For those entrepreneurs with access to the resources offered by an incubator, there are generally large benefits, and these benefits can be publicized to cause a positive spillover effect of increasing attention for entrepreneurship in general. In the existing circumstances in Serbia, the growth of small business and self-employment of young people requires the striving and action of policy makers to overcome internal obstacles and constraints and encourage entrepreneurship.

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