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Varazdin Development and Entrepreneurship Agency

Editors:

Jadranka Bendekovic, Marina Klacmer Calopa and Davor Filipovic



## Economic and Social Development



**6<sup>th</sup> International Scientific Conference  
on Economic and Social Development and  
3<sup>rd</sup> Eastern European ESD Conference: Business Continuity**

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## Section 1

# Social Responsibility – Myth or Reality

## **SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL PROTECTION IN ROMANIA**

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### **ABSTRACT**

*Industrialization has led to deeply changes in the rural area and in western countries for more than a century, and in Romania on the half-century, which found reflection in a strong concentration of population in urban areas, while gradually decline of the motherland, and that led to the exodus. Environmental pollution and its devastating effects, which have made their mark on the contemporary generation, have generated the need for policies to protect the environment, but at the same time to create a framework conducive to sustainable development. The reason I chose this issue is due to the importance of the protection of the environment in which we are part, both in view of ensuring a healthy life, and to ensure a propitious economic environment development society. Another aspect that motivates the choice of the theme "Sustainable development and environmental protection in Romania" is found in the paradoxical character that defines the process of globalization, taking into account the fact that although most of the time it can be beneficial, may result in the same time, with risk-taking both in terms of the natural environment, as well as industry and transportation. The research goal is to capture the impact of pollutant factors on the environment' development, as well as measures that could mitigate the harmful effects of it. Also, the paper aims to present the economic reality of Romania, by drawing up a report on the work of environmental protection agencies, Botoşani, which is an element of strategic guidance on long-term efforts to solve the environmental development and protection issue, and the ability of some strategies of sustainable development on amount of time horizon of 2013-2020. In the literature, are now numerous concerns with a view to refining the objectives, whether in identifying appropriate methodologies to help protect the environment and ensure sustainable development.*

**Keywords:** *development, policies, pollution, protection, strategies*

### **1. INTRODUCTION**

Environmental pollution and the devastating effects that have made their mark on the contemporary generation generated the need of environmental protection policies, but at the same time to create a framework conducive to sustainable development. In the literature there are different formulations of the concept of sustainable development, but underlying the elaboration of development policies in various fields of human activity. By Allen's (1992) opinion, the sustainability expresses a use of "*species and ecosystems at the levels and in ways that allow them to renew themselves for any practical purpose development that realizes human needs over the long term and improve quality of life*". Goodland R. and Ledec G. (1988) believe that "*sustainable development is a pattern of structural economic and social transformations currently available without putting our potential likely to obtain similar benefits in the future[...]*sustainable development involves the use of renewable natural



*resources in such a way as to not be exhausted or degraded or are not diminished their usefulness for future generations[...]*it also involves the exhaustion of non-renewable energy resources". At European level it is necessary to adopt standard methods for managing air pollution, water management, soil to minimize impact on the environment and the sustainable use of resources, the main methods being the location of factories in places which minimizes the environmental impact of urban settlements and installations for waste water treatment, installation of pollution control equipment in a given period of time, or further measures to protect the environment. This paper comprises five sections. In the present work, we have tried to capture the harmful effects of pollution in terms protection and sustainable development environment policies do not perform the tasks well enough, and the importance of identifying the real information of environmental problems (the quality and quantity of drinking water, surface water pollution, dangers posed by disasters/natural and anthropogenic phenomena, landslides, excess moisture, soil degradation, etc.) in order to combat them.

## **2. ELEMENTS OF STRATEGY – SUSTAINABLE DEVELOPMENT AND THE HORIZON OF 2013-2030**

In the interests of progress and growth at all costs, man has forgotten, often that is part of the natural system, sometimes intervening over the carrying capacity. Thus, the imbalances has appeared, whose effects already feel, global concerns being increasingly emphasized in the direction of counteracting those effects. In order for the society to be able to adapt national strategies have been developed, with targets will result in actions that will resolve future problems our society faces today. As of November 2008, Romania has a new National Strategy for sustainable development, the defining element of which is the connection of our country to a new philosophy of development, the European Union's own, and widely shared throughout the world to that of sustainable development. Economic growth, as it was perceived and made it worth, affects the environment and actions, programs and meetings at the national and international level that have taken place since, in particular the 1992 World Summit in Rio de Janeiro - *United Nations Conference on Environment and Development* have been trying to limit the negative effects. Agenda 21 is an action program for the 21st century oriented by sustainable development. It was adopted by the States signatories to the Rio Declaration of June 1992. The main lines of action are: the fight against poverty and social exclusion, the production of sustainable goods and services, environment protection. In 2002 took place the United Nations Summit on Sustainable Development, held in Johannesburg had as main outcomes:

- The Johannesburg Declaration on sustainable development;
- Implementation plan of the World Summit on sustainable development

The Johannesburg Summit reaffirmed sustainable development as a central element of the international agenda and gave a new boost to the practical implementation of global measures to fight against poverty and for the environment protection. Has developed an understanding of the sustainable development`s concept, in particular by highlighting the main links between poverty, environment and use of natural resources. Through the Johannesburg Declaration was assumed the collective responsibility for the progress and development of the three pillars of sustainable development: economic development, social development, environmental protection at the local, national, regional and global level. The defining element of this National Strategy is fully connected to a new philosophy of development, the European Union's own and widely shared throughout the world-that of sustainable development.

It starts from the finding that, at the end of the first decade of the 21st century, after a prolonged and traumatic transition to pluralistic democracy and a market economy, Romania still has considerable gaps still to be recovered from the other Member States of the European Union, together with the learning and transposition in practice of the principles and practices of sustainable development in the context of globalization. With all the progress made in recent years, it is a reality that Romania still has an economy based on the intensive use of resources, a society and an administration still in search of a unified vision and a natural capital affected the risk of deterioration that can become irreversible. This strategy sets out targets for the transition, in a reasonable time frame and realistic, the development model for generating high added-value, propelled by interest in knowledge and innovation, aimed at continuous improvement of the quality of life of people and the relations between them in harmony with the natural environment. As a general guideline, the work aimed at achieving the following strategic objectives on short, medium and long-term:

- *Horizon of 2013*: The incorporation of the principles and practices of sustainable development in all programs and policies of the Romania's Government as a EU Member State.
- *Horizon of 2020*: Reaching the current average level of the European Union's countries at the main indicators of sustainable development.
- *Horizon of 2030*: Romania's significant near to the average of that year of EU member countries from the point of view of sustainable development indicators.

These strategic objectives will ensure at the medium and long term, a high economic growth and, consequently, a significant reduction of the economic and social gaps between Romania and the other Member States of the EU. Through synthetic indicator through which measure the process of real convergence, i.e. a per capita gross domestic product (GDP/place), the purchasing power standard (PCS), the implementation of the strategy creates the conditions that GDP/place expressed in PCS exceed, in 2013, half of the EU average in that time, to come closer to 80% of the EU average in the year 2020 and to be slightly higher than the average level in the year 2030. Shall ensure the fulfillment of the obligations assumed by Romania as a Member State of the European Union pursuant to the Treaty of accession and the effective implementation of the principles and objectives of the Lisbon Strategy and the renewed Sustainable Development Strategy of the EU. The objectives arising from the strategies, plans and national programs of development by Marinescu (2003), the Strategy sets out the main directions for action for appropriating and applying the principles of sustainable development in the next period:

- The accelerated modernization of education and training systems and public health, taking into account the unfavorable demographic developments and their impact on the labor market.
- Insurance security and safety food through harnessing the comparative advantages of Romania in respect of the development of agricultural production, including organic products. Correlation of quantitative and qualitative growth of agricultural production to ensure food for people and animals with the requirements to increase the production of bio-fuels without compromising the requirements relating to the maintenance and enhancement of soil fertility, biodiversity and protection of the environment.
- Protecting and exploiting the cultural and natural heritage. Connection to European rules and standards relating to the quality of life to be accompanied by revitalization, in modernity, of traditional modes of live, especially in mountain areas and wet ones.
- The objectives aims the maintenance, consolidation, expansion and adaptation of the structural pattern and functional capacity of natural capital as the foundation for

maintaining and enhancing its capacity to support social development pressure and economic growth and the predictable impact of climate change.

### **3. REALITY IN ROMANIA'S DEVELOPMENT**

Newly industrialized countries are countries with a large industrial sector, developing in parallel with a traditional sector considerably. A significant proportion of the population still lives in rural areas and work in traditional economic sectors based on agriculture. In the cities, modern industry, with a work force of elite workers category, is sitting next to a considerable informal sector, ranging from the street complex up to small workshops and factories. The average level of income per capita is much lower than in the developed industrial countries, and the standard of living is usually much lower, there is a middle class, a little big, but growing. Also lacks social protection in developed countries. Most of these countries, except Brazil, tend to rely heavily on foreign trade. As regards agriculture, there are analysts who say that Romania could receive substantial income from the export of agricultural products, due to natural conditions with which it is equipped. A short distance after the retail trade are agriculture and the food industry are closely related. Agricultural production has started to decline steadily (with some exceptions) after 1990, and vegetable production, and of the main causes underlying the low agricultural yields are: i) lack the facilities and modern technologies; ii) reliance on natural conditions; iii) poor infrastructure development. Romania to fulfill its commitments, leading to a growing confidence in the Romanian economy, should aim at addressing the following issues: strengthening the financial and banking system, as well as capital market development, simplification of the tax system, the revival of investment, privatization. It should produce fundamental changes in the internal structure of the economy, in the forms of management, in economic behavior and attitudes in people. Privatization is not an end in itself, but a necessary process of restructuring the company's background, a means of increasing the efficiency of resource use and to stimulate competition and economic performance. In anticipation of the coming years, the private sector will hold a share of 75-80% in the gross domestic product, while the public sector will have to adapt to the competitive system. This process must be conducted in strict compliance with the law and with complete transparency.

### **4. ENVIRONMENTAL PROTECTION AGENCY, BOTOȘANI-INSTITUTIONAL COMPONENT OF SUSTAINABLE DEVELOPMENT (CASE STUDY)**

Botoșani County is located in geographically in the north-eastern part of Romania, having as neighbors Ukraine, Republic of Moldova, respectively. Being between the rivers Siret and Prut River to the West, forming the border with the Republic of Moldova, Romania, Botoșani county borders with just two counties of Moldova, namely: Suceava County to the West, and to the South with the Iasi County. Including within the boundaries of its territory of 4965 km<sup>2</sup> belonging to the northern part of the Moldavian Plateau, Botoșani County ranks 29th, share in total national territory was 2.1%. Botosani relief belong to two major units of the Moldavian Plateau: Plateau of Suceava in the West (about 21%) and Moldavian Plain in the rest of the territory (about 79%). Overall, the relief takes the form of high peaks and hills in the West and Northwest with average altitudes around 400 m and in the form of a plain bottom with average altitude of 150 m in the rest.

#### **4.1. Organizational structure**

Environmental protection agency Botoșani was founded on 1 august 1990 and is a public institution with legal personality, subordinated to the national agency to fulfill its

responsibilities to the county level, for the Environment Protection, with the status of a decentralized public service, financed from the state budget.

## 4.2. The main pollutants of environmental factors (air pollution, soil and water)

### 4.2.1. Air pollution

Environmental protection agency (EPA) Botosani oversees air quality through a structured monitoring network: gaseous pollutants, by 4 points in the workflow, in the Botosani (EPA, SC ELECTROCONTACT and WWTP) and in the frontier zone - Darabani (weather station); particulate matter in two points in 24-hour stream located in the city of Botoșani (EPA Botoșani and SC STORSACK RO. Botosani Ltd); sedimentable powders in the 5 points in the monthly flow located throughout the County, Botoșani (EPA Botoșani, weather station Botosani, Waste water treatment plant Darbani, Săveni cleaning station, Waste water treatment plant Bucecea) quality of rainfall in 3 points, one of which in the border area with the Republic of Ukraine (EPA Botoșani Treatment station Dorohoi, weather station Darabani); nitrogen oxides, at a single point (Darabani), with "automatically Monitor for NO<sub>x</sub>".

Among the atmospheric pollutants are:

- *sulphur dioxide* is a colorless, non-flammable, bitter with a sharp odor that irritates the eyes and respiratory tract.
- *ozone* gas very highly reactive oxidant, strong odor. High concentrations of ozone can cause reduced respiratory function.
- *carbon monoxide* is a colorless, odorless, tasteless, is formed mainly by incomplete combustion of fossil fuels; in high concentrations is lethal (at concentrations of approximately 100 mg/m<sup>3</sup>) by reducing transport capacity of oxygen in the blood, with consequences on the respiratory system and the cardiovascular system.
- *nitrogen dioxide*, very reactive gas, no color or odor.

Exposure to high concentrations can be fatal, and at low concentrations affect lung tissue. The population exposed to this type of pollutants may have difficulty breathing, respiratory irritations, dysfunction of the lungs.

For the beginning of the year there were no reported values of the indices to pick up signs of concern:

Table 1: Indices values (source: <http://www.apmbotosani.ro/>)

No. Crt.	Air pollutant	Botoșani		Suceava	
		hour 01 <sup>00</sup>	hour 16 <sup>00</sup>	hour 01 <sup>00</sup>	hour 16 <sup>00</sup>
1	<b>Nitrogen dioxide</b>	21,01	11.59	293,74	1,57
2	<b>Sulphur dioxide</b>	3,66	3,31	0,40	3,07
3	<b>Ozone</b>	28,63	73,19	35,19	78,75

Currently is running a project financed by the European Union for the prevention of natural disasters caused by floods and air pollution. This project represents a comprehensive network to monitor air quality for 34 EPA in the country (ex: Botoșani has an EPA and an urban station; Suceava station has another one, an industrial urban 1 and a SMEP; Iasi, an EPA; Bacau an EPA, an urban station, two industrial stations 1 and 2). Every EPA is to monitor and operate with the control system of air quality including the individual control of each workstation which instruments belonging to them. The complete network of this project consists in 94 stations, of which 82 are equipped with meteorological sensors. Data are

transmitted from the workstation to the EPA headquarters to which they belong and the EPA data, 34 are transmitted to Headquarters in Bucharest, where they are processed, verified and released via the Internet.

#### 4.2.2. Soil pollution

Due to repeated drought and irrational use of arable farm land and soil quality has decreased, thus, in Botosani County, meet the following unfavorable aspects:

- Landslides affecting 15% of the total agricultural area, of which the assets of 9.1%. Extension of landslides in recent years, is due to the lack of a program of improvements to land, through the leveling, drainage works, or afforestation schemes are designed to protect these lands.
- Excess moisture from the ground affect the nature of agricultural soils 12,6%. Drainage and drainage works executed prior to 1989 on a portion of these lands no longer work only partially, or are completely degraded.
- In terms of ensuring agricultural soils with humus, data analysis shows that 30% of these are weak and very poorly provided with hummus. The most important cause of low humus content consists of moderate to strong erosion or excessive if it is found on the slopes with inclination.
- Very weak and feeble assurance with mobile phosphorus is found on the 44% of the area under study. Agricultural research have established that the losses of harvest in the case of weak supply and especially very poor soils with phosphorus. As a result, this deficiency in phosphorus is an important limiting factor for agricultural production in Botoșani County.
- Ensuring agricultural soils with potassium is good throughout the County, only 7% of agricultural soils are poorly stocked and medium.

##### 4.2.2.1. Forests

At present, forests are threatened by a drop of control degradation and transformation to other areas considered. An expansion of agriculture, excessive grazing, cutting an uncontrolled, combating of fires and damage due to air pollution. Forest damage and the loss of their leading to soil erosion, reduced biological diversity and wild life habitats, degradation of the catchment areas and reduce the amount of firewood, timber and other goods necessary for human development. They reduce the number of trees that can retain carbon dioxide, which is a greenhouse gas.

Table 2: Forestry (source: <http://www.apmbotosani.ro/>)

County	Total area (ha)	Background forest (ha)	% of total area
Botoșani	498569	54635	10,10%

Table 3: The area occupied with woods on the property categories  
(source: <http://www.apmbotosani.ro/>)

RNP	Administrative territories	Legal entities (units of worship, schools)	Individuals	TOTAL FF
45.232 ha	14 ha	508 ha	8881 ha	54.635 ha

*Table 4: The area occupied with woods on the functional groups  
(source: <http://www.apmbotosani.ro/>)*

Functional group	Property category				
	RNP	Administrative territorial units	Legal persons	Individuals	TOTAL FF
I	7667 ha	-	139 ha	510 ha	8316 ha
II	37565 ha	14 ha	369 ha	8371 ha	46319 ha
TOTAL	45232 ha	14 ha	508 ha	8881 ha	54635 ha

### 4.2.3. Water pollution

#### 4.2.3.1. Rivers

Botoșani County territory is limited to the eastern extremity of the Prut River, the main river Bașeu tributaries that join in the Stefanesti locality and the Jijia River, which join in the Iasi County. In turn, Jijia River tributaries the rivers and Miletin Sitna.

The Prut River basin occupies 88% of the area of the County, and 12% is occupied by the Siret River basin, located in the western part of the County. The distribution on the river basins are presented as follows:

- B.H. Prut – 4382 kmp;
- B.H. Siret – 603 kmp.
- The hydrographic network is encoded length 2054 km.

The main sources of water from the Botosani territory are made up of the rivers Prut and Siret. Small watercourses in the County have variable flows in the spring-summer season, while their quality does not fall within the confines of that pathogenetic germ. Collections with complex existing role on these courses ensure permanent water sources, water resources of the County being supplemented by groundwater.

#### 4.2.3.2. Lakes

On the Botosani territory there are about 150 lakes, mostly mixed fisheries, as well as sources of water supply for potable for an important number of localities. Bucecea Lake has a volume of 8,73 mil mc and ensure the supply of drinking water for cities of Botosani and Dorohoi and areas adjacent. It also ensures the transit of the surplus period flows bypass the Sitna-Siret (in accumulating Cătămărăști) to compensate for the shortage of water in the Jijia River basin. Lake Cliff, with a total volume of 1285 mil mc and a volume of 450 million cubic meters, providing drinking-water supply for villages and Ștefănești and Trușești, in perspective, Santa and Dângenii, but also produces electricity from an installed power of 65 mil kWh. Negreni Lake, situated on the river Negreni locality Negreni, ensure safe drinking water for the city of Săveni installed at a flow rate of 43 l/s. Net volume is 10,30 mil mc. We can remember and other lakes with fish use, such as: Iezer, Cătămărăști, White Horse, Mileanca, Dracșani.

*Table 5: Water resources accumulated in the Botoșani County  
(Direction Of The Romanian Waters "Prut" Iasi)*

<b>The name lake reservoir</b>	<b>Total volume (mii. mc)</b>	<b>Useful volume (mil. mc)</b>
Stâncă - Costești	1.400.000	450.000
Cal - Alb	16.280	4.950
Negreni	25.600	8.800
Hănești	6.400	4.200
Mileanca	14.350	5.100
Iezer	14.100	3.600
Căt ămărăști	17.950	7.520
Dracșani	10.710	8.210

A special situation is the rural areas from which it is made water-supply system, but there is no sewage system-purge. In these localities, wastewater-of all kinds-are discharged into the natural receptors diffuse without prior treatment. Most of the urban waste water treatment plants have been completed in more than 25 years, they are in an advanced degree of physical and moral wear and tear (especially), also having the ability to purge debts increased by insufficient waste water resulting from the development of settlements or economic targets connected to the sewage system and, in general, does not have the technological profile required for cleaning the whole range of pollutants discharged into the sewer pipe network. Most municipal wastewater treatment stations not carried out qualitative parameters regulated, spilling into the receiving water flow rates relatively high purified water insufficiently. Together with municipal waste waters, on the quality of water courses have a special role is busy by industrial pollution sources.

#### **4.3. Proposals for sustainable development**

The national strategy for *Sustainable Development* at horizon years 2013-2020-2030, renewed in 2006 (*The National Centre for sustainable development, 2011*). Since 2009 began the process of re-evaluation of programmatic documents, strategies and national programs, sectoral and regional authorities to make them agree with the principles and practices of sustainable development and with the evolution of EU regulations.

#### **4.4. Local action plan for the environment (LAPE)**

LAPE represents short-term strategy, medium and long term in order to solve environmental problems in the county's approach to sustainable development principles and is fully in line with the National Action Plan for Environmental Protection and concerns mainly: supply of drinking water to the population, the soil condition, land fund, biodiversity, air quality in the urban environment, waste and their impact on the environment, etc.

##### **4.4.1. Supply of drinking water to the population**

In the Botoșani County supply of drinking water to the population is through centralized water distribution in 68 villages, 4 of these being urban townships, and the measures to be taken for improving them shall take into account:



*Measures:*

- rehabilitating, expanding the sewerage systems in urban environments and water supply in the other towns in the County;
- capacity expansion, modernization/refurbishment of existing treatment stations and construction of new stations in rural space;
- enforcement of defenses against flooding;
- improving the system for monitoring water quality by identifying and attracting new sources of funding.

#### **4.4.2. Soil condition**

Due to repeated drought and irrational use of arable farm land and soil quality has declined, favoring emergence: landslides, the erosion of it, excess moisture or acidity excess etc.

*Measures:*

- the elimination of illegal waste deposits;
- provision of necessary facilities for storage in accordance with the law of household waste (organic deposits area achievement of household waste and the related transfer stations);
- closure of existing deposits which do not comply with E.U. standards

##### **4.2.2.1. The Land Fund**

*Total County:* 498.569 ha. The forests are threatened by a drop of control degradation and transformation to other mixed with an expansion of agriculture.

*Measures:*

- appropriate management of forests;
- harvesting activities supervision/catching and/or purchase and marketing of the plants and animals of the wild flora and fauna;
- elaborate and implement specific programs for the public awareness on the need to protect and conserve the natural values of the forests and the ways of making tourism.

##### **4.2.2.2. The biodiversity**

*Natural habitats* are forest, meadows, and marshes, cliffs of sweet waters. Forest habitats are aggregated 57215 hectares which represents 11.5% of the County's territory, a percentage that is below the country average (27%).

*Measures:*

- provision of appropriate management of protected natural areas by creating administrative structure of national parks and the award in the custody of natural resources;
- enumeration of the species of fauna and flora of Community interest, as well as habitats of Community interest; inventory of special areas of conservation and special protection areas the areas;
- ecological reconstruction of ecosystems and habitats damaged etc.

#### **4.4.3. Air quality in urban areas**

In the absence of industries with high pollution, the main factors for Botoșani County polluters could be: road traffic, heating systems and living spaces, street sanitation insufficient. Green spaces and recreation can be the antidote for a cleaner environment.

*Measures:*

- introducing clean technology by businesses, the installation of effective systems of pollution atmosphere retention;
- support for carrying out bypass roads of municipalities and towns and promoting alternative transportation systems;
- transposition of E.U. requirements and implementation of the legislative.

## 5. CONCLUSION

In a world in motion and transformation, registering economic growth, as well as episodes of financial collapse (the current financial crisis), the existence of policies and tools to help control pollution and adverse effects, comes as a necessity in order to meet the conditions imposed by certain environmental standards. Romania has a relatively large domestic market and the second largest in Central and Eastern Europe, a qualified workforce with low costs compared to Western European countries, and Romania's economic prospects have been improved following the accession to the European Union. Furthermore, the availability of external financing programs targeted directly for environmental protection and nature (LIFE, ECOLINKS, REC), as well as the creation of national environmental fund for the support and implementation of priority projects included in the national plan of action for environmental protection are some opportunities for development. On the other hand, the low productivity of the soils in the surrounding areas of industrial targets, the disappearance of some species of plants and animals in the absence of special programs for their protection and continued uncontrolled global deforestation with effects on air pollution, soil erosion is threatening regional development. Also, the widening current account deficit and rising inflation make a negative contribution to the Romanian economy. The increased dependence of foreign capital, raising interest rates and depreciation of the national currency generate negative effects on people and companies that have borrowed in foreign currency. Worsening political tensions, minority Government's position and concern for new elections this year have removed politics from the continuation of reforms and strategies for recovery of macroeconomic imbalances. Romania's current situation shows weak points as well as sustainable development: pollution of surface water and groundwater as a result of uncontrolled discharges of economic agents, as well as due to poor sewerage infrastructure development especially in rural areas, and centralized systems non-existent water supply in rural areas and in some urban areas, as well as the existence of areas of land affected by natural phenomena of degradation.

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## **ENTREPRENEURIAL INCLINATION IN HUNGARY: ANALYSIS FROM A NATIONALLY REPRESENTATIVE SAMPLE**

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### **ABSTRACT**

*The aim of this study is to present some observations on the possible connection of entrepreneurial inclination and innovation acceptance in Hungary, which was assessed by a face to face survey conducted in order to implement the examination of the social acceptance of ecologically sustainable technologies within the 5th activity of the Social Renewal Operational Programme (SROP)-4.2.2.A-11/1/KONV-2012-0058, Modeling the effects of the energy-production, utilization and waste management technologies to the competitiveness of the cities and regions. The survey sample of 2000 adults was representative of the population of Hungary considering gender, age, settlement type and the highest qualification. The survey embraced several topics relevant to the 5th activity of the SROP project; however, this study focuses on analyzing responses related to entrepreneurial inclination and entrepreneurial intention. One of the questions was aimed at enquiring about the respondents' inclination to become an entrepreneur and start entrepreneurship. The study is intended for analyzing the possible factors behind these data. It has been found that not only gender but also qualification and age may determine the degree of entrepreneurial inclination. The underlying reasons for this are further analyzed in the study. There was also a question in the survey that focused on gathering information about the entrepreneurial intention of the respondents. The study is also aimed at analyzing the variables that have significant impact on entrepreneurial intention. The results of the survey can provide grounds for further research.*

**Keywords:** *entrepreneur, entrepreneurial inclination, entrepreneurial intention, potential entrepreneur, entrepreneurship*

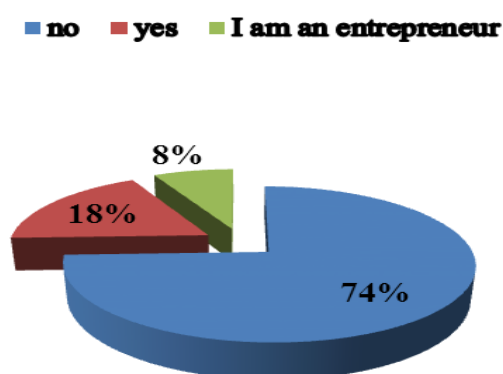
### **1. INTRODUCTION**

A face to face survey was conducted in Hungary in the spring of 2013 in order to implement the examination of the social acceptance of ecologically sustainable technologies within the 5th activity of the Social Renewal Operational Programme (SROP)-4.2.2.A-11/1/KONV-2012-0058, Modeling the effects of the energy-production, utilization and waste management technologies to the competitiveness of the cities and regions. The sample of the survey was representative of Hungary considering gender, age, the highest qualification and settlement

type. The survey consisted of more than seventy questions, and this study focuses on analyzing the respondents' answers to the questions about entrepreneurial inclination and entrepreneurial intention. One of the hypotheses of this study is that age and qualification may have significant impact on both entrepreneurial inclination and entrepreneurial intention. It can be assumed about the age factor that the degree of entrepreneurial inclination may be the highest in the youngest age group. The second hypothesis is that entrepreneurial inclination might be the highest among people with the highest qualification (university and college degree). The study first briefly summarizes the demographic features of the sample then it describes the findings on entrepreneurial inclination. This is followed by the analysis of entrepreneurial intention. Finally, the conclusion sums up the most important implications of the survey. The study is mostly based on the description of the empirical results of the survey and the conclusions which were drawn from these findings by the authors. Since these findings are quite recent, further research may be required to verify some of the conclusions drawn.

## 2. ENTREPRENEURIAL INCLINATION

The analysis in the study is based on the so-called labor force market approach, which is aimed at examining entrepreneurship by researching individual motivation, opportunities and possible advantages of self-employment, role models within the family and cultural and demographic features (Scharle, 2000, p. 252). Therefore, it is the individual that is in the focus of the research rather than entrepreneurship and its circumstances. Two thousand (2000) people were interviewed in the face to face survey. The sample was representative of the population of Hungary considering gender, age, settlement type and the highest qualification. One of the goals of the survey was to gather data on the attitudes towards entrepreneurial inclination and entrepreneurial intention. Entrepreneurship and becoming an entrepreneur are not distinguished and are considered to be synonymous notions in the study. Entrepreneurial inclination is between possibilities and plans, and it is openness towards entrepreneurship and business opportunities; however, it does not necessarily embrace actual intention to start an enterprise in the near future.

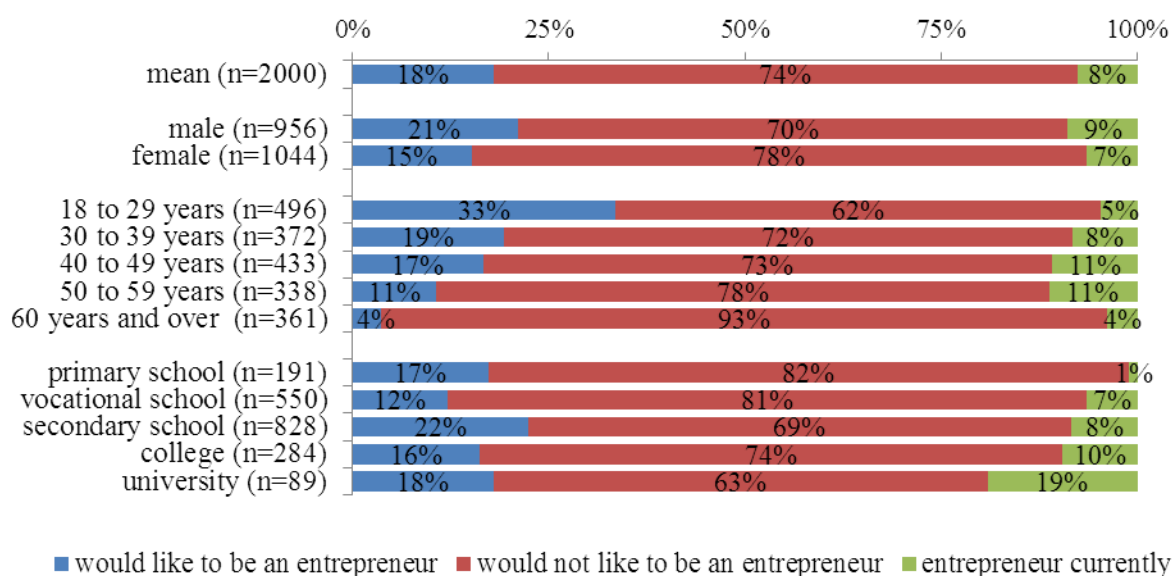


*Chart 1: Entrepreneurial inclination (Source: edited by the authors)*  
*Question 36: Would you like to be an entrepreneur? 1 Yes 2 No 3 I am an entrepreneur*  
*(n=2000)*

Entrepreneurial inclination can mean potential entrepreneur in a broad sense.

When respondents (n=2000) were asked if they would like to be an entrepreneur, 18% of them said yes, whereas 74.4% refused the idea. Altogether 7.7% of the total sample (n=2000) claimed that they worked as entrepreneurs. (Chart 1)

After analyzing the various variables of the sample, three demographic factors were found to have significant relevance to entrepreneurial inclination (Chart 2). These variables are gender, age and qualification.

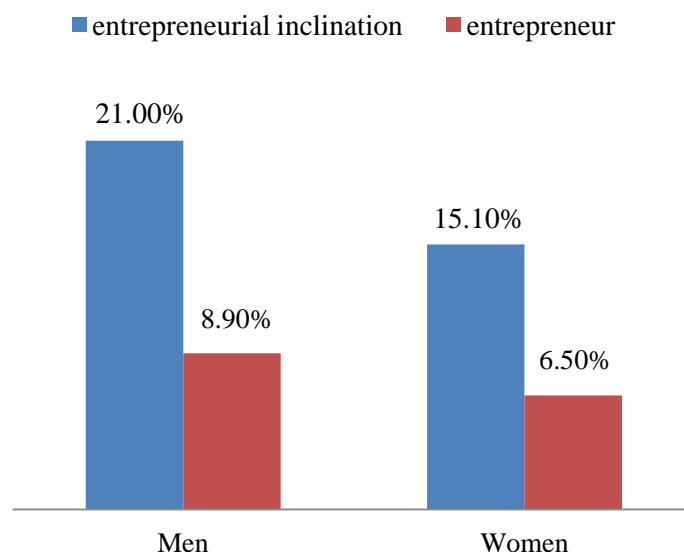


*Chart 2: Entrepreneurial inclination by demographic factors (n=2000)*  
(Source: edited by the authors)

## 2.1. Gender differences

There is a difference in the two genders' entrepreneurial inclination (Chart 3). Whereas 21% of male respondents (n=956) would like to become an entrepreneur, the same rate among women (n=1044) is only 15.1%. 70.1% of men would not like to have an enterprise; however, women are even less open to self-employment as 78.4% of the female respondents (n=1044) claimed that they would not want to deal with entrepreneurship. 8.9% of men are entrepreneurs, but only 6.5% of women work as entrepreneurs. It would be worth further analyzing whether this difference of entrepreneurial inclination between the two genders could be explained by the fact that enterprises as self-employment forms are traditionally preferred by men or women's entrepreneurial inclination is lower because women tend to avoid taking risks and they are less capable of handling the possible burdens of enterprises due to their everyday duties within the family. A significant difference in entrepreneurial inclination can be observed between the various age-groups. The initial hypothesis, which stated that the degree of entrepreneurial inclination would be the highest in the youngest age-group, seems to be verified on the basis of the results of the survey. Members of the youngest age-group (18 to 29 years of age) (n=496) are the most open to becoming entrepreneurs, as 33.5% of them claimed that they would like to become entrepreneurs.

The degree of entrepreneurial inclination and age are inversely proportional: the higher the age of the respondents is, the lower their entrepreneurial inclination is. 19.4% of the 30 to 39 years old (n=372) would like to become an entrepreneur whereas only 16.6% of respondents between 40 and 49 years of age (n=433) would start an enterprise, 10.7% of 50 to 59 years old (n=338) and only 3.6% of people over 60 years would like to work as entrepreneurs.

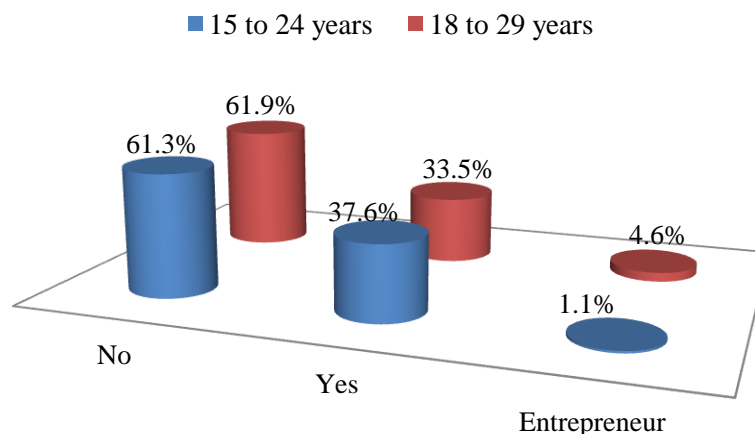


*Chart 3: Entrepreneurial inclination according to genders (n=2000)*  
(Source: edited by the authors)

## 2.2. Entrepreneurial inclination of the youngest age-group

The results of the survey can be compared to those of the project of the Social Renewal Operational Programme SROP-4.2.3.-12/1/KONV, Science communication for the Generation “Z”. The project embraced a survey based on a representative sample of 2000 young people between the ages of 15 to 24 years. Respondents were asked about their awareness of the daily news, what channels they used for obtaining information, what information devices they had, what attitude they had towards online contents and what visions they had for the future. Young people were also asked about their entrepreneurial inclination (n=1973) and their opinion about employment. 61.3% of them (n=1210) would not like to be an entrepreneur, whereas 37.6% (n=741) would start an enterprise; however, the proportion of those who work as entrepreneurs is only 1%. In this research, young people gave similar responses. 61.9% of the age group of the 18 to 29 years old would not like to have an enterprise, 33.5% would like to become an entrepreneur and 4.6% already have an enterprise. There is a difference in the number of entrepreneurs in the two surveys: it is 1% among the 15 to 24 years old and 4.6% in the age group of the 18 to 29 years old (Chart 4). One of the obvious reasons for this might be the age difference, since the survey which focused solely on the young age-group also examined young people who are not in employment age; therefore they cannot work as entrepreneurs. The proportion of potential entrepreneurs, however, was similar in the two surveys: 33.5% (18-29 years old) and 37.6% (15-24 years old).





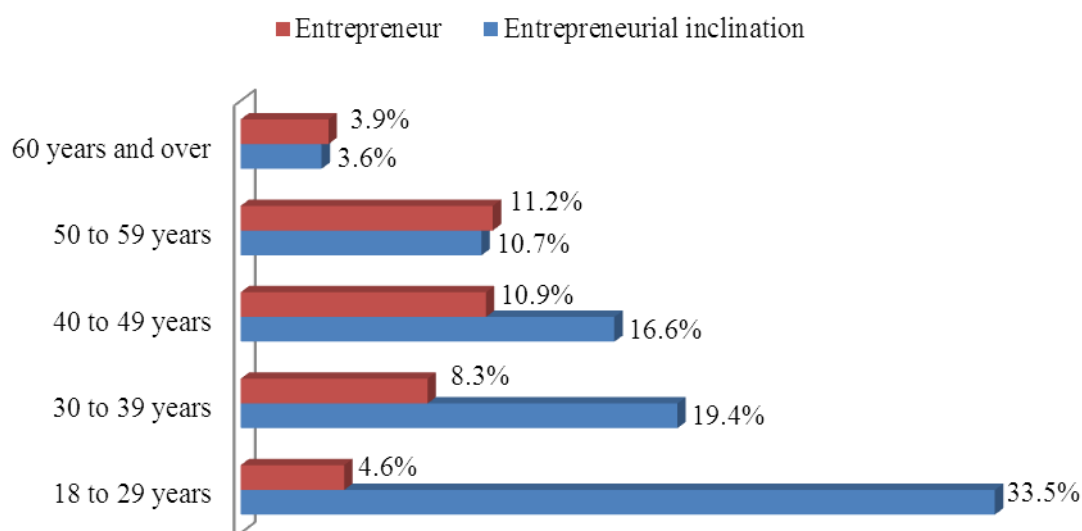
*Chart 4: Entrepreneurial inclination among young people of 15 to 24 years old (n=1973) and 18 to 29 years old (n=496)  
(Source: edited by the authors)*

It is interesting to compare young people's entrepreneurial inclination to their attitude to employment. Whereas 61.3% of them would like to be an entrepreneur, the majority (77.2%, n=1506) have a negative opinion about employment, since they think employees are mostly or completely vulnerable to their employers, and only 5.2% of the respondents disagreed with this. On the basis of this data, it can be supposed that most young people would rather choose entrepreneurship; however, responses with respect to entrepreneurial inclination revealed that many young people refused enterprises. A reason for this might be that during the survey a lot of respondents (39.1%, n=759) claimed that the security of employment was more important than income, and 11.3% (n=219) said that money was not as important as the security of employment. This may also be justified by the fact that 69.1% of respondents (n=1345) stated that starting up an enterprise would require a lot of risks and more than half of them (50.9%, n=985) thought that an employee could also live in welfare. On the basis of all these, it can be supposed that even though many young people think they could find real fulfillment only in entrepreneurship, they would probably choose employee status, which might provide less income but more security. Further research could reveal what factors may influence this attitude: their parents' role model (whether they are entrepreneurs or not), the impact of the media, and their peers' opinion.

### **2.3. The impact of age on entrepreneurship**

Therefore, age seems to have a negative effect on entrepreneurial inclination. Possible reasons for this should be further analyzed; however, it can be supposed that the older someone is, the less likely they are to engage in risk-taking and more likely to aspire to security, so they would not like to start an enterprise and would prefer employee status. However, it is a slightly contradictory finding that the rate of actual entrepreneurs gets higher as age progresses. Even though 33.5% of the youngest age-group have entrepreneurial inclination, only 4.6% of them are entrepreneurs. 8.3% of the 30-39 years old work as entrepreneurs, 10.9% of the 40-49 years age-group deal with entrepreneurship, and the rate is the highest, 11.2% among the 50-59 years old. However, the proportion of entrepreneurs is relatively low, 3.9% among people over 60 years (Chart 5). This is an interesting result, which requires further research. Nevertheless, it can be supposed that there may be historical reasons for the relatively high rate among the 50-59 years old and 40-49 years old. Members of these two generations were young adults at the beginning of the post-communist era when there was a

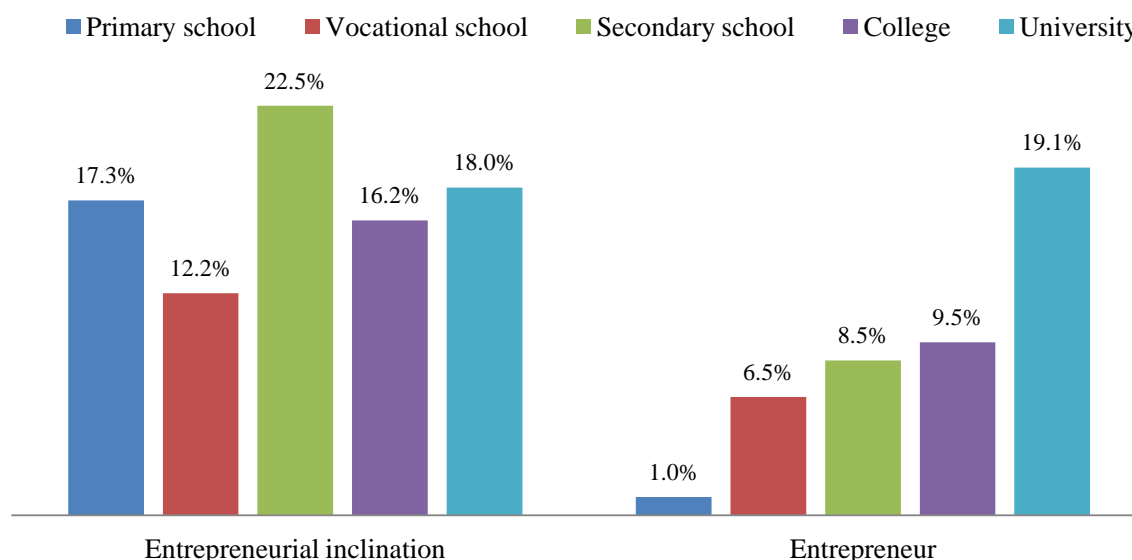
significant political and economic transformation, full employment ceased within a few years and the number of the five million employees registered at that time decreased with over one million (Csillag, 2009). Many of these people were forced to start entrepreneurship due to existential reasons, but there were a lot of other people who seized the business opportunities that had emerged in the transformed economic and political environment. These phenomena can be described by the notions of the so-called “push” and “pull” type entrepreneurs. The pull type entrepreneur was forced to give up his job by various circumstances, whereas the push type entrepreneur wanted to meet new challenges and to seize a business opportunity (Lengyel, 2009).



*Chart 5: Entrepreneurial inclination and entrepreneurs – Variations according to age groups (n=2000) (Source: edited by the authors)*

## 2.4. Qualification and entrepreneurial inclination

The initial hypothesis about qualification was that entrepreneurial inclination may be the highest among people with the highest qualification (university degree or college degree). This hypothesis, however, was not verified by the results of the survey, because the highest rate of entrepreneurial inclination was found among respondents with secondary education (n=828). (However, it should be taken into consideration that 41.4% of the total sample had secondary education, whereas the rate of university degree was only 4.5% within the total sample.) The second highest proportion of entrepreneurial inclination (18.0%) was found among respondents with university degree (n=89). Interestingly, 17.3% of the respondents with primary education (n=191) would like to be an entrepreneur, which is the third highest value. The explanation may be that members of this group have the lowest chances in the labor force market; therefore, they might think that entrepreneurship can be an alternative for them. 16.2% of those with college degree (n=284) would be willing to work as an entrepreneur, and entrepreneurial inclination is the lowest, 12.2%, among those with vocational education and training (n=550) (Chart 6). With respect to qualification, an obvious trend similar to that of the age-groups cannot be identified, which shows that higher qualification does not necessarily lead to a higher rate of entrepreneurial inclination.



*Chart 6: Entrepreneurial inclination and entrepreneurs (n=2000) – Variations according to qualification (Source: edited by the authors)*

However, the number of actual entrepreneurs is slightly different in the various qualification groups. Even though qualification cannot be considered to be an obviously influencing factor, it can be concluded that qualification has a significant impact on the rate of entrepreneurs, which means that the highest proportion of entrepreneurs (19.1%) was found among those with the highest qualification (university degree). This value is outstanding compared to the other groups, since the second highest value is only 9.5%, which shows the entrepreneurial activity of respondents with college degree. 8.5% of the group with secondary education, 6.5% of the respondents with vocational education and only 1.0% of those with primary education work as entrepreneurs. This leads to several implications. The entrepreneurial inclination of respondents with primary education does not seem to be realistic when compared to the actual number of entrepreneurs in the same qualification group. This might mean that their entrepreneurial inclination is not a serious intention but rather a kind of wishful thinking. Representatives of this group may think that due to their lack of proper education it would be easier for them to start an enterprise than to find a job in the labour market. Another explanation can be connected to their level of education directly: they may not be able to assess properly what difficulties and requirements entrepreneurship can entail. The relatively high rate of entrepreneurs among those with university and college education can be considered to be ideal. Respondents can be classified into three clusters on the basis of their attitudes to entrepreneurship. The first cluster involves those who are “willing to start entrepreneurship”, the second cluster consists of “entrepreneurs” and the third one, the cluster of those who “refuse entrepreneurship”. Their most significant demographic features are summarized in Table 1. On the basis of the analysis of the survey results, it can be concluded that gender, age and qualification may have a significant impact on the rate of entrepreneurial inclination. However, one of the initial hypotheses could not be verified by the findings of the survey. It could be proven that entrepreneurial inclination is the highest in the youngest age-group, but it could not be verified that entrepreneurial inclination is the highest among those who have the highest qualification.

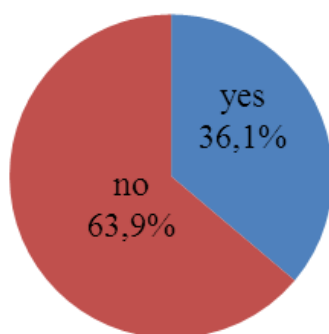
*Table 1: Significant demographic features of clusters of entrepreneurial inclination  
(Source: edited by the authors)*

Categories	Willing to start entrepreneurship	Entrepreneurs	Refusing entrepreneurship
Size (N)	359	153	1488
Gender	Male: 21.0% Female: 15.1%	Male: 8.9% Female: 6.5%	Male: 70.1% Female: 78.4%
Age	33.5 % 18 to 29 years	11.2 % 50 to 59 years	92.5 % over 60 years
Qualification	Secondary education	University	Vocational education

The survey was also aimed at gathering data about entrepreneurial intention. The results are described in the next chapter.

### 3. ENTREPRENEURIAL INTENTION

Entrepreneurial inclination is to be distinguished from entrepreneurial intention. Whereas inclination refers to the fact that someone is open to the idea of entrepreneurship and ready to seize an emerging business opportunity (Lengyel, 2012), the latter refers to a positive intention and to the fact that someone might have actual plans concerning when and how they will start entrepreneurship.



*Chart 7: Entrepreneurial intention (n=521) (Source: edited by the authors)  
Question 37: Are you planning to start an enterprise in the next five years? (n=521)*

Entrepreneurial intention leads to the notion of potential entrepreneur. Someone who is not an entrepreneur yet but would like to deal with entrepreneurship can be regarded as a potential entrepreneur. This means that entrepreneurial inclination can be considered to be typical of the potential entrepreneur in the broad sense, while entrepreneurial intention may refer to the potential entrepreneur in the narrow sense (Lengyel, 2009). The notion of potential entrepreneur will be used in its narrow sense in the study. In the survey, 521 individuals out of the 2000 respondents claimed that they would like to be entrepreneurs (Chart 7). 36.1% of them are planning to start entrepreneurship within the next five years; therefore, they can be regarded as potential entrepreneurs.

### 3.1. The impact of age on entrepreneurial intention

The demographic distribution of the respondents has revealed that age and settlement types have significant relevance to entrepreneurial intention, which is shown in Chart 8. Similarly to entrepreneurial inclination, as age progresses, entrepreneurial intention decreases, which means that the younger someone is, the more likely they are to consider themselves as potential entrepreneurs and plan to start an enterprise within the next five years. The rate of those who have entrepreneurial intention is outstandingly high in the age-group of the 18-29 years old (n=189). Approximately half of this age-group (49.2%) are planning to start entrepreneurship within the next five years. 33.0% of the 30-39 years old (n=103) can be regarded as potential entrepreneurs. This rate gradually decreases as age advances: 31.1% of the 40-49 years old (n=119), 25.7% of the 50-59 years old (n=74) and only 7.4% of the respondents over 60 years (n=27) stated that they would start an enterprise.

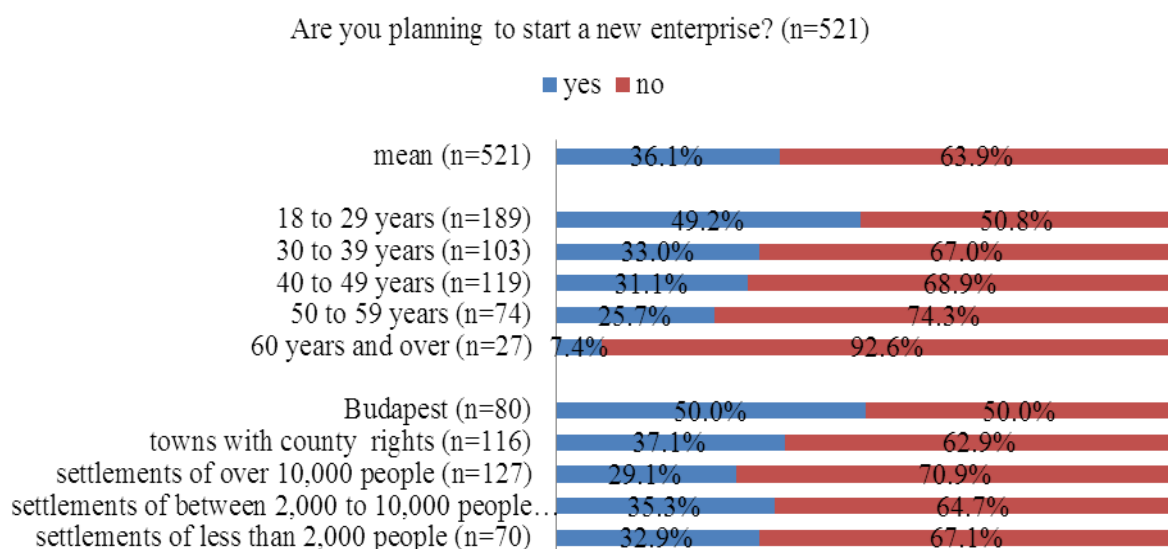


Chart 8: Effects of demographic factors on entrepreneurial intention  
(Source: edited by the authors)

These results can support the assumption that the degree of risk-taking may be higher among younger people, which can explain why the rate of potential entrepreneurs is the highest in the youngest age-group. These findings, on the other hand, can give grounds for optimism, since unemployment is an extremely severe problem in this age-group. A high percentage of young people in their twenties cannot find a job even after graduating from university, so self-employment can provide an alternative for some of them.

### 3.2. Entrepreneurial intention according to settlement types

Settlement types also have significant impact on entrepreneurial intention. The number of potential entrepreneurs (50.0%, n=80) is the highest in Budapest, the capital of Hungary. A reason for this might be that it is Budapest and its agglomeration that can offer ideal conditions and circumstances for starting and running an enterprise. Budapest and its agglomeration provide a market of three million potential customers, cooperation with other enterprises is simpler, the national transport network is Budapest centered; therefore, transport can be organized more easily from Budapest and the infrastructure is the most developed there in the country. Besides the economic environment, the great many enterprises that operate in either Budapest or in its surroundings can serve as positive models and encouragement for potential entrepreneurs living in the area.

The rate of entrepreneurial intention, 37.1%, is the second highest among people living in towns with county rights (n=116). A possible reason can be that these towns are also surrounded by agglomeration, so potential entrepreneurs can count on a relatively large market. Infrastructure is also better than the national average, and even though transport can often be arranged through Budapest, it is still more ideal than in smaller settlements. Therefore, there are several business opportunities in these towns. 35.3% of people living in settlements with population between 2.000 and 10.000 (n=119) and 32.9% of people living in settlements with population less than 2.000 (n=70) are planning to start an enterprise within the next five years. In settlements with less than 2.000 people, unemployment is often very high, and finding a job can be quite hopeless, because transport – mostly from small dead-end villages – seems to present an almost impossibly difficult situation for people living there. Entrepreneurship might be a solution for them.

#### 4. CONCLUSION

Entrepreneurial inclination, entrepreneurial intention and the demographic factors that have significant impact on them were examined in the study. The empirical results of the survey were analyzed and interpreted concerning entrepreneurship. There were two initial hypotheses in connection with entrepreneurial inclination and one of them was verified by the findings of the survey, as it was found that entrepreneurial inclination was the highest in the youngest age-group. Entrepreneurial intention was also the highest in the youngest age-group. This means that young people are open to entrepreneurship, which gives grounds to optimism and raises the issue of their education. As unemployment is a serious problem of this age-group, theoretical and practical training about entrepreneurship might encourage some young people to start thinking about becoming entrepreneurs instead of waiting for an employment opportunity. The survey also collected data about innovation acceptance. It would be worth analyzing the possible connection between entrepreneurial inclination and innovation acceptance, which may provide some interesting implications for future research.

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## **A NEW LABOR MARKET APPROACH: KEEPING JOBS AND ENHANCING LABOUR MARKET FLEXIBILITY**

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### **ABSTRACT**

*Finding the right balance between flexibility and security in working arrangements, is today one of the major employment policy priorities in majority of European countries. The paper analysis flexicurity concept which provides important answers to the question of how to meet modern labor market challenges and at the same time improves security. The model combines high mobility between jobs with a comprehensive social safety net for the unemployed and an active labor market policy. Over the past decade there is a clear tendency towards reducing the strictness of employment protection (EPL) - mostly focused on regulations governing individual and collective dismissals. Namely, the level of labor market flexibility is also reflected by the share of temporary and part-time employment in total employment. The most important thing in removing rigid labor market rules involves introducing flexicurity: moving from protecting jobs to protecting workers. Actual situation in EU labor market indicates on the existence of considerable differences in labor market flexibility and security across EU Member States. An adequate equilibrium between the need of protecting employees and efficiently allocating labor is a key priority for policy makers. Therefore, the focus in this research is on the following flexicurity variables: EPL index and unemployment benefits (UBs).*

**Keywords:** *flexicurity, EPL, labor market, unemployment benefits*

### **1. INTRODUCTION**

The paper analysis flexicurity concept which provides important answers to the question of how to meet modern labor market challenges and at the same time improves security. The main question is - why a flexicurity of labor market at all? According to the Council of the EU (2003), flexicurity presents a tool that would positively affect competitiveness of firms, enhance quality and productivity at work and facilitate adaptation of employers and employees to economic changes. It presents the right balance between flexibility and security and today is one of the major employment policy priorities of the EU and its members. In the paper the flexicurity concept in the selected countries (EU and OECD) is examined. The analysis includes the impact of flexicurity policy components (i.e. employment protection legislation, unemployment benefit rates and their duration) on labor market performance over the past decade. The concept of flexicurity promotes the idea of finding the right balance between flexibility and security at the labor market, which should be perceived as mutually supportive. It presents a response to changes in national economies due to globalization processes, rapid technological development, demographic aging and labor market segmentation and provides a tool to maintain and improve competitiveness while reinforcing European social model (European Expert Group of Flexicurity, 2007). The right balance between flexibility and security is the only option in keeping jobs in today's changing



economic environment and should be perceived as complementary and mutually supportive. European Commission (2007) stresses that crucial precondition in the process of implementation of the flexicurity concept is involvement of all social partners and well-established social dialogue. The flexicurity policies are most balanced in the Scandinavian countries, which, together with United Kingdom and Ireland, classify among the most successful EU Member States with the highest employment rate and the lowest unemployment rates. Over the past decade a clear tendency towards reducing the strictness of employment protection (mostly focused on regulations governing individual and collective dismissals) is observable. Between 2008 and 2013, more than one-third of OECD countries undertook some relaxation of these regulations, with reforms concentrated in countries with the most stringent provisions at the beginning of the period (OECD, 2013b, p. 67). Outstanding an adequate equilibrium between the need of protecting employees and efficiently allocating labor is a key priority for policy makers. EPL represents one of the key policy instruments in this respect (OECD, 2013b, p. 68). The main intention of the paper is to examine the issue of flexicurity in selected countries as flexicurity policy elements present complex entities which are difficult to measure and compare between countries. The analysis in this research is focused on descriptive statistics of representative labour market institutions: employment protection legislation (EPL) index and unemployment benefits - net replacement rate (NRR) for the last available data. The data are collected from OECD Employment Protection Database and Social Policy Indicator Database (SPIN) of European Commission. The article is organized as follows. After introductory part, second theoretical part briefly presents the concept of flexicurity – main assumptions and components, literature review and overview of empirical studies. In section three main research results are presented. Finally, the article ends by offering some conclusions considering the implementation of flexicurity policies.

## **2. THEORETICAL FRAMEWORK**

The concept of flexicurity presents an oxymoron that combines two concepts (flexibility and security) that were previously seen in opposition. It was first implemented in Netherlands in the mid-1990s in the context of labor reform and preparation of the Flexibility and Security Act and the Act concerning the Allocation of Workers via Intermediaries. The aims of these acts were to increase labor market flexibility by assistance the rules for dismissal and rules for starting a temporary work agency and, at the same time, to generate higher level of security for employees in flexible jobs (Wilthagen and Tros, 2004). Although the flexicurity has been activated in Netherlands, it is today often associated with Danish labor market. The Danish “golden triangle” namely presents a prime example of well-functioning flexicurity arrangements. The concept of flexicurity rests on the assumption that flexibility and security are not contradictory, but complementary and even mutually supportive. In modern labor markets, employers are realizing that to be able to adjust their work life to more individual preferences they have an interest in more flexible ways of organizing work, e.g. to balance work and family life (Bredgaard and Larsen, 2007, p. 4). The flexicurity concept is a response to the needs European labor markets are facing. Technological developments are becoming even more rapid. Products and services are developed at an ever quicker pace. Jobs change more quickly than before. Flexicurity promotes a combination of flexible labor markets and adequate security. Flexicurity can also help provide an answer to the EU’s dilemma on how to maintain and improve competitiveness while reinforcing the European social model (Obadić, 2009, p. 57). In flexicurity model, the concept of job security is replaced by employment security. The model is a combination of easy hiring and firing (flexibility for employers) and high benefits for the unemployed (security for the employees) (Wilthagen and Tros, 2004, p.

171). The most precise and probably the most widely used definition of flexicurity come from Ton Wilthagen and his colleagues. Wilthagen defines flexicurity as a policy strategy that can be defined as follows (Wilthagen and Rogowski, 2002, p. 241):

*"...a policy strategy that attempts, synchronically and in a deliberate way, to enhance the flexibility of labour markets, work organization and labour relations on the one hand, and to enhance security – employment security and social security – notably for weaker groups in and outside the labour market, on the other hand"* (Wilthagen, 1998; Wilthagen and Tros, 2004, p. 170). The concept combines flexible labor market (a high degree of occupational and geographical job mobility due to low employment protection), high social security (a generous system of unemployment benefits) and active labor market programs aimed at skill improvement and activation of unemployed (Madsen, 2007). The research in this paper concentrates on first two components – flexibility and security. Therefore, the focus is on the following variables: employment protection index and unemployment benefits. The both of them also influence productivity. It is important to note that employment protection refers to only one dimension of the complex set of factors that influence labor market flexibility, but very important one. One of the most commonly used indicators for international comparison of regulations of labor regulations is Employment Protection Index (EPL), developed by OECD. The OECD employment protection indicators are compiled from 21 items covering different aspects of employment protection regulations<sup>1</sup>: (i) individual dismissal of workers with regular contracts; (ii) additional costs for collective dismissals and (iii) regulation of temporary contracts. Index values are ranging from 0 (least stringent employment legislation) to 6 (most restrictive employment legislation). EPL is a part of overall regulations referring to legal framework governing conditions of hiring and firing. It mainly restricts freedom of individuals in the formal sector by restricting the employers' freedom to dismiss workers and thus reduces the flows into, but also out of, unemployment. Restrictions on hiring and firing increase adjustment costs of firms and might result in preferred use of fixed-term and temporary contracts. Ultimately, strict employment protection might reduce incentives for formal employment by firms. Moreover, the increased costs can be shifted to employees and provide them an incentive to turn informal as well. Generally, enforcement of the regulation is the crucial factor, not the extent of regulation itself (Fialová and Schneider, 2010, p. 11). High social security on labor market mainly refers to a generous system of unemployment benefits (UBs). Unemployment benefits are a key instrument to deal with labor market risks. They permit to insure individual incomes during temporary unemployment and provide assistance during longer unemployment periods. From a macroeconomic perspective, unemployment benefit systems perform a role of automatic stabilization, thereby contributing to smooth aggregate shocks. The design of unemployment benefits over the unemployment spell differs widely across EU countries. Net replacement rates drop to some extent in almost all EU countries during the first decade of 21<sup>st</sup> century, either due to a reduction in unemployment insurance benefits or to the replacement of unemployment insurance benefits with less generous unemployment assistance (Stovicek and Turrini, 2012, p. 16). Unemployment benefits may also affect productivity through various channels (OECD, 2007). Positive impact of unemployment benefits on productivity is expected through their impact on employment, especially by improving job-match quality and by encouraging the creation of high-productivity, high-risk jobs (OECD, 2007). On the other hand, generous UBs can decrease productivity due to increase of unemployment spells and lower opportunity costs of unemployment (OECD, 2007). The following part of the article brings some overview of theoretical and empirical studies.

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<sup>1</sup> See more detailed at the OECD website - *OECD Indicators of Employment Protection*:  
<http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>.

## **2.1. Literature Review**

Nickell (1978), Bentolila and Bertola (1990) and Bertola (1990) analyse firms' dynamic behavior in the presence of positive firing costs, showing that the optimal strategy for firms is to reduce both hiring and firing, with an ambiguous effect on average employment over the business cycle. In any case, stricter employment protection implies a slower speed of adjustment of employment towards its equilibrium level and some other researchers (Garibaldi, 1998, p. 245-275; Mortensen and Pissarides, 1999, p. 242-265) come to similar conclusions about job mobility being negatively affected by EPL (OECD, 2013b, p. 69). On the one hand, to the extent that EPL raises the costs of workforce adjustments and/or distorts the optimal composition of employment between temporary and regular workers, it is likely to have a negative impact on the efficient allocation of labor and, ultimately, on productivity growth. On the other hand, layoff regulations could spur productivity-enhancing investments by incumbent firms in order to avoid downsizing. The net effect on aggregate innovation and productivity growth is however unclear, as strict regulations may also deter entry of innovative firms (OECD, 2013b, p. 70). Strict EPL could worsen the dismissal of workers, making it more difficult for firms to react quickly to changes in technology or product demand (Saint-Paul, 1997; 2002; Poschke, 2009), discouraging firms from experimenting with new technologies (Bartelsman, Scarpetta and Schivardi, 2005) and reducing effort of workers (Ichino and Riphahn, 2005) with negative effects on productivity. Belot et al. (2007) derived opposite predictions assuming that strict dismissal regulations provide additional job security for workers and thus increase job tenure and work commitment, firms and workers are more likely to invest in firm- or job-specific human capital, with positive impact on productivity. Strict EPL tends to be associated with reduced chances to escape unemployment, longer spells of unemployment, and lower employment rates for disadvantaged worker groups, especially youth. Strict EPL is associated with a larger informal sector. Finally, strict EPL slows down job reallocation, with a likely adverse impact on growth in total factor productivity (OECD, 2006). In OECD countries where EPL is rigid, workers are less likely to lose jobs, but that means that the jobless have less chance of finding a job. On the contrary, in countries with flexible EPL, workers lose jobs more often, but it is easier for them to find a new job. Strict EPL thus tends to be associated with a less dynamic labor market. Evidence also supports the hypothesis that strict EPL causes labor market duality. It strengthens the position of insiders (workers with regular jobs) who are less likely to become unemployed but it weakens the position of outsiders (the jobless and those who work in irregular or informal jobs) who have fewer chances of getting a formal job (World Bank, 2011, p. 8). Next section gives a brief overview of empirical studies on the impact of flexicurity components on the measures of productivity.

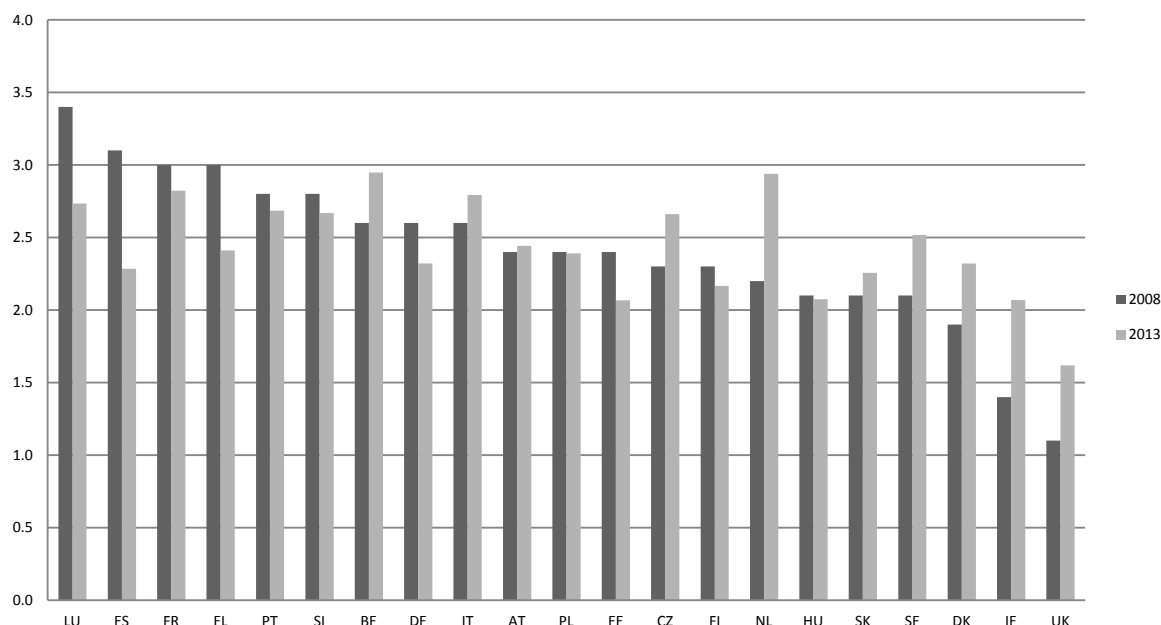
## **2.2. Review of Empirical Studies**

The most liberal hiring and firing conditions were recorded in Denmark, Hungary, Ireland and Slovak Republic in period 2000-2007. France, Greece, Portugal and Spain found themselves on the opposite side of the spectrum. Southern European countries have the strongest regulation while the rules are more relaxed as one moves north. The most substantial changes leading to relaxation of employment protection in this period took place in Slovak Republic, Greece, Italy, Austria, and Portugal. On the contrary, Poland, Hungary and Ireland tightened their legislation moderately. Generally, EPL in NMS-4 is not as strict as in the other group - the average EPL index was significantly lower (1.9 in period 2000-2007). Old European countries recorded average EPL index at 2.4 with a decreasing trend in given period. However, if we extend our comparison to other NMS countries not covered in OECD data as well, the situation looks much different. The rest of the NMS group has generally much

stronger legislation compared to NMS being OECD members. Taken altogether, NMS-10 group has in average comparably rigid employment protection legislation as old European countries (reaching 2.3 for all three years with data available). The strongest legislation was recorded in Lithuania and Slovenia, but the latter mentioned country relaxed its hiring and firing conditions in given period substantially (similarly to Bulgaria). In contrast, Romania exhibited certain tightening of its employment protection during the examined period (Fialová and Schneider, 2010, p. 12). Scarpetta and Tressel (2004) also showed that strict EPL has a significant negative impact on productivity, but only in countries with an intermediate degree of centralization/coordination in wage bargaining. Bassanini and Venn (2008) and Bassanini et al. (2009) presume that the effect of EPL on productivity is stronger in industries that are more exposed to changes in EPL. Nickell and Layard (1999) and Koeniger (2005) showed a weak positive relationship between EPL and TFP and LP growth for OECD countries. Different studies (Miles, 2000, p. 74-101; Kugler and Saint-Paul, 2004, p. 553-584; Kugler, Jimeno and Hernanz, 2005) typically find small but often significant negative effects of stricter rules on aggregate employment. Similarly, Kugler et al. (2005) exploit the fact that the 1997 Spanish reform of dismissal costs applied only to certain demographic groups to study the effects of contract regulations on employment levels and worker flows. Using data from the Spanish Labour Force Survey, they show that the reduction of dismissal costs increased the employment of young and older men on permanent contracts (OECD, 2013b, p. 1). More generally, cross-country/time-series evidence suggests that countries that implemented partial reforms of EPL, whereby regulations on temporary contracts were weakened while maintain stringent restrictions on regular contracts, have indeed experienced slower productivity growth (OECD, 2013b, p. 73, according to Bassanini, Nunziata and Venn, 2009). Net replacement rates can in some countries be quite high at the beginning of the unemployment spell and drop substantially after a short period of time (e.g. Latvia, Luxembourg). In other countries, net replacement rates can persist at a relatively high level for an extended period of time (e.g. Belgium, Denmark, Portugal). Total available income support per unemployed varies very widely across the EU, with countries with higher income per capita generally providing more generous systems (Stovicek and Turrini, 2012, p. 16). Duration of unemployment insurance benefits appears particularly long in Belgium, Denmark and Portugal. In contrast, benefit duration is relatively short in Italy and in most countries belonging to the Anglo-Saxon group and the Central and Eastern group. The short duration of unemployment insurance benefits in Anglo-Saxon countries is explained by the availability of means-tested unemployment assistance after the collapse of unemployment insurance. Austria also has relatively short unemployment insurance benefit duration, but it provides earnings-related, means tested unemployment assistance of indefinite duration (Stovicek and Turrini, 2012, p. 14-15).

### **3. RESEARCH FINDINGS**

The research part focus on the descriptive analyzes of the following flexicurity variables: EPL index, UBs and their duration. The data were collected from official statistical database of OECD, Eurostat and official reports of the European Commission. As can be seen from Figure 1, the EPL strictness varies greatly among EU Member States. In majority of selected member states according to OECD database index increased between 2008 and 2013. Regulation is the most rigid among Southern or Mediterranean European countries and becomes more liberal when moving to the Scandinavian countries. With the highest level of flexibility in employment protection are characterized Anglo-Saxon countries, i.e. United Kingdom and Ireland.



*Figure 1: Employment Protection Legislation index in EU Member States*  
(Source: Employment Protection Legislation; OECD Employment Protection Database, 2013)

Note: All items are on a scale from 0 (least restrictions) to 6 (most restrictions).

As shown in Figure 1, the highest value of total EPL index in 2008 was reached in Luxembourg (3,4), Spain (3,1) and France and Greece (3,0). On the other side, the most flexible employment regulation had United Kingdom (1,1), Ireland (1,4) and Denmark (1,9). Among the new member states the employment protection was most flexible in Hungary and Slovakia (2,1). The situation changed significantly in 2013 in Belgium, Italy, Czech Republic, Netherlands, Scandinavian countries, Ireland and United Kingdom. All of them experienced increase in EPL index, strengthening the strictness of employment protection. Strict EPL is associated with longer durations of unemployment. In OECD countries with light EPL, unemployment lasts on average about five months; where EPL is strict it lasts for 15 or more months. Similarly, strict EPL is associated with a high incidence of long-term unemployment. The share of long-term unemployed exceeds 40 percent in countries with strict EPL; it is below 20 percent in countries with light EPL (World Bank, 2011, p. 9). The incidence of irregular contracts (such as fixed-term, temporary, and civil contracts) is significantly higher in countries with strict EPL, particularly among young workers (World Bank, 2011, p. 11). Fialová and Schneider (2010) recognized that EPL has a statistically significant effect on the size of the informal sector in the EU, including the EU-10 countries. The effect is stronger in the old member states (EU15) and somewhat weaker in the new ones (EU10). In the EU countries with the most rigid EPL the share of the informal sector is estimated to be about 3,5 percentage points higher than in countries with the most flexible EPL. This finding supports the view that strict EPL leads some employers to hire workers informally to avoid the costs the EPL imposes. The “trade-off” in labor market exists, when employment protection stringency is “traded” against access and coverage of social protection. So, overall protection could be the same if you have strong employment protection, which diminishes dismissals and the need for social protection, or if you have weak employment protection and more dismissals, but an extensive system of social protection, with high coverage and high

replacement rates, such as generous unemployment benefits (Auer and Cazes, 2003, p. 5). Therefore, in the following analysis EU unemployment insurance benefits are more considered. It is increasingly recognized that economic and social responses to the crisis will require strengthen solidarity between Member States. Most decisions about taxes and spending remain at the national level within the EU. EU automatic stabilizers can have several different forms, but the basic idea is that they may serve as an insurance mechanism that help smoothening of fluctuations in real GDP caused by asymmetric shocks in parts of Europe. Unemployment benefits are an obvious candidate for becoming a European automatic stabilizer, special in current period of unemployment expansion. Unemployment benefits may not only have macroeconomic impacts but are likely also have positive effects on citizens' living conditions, potentially improving European social integration (European Commission, 2013, p. 4). Over past decade, benefit support per unemployed appears relatively stable in most countries. However, some countries saw a substantial drop in total benefit generosity (e.g. Germany, Denmark, Sweden, France, Slovenia) while some increases were observed in Belgium, Ireland and the Netherlands. These visible changes are associated with reforms carried out throughout the past ten years (Stovicek and Turrini, 2012, p. 16). Next figure shows unemployment insurance net replacement rates<sup>2</sup> in EU27 Member States in 2010 (Dolenc and Vodopivec, 2005, p. 343). Net replacement rates are usually higher than gross replacement rates due to the progressivity of income taxes. Typically, unemployment insurance benefits are non-taxable or exempt from social security contributions (European Commission, 2013, p. 10). The unemployment benefits generosity is the highest among Scandinavian countries and Continental EU countries, whereas the lowest among Eastern and Mediterranean countries.

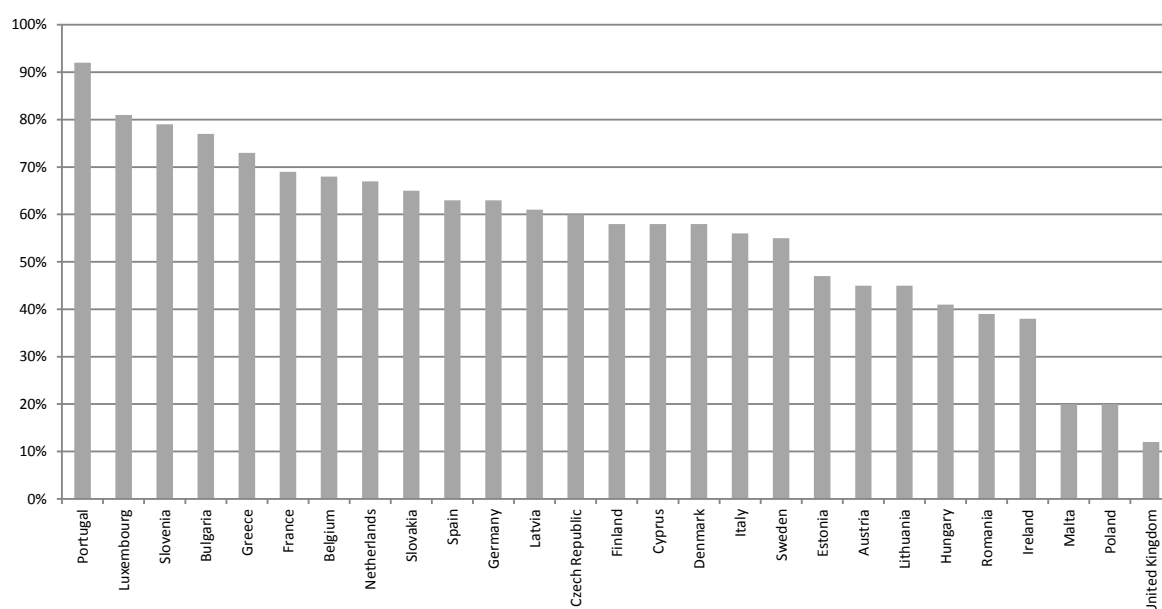
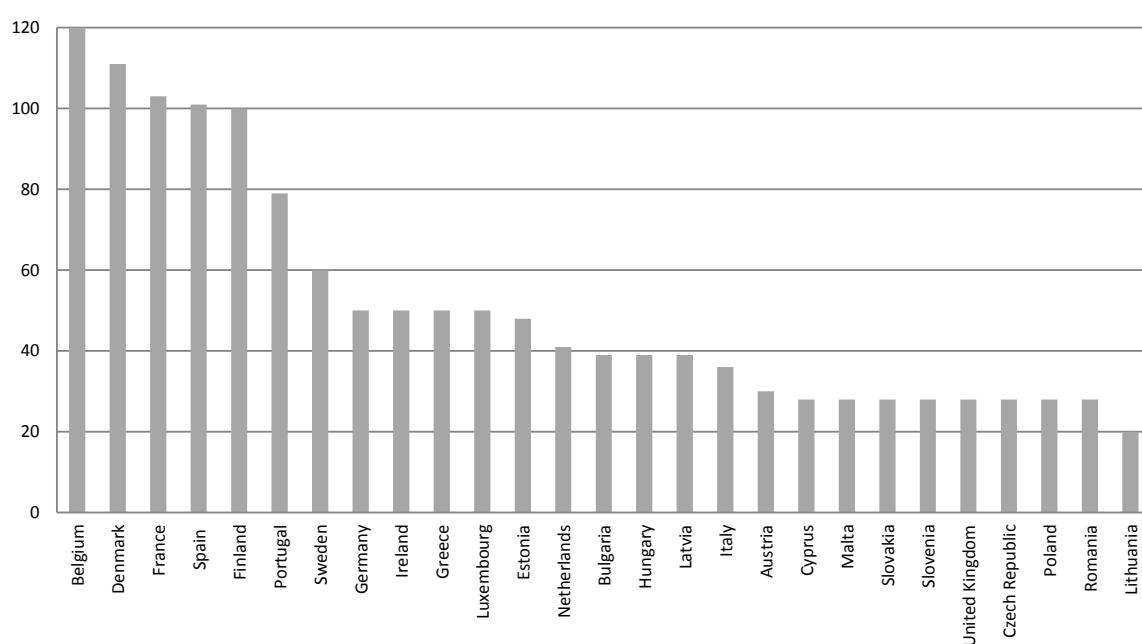


Figure 2: Unemployment insurance net replacement rates in EU27 Member States, 2010  
(Source: European Commission, 2013)

<sup>2</sup> Net replacement rate (NRR) is defined as ration of net income while out of work ( $y_{netA}$ ) and net income while in work ( $y_{netB}$ ):  $NRR = \frac{y_{netA}}{y_{netB}}$ . If net replacement rate exceeds 100%, the unemployed person is not expected (at least not on short-term basis) to be encouraged to move from unemployment, because in-work earnings are smaller than out-of-work incomes or (alternatively) when moving to unemployment the incomes would increase and not (as usually) decrease.

Countries are ranked by benefit generosity from highest to lowest, ranging from 92 per cent in Portugal to 12 per cent in the United Kingdom. Net replacement rates are on average somewhat higher in Euro zone countries, where all but four countries (Austria, Estonia, Ireland and Malta) have net replacement rates close to or above 60 per cent. Only Portugal has a net replacement rate above 80 per cent in unemployment insurance. Another important dimension of social insurance is the duration of benefits. Duration is the time spent during which legislated benefits are paid. Traditionally, duration of unemployment insurance benefits has ranged between a few weeks and a nearly unlimited benefit period, sometimes only restricted by the legal pension age (European Commission, 2013, p. 11). Next figure shows the duration of unemployment insurance in weeks for a typical worker in EU27 Member States in 2010. Cross-national variation in benefit duration ranges from 21 weeks in Lithuania to an unlimited period in Belgium. In several European countries, further extensions of benefit duration may be approved depending on age and previous employment record of the insured.



*Figure 3: Duration of unemployment insurance benefits in EU27 Member States, 2010 (in weeks)(Source: European Commission, 2013)*

In some cases such as Sweden it was previously possible for the unemployed to re-qualify for a new unemployment benefit period through participation in active labor market programs (European Commission, 2013, p. 11). Regarding the duration of UBs, new member states mostly provide benefits up to maximum duration of 12 months (with exception of Slovenia), whereas on the average, the possible entitlement to UBs lasts longer, in Belgium even indefinitely (Laporšek and Dolenec, 2011a, p. 964). Average duration among European countries is well above two years, while corresponding length of duration for countries outside the Eurozone is around 30 weeks. In context of introducing more flexibility, considering passive labor market policies it could be pointed out that all countries have a duration of unemployment insurance benefits that corresponds to at least 26 weeks, which suggests that the introduction of an EU framework for unemployment benefits including duration of a half a year would appear to be less problematic. A number of authors (Boeri, Conde-Ruiz and Galasso, 2003; 2004) have drawn attention to a negative correlation between the size/coverage of the UB system and the relative strictness of EPL index. Therefore, the

correlations between these two variables were also examined. Figure 4 implies that this trade-off does not hold when plotting the most recent figures on EPL and net unemployment benefit replacement rate (average 2011-2013), calculated by the OECD countries. The dotted lines represent OECD unweighted average.

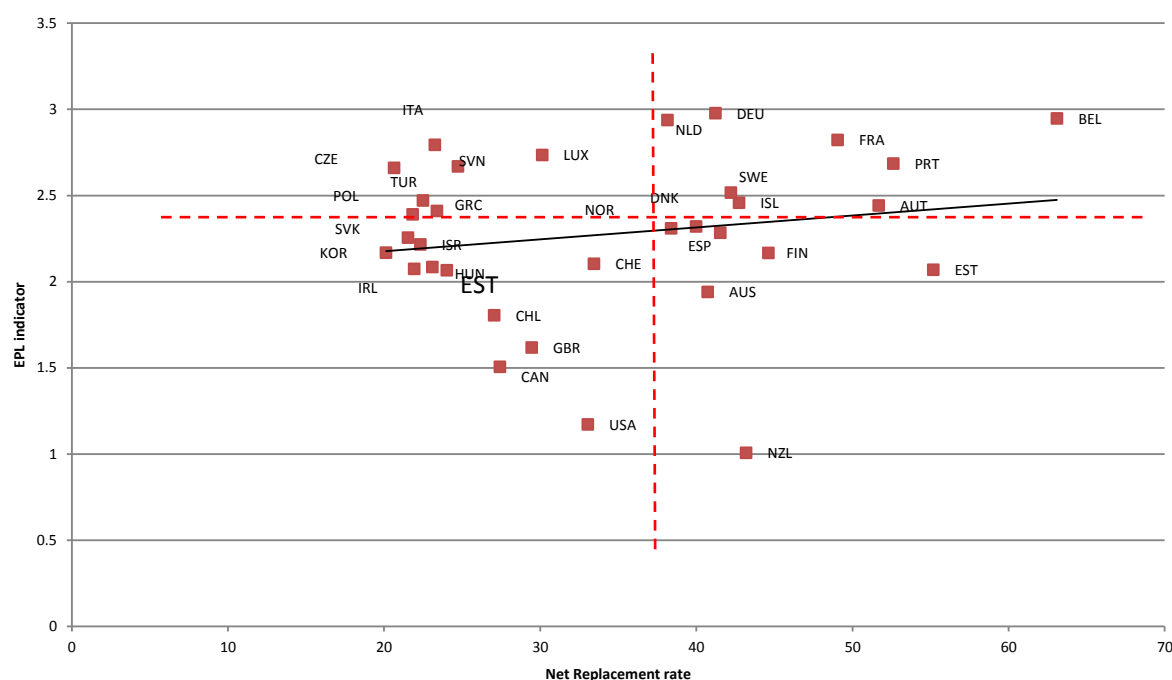


Figure 4: Indicators of EPL and unemployment insurance generosity, OECD countries, average 2011-2013 (Source: OECD Employment Protection Database, 2013; European Commission, 2013)

Note: Data for EPL are for 2013 and data for net replacement rate are for 2011.

The UB system and EPL are two (to some extent) alternative ways of protecting individuals against labor market risk. A flexicurity approach is consistent with moving along this trade-off by loosening EPL to some extent in exchange for more generous UB and higher spending on ALMP (European Commission, 2006, p. 94). Such approach is evident in Denmark, Australia and Hungary. In cross-country comparisons, Denmark stands out as having rather liberal employment protection legislation (EPL) and relatively generous unemployment insurance scheme. As a consequence it is often seen as a “flexicurity” country (Obadić, 2009, p. 68). The cross-country evidence presented in Figure 4 does not support the usual perception that weak EPL and generous UI-system are alternatives in policy packages. The Pearson correlation coefficient between EPL indicator and net replacement rate amounted 0,172 at 1% significance level. It is more appropriate to distinguish between “low” security countries with weak EPL and non-generous UI (for example, US) and “high” security countries with strict EPL and generous UI (for example, Portugal). In the latter group, Denmark stands out, being a country with one of the most generous UI-systems, but relatively weak EPL (Andersen and Svarer, 2007, p. 394). In the same group we can also put to other Scandinavian countries (Sweden and Finland) together with Netherlands. They have intermediate-to-high level of labor market flexibility and high level of security in the labor market. This confirms relatively good developed concept of flexicurity in these two groups of countries. In the same time, looking at macroeconomic variables of these two groups of countries with high level of



flexicurity, the highest macroeconomic performance in the labor market is attained – with the highest employment rate and the lowest unemployment rates. The two Anglo-Saxon countries (Ireland and United Kingdom) are characterized by the most flexible labor market arrangement (the values of total EPL index are the lowest) and relatively lower level of security in the labor market. A flexible labor market enables enterprises to be more flexible when responding to the changing market conditions. While simultaneously ensuring security (in terms of stability of employment relations with well-qualified workers) enterprises can improve their productivity and market position. This confirms that balanced flexicurity policies are of special importance for development of European labor markets, especially in the time of global crisis (Laporšek and Dolenc, 2011b, p. 143). Keeping jobs is most important for employees and developing business in flexible environment the most important for employers.

#### **4. CONCLUSION**

Analyzed flexicurity concept presents a response to changes in national economies due to globalization processes, rapid technological development, demographic aging and labor market segmentation and provides a tool to maintain and improve competitiveness while reinforcing European social model. Strict employment protection is likely to adversely affect labor market performance by reducing the probability of job seekers finding a job and escaping unemployment, prolonging unemployment, and thus contributing to long-term unemployment. In particular, it lowers the employment chances of disadvantaged worker groups, such as youth, new labor market entrants, and low-skilled workers. It may also contribute to the growth of the informal sector. There is plenty evidence from OECD countries that strict EPL correlates with poor labor market outcomes (World Bank, 2011, p. 25). Evidence also supports the hypothesis that strict EPL causes labor market duality. It strengthens the position of insiders (workers with regular jobs) who are less likely to become unemployed but it weakens the position of outsiders (the jobless and those who work in irregular or informal jobs) who have fewer chances of getting a formal job. Namely, strict EPL is associated with longer durations of unemployment. The “trade-off” in labor market exists, when employment protection stringency is “traded” against access and coverage of social protection. So, overall protection could be the same if you have strong employment protection, which diminishes dismissals and the need for social protection, or if you have weak employment protection and more dismissals, but an extensive system of social protection, with high coverage and high replacement rates, such as generous unemployment benefits. The provided analysis pointed on the existence of large differences in the level of implementation of flexicurity policies across selected countries, by which the least successful are new member states due to very rigid labor markets at very low security of employees. On the other hand, flexicurity policies are the most balanced in Denmark, Netherlands and Scandinavian countries. Therefore, it can be concluded that it should be taken into consideration that flexicurity is not a uniform one single model, but it should be shaped for every national situation individually. Substantial gains can be expected if labor regulations are made more flexible. In context of introducing more flexibility, considering passive labor market policies it could be pointed out that analysis show that the introduction of an EU framework for unemployment benefits including duration of a half a year wouldn't appear to be problematic. The most important thing in removing rigid labor market rules involves introducing flexicurity: moving from protecting jobs to protecting workers. Current situation in the labor market suggests that each country must shape its own flexicurity pathway that best suits to specific needs of its labor market. Flexicurity should remain an important EU employment policy priority. However, to achieve the desired flexible results labor market

reforms should be accompanied also by reforms in other areas, such as social security, privatization, and competition. Finally, however, it is improvements in the investment climate that create jobs and employment growth.

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## TAX HAVENS UNDER “STANDSTILL” AND “ROLLBACK” INSTRUCTIONS OF THE EU

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### ABSTRACT

*Joining the initiative of the Organization for Economic Cooperation and Development (OECD) to tackle “harmful tax competition” and addressing the need for a tax policy review in the context of globalization, the European Union’s Code of Conduct for Business taxation was a guiding tool in reshaping the national tax legislations of its Member states and their dependent and associated territories. The two English Channel Islands (Guernsey and Jersey) and the Isle of Man, formerly known as “tax havens”, had to amend their tax legislation in order to become compliant to the provisions of the Code. The aim of this paper is to present the evolution of the three island’s tax systems departing from the harmful measures which were not within the spirit of the EU’s Code of Conduct and reaching the implementation of the “zero-ten tax system”. An important aspect being approached is the EU’s position towards the 0% tax systems and the level up to which it can impose its will to eliminate harmful tax practices while respecting the fiscal sovereignty of these territories.*

**Keywords:** *British crown dependencies, EU’s Code of Conduct for Business taxation, OECD, Tax haven, Zero-ten tax system*

### 1. INTRODUCTION

Apart from the benefits presented by the process of globalization, among which we can mention: the integration of the markets, the technological development and the increased movement of human and capital resources, both individual economies and international organizations were put *en garde* in respect of reducing the negative aspects that might arise in the absence of a close supervision and coordination of the internal processes and outside influences. In the context of globalization consideration has been given to the *tax havens* which have gained increasing importance since the mobile capital tends to be directed towards the low tax jurisdictions. In this case the problem relates to the potential *harmful tax competition* which could unbalance the states’ budgets and erode countries’ tax basis. Concrete action in this respect was taken both by the European Union (EU) and the Organization for Economic Cooperation and Development (OECD). In order to create better tax coordination at the level of the Community and a level playing field in the area of taxation, The European Union introduced in December 1997 the *Code of Conduct for Business Taxation*, which aimed at reducing distortions in the single market, preventing significant loss of tax revenue and helping states in creating tax structures that encourage employment (Official Journal of the European Communities, 1998). In this context both Member States and their dependent and associated territories had to adopt these principles and review their tax policies in order to eliminate any *harmful measures*. Assistance in this respect was to be accorded through the establishment of the Code of Conduct Group in 1998. The OECD also had its standpoint in this tax matter. It was the most fervent opponent to the fiscal legislation promoted by the *tax havens* and addressed the two major problems found at these systems: the lack of transparency and exchange of information. In 2000 the organization published the list of the world’s *tax havens*. Soon after this publication, the black listed jurisdictions took rapid steps

in order to become tax compliant and to adopt the *internationally agreed tax standards*. The latest OECD's progress report from the 5<sup>th</sup> of December 2012 reveals the fact that at the moment there are only two jurisdictions that meet the *tax haven* criteria: Nauru and Niue (OECD, 2012). The British crown dependencies: Guernsey, Jersey and Isle of Man were among the listed territories presented in 2000 by the OECD under the *tax haven headline*. Yet, commitment letters had been sent and adjustments in the key areas of transparency and exchange of information had been made in order for their fiscal administrative authorities to have tax information that was available, that could be accessed and exchanged upon request. Having the status of dependent territories of The United Kingdom, the tax legislation of these islands had to be compliant to the principles of the EU's *Code of Conduct for Business Taxation*. Therefore, their tax legislation had to pass a review process of the EU's Code of Conduct Group and amendments had to be made in order to eliminate the harmful tax measures. The first part of the paper introduces *tax havens* from two points of view: the specialty literature perspective and the OECD's perspective. The second part presents the Code of Conduct for business taxation within the framework of the EU's tax policy strategy, while the third part stands to bring a comprehensive presentation of the three British crown dependencies in terms of their tax system's development. Conclusions come to stress the idea that beyond the fiscal sovereignty of each state, there is a need to align the tax systems to the international standards, which in turn will offer numerous benefits to all countries.

## **2. TAX HAVENS TODAY**

According to Dharmapala and Hines (2009) *tax haven* jurisdictions present the following characteristics: Small countries, predominantly islands, with a population below 1 million; Good communication infrastructure; Few natural resources; British legal origins with English as an official language; Parliamentary systems; Proximity to the large capital-exporter countries; More affluent than other countries as they attract significant foreign investment due to the low tax rates and opportunities for tax avoidance; and High-quality governance institutions that can be translated in political stability, government effectiveness, rule of law and control of corruption. These country's features are important guidelines in the investment decisions since they provide credibility and assurance of a safe business environment. Another definition provided by Hines (2005) presents *tax havens* as locations with very low tax rates and numerous tax incentives meant to attract investors. Since the position of the *tax havens* has been questioned in relation to the effects they generate on a world-wide basis in terms of tax competition, a lot of attention has been focused on them. According to Hines (2005) these territories have attracted massive foreign investment and they have registered important growing rates in the last 25 years due to the very attractive fiscal systems. In terms of the profit shifting opportunities for the multinationals, Krautheim (2011) sees *tax havens* as providing numerous tax planning options. Contrary believes also arise: on one hand *tax havens* are considered to divert activity from the high tax jurisdictions and create a tax competition that will eventually lead to a *race to the bottom* (Slemrod, 2004), on the other hand Desai, Foley and Hines (2006) provide evidence that tax haven's operations enhance activity in the nearby high-tax jurisdictions.

### **2.1. Tax havens under The OECD's supervision**

The Organization for Economic Cooperation and Development (OECD) was the first to set the criteria in identifying *tax havens*. The report called *Harmful tax competition*, released in 1998 presented the following characteristics of these territories (OECD, 1998): no or only nominal tax rates; lack of effective exchange of information; lack of transparency; and no substantial activities.

The aim of this report was to bring forward the potential threat posed by these tax systems to the other national economies in the context of globalization. The main two areas of concern were: the lack of effective exchange of information and the lack of transparency. The nominated territories meeting the *tax haven* criteria were required to make commitments to meet the internationally agreed tax standards. The key principles in the area of transparency and exchange of information for tax purposes were based on: the implementation of a mechanism for the exchange of information for tax purposes between countries upon request; the strict confidentiality of the information exchange; the access of the state to reliable bank, ownership identity and accounting information and the power to exchange such information upon request (OECD, 2009). Although commitments for adherence to the tax standards had been made, their implementation differed from one state to another. The signing of agreements: Double Taxation Conventions (DTC) or Tax Information Exchange Agreements (TIEAs) that provided for the exchange of information upon request with at least 12 OECD countries was considered a good indicator of the fact that the nominated states had implemented the tax standards. The Progress report from the 15<sup>th</sup> of December 2011 (OECD, 2011) presented the stage of implementation of the standards in terms of tax treaties signed between the countries. The new listing revealed only two states left to meet the tax haven criteria – Nauru and Niue – (OECD, 2011).

### 3. EU'S TAX POLICY STRATEGY

*"National governments are responsible for raising taxes and setting tax rates. The amount of tax you pay is therefore decided by your national government, not the EU"* (EU taxation, 2013) is the welcoming paragraph found under the Taxation headline on the EU's website. The principle behind this statement is found in the EU's tax policy strategy and it emphasizes the fact that Member States detain the fiscal autonomy of choosing the tax rates they think fit to respond to their internal necessities, but they are conditioned to respect Community's rules. At the same time the EU considers the harmonization of the Member State's tax systems neither necessary nor desirable (Commission of the European Communities, 2001). Yet, given the effects of globalization, which can be translated in intensified trans-border operations, access to new markets and high capital mobility, the EU considered the need for a tax policy review while taking into account an aspect which triggered concern: *harmful tax competition*. To address this issue the *Code of Conduct for Business taxation* was introduced in 1997 in order to promote a fiscal climate that enhanced fair tax competition. The European Union is also a promoter of *good governance in the tax area* which encompasses the principles of transparency, exchange of information and fair tax competition (Commission of the European Communities, 2009). In designing these principles consideration was given to the need to fight cross-border fraud and evasion while protecting the Member State's tax bases against erosion caused by the above mentioned activities.

#### 3.1. EU's Code of Conduct for business taxation

Acknowledging the threat posed by the *harmful tax competition*, the EU found it necessary to create a Code of Conduct, whose scope was to cover business taxation and to fight the measures that affect the location of business activity in the Community. The target was any system that presented a low level of taxation, including zero taxation. The following measures were considered to be harmful under the provisions of the Code:

1. "whether advantages are accorded only to non-residents or in respect of transactions carried out with non-residents, or
2. whether advantages are ring-fenced from the domestic market, so that they do not affect the national tax base, or

3. whether advantages are granted even without real economic activity and substantial economic presence within the Member State offering such tax advantages, or
4. whether the rules for profit determination in respect of activities within a multinational group of companies depart from the internationally accepted principles, notably the rules agreed upon within the OECD, or
5. whether the tax measures lack the transparency, including where legal provisions are relaxed at administrative level in a non-transparent way.” (Official Journal of the European Communities, 1998)

The Code of Conduct Group was established in order to assess the *harmful tax measures* of the Member States and to draw attention on the need to make corrections in order to eliminate them. Progress in this respect is reported under the *Standstill* and *Rollback* status. Under the *standstill* status the Member States commit not to introduce new tax measures which are harmful and they will respect the principles underlying the code when determining new tax policy. The *rollback* status means that Member States need to re-examine their tax policies and establish new practices taking into account the provisions specified by the code (Official Journal of the European Communities, 1998). The provisions of the Code were also extended to the tax legislation of the Member States’ dependent or associated territories.

#### **4. GUERNSEY, JERSEY AND THE ISLE OF MAN**

The two English Channel Islands (Guernsey and Jersey) and the Isle of Man are self-governing dependencies of the British Crown. They are neither part of the United Kingdom (UK) nor The European Union (EU). Yet, the UK is responsible for the islands’ international affairs and defense, while the relation to the EU is governed by the terms of Protocol 3 to the UK’s Act of Accession 1972. This protocol places the three islands within the Common Custom territory of the Community and the Common External Tariff of the European Economic Community (States of Guernsey, 2013). In terms of taxation the three islands are fully autonomous, yet their fiscal system must convey to the *OECD’s internationally agreed tax standards in business taxation* and to the *EU’s Code of Conduct for business taxation*.

##### **4.1. Testing the islands’ tax haven status**

According to Dharmapala and Hines’ (2009) features of tax havens, the two English Channel Islands (Guernsey and Jersey) as well as the Isle of Man meet many of the characteristics:

- The Bailiwick of Guernsey is made up of a group of islands located in the English Channel; It is the 26<sup>th</sup> smallest country in the world; It is geographically closer to France than to The United Kingdom but it is dependant to the latter. It has a population of 65.000; It has few natural resources and the economy is dominated by the finance sector which accounts for 48% of the GDP; The legal system has English Common law influences; English is the official language (OECD Guernsey, 2013);
- Jersey is also an island located in the English Channel, in the proximity of the coast France; It’s population is estimated at 99.000 (States of Jersey, 2013); It’s legal system has common law influences; It’s economy is dominated by the financial service industry which produces half of Jersey’s total economic activity (OECD Jersey, 2013); It has a world-wide transport network, excellent telecommunication coverage and world –wide IT infrastructure (Jersey: Open for Business, 2013);
- The Isle of Man is located in the Irish Sea; It has a population of 84.497 (Isle of Man, 2013); English is the official language; Its legal system is based on the common law principles; The Queen of England is the head of state; Its economy relies heavily on the financial sector which accounts 60% of the GDP (OECD Isle of Man, 2013);



At the same time the former offshore sector characterized by the tax exempt juridical structures and the introduction of the *0/10 tax system*, have both favored the inflow of capital and investment in the islands. The low tax status of the three territories and the numerous fiscal incentives can also be considered an important competitive advantage. In respect of the criteria set by the OECD in 1998, the three islands were listed under the *tax haven headline* in the OECD's Report from 2000 (OECD, 2000). The Isle of Man was the first among the three to send the Commitment letter to the OECD in December 2000, claiming adherence to the tax principles and two years after, in February 2002, both Guernsey and Jersey initiated the same action. The OECD's Progress Report from December 2011 (OECD, 2011) placed the three states under the white listed jurisdictions since they had met the minimum threshold of 12 tax treaties being signed. Up to the moment the Isle of Man has established exchange of information relationships with 81 jurisdictions (Exchange of Tax Information Portal – Isle of Man, 2013); Guernsey with 57 jurisdictions (Exchange of Tax Information Portal – Guernsey, 2013) and Jersey with 41 jurisdictions (Exchange of Tax Information Portal – Jersey, 2013). Regarding the degree of implementation of the internationally agreed tax standards in terms of transparency and exchange of information in tax matters, the Peer review Reports from November 2013, reveal the islands' progress in respect bellow. The level of implementation of the standards differs between the three islands. The Isle of Man proved compliance in nine out of ten areas, whereas Guernsey and Jersey meet eight respectively, seven objectives related to transparency and exchange of information.

Within the Reports, recommendations are made in order for the tax standards to be fully adopted. Therefore, the three islands no longer meet the OECD's *tax haven* criteria, since numerous amendments to both commercial and tax legislation have been made and improvement in the area of transparency and exchange of information for tax purposes has been reached.

*Table 1: Degree of Implementation of the Internationally Agreed Tax Standards (OECD Guernsey, 2013; OECD Jersey, 2013; OECD Isle of Man, 2013)*

<b>Objectives</b>	<b>Guernsey</b>	<b>Jersey</b>	<b>Isle of Man</b>
Jurisdictions should ensure that ownership and identity information for all relevant entities and arrangements is available to their competent authorities.	Compliant	Compliant	Compliant
Jurisdictions should ensure that reliable accounting records are kept for all relevant entities and arrangements.	Largely compliant	Partially compliant	Compliant
Banking information should be available for all account-holders.	Compliant	Compliant	Compliant
Competent authorities should have the power to obtain and provide information that is the subject of a request under an exchange of information arrangement from any person within their territorial jurisdiction who is in possession or control of such information	Compliant	Largely Compliant	Compliant
The rights and safeguards that apply to persons in the requested jurisdiction should be compatible with effective exchange of information	Compliant	Compliant	Compliant

Exchange of information mechanisms should allow for effective exchange of information	Compliant	Largely Compliant	Compliant
The jurisdictions` network of information exchange mechanisms should cover all relevant partners	Compliant	Compliant	Compliant
The jurisdictions` mechanisms for exchange of information should have adequate provisions to ensure the confidentiality of information received	Largely Compliant	Compliant	Largely Compliant
The exchange of information mechanisms should respect the rights and safeguards of taxpayers and third parties	Compliant	Compliant	Compliant
The jurisdiction should provide information under its network of agreements in a timely manner.	Compliant	Compliant	Compliant

#### 4.2. The islands' harmful tax measures and the 0/10 tax system

In November 1999, The Code of Conduct Group presented to the Economic and Financial Affairs (ECOFIN) Council a report comprising of a list of measures that might fall under the Scope of the *Code of Conduct for business taxation*. Also, the report covered tax measures adopted by the dependent territories of the EU's Member states, which were providing for the partial or complete exemption from tax of corporate profits or other profits arising from offshore activities, in the following conditions: The benefits were granted to companies which were foreign owned; The activities were not conducted with local residents; The measures were meant to target the mobile capital (Council of The European Union, 1999). The two English Channel Islands (Guernsey, Jersey) and the Isle of Man were found to have tax measures which were not Code compliant.

##### 4.2.1. Guernsey before the 0/10 tax system

At the time of the report, in Guernsey a company was subject to income tax at a rate of 20%, in the same way as an individual and all the companies incorporated in the island were resident for tax purposes, unless it applied for a tax-exempt status. The following structures were considered to fall under the provisions of the *Code of Conduct for business taxation*:

- *The Exempt companies.* A Guernsey company applying for this status had all the income which arose from outside Guernsey exempted from tax. Such a company had to be foreign-owned and it was subject to an annual fee payable to the Income Tax Authority of £600.
- *International loan business.* Both banks and companies carrying on international loan businesses could deduct from the profits arising out of international loan business a 90% management charge, which could reduce the overall tax rate at 2%.
- *International Bodies (IBCs).* This type of company was owned by non-residents and it was not allowed to trade with Guernsey residents. The tax rate could be agreed upon and it ranged between more than 0% and less than 30%. It was subject to review every 5 years.
- *Offshore insurance companies.* These companies could elect to be taxed either as an exempt company or an international company or on a sliding scale.
- *Insurance companies.* The business results were registered according to the commercial principles while the payment of the tax liability could be deferred until the claims were finalized or the period of risk expired.

#### 4.2.2. Jersey before the 0/10 tax system

Just like in Guernsey, a Jersey company was subject to the same income tax rate as individuals (20%). A company was a tax resident of the island as long as it was incorporated there or it had the central management and control exercised by Jersey resident directors. The following structures were considered to fall under the provisions of the *Code*:

- *Tax exempt companies*. This type of company was owned by non-residents or by a collective investment fund. Income arising outside Jersey was tax exempt as well as the bank interest arising in Jersey. A tax exempt company was due a £600 fee per year.
- *International Treasury operations* represented by a branch of an international bank was entitled to deduct a percentage of profits deemed to be applicable to the costs of outside expertise and other costs.
- *International Business Companies*. The profits realized outside Jersey were taxed at the following rates: up to £3 million (2%); between £3-4,5 million (1,5%); between £4,5-10 million (1%); over 10 million (0,5%). These companies were totally foreign-owned.
- *Captive insurance companies*. According to the type of risk insured, the companies could be tax exempt or they could pay tax at a rate of 20%.

#### 4.2.3. Isle of Man before the 0/10 tax system

Following the trend of the English Channel Islands, the Isle of Man had no separate system of corporation tax. A company was subject to a 20% tax, the same as individuals. All companies incorporated in the island were residents for tax purposes as well as those whose management and control was exercised from the island.

- *International business companies*. They had to be foreign-owned and to have a resident director and a secretary. All the income was foreign sourced and it was taxed at a negotiated tax rate which ranged between 1% and 35%, but subject to a minimum tax charge of £1200.
- *Exemption for non-resident companies*. The islands' resident companies which were foreign-owned and did not trade in the Isle of Man were tax exempt but they were subject to an annual fee of £400.
- *Exempt insurance companies*. This type of company was tax exempt as long as the profits arose from the risks outside the island. An annual standard fee of £2000 plus a licence fee of £500 was payable.
- *International loan business*. A 90% management charge deduction against international loan business profits could reduce the income tax from 20% to 2%.
- *Offshore banking business*. These structures were granted tax exempt status yet, an annual fee of £35,000 had to be paid.
- *Fund management*. 75% of the annual fee income was tax exempt.

#### 4.2.4. The introduction of the 0/10 tax system

In response to the EU's Code of Conduct Group's review of the harmful measures presented by the three islands, steps had been taken in order to eliminate them and to create better tax systems meant to remain attractive to the potential investors and at the same time to be aligned to the international requirements in terms of *good governance in tax matters*. With effect from the 6<sup>th</sup> of April 2006, The Isle of Man introduced a standard rate of 0% on corporate income generated by both resident and non-resident companies. Also, a 10% tax rate was to be applied to the income generated by the licensed banks, real estate, mining and quarrying (OECD Isle of Man, 2013). It was the first attempt of introducing the *zero-ten tax*

*system* which came under a review process of the EU's Code of Conduct Group. Although in November 2002, Guernsey and Jersey's Governments were announcing the introduction of the *zero-ten tax system*, it went into force on the 1<sup>st</sup> of January 2008. Before that date, both companies and individuals were charged a 20% tax rate. After that date, individuals' income continued to be charged a 20% tax rate, while companies were subject to the following tax rates: 0% corporate income tax; 10% applicable to the revenue generated by the financial services companies and 20% applicable to the utility companies and income from the ownership of land and building (States of Guernsey-Taxation, 2013). Also, with the introduction of the *0/10 tax regime*, the articles of the law concerning the formation of *the exempt company* and *the international business company* were abrogated. These forms of companies were considered to produce *ring fencing* effects, where non-residents were provided with more tax advantages than the residents. The zero-ten tax system came with numerous amendments over the years and every time it came under a review process of the EU Code of Conduct Group. The latest review from the 4<sup>th</sup> of December 2012, revealed the fact that Guernsey's tax regime was Code compliant (Channel Islands – Guernsey, 2013). Also, on the 19<sup>th</sup> of December 2011, the amendments to the Jersey's 0/10 tax law were approved by the ECOFIN and seen as meeting the Code's requirements (Channel Islands – Jersey, 2013). Other tax incentives offered by the three islands are: Capital gains are tax exempted; No withholding tax on dividends, interest or royalties paid to non-residents; A well developed network of tax treaties.

## 5. CONCLUSION

The EU through the introduction of the Code of Conduct for business taxation came to support the international initiative of the OECD to eliminate the *harmful tax competition*. The standards of *good governance in tax matters* had to be adopted on a worldwide basis, including the EU's Member States' dependent territories. The adherence of the British crown dependencies: Guernsey, Jersey and the Isle of Man to the OECD's standards of transparency and exchange of information for tax purposes meant the elimination of these jurisdictions from the black list of *tax havens*. At the same time the elimination of their offshore sectors, characterized by the existence of the exempt companies or international business companies, resulted in the islands' tax legislation becoming compliant to the EU's Code of Conduct for business taxation. The introduction of the 0/10 tax system represented a reshaping process of the islands' fiscal system which, despite of an early scrutiny, it was finally accepted and considered in line with the international tax standards.

The *0/10 tax system* represents by itself a competitive advantage in the attempt of the three islands to attract capital and investment that is to continue to boost the development of their economies and to be considered as international financial centres. At the same time the existence of a number of other tax incentives offered to companies and the large network of treaties which allow for the avoidance of double taxation, make Guernsey, Jersey and the Isle of Man a top destination for investment and mobile capital allocation.

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## **DOES INEQUALITY HARM DEMOCRACY? AN EMPIRICAL INVESTIGATION ON THE UK**

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### **ABSTRACT**

*This paper presents an empirical investigation about the effect of increasing economic inequality on some aspects of the quality of a democracy. The main novelty of the paper lies in its methodology: it applies to a single country - the UK – in a long run perspective. Using Eurobarometer data for the period 1974-2009, we select three questions and check whether an increase in inequality alters the answers to these questions, subject to other control variables. In particular, as indicators of the quality of democracy, we select the degree of Democracy-Satisfaction, the frequency of Political Discussion and Participation in Election. Another novelty is the use of several measures of inequality: the Gini coefficient, the Foster-Wolfson polarization index, the interdecile ratios P90/P10 and P90/P50, the shares of top and bottom 1%, 5% and 10% income. Inequality indices have been computed using two British household budget/expenditure surveys, i.e. the Family Expenditure Survey and the Family Resources Survey. Using an array of indicators allows us to disentangle what happens in the different parts of the income distribution and to avoid the dependence of the results on the choice of the indicator. The estimation is carried out estimating probit and ordered probit models. The main finding is that higher level of income inequality, no matter how it is measured, impacts negatively on citizens' satisfaction with democracy and positively on their political discussion and intention to vote. This leads to the issue of limiting inequality as an engine of deterioration in the quality of democracy, and sustaining an active citizenship.*

**Keywords:** *Economic inequality, Factor analysis, Inequality indices, Quality of democracy, United Kingdom*

### **1. INTRODUCTION**

In western advanced economies the reduction in income inequality has been sharp and general since the 1<sup>st</sup> World War. Data for the period post WWII-1970s still support the Kuznet's vision of an inverse-U relationship between development and inequality, but after the 1970s a sharp reversal of that equalizing tendency started to be the rule. Income inequality increased both in boom and recession and widened in the two decades since the mid-1980s. In the late 2000s the majority of OECD countries were experiencing high Gini coefficients: the English speaking area – notably the US and the UK – and several European countries were ranging from the minimum of 0.30 for the Netherlands to the maximum of 0.41 for the US in the 2000-2010 period, while Northern Europe (Scandinavian block first) and Japan positioned on average well below 0.30, which is considered a “very good Gini” (Stepan and Linz, 2011, p.

847 and 854). Moreover, English-speaking countries have been showing another peculiarity: in US, UK, Canada, Australia, New Zealand and Ireland the share of top 1% in total income before tax is U-shaped with the rising portion appearing after the 1970s (while the continental Europe - precisely France, Germany, Netherlands, and Switzerland - exhibits an L-shaped form). Both aspects - the fact that inequality in the majority of the western economies is increasing and that there is a huge disproportion between the top and the remaining of the distribution - started to be recognized as a social problem. This seems particularly true when considering that social mobility shrank in some countries of the first group: the correlation between sons' and fathers' incomes in 2005 was sensibly higher in the US and the UK than in Germany and Scandinavian countries: "*broadly, social mobility in the UK seems to have fallen from North European to something close to US level*" (Glyn, 2006, p. 174); the probability for the son of being in the same earnings quintile as his father is substantially higher in both the 1<sup>st</sup> and 5<sup>th</sup> quintile in the US and in the UK than in the Scandinavian group where the probability is smaller and equally distributed (OCSE, 2008, p. 206); the correlation between this intergenerational income elasticity and income inequality – the so called "Great Gatsby Curve" (Krueger, 2012) – is high, and it is still the US and the UK to perform the worst; lastly, whilst a reliable measure of social disease - the index of health and social problems elaborated by Wilkinson and Pickett (2010) - barely shows any relationship with the per-capita national income in rich countries, it appears strongly related to inequality. Thus, there is a piece of evidence that where income differences are bigger, social distances are bigger and social stratification more remarkable. The social distance among population-groups can become enormous and it can lead to social exclusion through differences in consumption sphere, in health and housing conditions, in access to education and to labor market, and in the social-relation network. A harmful environment for the attractiveness of the democratic institutions to their citizens might easily develop. The difficulties to a correct working of democracy when population is divided by income and wealth are widely dealt with in the political science (and also sociology) literature<sup>3</sup>. Since Aristotle, the scholars of politics have theorized that the proper functioning of a democracy depends on a relatively equal distribution of economic resources. For all, Tocqueville stated that the degree of equality is the best predictor of democracy stability, and of the quality itself of democracy. More recently, Dahl (1971, 2000) reminds that economic resources easily become political resources and that an unequal distribution can generate frustration and can reduce the sense of community and legitimacy leading to a subtle deterioration of democracy. For our mature western democracies an appreciable degree of income inequality is not as dangerous as in provoking dramatic outcomes. Movements of de-democratization rather occur within the democratic regime inducing a failure in the proper functioning of institutions that eventually leads to a deterioration of trust and to an estrangement from participation. The trend of de-participation leaves empty spaces that may well lead to an oligarchic power (in the specific case of a wealth-driven power, the *plutarchy*, in the Hacker-Pierson terminology, or *plutonomy* elsewhere), or to a power that is centered more and more on the interest of the few. The desire to keep privileges can favor the partial restriction of an open democracy (Winters, 2011). The quantitative literature concerning the effects of inequality on democracy is very scant and it is not centered on the idea of testing *the quality* of democracy, with few exceptions (Sunde *et al.*, 2007; Solt, 2004, 2008; Anderson and Beramendi, 2008) considering an array of countries. Our paper joins these contributions in so far as it aims precisely at evaluating the quality of democracy. More specifically, we first test how inequality impacts

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<sup>3</sup> See, for instance, Karl (2000); Bermeo (2009); Bartels (2008); Thorbecke and Charumilind (2002); Mueller (1988); Bollen and Jackman (1985); Boix (2003).



on citizens' satisfaction, which is a suitable indicator for the concept of "responsiveness" (Diamond and Merlino, 2004, p. 27). Then, we inquire about the citizen's reaction towards two of the main characteristics of political life: participating in discussion and voting. In addition, we depart from the existing literature which performs cross-country analysis either on developing countries or on a mix of developing-developed ones.<sup>4</sup> We are not interested in a worldwide comparison because developing countries differ in fundamental ways from the developed ones, and democracies in transition have to be studied separately as well. Even within the universe of the developed countries with fully grounded democracy things are different: the kind and the reach of policies, their timing, the country-specific social norms and institutions, their position in the global economic context and so on. In fact, "*.... our results suggest that inequality is determined by factors which differ substantially across countries*" (Li, Squire and Zou, 1998, p. 27). This statement – based on a wide empirical evidence – implies that income inequality depends on the country-specific socio-political-economic framework, which is sluggish to change, and it reflects the fact that the drivers of income inequality (changes in demography and living arrangements, labor market trends and government re-distribution, *in primis*) have varied sensibly across OECD countries: no single story holds for all. How could the effect on democracy – intended as citizens' reaction *vis-à-vis* institutions – be the same?

Thus, this paper will concentrate on a well grounded democratic country only, with a rich advanced economy, performing a time-series analysis for the last thirty years through the pooling of cross-section survey-data for the period 1974-2009. The country chosen is the UK on the basis of the following criteria: i) both the US and the UK have recently experienced an exacerbation in inequality but the income composition at the very top is less earnings - than wealth-based in the UK, making the fashionable top-incomes problem less relevant; ii) UK is a country with higher taxation level and that redistributes more than the US; iii) UK is the country that invented the modern Welfare State and is a country with an historical level of inequality much lower than the U.S.

Last but not least, we do not limit ourselves to the Gini index only as "the" indicator of inequality and we use several additional indicators. Our purpose is twofold: disentangling what happens in different parts of the income distribution and avoiding the dependence of the results on the choice of the used indicator. The paper is organized as follows: the data and their sources, the variables and the model are illustrated; the results of the empirical investigation are provided and commented. Concluding remarks briefly summarize the findings.

## 2. DATA SOURCES AND VARIABLES

The Eurobarometer Survey was used for the "quality of democracy" variables since *it* is the only survey that covers the whole time period we are interested in. As for income inequality, we computed inequality of household equivalent disposable income for the period 1971-2009 using *Family Expenditure Survey* (FES) and *Family Resources Survey* (FRS).

### 2.1. Dependent variables

As possible indicators of the quality of democracy we selected the three following questions:

- *Democracy-Satisfaction*. It corresponds to Eurobarometer question "*on the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with the way democracy works in your country?*".

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<sup>4</sup> See Thorbecke and Charumilind (2002) and Atkinson and Brandolini (2006) for reviews.

- *Political Discussion*. This is the answer to the question: “when you get together with friends, would you say you discuss political matters frequently, occasionally or never?”
- *Participation in Elections*. This variable is built from the question: “if there were a general election tomorrow, which party would you support?”

## 2.2. Inequality indices

Several inequality indices have been computed using the above mentioned British household budget/expenditure surveys. In theory, different indicators can tell a different story on inequality and should they show different trends findings might be entirely due to the index choice. This is why no choice has been made and ten distinct indicators were calculated and used. In addition to the well-known *Gini coefficient*, we computed the *interdecile ratios*  $P90/P10$  and  $P90/P50$ , the *share of the top 1%, 5% and 10%*, the *share of the bottom 1%, 5% and 10%*, and the *Foster-Wolfson polarization index*, which is “... a Gini-like index measure of bipolarization based on the curve.....[that] indicates how far each population percentile's income is from the median income” (Lambert, 2010, p. 241). The ten indices are highly correlated (results are available from the authors on request), all telling the same story about inequality in UK: income distribution has been relatively stable during the 1970s, then there was a sharp increase in inequality from late 1970s to the early 1990s followed by an up and down movement without any of the dramatic changes seen in the past. This same high correlation suggests that they may be expression of the same *latent construct*, a concept used in factor analysis that is reflected into *observable indicators*. The latent construct can thus be interpreted as the inequality imperfectly measured by different indicators that are rough and partial realizations of a higher level concept (Bollen and Lennox, 1991; Edwards and Bagozzi, 2000). Using factor analysis, we are able to find (and measure) the latent variable lying behind (results of the factor analysis are available from the authors on request). In the progress of the paper we will mainly focus on this variable - duly standardized - that we simply call *Inequality* - leaning on the other inequality indices for comparison only. As we expect, given the high correlation, results are largely similar for all indicators.

## 2.3. Control variables

Personal and household characteristics were considered as control variables: age, education (university and secondary degree vs. lower educational level), gender (male vs. female), marital status (married vs. other marital status such as being single, divorced or widow). Additionally, we included information on occupational status: self-employed or entrepreneur, manager, white collar, manual worker, retired from work, unemployed, each vs. the group of non-active people (including individuals in the military service, individuals who are responsible for house-caring or people who do not work but are not recorded as unemployed). A dummy variable captures differences between individuals living in an urban area vs. individuals living in a rural area. Also a time trend year and a dummy distinguishing between the two pieces of the UK where the person interviewed lives (Great Britain vs. Northern Ireland) have been included. At a later stage of the analysis, also household income deciles will be included in the analysis.

## 3. THE MODEL

We estimated three distinct equations, one for each dependent variable. Due to the nature of data, Democracy-Satisfaction and Political Discussion have been analyzed using ordered probit models, whilst Participation in Elections was treated with a probit. In particular, Democracy-Satisfaction is an ordinal variable, recoded from a descendant into an ascendant scale, taking value 1 if “Not at all satisfied”, 2 if “Not very satisfied”, 3 if “Fairly satisfied”

and 4 if “Very satisfied”. Political Discussion takes different values according to how often the interviewed discusses about politics. Recoded into a convenient way, it takes values: 1 if “Never”; 2 if “Occasionally”; 3 if “Frequently”. Participation in Elections has been recoded to take value 1 if “Would vote” and 0 otherwise (“Would not vote/I would blank or spoil my vote/ I would definitely not vote”). The equations are the following:

$$\begin{aligned} \text{satisfaction} = & \beta_1 \text{inequality} + \beta_2 \text{age} + \beta_3 \text{male} + \beta_4 \text{married} + \beta_5 \text{university} + \beta_6 \text{secondary} + \\ & \beta_7 \text{selfemployed} + \beta_8 \text{manager} + \beta_9 \text{whitecollar} + \beta_{10} \text{manual} + \beta_{11} \text{retired} + \beta_{12} \text{unemployed} + \\ & \beta_{13} \text{urban} + \beta_{14} \text{year} + \beta_{15} \text{GB} + u \end{aligned}$$

$$\begin{aligned} \text{discussion} = & \beta_1 \text{inequality} + \beta_2 \text{age} + \beta_3 \text{male} + \beta_4 \text{married} + \beta_5 \text{university} + \beta_6 \text{secondary} + \\ & \beta_7 \text{selfemployed} + \beta_8 \text{manager} + \beta_9 \text{whitecollar} + \beta_{10} \text{manual} + \beta_{11} \text{retired} + \beta_{12} \text{unemployed} + \\ & \beta_{13} \text{urban} + \beta_{14} \text{year} + \beta_{15} \text{GB} + u \end{aligned}$$

$$\begin{aligned} \text{vote} = & \beta_0 + \beta_1 \text{inequality} + \beta_2 \text{age} + \beta_3 \text{male} + \beta_4 \text{married} + \beta_5 \text{university} + \beta_6 \text{secondary} + \\ & \beta_7 \text{selfemployed} + \beta_8 \text{manager} + \beta_9 \text{whitecollar} + \beta_{10} \text{manual} + \beta_{11} \text{retired} + \beta_{12} \text{unemployed} + \\ & \beta_{13} \text{urban} + \beta_{14} \text{year} + \beta_{15} \text{GB} + u \end{aligned}$$

## 4. RESULTS

The three models were estimated for each inequality indicator, however, we show the entire estimated equation only where the main inequality indicator (table 1) is present. For the ten remaining inequality indices we present only the coefficient attached to the specified inequality indicator (table 2).

### 4.1. Democracy-Satisfaction

The first important result is that an increase in the level of Inequality depresses Democracy-Satisfaction (first column of table 1). The hypothesis that growing Inequality has a negative effect on the perception of democracy quality is, therefore, confirmed. In addition, we find that Democracy-Satisfaction increases with age (ageing people become wiser, or more indulgent, or more tolerant); males are more satisfied with democracy than women and married people more than individuals in another marital status (do women and singles have a greater sense of moral justice? Do they have more complaints against institutions that take care of them less than of others?); satisfaction increases with education - having university or a secondary degree vs. having a lower than secondary degree - and it is greater for more educated people (education helps in evaluating democracy and its virtues?). Also living in Great Britain vs. living in Northern Ireland positively and significantly impacts on Democracy-Satisfaction, while living in an urban area negatively affects Democracy-Satisfaction (cities present more occasions to interact with institutions than the country side does?). There exists a positive time-trend in the probability of being satisfied with democracy. The coefficients relative to the various types of employment position tell us the different probability that self-employed, managers, white collars, manual workers, retired from work and unemployed are more satisfied by democracy with respect to the control group: the non-actives. In particular, we find that managers and white collars are more satisfied with democracy with respect to the non-actives, while the opposite is found for manual workers and unemployed (who represent less-protected categories). On the contrary, self-employed and retired from work do not statistically differ from the non-actives in their level of Democracy-Satisfaction.

*Table 1: Estimation results of ordered probit and probit models on Democracy-Satisfaction, Political Discussion and Participation in Elections (elaborations on Eurobarometer data)*

	<b>Democracy-Satisfaction</b>	<b>Political Discussion</b>	<b>Participation in Elections</b>
<b>Inequality</b>	-0.078* (0.011)	0.028* (0.009)	0.092* (0.022)
<b>Age</b>	0.003* (0.000)	0.008* (0.000)	0.009* (0.001)
<b>Male</b>	0.036* (0.012)	0.248* (0.010)	0.025 (0.023)
<b>Married</b>	0.052* (0.012)	0.121* (0.010)	0.139* (0.022)
<b>University degree</b>	0.149* (0.019)	0.597* (0.016)	0.254* (0.042)
<b>Secondary degree</b>	0.135* (0.013)	0.172* (0.011)	0.093* (0.025)
<b>Self employed/entrepr.</b>	0.007 (0.025)	0.317* (0.021)	-0.025 (0.047)
<b>Manager</b>	0.090* (0.024)	0.365* (0.020)	0.166* (0.051)
<b>White collar</b>	0.065* (0.018)	0.232* (0.016)	0.103* (0.035)
<b>Manual worker</b>	-0.042* (0.018)	0.026 (0.016)	-0.005 (0.032)
<b>Retired</b>	0.014 (0.022)	0.051* (0.018)	0.050 (0.042)
<b>Unemployed</b>	-0.247* (0.028)	-0.003 (0.023)	-0.105* (0.044)
<b>Urban</b>	-0.067* (0.011)	0.072* (0.009)	-0.014 (0.022)
<b>Year</b>	0.009* (0.001)	-0.010* (0.001)	-0.028* (0.002)
<b>Great Britain</b>	0.477* (0.011)	0.122* (0.011)	0.465* (0.020)
<b>Threshold 1/Constant</b>	17.564* (2.175)	-18.931* (1.690)	-55.898* (4.633)
<b>Threshold 2</b>	18.482* (2.175)	-17.408* (1.690)	
<b>Threshold 3</b>	20.040* (2.176)		
<b>Obs</b>	60699	93631	52461

Note: robust standard errors in parentheses. \* p < 0.05

#### 4.2. Political Discussion

The second column of table 1 presents the results of the model for Political Discussion, showing that it is significantly augmented by an increase in Inequality. Relying on the precedent result on Democracy-Satisfaction, the discontent about the quality of democracy induced by an increase in Inequality does not turn into any reduction in political participation. On the contrary, it appears to nourish a more lively Political Discussion. Significant coefficients are also found for almost all regressors: age, being male, being married, having a university or secondary degree, living in an urban area, living in Great Britain, all increase the frequency of talking about politics. It seems again that experience and social status helps being more involved with the surrounding world, while the gender-result reaffirms that it is not in women habits to talk about politics. The time trend has a negative coefficient, implying

that Political Discussion today is not as frequent as in the past. The occupational status variables suggest that people in all occupational categories but unemployed are significantly more likely than non-actives to talk more frequently about politics. Contrarily to the previous question where the Democracy-Satisfaction was dependent on the working conditions, here the results are uniform: does having a job let everybody feel part of a community? Does it suggest that Political Discussion might be useful in one's own job-space? Does having a job just simply provide more opportunities for Political Discussion?

*Table 2: Estimated coefficients of the 11 inequality indices  
(elaborations on Eurobarometer data)*

	<b>Democracy-Satisfaction</b>	<b>Political Discussion</b>	<b>Participation in Elections</b>
<b>Inequality</b>	-0.078* (0.011)	0.028* (0.009)	0.092* (0.022)
<b>Gini coefficient</b>	-1.925* (0.265)	0.689* (0.222)	2.384* (0.556)
<b>Foster-Wolfson index</b>	-2.918* (0.285)	0.981* (0.234)	2.169* (0.606)
<b>Interdecile ratio P90/P10</b>	-0.147* (0.015)	0.047* (0.013)	0.106* (0.032)
<b>Interdecile ratio P90/P50</b>	-0.595* (0.075)	0.278* (0.063)	0.615* (0.156)
<b>Share top 1%</b>	0.045 (0.565)	0.028 (0.484)	2.864* (1.123)
<b>Share top 5%</b>	-1.776* (0.455)	0.666 (0.392)	3.383* (0.932)
<b>Share top 10%</b>	-2.073* (0.407)	0.827* (0.349)	3.257* (0.844)
<b>Share bottom 1%</b>	349.047* (33.642)	-66.771* (30.259)	-97.847 (67.628)
<b>Share bottom 5%</b>	37.248* (4.025)	-12.823* (3.496)	-33.853* (8.110)
<b>Share bottom 10%</b>	15.063* (1.656)	-4.998* (1.399)	-13.198* (3.368)

Note: robust standard errors in parentheses. \*  $p < 0.05$

### 4.3. Participation in Elections

The third column of table 1 shows the results of the probit model on the probability of voting if there were a general election tomorrow. Again, a positive effect of Inequality on political participation is confirmed here: an increase in Inequality significantly increases the probability of voting. In addition, we find that increasing age, being married, having a higher educational level, and living in Great Britain increases significantly the probability of electoral participation (results are on average highly consistent with the previous ones). The time trend has a negative coefficient, suggesting that, other things being equal, Participation in Elections in UK is decreasing with time (as it was the Political Discussion attitude). No statistically significant effect is found for being male and living in an urban area. On the contrary, occupational status impacts electoral participation: managers and white collars are more likely to vote than non-actives, whilst the opposite is true for the unemployed (here again the results are consistent with the previous ones). No significant coefficient is found for the other occupational categories. As anticipated, we run the three models with the ten alternative indicators, starting with the traditional Gini coefficient, in order to check whether the results were robust along the entire distribution and its main parts as well (table 2). Our main Inequality indicator is presented again in the first row for the sake of comparison. No

statistically significant result clashes with our first evidence: where significant, all indicators tell us the same story: an increase in inequality, no matter how it is measured, reduces the level of Democracy-Satisfaction, while increasing Political Discussion and Participation in Elections.

## 5. DOES INCOME MATTER?

Though moral aversion to inequality may, in theory, be distributed roughly uniformly across income levels, it may reasonably be argued that, with growing inequality, the riches are better off than the poor and, therefore, the actual attitude is likely to differ for persons lying in different points of income distribution. In order to investigate this feature - in line with Solt - we estimated the three models (for Democracy-Satisfaction, Political Discussion and Participation in Elections) running separate regression models separately by income quintile. Table 3 reports the estimated coefficients related to Inequality for the different quintiles and the different equations. Only in the case of Democracy-Satisfaction there is a clear pattern. The effect of inequality on Democracy-Satisfaction is negative at all levels of income, though not statistically significant for the richest group, and it decreases in absolute value from the poorest to the richest group. This suggests that the frustrating effect of income inequality is particularly felt by the poorest individuals. As regards Political Discussion, we find a positive and significant effect of Inequality for every level of income, and this effect is higher for the poorest and the richest quintile, suggesting that these two groups are the ones more concerned about their interests. The effect of Inequality on Participation in Election appears to be much weaker. Indeed, it is positive and significant only for the third and fifth income quintile.

*Table 3: Estimated coefficients of Inequality on the three variables by income quintile (elaborations on Eurobarometer data)*

	<b>First quintile</b>	<b>Second quintile</b>	<b>Third quintile</b>	<b>Fourth quintile</b>	<b>Fifth quintile</b>
<b>Democracy-Satisfaction</b>	-0.218* (0.043)	-0.191* (0.044)	-0.157* (0.043)	-0.110* (0.041)	-0.038 (0.043)
<b>Political Discussion</b>	0.187* (0.036)	0.119* (0.039)	0.094* (0.037)	0.104* (0.036)	0.153* (0.037)
<b>Electoral participation</b>	0.072 (0.072)	0.030 (0.074)	0.157* (0.077)	-0.010 (0.077)	0.186* (0.075)

Note: robust standard errors in parentheses. \*  $p < 0.05$

The results are fairly poor. We think that this is due to several drawbacks in the Eurobarometer income-variable. The first problem is that data source does not collect all the information needed for calculating household equivalized income. The second concerns the number of available survey rounds: income has been collected only until 2004, shortening the time span of our analysis. Thirdly, household income has many missing observations: whether the non-response is not purely random, as it is often the case, a problem of selection bias arises. Fourthly, income is not reported as such but it is collected in classes that differ in size and number from year to year. In order to create an ordinal income class variable, we have to assume that it is uniformly distributed within classes. Lastly, the concept of income used here is not disposable income, but *gross* income, which includes benefits though being before taxes and social contributions.

## 6. CONSLUSION

As far as we know, this paper is the first one which relates income inequality – measured through a wide array of indicators – to some aspects of the quality of a democracy in an

advanced-economy-and-rooted-democracy country, in a long-run perspective. We tested the impact of inequality on three indicators of the quality of democracy: citizens' satisfaction and citizens' attitude to participation in the two aspects of political discussion and intention to voting. Our findings reveal that Inequality decreases citizens' satisfaction and stimulates participation. This result seems quite interesting since the second and third indicator of quality move in opposite directions with respect to the first. However, this is not an inconsistent outcome in so far as it tells us that when a discontent occurs a positive reaction originates, which is debated in the political theory as one of the two possible outcomes (Solt, 2008, pp. 48-49). Contrarily to elsewhere found (Solt 2008) this may be due to the fact that we focus on a single country only with a fully rooted democracy rather than a pool of countries. Thus, the problem we are facing in such an environment might be the persistence of dissatisfaction – the degree of Inequality – and the efficacy of citizens' reaction rather than the reaction to the dissatisfaction as such. This leads to the issue of limiting inequality as an engine of deterioration in the quality of democracy, and sustaining an active citizenship.

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## INNOVATION AND ENTERPRISE DEVELOPMENT: THE CASE OF THE ETHEKWINI MUNICIPALITY

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### **ABSTRACT**

*Innovation and entrepreneurship creates an excellent platform for economic growth in any City. The Ethekwini Municipality has a predominantly urban population who faces the triple challenge of unemployment, poverty and inequality. It therefore has limited resources available for programs supporting entrepreneurs. However South African government has created an enabling environment for supporting small, black-owned enterprises through Broad Based Black Economic Empowerment framework. Claasen 2006 states that Enterprise Development (ED) where big companies offer operational assistance to small, black-owned enterprises, is a core component of the SA Government's BBBEE strategy and globally recognized as an effective way of reducing poverty. Raizcorp (2011) defines enterprise development as investing time, knowledge and capital to help Small and Medium Enterprises establish, expand or improve businesses including empowering modest income-generating informal activities to grow and contribute to the local economy. The primary objective of the Ethekwini Municipality is to develop an Enterprise development strategy in order to capitalize on private sector involvement in economic growth and the reduction of unemployment. The idea was to develop strategic partnerships with organizations which share Business Support mandates and who would like to contribute to the achievement of their own strategic objectives through BBBEE Performance scorecard fulfillment. This paper looks at the Enterprise development strategy within the context of Innovation and entrepreneurship.*

**Keywords:** *Enterprise Development, Ethekwini Municipality, Innovation*

### **1. INTRODUCTION**

Entrepreneurship in South Africa is plagued by sameness, monotony and boredom. In order to achieve higher levels of economic growth and job creation and reduced poverty and unemployment, more innovation needs to be introduced in the way we conduct business to increase both productivity and profitability. Government strategies around the world are aimed at supporting innovation in the private sector. Innovation is likewise at the core of South Africa's progression along the developmental path, stressed equally by eThekweni municipality for local economic progress. This paper looks at one of the key strategies being used by the Ethekwini Municipality for the purposes of promoting entrepreneurship thereby stimulating the economy. It is looked at as an innovative strategy since it is unique to South Africa, however, this strategy is usually driven by the Private sector. The Ethekwini Municipality is the only public sector organization who has identified this approach as a means to accelerate entrepreneurial support. The objective of this paper is therefore to look at the links between Entrepreneurship and innovation. It also looks at the Enterprise development strategy as an innovative tool which increases resources available to contribute towards the development of SMMEs.

This paper is therefore structured as follows; provides a broad context for innovation and entrepreneurship. It then looks at innovation within cities and looks specifically at the Ethekwini Municipality area and in particular, its Enterprise development strategy and the implementation thereof before making some concluding remarks.

## **2. INNOVATION, ENTREPRENEURSHIP AND SMMEs**

### **2.1. What is innovation?**

Schumpeter (1947) also defines innovation as the ability to create new value propositions through offering new products and services; adopting new operating practices: technological, organizational, or market-oriented; or creating new skills and competencies.

### **2.2. Challenges for SMMEs to be innovative**

According to the Organisation for Economic Co-operation and Development (OECD, 2010) there are a number of barriers that may constrain entrepreneurship, the creation and the rapid growth of innovation. The OECD (2010) further mentions that start-up entrepreneurs lack skills in a number of relevant areas of small business management, such as business planning, but the major gap appears to be in the area of strategic skills associated with entrepreneurship. The skills associated with entrepreneurship are decision-making, risks taking, information processing, opportunity recognition, resources organization, market awareness and product management. This is reinforced by Zimmer (1990) who further argues that low levels of education, training and poor business skills are major contributing factors to the lack of capacity and business innovation amongst entrepreneurs. According OECD (2010) innovative entrepreneurs commonly suffer from the lack of access to financial services, particularly to seed and development capacity, which has worsened since the financial and economic crisis. McGrath (2001) also suggests that new inputs are very important for innovation in small entrepreneurs, and small and young entrepreneurs can differentiate themselves by introducing product, process, or market innovations. Innovativeness reflects a tendency to support new ideas, uniqueness, experimentation, and creative processes, thereby departing from established practices and technologies (Lumpkin and Dess, 1996). According to Wolff and Pett (2006) innovation is important for small firms because it contributes to high levels of performance that can facilitate firm growth and subsequent profit performance, which in turn can yield employment gains and contribute to the general economic health of a state, region, or nation. In order to enhance SMMEs' innovation abilities, OECD (2005) emphasizes the importance of:

- Facilitating the hiring and training of qualified personnel,
- Disseminating technological and market information,
- Reducing financial barriers by developing the financial equity market,
- Promoting risk-sharing programs(e.g. financial support and tax incentives to Research and Development),
- Promoting partnerships between entrepreneurs, public agencies and financiers, and
- Facilitating entrepreneur's access to national and global innovation networks OECD (2005) recommends that innovation policies to be in line with the following:
- Partnerships involving private actors, NGOs and various levels of local and central public administrations,
- The leading role of private sectors in initiating clusters and the market-facilitating roles of government (e.g. facilitating private investment and seed funding), and
- Improving efficient communication and transportation infrastructure, local linkages among university and industry

### **2.3. Government's role in entrepreneurs innovation**

According to OECD (2005) government needs to go beyond the provision of the framework conditions that influence the business environment to address policy and market failures that dampen entrepreneurial activity and limit the scope for innovative small firms to grow. Many of these programmes and policies are designed and implemented at the local level. These policies should be evaluated regularly to identify ways to improve the effectiveness, both in terms of impact and participation of target beneficiaries. OECD (2005) further mentions that the government should provide a favourable climate in which entrepreneurs can easily create firms, have incentive to innovate and grow, and can access the necessary resources at a reasonable cost. OECD (2005) also mentions that government should introduce an innovation strategy for entrepreneurs and it should stress actions in four main areas:

- Promoting conducive entrepreneurship cultures and framework conditions
- Increasing the participation of new firms and SMMEs in knowledge flows
- Strengthening entrepreneurial human capital
- Improving the environment for social entrepreneurship and social innovation

As large enterprises have restructured and downsized small, medium and micro enterprises (SMMEs) have come to play an increasingly important role in South Africa's economy and development. The sector has grown significantly. In 1996, around 19% of those employed were in the informal sector of the economy. By 1999 this had risen to 26%. The government has therefore targeted the SMME sector as an economic empowerment vehicle for previously disadvantaged people. As a result, SMMEs have received significant attention and investment, ranging from the establishment of state-initiated projects to supportive legislation, a variety of funding institutions and government incentives through the Department of Trade and Industry (DTI). In terms of global competitiveness, South Africa was ranked as the 53rd most competitive country out of 148 surveyed in the 2013/14 World Economic Forum's Global Competitiveness Index, making it the second highest ranked country in Africa after Mauritius (45th). According to the report, South Africa does well on measures of the quality of its institutions (41st), including intellectual property protection (18th), property rights (20th), and in the efficiency of the legal framework in challenging and settling disputes (13th and 12th, respectively). The high accountability of its private institutions (2nd) further supports the institutional framework. South Africa's financial market development "remains impressive" at 3rd place, the report says. The country also has an efficient market for goods and services (28th), and it does "reasonably well" in more complex areas such as business sophistication (35th) and innovation (39th). However, the report notes that South Africa's strong ties to advanced economies, notably the euro area, make it more vulnerable to their economic slowdown and likely have contributed to the deterioration of fiscal indicators: its performance in the macroeconomic environment has dropped sharply (from 69th to 95th). It is also important to consider the impacts of globalization have had on SMMEs. In a study by the OECD (2007), although several aspects of globalization are now largely understood, notably its main drivers, sparse information is available on the transformation undergoing the relation between large and smaller firms and the evolution of the role of SMEs in global value chains. The study further pointed out that participation in global value chains enhances SME internationalization and growth and it provides SME suppliers access to global markets at lower costs than those faced by individual small-scale producers, due to the intermediation function assured by the contractor. Firms that have successfully integrated one or more value chains have been able to expand their business, and gain stability. Innovating and keeping up with new technologies are seen by SMEs as a requirement for their successful participation in global value chains. OECD (2007) pointed out that to move up the value chain, SMEs need to

take-up larger and more complex set of tasks, which may range from contributing to product development and organizing and monitoring the network of sub-suppliers to introducing organizational or marketing innovations. This study pointed out that the lack of managerial capacity to deal with the complexity of the issues at stake. The study further intimated that across countries, many enterprises interviewed indicated that governments at the local or national level have provided them with little or no support for facilitating their participation in global value chains. This is a reflection of the fact that many SMEs have a limited understanding of the global environment and therefore cannot easily identify policy initiatives facilitating their effective participation in global value chains. In the area of skills development, the main areas highlighted as significant for SMEs concerns were the need to improve technology and innovation capacity and the lack of adequate finance and human capital for this process and the capacity to respond to standards and certification requirements; the ability to better manage intellectual assets, including the protection of Intellectual Property Rights when appropriate; the uneven bargaining power SMEs face with large contractors; and the support of diversification in activities to reduce dependence from one or few customers. In light of this, The OECD (2007) indicated that Governments (at different levels) could facilitate SMEs' gainful participation in global value chains through policy initiatives in specific areas such as raising awareness of the potential of participation in global value chains, increasing participation in global value chains, supplier financing, promotion of technical upgrading, facilitation of compliance procedures, promotion of skills development, attracting foreign direct investment and promoting the development of industrial clusters.

### **3. INNOVATION, ENTREPRENEURSHIP AND CITIES**

Innovation is in vogue. Companies want it. Places want it. Why? Successful companies and places depends more on innovation than ever before. Despite its luster, many public and private sector leaders cannot really define innovation and therefore, stumble when trying to encourage or harness it. There are four challenges in trying to understand Innovation in Cities:

- Understanding the integral link between private sector innovation and public innovation policy in economic development;
- Understanding that innovation comes in many forms and phases of production and development;
- Focusing on not just innovation in places, but innovation by places, i.e. states and localities must themselves try new policy approaches;
- And finally, creating partnerships between places, especially local places and the national government.

Urbanization is a dominant trend worldwide, affecting economies, societies, cultures and the environment. More than half the world's population now lives in cities and as much as two-thirds is expected to do so by 2050. In a study by the OECD (2012), the coming together of people, business and other activities in cities as a key process in the development and maturing of economies and societies. The study further pointed out how urban systems function is crucial to future economic prosperity and a better quality of life for more than three billion people, and counting. Cities don't necessarily foster the emergence of new ideas but, by bringing together the required infrastructure and markets, they do make it easier to turn ideas into practical, marketable solutions. Cities are home to more than half the people living in OECD countries and almost 50 % of the output and jobs of many nations is found in their largest city. Though most cities have higher economic growth, foreign investment and labor productivity than the rest of the country, they are also more polluted, crime-ridden and socially disparate.

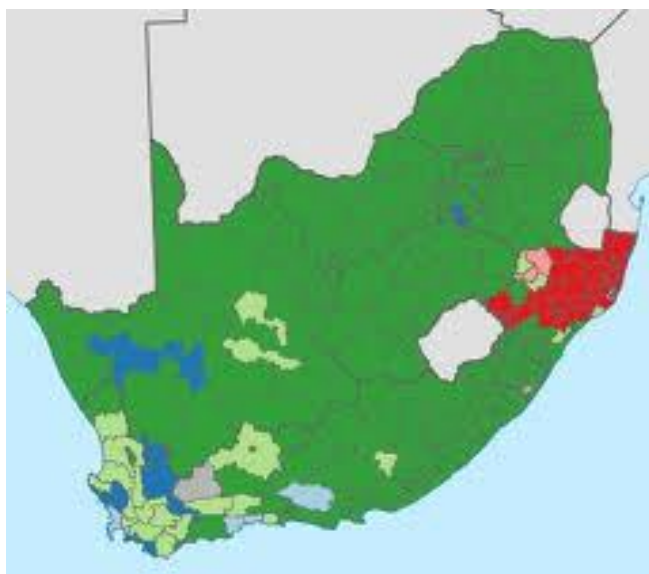
In another study by the OECD (2006) on Competitive cities in the Global economy argued that there is no 'one size fits all' policy for cities. But the report makes the following recommendations which include the following:

- A flexible strategic vision is necessary to foster competitiveness,
- Liveable cities with high-quality infrastructure, green spaces, and inner city residential areas and public projects can contribute to economic success,
- Effective governance of cities depends on leadership from the national government to encourage reform at different levels and
- To balance the financial needs of cities with those of the rest of the country, cities can diversify tax revenues with 'smart taxes' such as congestion charges and use public-private partnerships to raise money for public projects.

### 3.1. The case of the Ethekwini Municipality

#### 3.1.1. The study area

Ethekwini Municipality is a metropolitan region with a predominantly urban population. It is located on the east coast of South Africa in the Province of KwaZulu-Natal (KZN). The Municipality spans an area of approximately 2297km<sup>2</sup> and is home to some 3.5 million people. It consists of a diverse society which faces various social, economic, environmental and governance challenges. As a result it strives to address these challenges which mean meeting the needs of an ever increasing population.



*Figure 1: Ethekwini Municipality in Context of South Africa (shown in red)*

The people who reside within the municipal area consist of individuals from different ethnic backgrounds. The majority of the population come from the African community (71%) followed by the Indian community (19%), White community (8%) and the Colored community (2%). Individuals within the 15-34 year age group comprise the majority of the population. The greatest population concentrations occur in the central and north regions. The central region is the Urban Core of the municipality and is home to approximately 1.30 million people (34%). It is followed by the northern region which is home to approximately 1, 15 million people (31%). The south accommodates approximately 730 000 people (18%) and the outer west region accommodates the least number of people with a total population of

approximately 577 500 people (16.5) (Census, 2001; 2007). Major development projects planned for the eThekweni Municipality are poised to have a positive impact on the economy during the next ten to fifteen years. Expansions at the Durban Port, the mixed-use development at Cornubia, the Dig-out Port at the old airport site, the major shopping centre development at Shongweni in the outer west, new developments at Dube Trade Port and a massive tourism boost from the various Conferences. Following the decline of Gross Domestic Product (GDP) growth during 2008-09 the economy bounced back positively during 2009-10. The eThekweni's GDP (in constant prices, 2005) amounted to R196, 1 billion during 2010 and it is forecasted to grow by 3.3% to R202, 5 in 2011. Presently it comprises 65, 5% of Kwa-Zulu Natal's GDP and 10, 7% of the country as a whole. Economic growth in the Municipality increased by 3.1% between 2009 and 2010 and the total GDP outperformed that of the Province and country as a whole during the period 2005 to 2010. eThekweni's economy expanded at an annual average rate of 4.1% over that period, while the economy of KZN and the country as a whole grew by 3.7 %. Key issues relating to the Economy include an increase in unemployment; 41,8% of population subject to conditions associated with poverty; little or no diversity in the economy and a declining resource base.

### **3.1.2. The Problem**

The eThekweni Municipality has great potential to increase enterprise development within its area of influence. However, this potential has not been explored to its maximum and insufficient opportunities have been created for Small Medium and Micro Enterprises (SMMEs). The definition of SMMEs is based on the National Small Business Act 1996, as amended in 2004, which stipulates varying definitions for each industry sector, including number of employees, turnover, and value of assets. A small enterprise is defined as having up to 50 employees, and a medium enterprise from 51 to 200. Companies with up to 20 staff are defined as very small enterprises. South African government is well aware of the fact that SMMEs play a pivotal role in job creation, economic growth and poverty alleviation. The challenge that is faced by government and the eThekweni Municipality is how to assist and support these SMMEs in order to give entrepreneurs every chance of success, and in so doing reduce SMME failures, increase economic growth and reduce unemployment and poverty. Enterprise Development has been identified as a potential avenue to drive the required economic growth, but has not been fully utilized, both nationally and within the eThekweni Municipal Area, to assist SMMEs to reach their potential. SMMEs are important to the economy of South Africa. As engines of the economy, they contribute to the output and employment potential of the country to a large extent. However, South Africa has faced considerable challenges in starting up and nurturing of SMMEs and lags behind compared to its counterparts. SMMEs face the key challenges of lack of access to Markets, Finance, Workplace and Skills. This is amidst a culture which does not support entrepreneurs and a high rate of start-up failures. e-Thekweni Municipality, as one of the most progressive and well run municipalities considers it important to become an entrepreneurial city so that by the year 2020, it becomes Africa's most liveable city. It seeks to achieve this by developing an entrepreneurial ecosystem where all the key stakeholders collaborate in harmony to create and support entrepreneurs. Entrepreneurial cities take a progressive approach in unlocking opportunities and doing the right things by playing a facilitative role. Currently, the eThekweni Municipality has many programs throughout the width and breadth of the organization. The purpose of the Enterprise Development Policy is to assist to co-ordinate these programs into a single tool which is able to unleash the enterprise development potential that exists within them.

There is a need to ring-fence and verify business support programs, large tenders and large scale infrastructure projects and ensure that these are focused on assisting and supporting Black-owned businesses in order to hone in on the Enterprise Development potential within these programs, as well as to create awareness throughout the Ethekwini Municipality of the business support opportunities available within all projects undertaken by the Municipality.

### **3.1.3. The Solution**

In South Africa, economic transformation is promulgated through the Broad-based Black Economic Empowerment (BBBEE) legislation, known as the Broad Based Economic Empowerment Act. This means the economic empowerment of all black people, including women, workers, youth, people with disabilities and people living in rural areas, through diverse but integrated socio-economic strategies. Enterprise Development is a critical component of this legislation. Enterprise development (ED) requires South African corporate to spend 3% of their annual profits after tax on support for black owned enterprises. This can be done in either monetary or non-monetary terms, including recoverable or non-recoverable contributions actually initiated in favor of beneficiary entities by a Measured Entity with the spend contributing towards, assisting or accelerating the development, sustainability, and the operational independence of that beneficiary. This may be done by either directly or by pledging funds to Enterprise Development agencies that work with eligible companies. There is an estimated R12 billion in potential funding available for black businesses. Enterprise development has great potential to increase job creation and bring more black entrepreneurs and businesses into the mainstream economy. From a private sector perspective, Enterprise Development is an under-utilized BBBEE tool, which has great potential to attract investment from Corporate and other organizations, through cash investment, equity investment as well as investment in kind through training, mentorship, business linkage support and more favorable working capital terms. The Municipality therefore attempt to develop and implement an innovative strategy to facilitate the success of entrepreneurs. It should be noted this Municipality is the only Municipality to develop the Enterprise development strategy which has been embodied in various business models around the world, including various components of integrated business support services. This includes access to skills, access to markets, micro-finance, venture capital, private equity, and commercial lending. These models are effective when driven by real businesses with appropriate skills, experience and dedicated capacity. The support provided to entrepreneurs is a key focus area of the eThekwini Municipality's strategic plan. It is essential that the Ethekwini Municipality support business development not only through these projects and programs, but as part of its core operations. It is envisaged that Enterprise Development should become a part of a mandatory "checklist" in the operations of the Ethekwini Municipality, and should be a key part of procurement procedures, including mandatory outsourcing of a proportion of large Municipal Projects to Qualifying BEE enterprises.

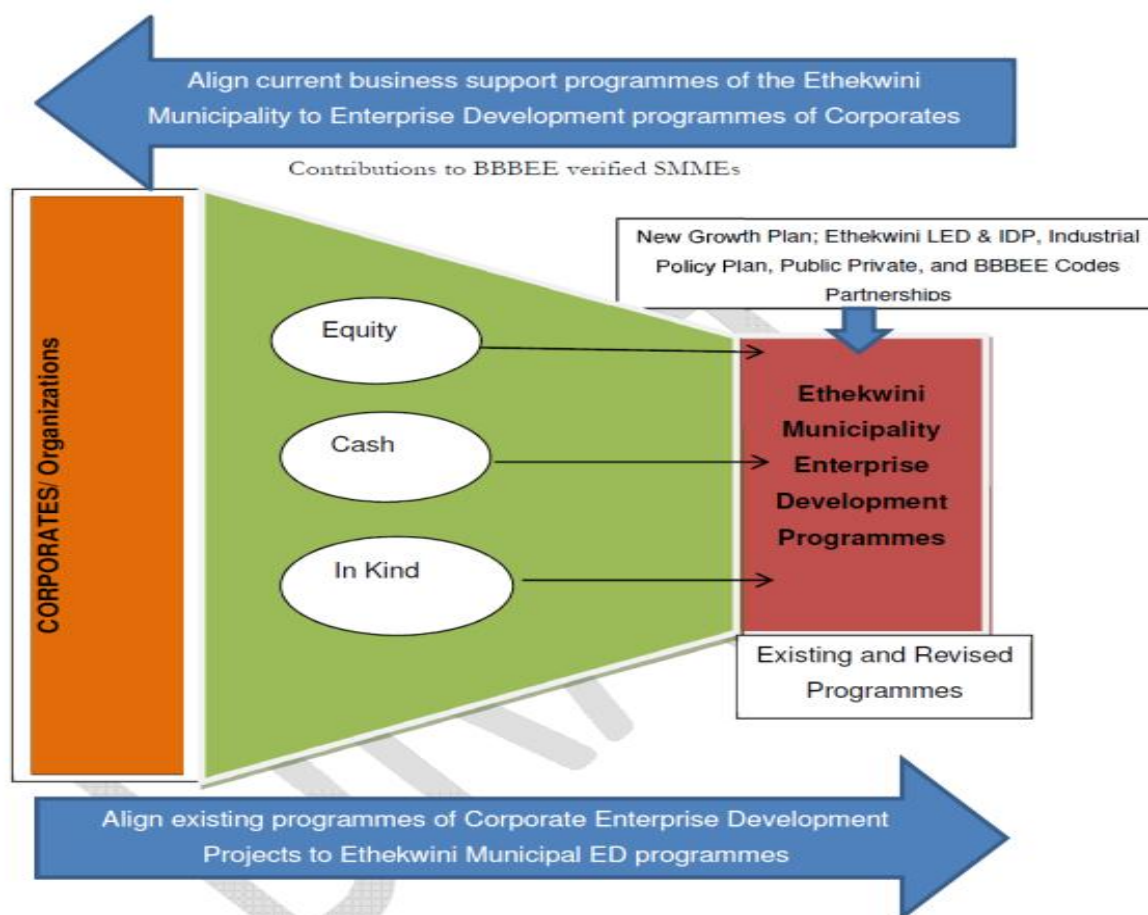


Figure 2: Enterprise development model for the Ethekwini Municipality

The purpose of the Enterprise Development strategy is to create a policy that aligns the Ethekwini Municipality programs with the enterprise development requirements of the Broad Based Black Empowerment Act. Ethekwini Municipality identified and assessed the current development programs that had Enterprise Development potential. These programs were ring-fenced and assessed as Enterprise Development initiatives in terms of the B-BBEE Code, and packaged to meet the Enterprise Development needs of Corporate South Africa, as well as other organizations. The objectives of this policy are therefore three-fold:

- To identify existing business support programs within the Ethekwini Municipal Area (EMA) that have potential to be Enterprise Development Programs and to identify beneficiaries of the existing business support programs, and assess their appropriateness in terms of Enterprise Development requirements of the B-BBEE codes (with specific focus on women and the youth).
- To assess the Procurement schedule within the Ethekwini Municipality and ensure that contract participation goals are included in each contract/tender awarded. The Ethekwini Municipality has a budget of R33 billion. It is necessary that a percentage of the procurement opportunities within this budget are awarded to small businesses.
- To ensure that enterprise development is a key component of large scale investment and infrastructure projects which are implemented in the Ethekwini Municipal Area. Such projects may have national, provincial and local government significance, and may therefore, in some instances, require an integrated enterprise development framework to ensure that SMMEs benefit from such projects.



The primary objective of the eThekweni Municipality Enterprise development strategy was to capitalize on private sector involvement in economic growth and the reduction of unemployment. The Municipality developed the strategy in conjunction with the private sector and identified corporate companies who also wanted to develop entrepreneurs. The key areas of programs identified jointly by these strategic partnerships was about developing the capacity of SMMEs to participate initially in the corporate supply chains by facilitating access to skills, finance and markets, however, this ultimately increases their capacity and readiness to participate in global value chain as identified by the OECD (2013). Each company was approached and their needs identified in terms of their supply chain, SMMEs who was relevant was identified to participate in the company's evaluation process. A joint implementation plan was developed individually for each partnership. The company would then establish the SMMEs readiness to participate immediately in their value chain or identify gaps. A joint development program was put in place for each SMME addressing the gaps identified. SMMEs who met all criteria successfully were placed on a portal which facilitated access to markets for them. Each of the companies identified have contributed in both cash and kind to assist in boosting productivity, increasing competitiveness and innovation in Entrepreneurs thereby helping to create employment and prosperity which revitalizes our communities. Through the partnerships secured the Municipality has received over R50 million in support towards developing entrepreneurs. Companies have invested time, knowledge and capital to help Small and Medium Enterprises establish, expand or improve businesses including empowering modest income-generating informal activities to grow and contribute to the local economy. The enterprise development strategy has helped to achieve the following outcomes:

- Increased the pool of resources available for developing enterprises,
- Increasing the role, responsibility and participation of the private sector in developing enterprises,
- steering the economy towards a stable environment that nurtures growth and increases the country's economic competitiveness,
- fostering a synergistic relationship between private and public sector to embrace social investment as a common vision,
- fostering an entrepreneurship culture amongst previously disadvantaged groups and
- Increased the capacity and readiness of SMMEs to participate in global value chains.

Through enterprise development people can earn a living and rise out of poverty. In turn over time they create jobs as well as empower other individuals and the communities in which they live. It created a win-win-win situation for the public and private sectors as well as the SMMEs themselves. The eThekweni Municipality being the only public sector organization to implement such a strategy, this was evident from the various platforms presented at, this often translated into the fact that the other Metropolitan areas and municipal administrative authorities did not have as much resources to focus on developing their entrepreneurs and therefore stuck to the basic programs. By encouraging innovation, creativity and learning amongst our enterprise development practitioners it is hoped that this municipality will be able to be resilient and adapt to the many challenges that will face cities and convert them into opportunities. Rapid change is always scary for incumbents, but if you're not an incumbent, you have nothing to lose.

#### 4. CONCLUSION

The Enterprise development strategy in the Ethekwini Municipality has been identified as an innovative tool which has helped catapult the amount of resources available for developing SMMEs. It has also created an excellent platform for public private partnerships in the area of promoting economic growth for this city. Whilst this City faces the triple challenges of poverty, unemployment and inequality, this strategy helped to significantly decrease and overcome the impact such challenges would otherwise have had. On various platforms presented, it was clear that the Ethekwini Municipality is the only public sector organization who has identified this approach as a means to accelerate entrepreneurial support. This paper looked at the links between Entrepreneurship and innovation. It also looked at the Enterprise development strategy as an innovative tool which increased resources available to contribute towards the development of SMMEs and the impacts such as tool has had on the entrepreneurial environment. In order to change the face of entrepreneurship in South Africa, we need to embrace an Innovative culture that will pave the way for Economic growth and job creation. Innovation ensures a sustained future for generations to follow!

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## MULTILATERAL MARKETS – NEW WAY TO DEAL WITH FOOD PRICE VOLATILITY AND FOODS MARKET IMPERFECTIONS

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### **ABSTRACT**

*Economists tend to see markets as naturally created social phenomena. Today's global food markets are shaped by political framework pushed ahead by developed countries. In recent years, global financial crisis influenced every aspect of world economy, the food security was not intact either. Nowadays there are 1billion starving people in regions like Africa, on the other hand the food waste is estimated on 1,2-2billion tons of food per year. In Europe and North America there is the double the food as their needs are. The vast inequality between poor and developed countries shows up the scale the world food market is unbalanced. The global trade rules concerning food security do not reflect correctly the circumstances on global food markets. Furthermore, the trade rules favoring the rich reflect in at a full scale the vast imbalances in world economy. The number of undernourished people is growing this could trigger far more dramatic processes. Unprecedented urbanization and the reduction of economically effective population in rural areas deepens the problem. Developing a market mechanism, new trade rules, recognizing the needs of the poor and imbalances in nowadays economy is needed. A market should balance not only the commercial, but also the non-commercial interests. In spite of trade preferences poor countries gained their export is impossible. Not all agricultural goods are eligible for preferential treatment, furthermore the preferences.*

**Keywords:** *organized market, market imperfections, imbalanced economy*

### **1. INTRODUCTION**

Researching problems concerning food security require multidiscipline approach. However, in order to achieve its main goal, the article is focused on subsidizing policies, trade restriction policies, growing number of regulations and some disturbances in food systems. Nowadays market distribute resources in global food system in great imbalance, it does not reflect many environmental and social issues. In Europe and USA the policies of subsidizing food production are widely used, the food waste is in about 1,2 – 2bln. tons yearly, at the same time in Sub-Saharan Africa the number of undernourished is constantly growing. Local food production in poor countries is experiencing serious problems from imports at duping prices, land grabbing and growing energy costs. Political framework is generator for several main issues. Africa's more than 16 integration communities are cause for food market distortions. Some countries are member states in several integration communities, this make trade impossible even between neighbor countries. The loses generated from this issues are enormous. Phytosanitary costs of 42% in Kenia and 30% in Uganda are added to the price of rice. Restrictions may make trade impossible even between two neighbor countries facing hunger. In spite of WTO calls, regulations are growing and world market is being fragmented. The dual nature of market, the paradox that market is social phenomena with its rational competitors and simultaneously markets behave like a nature law, disregarding all social and environmental issues. Today, the market efficiency is not measured only by rational resource allocation, but also by its respect the environmental and social issues. The market couldn't distinguish if a product has been produced by environment friendly technologies or not, the

market can identify the best price and quality. The environmental issues are often neglected by the market throughout the world. In Europe we consume clothes produced in China at the price of cents, but the production of these goods polluted the air, poisoned waters. Today's market do distinguish only material value, neither socio-cultural, nor environmental values. The paradigm of infinite economic growth tend to be completely unsoundness and even do not separate economic growth from economic development. Today, irrational resource distribution cause enormous economic imbalances and social inequality. The **objective** of the paper is the mechanism allocating the resources throughout word's food market.

## 2. THE MAIN THESIS OF THE PAPER

Inability of modern market to reflect correctly actualities of the modern society, to estimate the price of our economic growth and development. The main goal of a market is to balance demand and supply and to set a price for the particular asset. Today this is no longer possible on food markets, national government subsidize almost every activity in agricultural sector. The price finding function of the food markets today is blamed. The most important objective here is, the market distortions pushed ahead by inadequate government policies cause more disturbances, enormous fiscal costs than otherwise would. The price signals which a subsidized food price is leading to food price hikes. When governments interfere with price signals, as they virtually do in every country, they are telling producers to produce less than they otherwise would, and they are telling the consumer to consume more than they otherwise would. In addition because of the markets deregulation prices on commodity futures markets has become incoherent with the demand and supply on spot markets. Some important financial market regulations has been removed since 2000 and this way they shaped the world food market. The subsidized food production in developed countries brings to starvation million farmers in Sub-Saharan Africa. The other interesting fact is the market distortion effect of food donation to poor countries. Beside subsidies some developed countries have another market distortive method – food donations to the last developed countries. Organizing grain tenders, local governments in developed countries eliminate some pressure from domestic markets by redistributing their own taxpayers' money. The recipient country of a donation experience short term comfort, but experience also a long term food market distortion. Furthermore the case of Africa clearly illustrates the paradox of preferences which are used but account for only a small proportion of imports. Despite the preferences granted by AGOA (African Growth Opportunity Act – unilateral trade agreement between the USA and Africa) and GSP (Generalized System of Preferences), the US imports very little from Africa. Only a handful of countries, South Africa foremost among them, have significant exports to the US. Exports from African LDCs are tiny. This is because not all agricultural products are eligible for preferential treatment. In about only one third of tariff lines are eligible for preferential treatment. There are other export barriers which producers from LDCs cannot meet. There are health and hygiene requirements which stop the exports from poor countries. This is the way how market behavior and inequality enhance global imbalances in food system. This policies result in enormous differences in food price transmission which contribute to global food insecurity. Factors from national market may have greater importance than world market factors, thus way affecting the price on spot national markets in different ratios. The price responses to world price changes in African country as Ethiopia reached 174%, at the same time there were no sharp responses in China's food market.

### **3. SUBSIDIES – INSTRUMENT ENHANCING INEQUALITY OR ENABLING FOOD SECURITY**

The fundament of subsidies can be traced up to government policies of sustainability of local food production and national food security. Furthermore, the socio-economic stability at national level and expansion to foreign markets are important goals for any government. The intensifying competition on global food market, food price crisis and climate change stress national food systems. There are arguments supporting policies of subsidies for food production such as:

- subsidies are useful instrument for industries in very early stage of development. In this case the domestic market is probably dominated by foreign companies and local industry suffer insufficient resources. In such cases the subsidies should be applied. In developed countries the beneficiary of subsidies are not a young industries but well developed and organized, on the contrary in developing and poor countries the aid to food producers is none;
- policy for subsidizing can be applied to industry with high importance to national security. Such a policy of subsidizing should be used when large group of people are exposed to risks. The threats may come from climate change or from unforeseen changes on world market.
- subsidies are efficient government's instrument to direct domestic market companies behavior. For example any government can direct companies to use environment friendly technologies.

So important the arguments supporting subsidizing but applying subsidies provoke enormous negative consequences. Farmers in poor countries should to compete with subsidized prices – dumping prices on their domestic market. Furthermore they should resist to rising cost of energy, fertilizers. In such a way the world food market is fragmenting and the population in poor countries is facing poverty and undernourishment. The calls of WTO from 31.05.2013 for reducing protectionism are not reflected in local government's policy. Instead of reducing the number of tariff barriers and non- tariff barriers we have the opposite result. There are more countries hedging their domestic market against negative market conjuncture. During past several years there are three food price hikes in 2008, 2011 and 2012. There are signals clearly showing national trade policies turning inwards with growing protectionism. Subsidies may be the economic instrument to limit the negative effects from global market over food security at national level. The discussion concerning food market policy measures have changed. The dominant view is that low prices for agricultural products were increasing food insecurity in low income households in poor countries. The subsidies assumable should reduce consumer prices. This also should affect food producers' subcontractors. None of the mentioned above happens, the subsidies surplus value goes to traders. The subsidies distribution of subsidies is unbalanced and unfair because biggest farmers receive almost everything. In Europe and USA this balance is alarming. In Bulgaria €17,4mln. are received by top 10 of grain producers. Only 5 companies receive 62% of €17,4mln., other 80 000 smaller grain producers receive €5377 each. Also in Bulgaria, according to Ministry of agriculture 3,4% of farmers receive 80% of subsidies. This ratio in EU and USA is 80%/20%. Bulgaria is not the only example. According to Joseph Stieglitz (2006), in USA 80 000 cotton farmers receive totally between \$3-4bln. yearly, at the same time this is hurting over 10mln. farmers in sub-Saharan Africa. The poor countries don't possess any ability neither financial, political, nor technological to insulate their domestic markets from negative developments on global food markets.

#### 4. SUBSIDIES IN USA AND EU

USA has powerful programs funding farmers, its financial support estimate about \$35bln every year. The long tradition in USA farmers support, it is since 1933 - 1936year. There were series of programs named "New deal". The wide range of support measures directed to farmers also include payments not connected with any farmer's activity. In the USA more than 90% of the subsidies go to farmers harvesting five crops – wheat, corn, soybeans, rice and cotton. Although there are over a million of farmers again subsidies are headed toward the largest producers. The inequality is staggering. The subsidies are not only an instrument for support farmers, but also they are an instrument for redistribution of national wealth. Vast amounts of financial resources are flowing into bank accounts of largest producers. The subsidies blame market mechanism and interfere demand and supply price signals.

There are several types of programs subsidizing farmers in USA:

- Marketing loans;
- Direct payments;
- Countercyclical payments;
- Conservation subsidies;
- Insurance;
- Disaster aid;
- Export subsidies;
- Agricultural research and statistics.

The redistribution of wealth infringe an income balance and distort the food market as provoke trade conflicts. The average income of farm household in 2007year was 28% higher than average US household, such misdistribution is transferred between largest farms and small farms. In 2012 farmers from top 12% receive 81% of subsidies. However, the lack of common language, political system too sensitive to moneyed interests, but no sensitive to interests of poor, lead to vast imbalances in global food system, volatility and growing numbers of undernourished people.

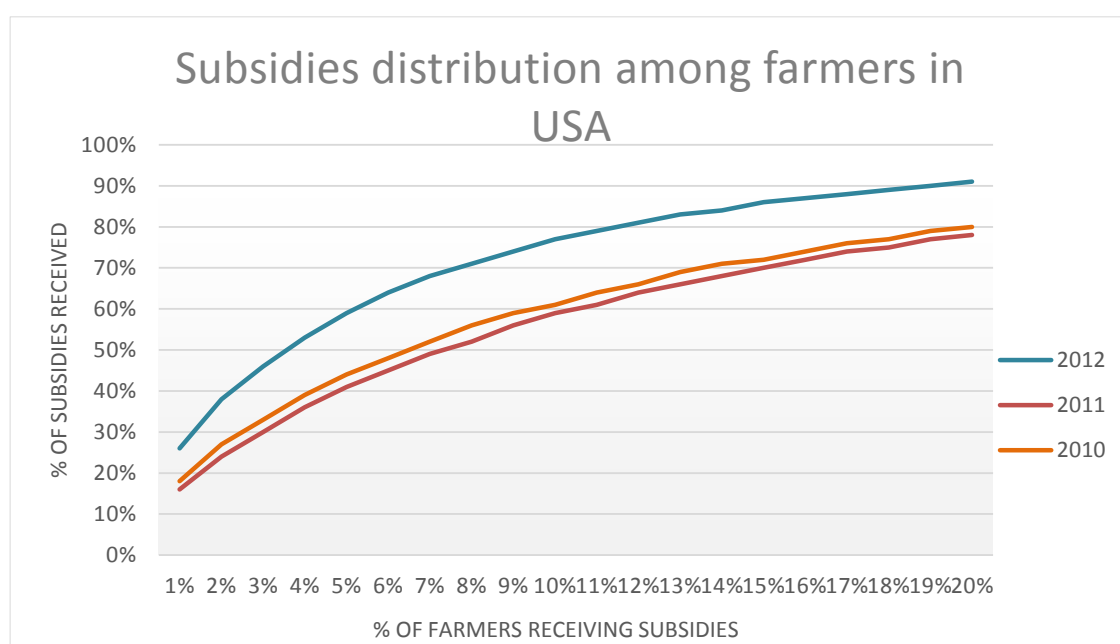


Figure 1: Subsidies distribution among farmers in USA (USDA)

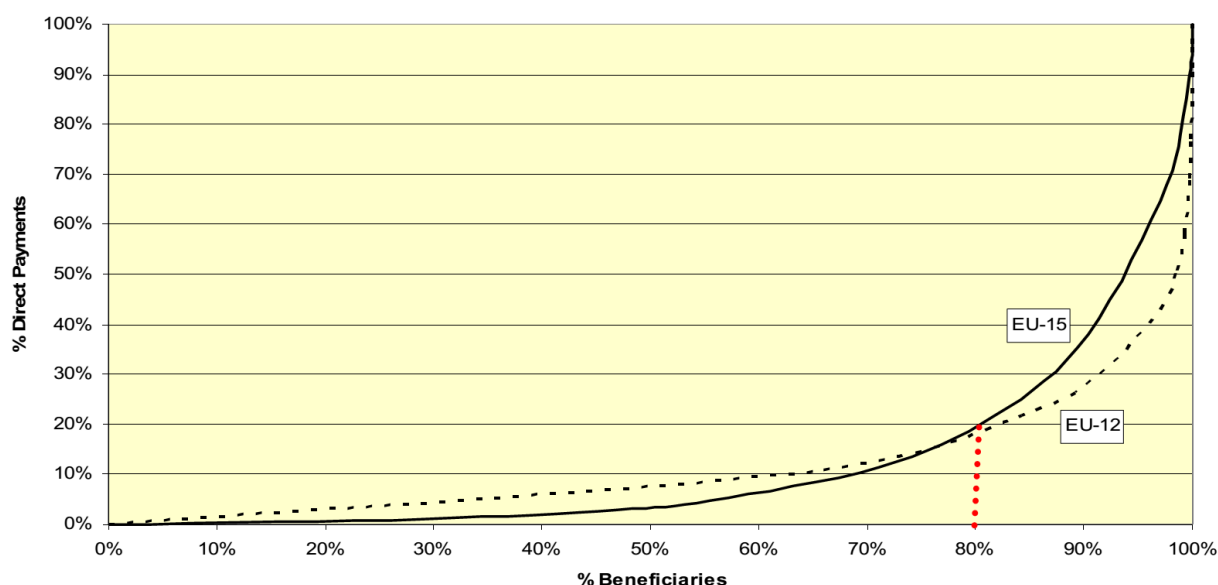
Annual Percent Change in the Number of Firms by Employment Size, US						
DATE	0* to 9	10 to 49	50 to 299	300+	Total	0-299 SME
2007						
2008	-2.2%	-1.6%	0.1%	1.6%	-2.0%	-2.0%
2009	-2.2%	-4.2%	-7.3%	-6.6%	-2.7%	-2.7%
2010	-0.4%	-0.9%	-3.7%	-1.8%	-0.6%	-0.6%
08-10	-4.7%	-6.7%	-10.9%	-6.9%	-5.3%	-5.3%
Source: U.S. Census, County Business Patterns, and SBA calculations.						
Annual Percent Change in the Number of Firms by Employment Size, EU						
DATE	0* to 9	10 to 49	50 to 249	250+	Total	0-249 SME
2007	3.5%	2.3%	3.2%	4.0%	3.4%	3.4%
2008	-0.4%	-1.7%	0.4%	1.4%	-0.4%	-0.4%
2009	-0.6%	-2.7%	-0.7%	-3.7%	-0.7%	-0.7%
2010	1.1%	-0.7%	0.2%	1.2%	1.0%	1.0%
2011	-0.7%	-0.2%	-0.4%	-0.1%	-0.6%	-0.6%
2012	0.3%	0.7%	0.3%	0.5%	0.3%	0.3%
08-10	0.2%	-5.1%	-0.1%	-1.0%	-0.2%	-0.2%
08-12	-0.2%	-4.5%	-0.2%	-0.6%	-0.5%	-0.5%
Source: Eurostat, 2012 SME Annual Report, and SBA Calculations.						

Figure 2: Annual percent change in the number of firms employment by size US and EU  
(US Census, Country business patterns, and SBA calculations.  
Eurostat 2012 SME Annual report, and SBE calculations)

Subsidies distort trade relations because of the dumping prices. The world food market is being fragmented because of the dumping prices. Poor countries have no possibilities to insulate their domestic markets from negative developments on world food market. On the other hand price transmission through market networks to consumer market differ in developed and developing countries. After last food price hikes there are approximately 1 billion people throughout the world facing undernourishment. These vast number of people are concentrated in 48 countries, 33 are in Africa. Figure 2 shows that inequality reaches vast proportions. Poor countries' market network is poorly developed, markets are not competitive enough to ensure smooth price transmission.

There is an impact not only on domestic income distribution, but also subsidies affect global competition on food market. In most industries market price is result of balancing up supply, demand. The investors use market information as a benchmark for their market investments. The unsubsidized entrepreneurs should innovate constantly in order to provide market with best price and quality. The policy of subsidization in most industry is just not used. Competition is in favor to all the market participants. Furthermore, most industries have survived economic crisis without any help. During last financial – economic crisis, in the period 2008-2010 in USA approximately 5,3% and in EU 0.2% of small and medium enterprises has been lost, as shown on figure 1.





*Figure 3: Distribution of direct payments between beneficiaries in EU-15 and in EU-12S (CATS data (2009 financial year corresponding mainly to claim year 2008), DG AGRI calculation)*

But the results as shown are valid for industry but not for agricultural sector. Beside of subsidies paid to US and EU farmers the small and medium farms are going less. Less than 1% of farms in EU occupy a 20% of the usable agricultural area. Therefore farmers support policies do not work as they should do. The global competition on agricultural market is intensifying. We should take in account the actions of major players on global land market. Growing population, the rise of household income in Asia means more demand for food as quantity and quality. At the same time we lose farms in EU, China's investments in Africa are growing as numbers, and as volume. "Young farmers" package support young farmers to start their own business without almost any knowledge and other resources. Furthermore the time consuming procedures make agricultural sector less attractive to youngsters. There is no question that Europe's farmers are ageing and that the proportion of younger farmers has been falling. There are several factors which keep young people away from agricultural business:

- young people have no sufficient knowledge about management of significant amount of land;
- the startup costs are very high;
- there is a lack of affordable or suitable housing in rural areas;
- many older farmers choose to remain in agriculture after retirement so the young should wait longer to take over a farm and etc.

At the same time EU is experiencing its problems in agricultural sector, the middle class in South – East Asia is growing as demand for food is.

## **5. ECONOMIC IMBALANCES AND ITS EFFECT OVER POOR COUNTRIES AND THEIR DOMESTIC FOOD MARKET**

After last food price hikes there are approximately 1 billion people throughout the world facing undernourishment. These vast number of people are concentrated in 48 countries, 33 are in Africa. Figure 4 shows that inequality reaches vast proportions. Poor countries' market infrastructure is undeveloped, markets are not competitive enough to ensure smooth price transmission and fair market. The obstacles as trade barriers, trade policies and trade conflicts

continue to imbalance the agricultural sector. In Africa exist more than 14 Regional Economic Communities, all the 53 countries from the continent are members in such community. The trade complication come from heavy trade barriers between the REC (regional economic communities). 26 African countries retain dual membership, 20 countries retain membership in three communities, and member in four communities is Democratic Republic of Congo, only six countries maintain single membership. Multiple membership in RECs create a complicated net of ruler, trade barriers, competing commitments which result in impossible trade barriers even between neighbor African countries. In this case the import from developed countries to Africa at dumping price is easy and happens. Transaction cost in some North African countries are higher as 70% in Libya, Morocco, Tunisia than those in Italy, France and Spain. The figure 4 shows that the poorer the country, the higher the rate of price transmission. This is based on limited possibilities of poor countries to hedge their domestic markets from negative global prices, undeveloped markets and market infrastructure. During global financial crisis the needs and the rights of many poor countries were neglected. In the very height of food price crisis Organization for Economic Cooperation and Development (OECD) lessened aid for the poor countries in 2009. The WTO trade negotiations about support measures stuck and there is no further development. This is the reason why the number of countries subsidizing agricultural products is growing.

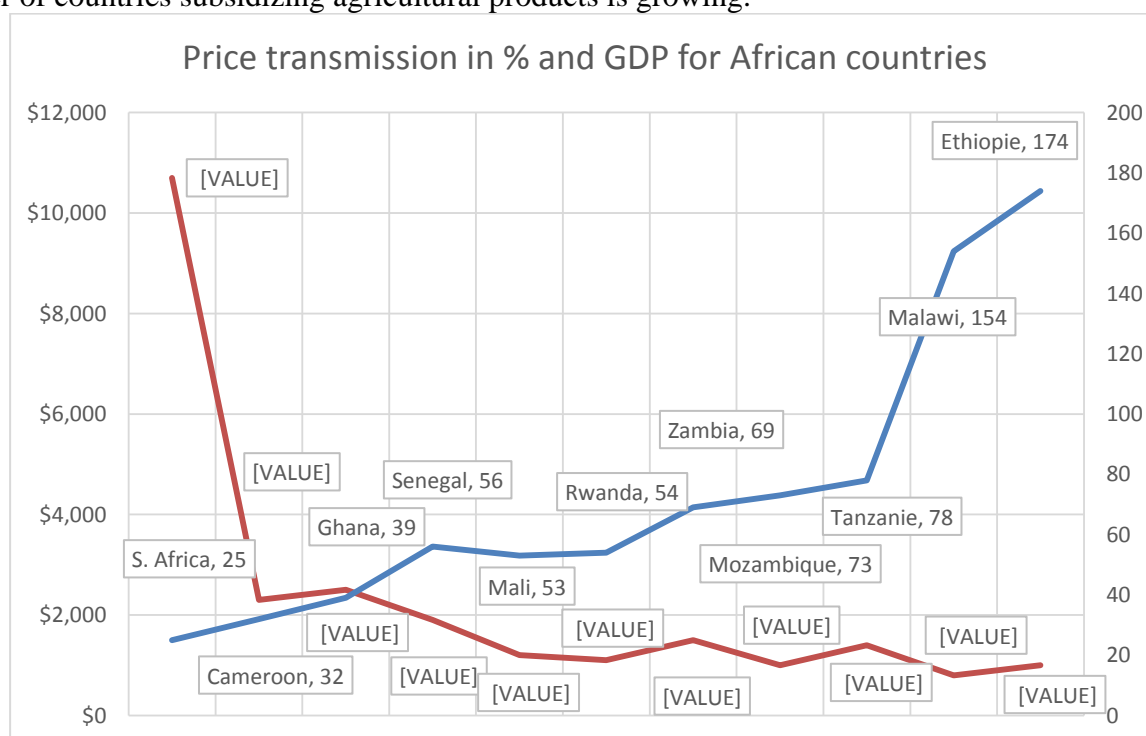


Figure 4 Food price transmission 2007-2008 and GDP

The existing trade rules proved to be inadequate concerning food markets. The Doha round negotiations represent each of the WTO's 155 members, most but not all of which are countries. Developing nations represent about two-thirds of the members, but economic controls including the US, the EU, India and China tend to rule the negotiations. The Doha round trade negotiations has been stalled since July 2008, the heaviest stage of world economic crisis was about to appear. The reasons why the negotiations stuck may be was in deep financial crisis and the rise of the emerging economies.

The potential gains from trade liberalization are not still adopted. Agriculture remains the sector with highest trade barriers in rich countries and respectively the greatest potential gains from further liberalization of merchandise trade.

## 6. CONCLUSION

At the start of World Trade Organization's Doha Round in 2001 many developing countries protested against agricultural subsidies in USA and EU. They recognized subsidies as a mechanism driving crop prices downwards and its unfair effect against small farmers in the developing countries. Nowadays the situation is completely different. The subsidizing policies in USA and US continues but now we see clear subsidizing policies in developing countries, furthermore in the BRIC countries subsidies increase was the fastest. Now China's agricultural subsidies estimate at \$106bln. in 2012, in the USA \$19bln., EU \$74bln., totally subsidies in Brazil have doubled in three consecutive years and now estimate at \$10bln. Farmers from the developing countries, during food price crisis, suffered dumping prices from subsidized exporters, inadequate market rules and high energy prices. High price volatility in this countries provoked shortages in large number of areas. The lack of measures against negative effects from simultaneous action of climate change and volatile food prices, as pro-poor policies, social protections and trade measures led to widened gap between developed and poor countries. The often heard claim was that while three billion people in the world are forced to live on less than a \$2 a day, European cows receive more than that amount in farm subsidies.

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## IN A SEARCH OF ETHICAL PROTOCOL FOR MANAGER DECISION CHECK

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### ABSTRACT

*Business world needs more humanism and integrity as fundamental building blocks, because business reality practically evidence ethical problems in numerous bussines decisions. As a possibility to check managerial decisions from ethical side as theoretical, conceptual and finally practical support, there is needed an ethical protocol. The basic purpose of such an ethical protocol is manager decisions cheching, i.e. implementation of maximal ethically correct decisions according the interests/utility of the stakeholders. For consistent and objective managerial decision checking from ethical point of view it is needed such ethical protocol that has clear measures and standards. The goal of this paper is to accomplish such an ethical protocol for ethical checking the managarial decisions that will integrate ethical contents from social and humanistic disciplines, this means the managerial theories, ethical theories, and humanistic values. Presented ethical protocol has contents in the form of questions:*

- 1) Is the ethical decision legal? (Whether it violate any low or politics of institution?).*
- 2) Whether the decision bring to the usefull effect for individuals, stakeholders, or bring to the usefull effects for the most number of individuals?*
- 3) Whether the decision respect basic rights of stakeholders (for answer on this question, there should make the list of stakeholders rights).*
- 4) Whether the decision take into account the just procedure and just results? Is by this achieved the equilibrium of relationships? Whether the decision promote „win-win“ relationship?*
- 5) How we as people feel after bringing and application of the decision? Whether this decision bring negative emotions: anxiety, insecurity, alarm or some other positive emotion: pride, satisfaction, motivation)?*
- 6) How should be resolved the confronted interests/utilities which result or will result from decision implementation, so that there is not disturbed ethical equilibrium?*
- 7) Whether the organization implement the spiritual values of right diong, truth, love, peace and nonviolence?*

*Such an ethical protocol should answer on mentioned question before the managerial decision or before the decision implementation. It is recommended that every strategic managerial decision should pass through ethical procedure by means of presented protocol, so that it positively answer on majority of placed questions. So, managerial decision would*

*have the greatest possibility to be ethical. If the answers are mixed (the ethical decision is not clear) than should determine the ethical priorities according to the principles of legality, individuality, utility, human rights, justice or key humanistic (spiritual) values.*

**Keywords:** *manager ethics, protocol for ethical decision making, integral approach to the ethical decision making, ethical managerial decision.*

## 1. INTRODUCTION

The fundamental thesis of business ethics decisions starts from hypothesis that the precondition for ethical business behavior is general human ethical behavior. If the general human behavior shows distance from general ethical principles, then is difficult, even impossible to implement business ethical decisions without being familiar with general ethical principles.

***Business ethics is part of business politics, and business politics is essence of business system!***

In an ideal social-economic organization, social ethical, legal allowed, and personally ethical would be identical (consistent) categories so as systems they wouldn't contradict to each other. It is different in practice because the law (legal norms) is formed by special group of people and their occur animosity of general, individual and special interests what leads to arising various ethical challenges. Social ethics forms dominant opinion of culture which is in general determined by dominant social-economic groups, so it has his limits. Organizational ethics forms special group of people-management as abutment mechanism of realizing the business politics of an enterprise. If the actual business politics is less social acceptable or unacceptable, organizational hidden curriculum occurs where is on the record expressed one normative system and out of record is valid («de facto» functioning) different so goals aren't transparent - what because of incompatibility of goals can create manipulative organizational matrix or organizational disharmony. Personal ethics is the result of individual values and opinions that are internalized through the interaction of individual with the environment so they often represent a composite of implicit social attitudes with personal touch, although sometimes is possible the situation of autonomous ethical discourse of individual too. According to Aristotle (384-322 b.c.), social ethics which has significant impact on corporation and personal ethics is an essential part of the politics (Luksic, 1995.) In other words, Croatian folk saying: „Nobody hasn't drown from the lies!“ guide on the complexity of relation ethics and politics. Explanation to this is next: Legal and explicit presented ethical norms aren't personally internalized because they don't lead to award, although it isn't legal<sup>5</sup> and/or unethical to carry out untruth (cheat), due to ethical principles where the goal justifies instrument (so-called machiavellism)<sup>6</sup>. In other words, the goal of hiding the truth is implemented manipulation of the thoughts, feelings and behaviors of those people from which depends or can depend achieving any goal. For that Croatian folk have saying too: “It is

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<sup>5</sup> How much is known to authors circumvention the truth in the Croatian legal system is not penalized, especially by politicians and managers.

<sup>6</sup> **Niccolò Machiavelli (1469-1527)** appears as an original thinker in his work "Ruler". He considered that a good ruler must hold a so called "virtu" masculine virtues of self-confidence, courage, determination, etc., in order to be successful he must agree to a "necessary immorality." That means that, if it is necessary he need to lie, cheat, betray, steal and kill. For a ruler who wants to keep its position, it is important to learn how not to be ethical (good, honest, fair ...)! So he had a pessimistic opinion of human nature, and these opinions extend to the present-day of political life, business and general public sphere of action in which it is useful to be pragmatic, foxy and "unethical". Politics and morality according to Machiavelli are inharmonious couple. Also nowadays Machiavelli is quite widely read and highly valued writer (cf. Robinson & Garratt, 2006).

aweless, but it is useful!" Therefore in real organizational and social praxis isn't possible change an ethical behavior without punishing the actors that with his behavior corroborate these Croatian folk saying.<sup>7</sup>

Managerial decision as well can be less or more ethical in regard to pure legal regulation and personal attitude (personal ethics) of manager, that is in context of classification decision in regard to normative view eight categories managerial decisions can be detected (cf. Buble, 2006:62 according to Handerson 1990):

- 1) Legal, ethical, aligned with personal attitude of management (the best for majority of business process participants);
- 2) Legal, unethical, aligned with personal attitude of management (for example, the case of surveillance and eavesdrop employees with a goal of more effective control of employees and protection of eventual higher interests);
- 3) Illegal, ethical, aligned with personal attitude of management (for example, ethical can be tax evasion in favor of enterprise employees but it is illegal);
- 4) Illegal, unethical, aligned with personal attitude of management (for example, from management permitted emitting toxic substance in the environment which harm the general people but are useful to the company);
- 5) Legal, ethical, not aligned with personal attitude of management (for example, state and social community can look for equally treating male and female employees, what management doesn't accept and they will find ways to trick these requirements what will rearward result with such factional situation);
- 6) Legal, unethical, not aligned with personal attitude of management (for example, part of management is for legal and unethical, and part for illegal and ethical decision what leads to these kind of case, for example, the law allows selling enterprise/bank shares or loans that doesn't have coverage);
- 7) Illegal, ethical, not aligned with personal attitude of management (the case similar to the previous on);
- 8) Illegal, unethical, not aligned with personal attitude of management (it indicates on the disorganization and management chaos).

Ideal situation is if decision is legal, ethical and harmonized with personal attitude of management, but reality and often contradictory requests on management, bring out to disharmonic dimension of management decisions. The problem is with decisions which are legal and unethical, illegal and ethical with inconsistent attitude of management regarding with mentioned dimensions. In these type of situations there's no ready solutions, but management in regard to concrete situation decides, taking the risk for positive and negative side of such decisions. In praxis, in ethical management challenges, can help bodies of ethical correction what is already praxis USA and EU (Rincic-Lerga, 2007; Segota, 1998), meanwhile the most important is that managers decision pass through „ethical filter“ of the management organization. Every decision results with consequences, and to in inconsistent ethical situations like that the main task for management is to weigh potential usefulness and harmfulness of the decision and according to the principle of prevailing usefulness or

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<sup>7</sup> That is in accordance with the principles of behavior modeling, or more precisely in accordance with social learning theory to which the asocial and antisocial behavior consolidate with impunity, because impunity asocial and antisocial (i.e. immoral) behavior that achieves a material, social or psychological benefit to the detriment of others, is experienced as self-rewarded (Pastuović, 1999: 227). Besides, when behaviors become useful for achieving important awards or avoiding penalties occur appearance of standstill in the development of moral judgment and behavior, and to the appearance of a regression to lower forms of moral behavior (the so-called moral regression).

principle of the smallest damage make a decision. This paper is dealing with possible ways of minimizing unethical manager decisions. In the first part, there are critically explicated existing essential theoretical ethical approaches for manager decision making, and then it is offered an integral approach in form of ethical protocol. Ethical protocol is derived on the ground of critical review five different essential theoretical ethics approaches and can serve for checking the management decisions from ethical point of view.

## 2. ESSENTIAL APPROACHES TO ETHICAL DECISION

Considering differences in management approach to ethical problems we can talk about five essential approaches. The approaches we are dealing with are: 1) Individualism; 2) Utilitarianism; 3) Human rights approach; 4) Justice approach; 5) Spirituality (humanistic value) approach.

### 1) *Individualism as ethical business principle*

According to this approach ethical is it what improve personal interests on a long term. Namely, ethical is the one who is successful on a long term, because it is presumed that he's awarded from community for contributed goods and favors to her (for achieved prosperity). So decisions that give long-term gains to community are considered as a measure of goodness, apropos ethics. This approach of ethics has fundament in utilitarian philosophy which considered that the moral good is what produce favorable performance for the highest number of people. Individualistic approach identify or in big part equalize personal success with social success, and don't consider the fact that the personal success is in function of using other people for personal gains and that individual success is often in high negative correlation with usefulness (benefit) of other people.<sup>8</sup> Simply, fortune and success doesn't acquire only with individual effort, but they are result of social and unsystematic factors (contingency, luck and suitably moments for realization). Typical example of that is politician and top manager that doesn't thanks his distinguished position exclusively himself but also to the people around him as necessary logistics.

### 2) *Utilitarian approach as ethical business principle*

Utilitarian approach is result of creators Jeremy Bentham and John Stewart Mill.<sup>9</sup> According to this approach it is moral what brings to useful performances for the biggest number of people. Therefore it is about organization, than it's maximizing profit with some additional criteria (high quality products and favors, low prices for customers and minimum damage for the environment and employees and so on). However, this approach doesn't answer on the

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<sup>8</sup> Existence of a rich people, need the existence of poor people, because the planet does not have enough technology and resources that all could be rich. In fact, in a society with today's technology it is not possible to achieve living standard for example of medical specialists. Therefore, the relative wealth of individuals is achieved by redistributing (alienation of funds) from other people who accordingly have to be poorer (cf. Maier, 2004).

<sup>9</sup> **Jeremy Bentham (1748-1832)** considered that human life is based on the polarity of feelings of pleasure and pain, and that every person is always trying to achieve pleasure and avoid pain and so it would be morally what provides maximum pleasure and minimum pain for most number of people. Ethically we should act so as to achieve the greatest possible happiness for the greatest possible number of people. **John Stewart Mill (1806-1883)** considered that most people should hold up to traditional moral rules because it is a more efficient way of a constant calculating about proper mode of action. A healthy society should be tolerant towards different personalities and lifestyles. As long as people do not impinge on the freedom of others, we should allow them to think and do what they want. Good means the highest possible happiness of most people, but what most want is not always the best. So, there is the problem of how to persuade people to choose good! The solution to this philosophical problem is offered by **Immanuel Kant (1724-1804)** who promoted the idea that morality is derived from holding up the rules i.e. duty.

question of distribution (who has, how much benefit from profit maximization, in other words, how correctly share earned profit- specifically does profit need to get society or individuals/ capitalists. The ethical problem is because of fact that bigger profit for ones can mean enlargement of wealth and power for them, and no for the others, even the opposite so some can be richer and some poorer.

So, we are coming to the question how much is worth human life (can it be reduced on a present value of future flows of money expected from an individual. Namely, if specified procedure leads to maximization of prosperity, for example, historical expulsion of Indians redskins from their hearth in reservations was ethically justified because it maximized prosperity of majority of the dominant population bringing economic purpose unexploited land and after the deduction costs of destruction of redskin people (potential workforce) then he is utilitarian acceptable. To explain, redskin Indians had low present value of future cash flows in other words, they had low economic value because they were unusable as slave labor force, what was an ethical standpoint that facilitated their elimination).<sup>10</sup> The examples for this are unethical exploitations of labor force, from kids to older people in millenary duration. Because of these kind of ethical problems in theory and praxis occur approaches based on the right and justice (as moral principles).

### 3) *Access to human rights as ethical business principle.*

This approach considers that all people have a fundamental and in-alienable rights that can not be taken away with someone's decisions, such as the right to freedom of conscience, freedom of expression of opinion and the legal process. Ethical / moral actions are those which take account of fundamental human rights. In fact, unethical is considered purposely, or because of ignorance stifle the rights and interests of other people. Ethics is estimated according to whether they were respected human rights (not only the legal, because respect for the law is not in itself ethical, but it is ethical to respect the values protected by the law<sup>11</sup>), and these values are human rights that must be protected (Bebek and Kolumbic, 2000, p. 181). These are the fundamental moral rights that must be respected in making decisions such as (Zugaj and Brcic, 2003, pp. 273-280):

- The right to life;
- The right to psycho-social and social security;
- The right to a minimum standard of living;
- The right to family;
- The right to freedom;
- The right to protection from discrimination;
- The right of movement freedom;
- The right to own property;
- The right to self-determination;
- The right to privacy.

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<sup>10</sup> Although it is unethical, indeed may sound cruel, such a situation valid in today's economic thinking: "What is your lower value the lighter is your elimination, whether physical, psychological or material." When the predators take advantage of you for their own goals, than they show a little mercy. The only way to combat predators is personal positioning on the way to achieve social value and importance, for example with the work on the creation of high personal value that can be decently converted into. "(cf. Peter, 2007).

<sup>11</sup> Although it must be said that there are formal theories of law (e.g. Kelsen, Ayer and Hegel) who consider that the right should be cleared from the values and any pollutions of values, and this means "what it is, also should be!"- so with this theories the power is the same as the law. However, this right is tantamount to an command (but "right isn't might"). A well-known examples of abuse of the rights of Nazi Germany suggest that the right can't be deprived from the value component i.e. ethics. It is to conclude that the legal norm is obliged because it is moral (right) i.e. objectively justified (cf. Lukšić, 1995, chapter "Fact and value in legal norms", pp. 55-73).



The problem with this approach is when there arise conflicts between different rights, so here does not generally win the arguments of law, but the strength argument (power). In the conflict between rights unethical is considered denial or restriction of universally accepted human rights and using the rights of groups or individuals at the expense of other groups or individuals. Another problem is the problem of (im)possibility of factual achieving some rights. For example, employees may have the right to social safety and privacy, but how much will they realize it is a question of social power.

So this approach has a deficit in terms of the implementation of right distribution with considering the criterion of equality / inequality, fair / equal treatment and outcomes of socio-economic processes, so it can be corrected by the approach of justice.

#### 4) *Justice approach as ethical business principle*

Moral is the one treatment that leads to equal treatment, and outcomes of these actions, according to certain criteria. So in ethical theory we can differentiate different approaches of justice:

##### **a) Distributive justice or justice in the distribution**

This is fundamental justice because it depends on the allocation criteria between equal and unequal that regularly has an ideological dimension. It is not easy to decide how to implement a allocation without violating any of equitable principles. In this regard people were helping each other (in the past, as today) assigning themselves the real or imaginary attributes to which they belong most of the available resources, power, position. So today is the subject of discussion the just distribution of compensation, i.e. what is justified, for example (ethically correct) range of minimum and maximum compensation: 1:5, 1:10, 1:50, 1:100, etc.. In the context of this justice differentiate the following systems (cf. Viskovic, 1981, p. 147):

- *The primitive form of communist justice*- it demands that the distribution of social power, activities and goods is equal to the maximum and minimum unequal because it is assumed that people make a unique group with equal needs, and differ only by the measure of these needs or by some abilities (called "leveling" known in the recent Croatian history 1945th-1990th);
- *Higher form of communist justice*-also requires egalitarian distribution that is somewhat larger extent unequal because of the different development of needs and capabilities of different individuals, despite the most ideal equalizing initial opportunities for their development in society;
- *Positional (distributive) justice*-justice according to which is the criterion of equality / inequality acquired or allegedly deserved social status of members of the society so-called distribution according merit;
- *Interchange (commutative) justice*-is distribution principle in which the criterion of equality / inequality ownership and economic value of items which are exchanged or damaged;
- *Working justice*-is distribution principle in which is the criterion of equality / inequality participation (contribution) of workers in the creation of the national product;
- *Solidarity justice*-is principle by which the distribution of social goods is based on the actual material position of people as the actual basis of their social opportunities;
- *Capitalist justice*-is the distribution principle, according to which the social goods are distributed, ownership over capital goods i.e. assets (accumulated capital as past human labor). According to this principle one that has more gets more, and less is given to ones that has less;

- *Social Darwinism justice*-it is just to give more to the stronger one and less to the weaker i.e. justice depends on one's strength (power) in the socio-economic context, what is justified by higher abilities of stronger (more powerful). So in this context it is justly to give more stronger and weaker less, because the stronger is also more skilled so he is considered that with this distribution principle obtained unity (society) will have more benefit. An extreme example of this is cannibalism in extreme situations of shipwreck and similarly.

#### **b) Procedural and outcome justice**

Justice implies fair proceedings and fair outcomes. Just process is a unified procedure in something (for example, in hiring people procedure the candidates are treated equally with regard to the set criteria). The meaning of procedural justice is that for all individuals of the same category / functions should be worth the same rules (in the normative and ethical sense), in order to avoid creating animosity between the privileged and underprivileged individuals and groups. The reality of organizational life often brings out different treatments and rights to the same group of employees (a typical example is mobbing).<sup>12</sup> Mobbing except that it is not only unethical but it is also illegal, leads to the distortion of interpersonal relationships and consequently to the organizational disharmony and inefficiencies. The lack of the exclusive respect for procedural justice is that it does not consider the fairness of outcomes. Just outcome is non-discriminatory result or consequence of a social process, refers to the outcome, not on the process or the rules of the game (Bowles & Edwards, 1991, p. 353). Metaphorically speaking with the example the process can be just (for example chess game in which players have a fair treatment i.e. equal conditions therefore the process), but if the outcome means life or death of players it is a deterioration of the principles of a just outcomes. Therefore, due process does not necessarily produce fair outcomes (the next example is a lottery with the role of the ownership of all assets of the society, where every player has the chance to win, but such an outcome could not be characterized as just (Bowles & Edwards, 1991, p. 354).

#### **c) Compensatory justice**

This form of justice refers to the exchange relations that are ubiquitous in the market economy (everyone buys or sells something i.e. exchange) there should be a harmony between the obligation and fulfillment. So if to someone is done damage (material, physical and / or psychic) from the responsible person (legal or natural persons) then the injured person has the right to some kind of compensation (considerations for caused harmful performance). The same is valid for the failure of performance by legal or natural person who is supposed to, according to their function, task assignment, regulations or ethical obligation, execute a certain performance, but it has failed to do it, therefore there was no action that is needed to someone, so it is on that basis done damage by omission. Management within this justice applies the rules and regulations by which are accepted certain treatments of employees. Therefore, if in the organization is prohibited discrimination based on gender, age, social or other status, employees in such a case shall be entitled to compensation.

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<sup>12</sup> Mobbing is a term derived from the English word "mob" (scrum, scum, rabble, ragtag) and "mobbish" (obscene, vulgar, rude) and marks the targeted vulgar and in the manner of scum someone mentally and socially destroy, with the aim completely someone exclude from organizational and social life. This term become popular as a substitute for the term "harassment on the job."

*5) Ethics as application of spiritual (humanistic) values in business.*

In today's managerial theory and practice is becoming increasingly clear that improving of organizational ethics, organizational life and performance should be sought in the domain of immaterial and intangible (spiritual!). The concept of spirituality refers to the value categories that are important to every person, such as understanding, happiness, love, truth, peace of mind, sense, consideration for others, benevolence, righteousness, character-therefore commitment to the functional principles outside material (Lucic, 2013 according to Hawley). Spirituality is primarily manifested in the basic human values that some organization represents or ignores. Human values are a key component of organizational culture that determines the "personality" of each organization. For the purposes of this study it can be said that spirituality and ethics can be achieved by applying the five fundamental human values (cf. Bogdanovic and Cingula, 2012):

- The truth
- Correct behavior (action)
- Love (appreciation and deep respect for all living beings)
- Peace (inner calmness and tranquility)
- Non-violence (to anybody or anything).

Organizational ethics and raising managerial awareness in a way that they aren't promoters of suspicious ethical practices can be reduced in a way that these five categories of values are implemented by management. Essentially this process of raising awareness of management refers to: a commitment to truth and unblocking the flow of truth in the organization, raising awareness and promoting proper behavior, raising awareness and promoting the service to a higher purpose (love in the organization); achieving inner peace and tranquility in the function of the activation of cognitive capacity and prevention stressful situation, raising the awareness of violence pathology and intolerance of any form of violence in the organization (mobbing, etc.). So, for example, in the practice, often are not applicable ethical principles of truth and right behavior due to its organizational culture that encourages a lack of reflection on the dominant rules, beliefs, expectations, because it is so easy for management to work like that. For example, employees properly follow orders of a higher in the hierarchy, regardless of the ethical meaning and content of orders, which leads not only to ethics but often to the functional organizational deficits (Alvesson and Spicer, 2012). By accomplishing these spiritual principles it is possible to maximize organizational spirituality and ethics.

### **3. AN INTEGRAL APPLICATION OF ETHICAL APPROACHES IN THE BUSINESS: MANAGERIAL PROTOCOL FOR VERIFYING ETHICS OF DECISIONS**

From the mentioned business ethical approaches can be formed theoretically justified management protocol for verifying ethics. Such a protocol should for example answer the following important questions:

- a) Is ethical decision legal (statutory)? (Does it violate any law or policy of the institution?)
- b) Does the decision lead to a beneficial effect for the individual, or leads to beneficial effects for the largest number of individuals?
- c) Does the decision respect the fundamental rights of the people?
- d) Does the decision takes into account just treatment and just outcomes? Is the equilibrium relationship reached? Is it equitable to everyone in the short, medium or long term? If it

- isn't does the unfair treated have a right to some kind of compensation? Does the decision promote relates of short, medium and long-term business sustainability?
- e) How do we feel like people after the bringing and implementation of individual decisions with ethical connotation? Does such a decision bring inner satisfaction, anxiety or some other emotion? Does prevalent pleasant or negative emotion (hedonic tone)?
  - f) Does the conflicting interests resolve so that they do not take into account the power of conflicting parts and does impair ethical-moral balance?
  - g) Is the organization focused on achieving the fundamental spiritual (humanistic) values: proper behavior, truth, love, peace and non-violence?

Such ethical protocol would have for the function of ethical check decisions taking into account the contents of the essential ethical approaches. An important role is to be played by the managers and important people inside the ethical bodies of the company, which need a protocol at least as a reminder of coverage ethical contents and respect of correct control procedure. The presumption is that the ethical decision should affirmatively answer most of the questions so the same would most likely be ethical (had the highest probability of ethics). If the answers are heterogeneous priorities should be set according to legality, individuality, utility, rights, justice (cf. Blanchard and Peale, 1990, p. 25), but also to the spiritual (humanistic) principles. The current management is increasingly aware of the importance of spiritual (humanistic) principles and values for organizational success (cf. Amann and Stachowicz-Stanusch, 2013).

#### 4. CONCLUSION

This paper developed fundamental questions that should be answered in one coherent and theory-based questionnaire on the basis of essential theoretical approaches to ethics. In explication of relationship of legality, ethics and personal attitude (ethics) management determined that the ideal situation is if the manager's decision is legal, ethical and compliant with the personal attitude of management. There are also explicated five essential ethical approaches: a) individualism as ethical business principle, b) utilitarian approach to ethical business principle, c) access of human rights as ethical business principle, d) access of justice as ethical business principle, e) ethics as a spiritual application (humanistic) values in business; in order to determine what should be the basis of one valid ethical protocol. Finally, based on explication of theoretical issues of business ethics, ethical protocol that has the ambition to integrate the outlined principles should answer the following questions:

- *Is the ethical decision legal? (Whether it violate any law or politics of institution?).*
- *Whether the decision bring to the usefull effect for individuals, stakeholders, or bring to the usefull effects for the most number of individuals?*
- *Whether the decision respect basic rights of stakeholders (for answer on this question, there should make the list of stakeholders rights).*
- *Whether the decision take into account the just procedure and just results? Is by this achieved the equilibrium of relationships? Whether the decision promote „win-win“ relationship?*
- *How we as people feel after bringing and application of the decision? Whether this decision bring negative emotions: anxiety, insecurity, alarm or some other positive emotion: pride, satisfaction, motivation)?*
- *How should be resolved the confronted interests/utilities which result or will result from decision implementation, so that there is not disturbed ethical equilibrium?*
- *Whether the organization implement the spiritual values of right doing, truth, love, peace and nonviolence?*

In accordance with the protocol questions, ethical organizational decision should affirmatively answer most of the questions, so such decision would most likely be ethical (had the highest possibility to be ethical). If the answers are heterogeneous than it should set priorities (ponders) to the legality, individuality, utility, human rights, different types of justice and according to the spiritual (humanistic) principles of truth, right behavior, love, peace and non-violence. According to such pondered answers, we can have the metric basis for measuring ethics of management decisions.

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## **DILEMMAS AND CHALLENGES FOR THE COMPETITION POLICY IN THE TURBULENT TIMES – THE CASE OF EUROPEAN COMPETITION POLICY**

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***“The one who does not remember history  
is bound to live through it again”  
George Santayana***

### **ABSTRACT**

*Economic history has unambiguously shown that recession periods are potentially hostile towards competition policy. During these periods competition rules and competition policy were silently suspended. In addition, big firms were increasing their lobbying activity in order to reach more favorable market treatments, but the problems with their low productivity and increased inefficiency remained unsolved. Policies used for the purpose of relaxing competition arguably added to the duration of the recession periods, such as those in the US economy in the 1930s, in the Japanese economy in the 1990s and in the Argentina's economy until the beginning of year 2000.*

*Nowadays, policy-makers are confronted with the same challenges regarding the design of competition policy. But in this case, they should demonstrate their ability to learn from the past experience and to ensure that today's solutions do not unintentionally become tomorrow's problems. Current challenges are somewhat different, especially in Europe, where the branch of competition policy most strongly challenged by the crisis is the state aid control especially in the financial sector. Therefore, policy-makers should very carefully select the priorities of the bailout strategies. In this sense, intervention to rescue the financial system from systemic collapse in exceptional circumstances can be crucial, but should not be seen as a reason to justify state aids given to inefficient firms from other sectors in the economy in order to support their production. Subsidies are costly for taxpayer; they create dependency and ultimately damage firms' competitive incentives. Also, restrictions on competition are worse. They increase inefficiency, decrease consumer welfare and may result in permanent changes at the market structure. Furthermore, ad hoc changes to competition rules diminish policy's consistency, predictability and its credibility for business sector.*

*For these reasons, at the macro level, active monetary and fiscal policies are needed to stimulate aggregate demand and support economic growth, but at the micro level we need active and efficient competition policy to support and promote market competition and to increase total welfare in the economy. It would be a great mistake to suspend competition policy and replace it with industrial or trade policy in the time of crisis.*

**Keywords:** *bailouts, competition policy, economic crisis, efficiency, market competition, state aid.*

## 1. INTRODUCTION

Among the few things most economists would agree on is that “market competition is a good thing for the economy”. Competitive markets have been shown to be the best way of allocating resources to the best possible use. Competition makes a pressure on firms continuously to innovate and reorganize their business activities in order to improve their productivity and supply market-desirable products and services. Also, competition produces positive effects that can boost the efficiency of an entire industry, including related and supporting industries in the surrounding region. But, the last credit crunch and recession have shocked markets and policy-makers. The superiority of market mechanism to deliver positive outcomes and stimulate economic growth was distorted. This has created a risk for damaging market confidence and has increased the need and the role of government in the economy. Economic history has unambiguously shown that recession periods were potentially hostile towards competition policy. During these periods competition rules and competition policy were silently suspended. In addition, big firms were increasing their lobbying activity in order to reach more favorable market treatments, but the problems with their low productivity and increased inefficiency remained unsolved. Policies used for the purpose of relaxing market competition arguably added to the duration of the recession periods, such as those in the US economy in the 1930s, in the Japanese economy in the 1990 and in the Argentina’s economy until the beginning of year 2000 (Winograd, 2009; Bittlingmayer, 1996; Porter and Sakakibara, 2004). Nowadays, policy-makers are confronted with the same challenges regarding the design of competition policy. But in this case, they should demonstrate their ability to learn from the past experience and to ensure that today’s solutions do not become tomorrow’s problems. Current challenges are somewhat different, especially in Europe, where the branch of competition policy most strongly challenged by the crisis is the state aid control especially in the financial sector. Therefore, policy-makers should very carefully select the priorities of the bailout strategies. In this sense, intervention to rescue the financial system from systemic collapse in exceptional circumstances can be crucial, but should not be seen as a reason to justify state aids given to inefficient firms from other sectors in the economy in order to support their production. Subsidies are costly for taxpayer too; they create dependency and ultimately damage firms’ competitive incentives. Also, restrictions on competition are worse. They increase inefficiency, decrease consumer welfare and may result in permanent changes at the market structure. Ad hoc changes of competition rules diminish policy’s consistency, predictability and its credibility for business sector. For these reasons, at the macro level, active monetary and fiscal policies are needed to stimulate aggregate demand and support economic growth, but at the micro level we need active and efficient competition policy to support and promote market competition and to increase total welfare in the economy. It would be a great mistake to suspend competition policy and replace it with industrial or trade policy in the time of crisis. The main focus of this paper is the analysis of the responses of the European competition policy to the economic downturn. The structure of this paper is as follows. After the introduction part, second part deals with the effects of economic downturn on market competition and competition policy. The third part gives emphasis to the changes of State aid rules as a response to the contemporary crisis, and enforcement of antitrust and merger regulations during the crisis periods. The final part of the paper gives inferences from the analysis.

## **2. ECONOMIC DOWNTURN, MARKET COMPETITION AND COMPETITION POLICY**

The roots of the current crisis should be looked into the weak regulation of some segments of financial markets and financial institution. Everything started on the mortgage markets in the United States at the beginning of the 21<sup>st</sup> century. In that period of economic prosperity, macroeconomic stability and low inflation, due to a weak regulation and irrational expectations for the long-term increasing trend of prices of real estate, banks relaxed the lending criteria and borrowed far too much regarding their low capital base. Additionally, this banks' behavior was accompanied by the trade of opaque credit default derivatives between financial institutions. In 2006 when the prices of the real estate started to fall and the borrowers didn't manage to refinance their credits, banks were caught out with large scale of defaults in their portfolios. Mortgage segment of the American financial market has collapsed. So, the solvency of the American banking system was threatened, interest rates increased and banks shrank their lending activities. This has created severe financial constraints for firms and households, resulting in low investments and reduced consumption. In this way, the financial crisis was easily spilled over in the real sector and pushing the entire American economy into recession. The negative effects of the American crisis were reflected on the financial, and consequently on the real sectors of the other economies, especially those from the European Union. As a result of these processes a number of reputable world's banks have been faced with solvency and liquidity problems and pushed close to bankruptcy. Problems in the financial sector have increased the number of distressed businesses in the real sector. Governments across the world in order to prevent the spread of contagion effects in their economies were forced to implement bailouts strategies for distressed banks. In addition, firms' implicitly were lobbying for exemption of the competition regulation. But let's see intuition of changes in the market behavior and competition during the periods of crisis and recession. At the competitive markets, during economic downturn, firms contract their production in order to adjust to the reduced consumption. In this process of contraction of economic activities, the less efficient firms are the first who leave the market. This is a process of natural selection<sup>13</sup> of firms by which, the more efficient ones get a chance to expand and new firms to enter at the market. In the case, when firms are equally efficient, then the largest one is the first that reduced its production and the others follow the process of adjustment, until one of the firms leave the market<sup>14</sup>. Also the outcome of this process of firms' adjustment to the economic downturn is determined by their capital structure. Kovenock and Phillips (1997) found out that highly leveraged firms are more likely to leave the market before their less leveraged competitors. Also, Kovenock and Phillips (1997) pointed out when banks contract their lending activities and financial markets are distressed, then it is very likely that more efficient firm will leave the market because it is higher leveraged compared with less efficient competitor. All these processes have a negative impact over firm's efficiency and productivity growth. Hence, there are several reasons why the government intervention in the banking and financial sector is rational. Firstly, banks are fundamentally different economic and legal entities from other businesses in the economy. Risk for a bank failure might have contagion effects for the whole economy. Especially in the case when the bank is too big to fail. Secondly, the collapse of confidence in the banking sector will increase liquidity problems in the economy. Thirdly, in these circumstances credit market ceases to function effectively. Banks increase the credit rationing and most of the firms can't provide with the necessary financial funds for their businesses. Subsequently, efficiency and productivity growth might suffer farther.

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<sup>13</sup> In the absence of sunk costs, entry barriers and subsidies.

<sup>14</sup> Under assumption that banks do not constrain their lending activities.



But, the intervention to rescue the financial system from systemic collapse should not be seen as a reason to justify state aids given to inefficient firms from other sectors in the economy or to suspend enforcement of the competition law and policy in order to support production and economic growth during recession periods<sup>15</sup> (Lyons, 2009, p. 17). Antitrust activities among firms could be increased during the period of crisis because the markets where they produce and sell could become narrowed. Usually firms have higher incentives for anticompetitive behavior in industries where production facilities are durable and specialized and demand for their products and services constrains due to unfavorable economic conditions. Levenstein and Suslow (2006) pointed out that under these circumstances firms have higher incentive to form 'crisis cartels' as an answer to the decreased market prices. Firms may also try to coordinate their activities regarding the reduction in capacity of production. All these activities are more likely to delay economic recovery and set an inefficient market structure. Therefore active enforcement of competition policy has thrived even in these turbulent times. The results from a number of research studies may confirm the positive correlation between active competition policy and productivity growth and consumer welfare (Polder, Valdhuizen, van der Bergen and van der Pijll, 2009; Bridgman, 2010; Sharpe and Curris, 2008). From all that we said above we can infer that nowadays, policymakers are faced with big challenge how to design bailouts strategies with minimum negative impact over market competition. They should look at all relevant market circumstances, from market shares to barriers to entry, firms' business conduct and prospective level of market competition.

### **2.1. The role of competition authorities**

In the period of crisis and recession competition authorities should be a part of the solutions strategies. They should have principled and consistent vision of the objectives of competition policy and their activities should be oriented towards reestablishing of the long-term necessary market conditions to foster growth and social welfare. In addition, they should opt for efficient approach, by adapting their tools and measures to the short term market conditions created by the financial crisis and recession. Fingleton (2009) pointed out that competition authorities need to be pragmatic and flexible in their application of competition policy in the time of crisis and recession. They need to anticipate the processes in the whole economy, and try to predict the effects of their decisions. Hence, when competition authorities apply competition law should heavily rely on economics when assessing facts about certain type of firms' market behavior. Furthermore, in recession periods, competition authorities should foster competition culture among market players and more than ever they need to engage in competition advocacy. So, it is very important competition authorities to have good cooperation and coordination within government, business and consumer stakeholders.

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<sup>15</sup> History several times confirmed that relaxation of enforcement of competition law added to the duration of recession periods. For instances, F.D. Roosevelt was persuaded by industrials that it was necessary to suppress the enforcement of competition policy to gain cooperation and he agreed this as an integral part of the New Deal. In twelve months from June 1935, the Interior Department received identical bids from steel firms on 257 different occasions, and these bids were 50% higher than foreign steel prices. It has been estimated that wholesale prices in 1935 were 24% higher than they should have been and even by 1939 they remained 14% higher. Cartel prices fed through to unrealistic wages and unemployment was 25% higher than it would have been otherwise. These estimates suggest that the depression may have lasted seven years longer than necessary.

### **3. RESPONSES OF THE EUROPEAN COMPETITION POLICY TO THE CURRENT CRISIS**

During the period of financial crisis and recession the biggest challenge for the EU competition policy is to ensure and enforce common rules on the field of this common policy. Precisely, the main attention should be put on prevention of distortions on the single market, maintaining legal certainty and avoiding discriminatory measures in crisis management. Therefore, the EC competition policy has two aims: firstly, to support financial stability by giving legal certainty to rescue measures taken by the EU Member States, and secondly, to maintain a level playing field at the Single market and to ensure that national measures would not arise problems to other Member States.

In the following part of this section will be analyzed the changes of State aid rules and the enforcement of the antitrust and merger regulations during the crisis period.

#### **3.1. State aid**

State aid regulation has the biggest effect on crisis management. The state intervention was oriented to rescue both the financial and the real sector of the economy. This dual approach was being recognized by the policymakers of the Member States and by the European Commission too. Economic circumstances presumed increased State aid activities and the European Commission had to respond promptly to this situation. So, between October 2008 and August 2009, the Commission adopted four communications and one temporary framework in relation to application of the State aid rules in order to support the financial sectors and companies and in the context of the current crisis. Banking communication (Communication from the Commission, 2008, p. 8) and Recapitalization communication (Communication from the Commission, 2009d, p. 2) were the first two packages of urgent measures. Their purpose was to preserve the financial stability and to lessen restrictions on the availability of credit whilst keeping distortions in competition to a minimum. Despite the fact that recapitalization schemes had been implemented in many Member States, at the beginning of 2009, banks' lending activities were still at low level and confidence in the banking system was not restored (EC, 2010, p. 16). As a result to this, the Commission undertook additional measures and on 25 February 2009 adapted the third communication –the Impaired assets communication (Communication from the Commission, 2009b, p. 1). The additional measures were directed to tackle the root causes of the crisis in the form of toxic assets on banks' balance sheets. Precisely, in this communication the Commission set out the principles of assessing the asset relief measures for financial institutions under the State aid rules. The main accent in the assessing process was given to the transparency and disclosure, adequate burden sharing between the State and the beneficiary and to the prudent valuation of assets based on their real economic value. In August 2009 the Commission adopted the fourth communication on return to viability and the assessment of restructuring measures in the financial sector in the current crisis (Restructuring communication) (Communication from the Commission, 2009a, p. 9). It was designed to deal with the future issues beyond the current crisis. The Restructuring communication prescribed principles and measures for beneficiaries that required aid for implementation of structural changes to their business<sup>16</sup> (EC, 2010, p. 19). Due to the persistence of the financial crisis, and banks' deleveraging activities, companies started to experience difficulties with access to financial funds. As a response to

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<sup>16</sup> Precisely, the Restructuring communication addresses the issues of moral hazard and implies compliance with several conditions."Firstly, banks that are obliged to restructure need to demonstrate their capacity to return to long-term viability without State support. Secondly, they have to contribute to the restructuring costs. Thirdly, they have to adopt measures to limit competition distortions, whether divestments in core markets and/or balance sheet reductions."

the negative effects from the credit squeeze on the real economy, in January 2009 the Commission adopted Temporary Framework<sup>17</sup> (Communication from the Commission, 2009c, p. 1). The Temporary Framework is a horizontal instrument which has allowed Member States to support all sectors in the economy hit by the crisis. It had two aims: firstly, to maintain continuity in companies' access to finance and secondly, to encourage companies to continue investing in a sustainable future projects. Specific measures included in the Framework was the follows: up to €0.5 million cash grant per firm, provided the aid does not favor exports or domestic over imported products, reductions of 15% (and 25% for small and medium enterprises (SMEs) on loan guarantee premia for loans up to the size of the annual wage bill, relaxed rules on interest rate subsidies, 25% subsidies (50% for SMEs) for investment in green production, and provision of risk capital for SMEs. These special measures were allowed only to firms in difficulties due to the contemporary financial crisis. Firms with long-term decline in their efficiency were excluded from the Framework. According to the Report on Competition policy for 2009, by the end of 2009 the Commission approved 79 measures in 25 Member States aimed at stabilizing companies and jobs in the real economy. Between October 2008 and the end of 2009 the Commission approved around EUR 3.63 trillion of State aid measures to financial institutions. Nearly 70% of approved aid relates just to five member states (Germany, France, Denmark, Ireland and the United Kingdom). The following table shows that aid granted in the context of the economic and financial crisis grandiosely increased in 2009 compared with 2008. According to the analysis of the effects of temporary State aid rules made by EC (2011b), the most of amounts of the granted State aid were used in the financial sector (more than 10% of EU-27 GDP). In the view of those amounts, between economists rose the question whether the sizable amounts of State aid used by Member States have been effective.

*Table 1: Structure of total State aid granted by Member States as % of EU-27 GD, during the period 2005-2009 (EC, 2011, p.11)*

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Aid granted in the context of the economic and financial crisis	0%	0%	0.01%	1.93%	3.00%
Aid granted excluding crisis measures	0.58%	0.77%	0.53%	0.58%	0.62%
<b>Total</b>	<b>0.58%</b>	<b>0.77%</b>	<b>0.54%</b>	<b>2.51%</b>	<b>3.62%</b>

According to reports prepared by the Commission regarding the used amounts of aid under the temporary State aid rules could be concluded that the State aid, with other policies responses, has been effective in reducing financial stability and avoiding negative effects from financial crisis on the real economy. However, it is important to emphasize that there is no direct causality between the levels of State aid used and market developments, because it is impossible to disentangle the effects of State aid rules from other policies responses to the

<sup>17</sup> The Temporary Framework is a part of the European Economic Recovery Plan adopted in November 2008 by the Commission as a wider response to the economic crisis. In 2009 the Commission amended the framework in order to provide Member States with additional measures to tackle the negative effects of the financial crisis on the real economy.

crisis (for instance from the liquidity interventions by the European Central Bank). In addition, the Temporary Framework of aid to the real economy has allowed a coordinated response to tackle companies' difficulties in accessing finance during the crisis, but it is difficult to assess how effective it has been because most of the measures have been applied to SMEs. It could be seen as important factor for potential distortion of competition.

### 3.2. Antitrust and merger regulations

The current crisis also gave rise to challenge the enforcement of the EU antitrust and merger regulations. Under these circumstances it was very important to maintain a rigorous enforcement of these regulations in order to preserve the competitiveness of European economy and facilitate its emergence from the crisis.

Reports on competition policy for 2009 and 2010 shows that there are no significant changes in the enforcement of antitrust and merger regulation regarding the crisis. Tables 2 represents the numbers of decisions regarding the enforcement of antitrust regulations.

*Table 2: Number of antitrust and cartels enforcement decision per year and type, during the period 2006-2010 (EC, 2011a, p. 18)*

Type of decision	2006	2007	2008	2009	2010
Antitrust	6	6	6	5	7
cartels	7	8	8	6	7
Total:	13	14	14	11	14

It is obvious that, in the analyzed periods, there is no big variation in the number of antitrust and cartels decision, except for 2009 when the 11 decisions had been made. The difference in the number of decisions could be due to the longer period of the assessment of firms' behavior in the ongoing cases. The extension of the assessment procedure might be a result of the changes in the relevant Guidance and the new accepted block exemption in antitrust regulation. At the beginning of the 2009, the Commission issued the "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings" (Communication from the Commission, 2008, p. 7-20). The Guidance sets out the main principles of an effects-based approach determining enforcement priorities in relation to firms' antitrust behavior. In addition, in 2010 (EU, 2010c, p. 1-7; EU, 2010a, p. 36; EU, 2010b, p. 43). Commission adopted two new block exemption in antitrust regulations regarding vertical and horizontal agreements, respectively. Regarding the block exemption regulation for vertical agreements, the rules were revised in order to take into consideration both buyers' and sellers' potential market power, so that all parties in the agreement must have a market share under 30% for a block exemption. The basic principle of the revised rules remains that companies with limited market power are free to decide how they will distribute their products, as far as their agreements do not contain price-fixing or other hardcore restrictions (EC, 2011a, p. 14-15). Changes in the block exemption regulation for horizontal agreements (regarding research and development agreements on one hand and specialization and joint production agreements on the other hand) should be seen as an evolution in order to give comprehensive guidance and adequate legal certainty for cooperation among competitors. The key features of the revised regulation include the insertion of a new chapter on information exchange and a substantial revision of standardization agreements (EC, 2011a, p. 15-16).

Furthermore, the Commission was called upon to consider arguments relating to difficulties faced by companies in paying imposed fines. The Commission reviewed the conditions for ‘inability to pay’. These conditions are only fulfilled if payment of the full amount of the fine would irretrievably jeopardize the economic viability of the company and cause its assets to lose all their values. In line with this principle, the Commission assessed request on a case-by-case basis (EC, 2010, p. 20).

*Table 3: Total amounts of the fines imposed by the Commission for concerted practices during the period 2006-2010 (in million euro) (Slaughter and May, 2012)*

	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Amount of fines	1.846	3.313	2.260	1.548	2.896

Table 3 shows the total amounts of the imposed fines for concerted practices among competitors. In 2009 it have been recorded significantly lower amounts of imposed fines. On the one hand this is due to the lower number of decisions (see Table 2), and on the other hand to the revised decisions in some of the cases. Current economic downturn did not have a substantial impact on the merger policy and regulation. Structural commitments and divestures remained the most appropriate type of remedies to prevent restriction on competition which would have been raised by a merger. In some cases of the evaluation of requests for extension of a deadline for the implementation of a remedy, the Commission took into consideration the difficulty of finding buyers in the current economic climate and allowed an extension of the deadline. The lower number of total merger decisions in 2009 and 2010, compared with the number of merger decisions during the period 2006-2008, can be explained by the decline of economic activities of companies due to the economic downturn (see Table 4).

*Table 4: Number of merger final decisions per year and type, during the period 2006-2010 (EC, 2011a, p. 19)*

<b>Type of decision</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
1 <sup>st</sup> Phase clearance (Simplified Procedure)	211	238	190	143	143
1 <sup>st</sup> Phase clearance (Non-Simplified Procedure)	112	130	117	82	110
2 <sup>nd</sup> Phase clearance	4	5	9	0	1
Interventions	21	25	27	18	16
Total	348	398	343	243	270

#### 4. CONCLUSION

There are two ways of government intervention to the distressed companies. One way is the direct financial intervention via State aid, and the other is indirectly intervention via relaxing the enforcement of competition law and merger regulation. Either way the citizen pays: as taxpayer and/or as consumer through higher prices. In both cases efficiency and competition are harmed with long-term negative consequences for economic growth of the state. Therefore, the main short-term priority for government, competition authorities and market players is to respond quickly to financial crisis and recession. But they shouldn't allowed cartels and abusive behavior among firms because it will further substantially lessen competition and it will hurt consumer welfare and negatively affect efficient rivals on the marketplace. The crises increase the need for active and vigilant competition policy. Very often, in the time of crisis and recession anticompetitive features of the government interventions are not noticed, but their negative effects are often long-lived after the crisis periods. Rather than restrictions on competition to avoid the short-term consequences of crisis, there is a need to enforce it robustly in order to avoid negative long-term consequences. European competition policy and State aid control in particular have played a crucial role in the process of stabilizing the EU's financial system and the real economy. Changes in the rules of common State aid control have played the key role in the design of coordinated response-strategy to the crisis in order to make sure that Member States' interests and community interests are synchronized and move hand-in-hand. Strong commitments of European competition authorities for active enforcement competition policy during the crisis and recession create a business environment suitable for long-term sustainable growth of European economy. Effective competition in the single market drives companies to innovate and to expand for the benefit of consumers, business and the economy as a whole.

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## TECHNOLOGICAL INNOVATION, PRODUCTIVITY AND GROWTH

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### **ABSTRACT**

*Innovations have long been recognized as one of the key elements of economic progress, though some say that its direct relation to the concept of economic growth remains rather controversial. Productivity growth is the key economic indicator of innovation, non-the-less. Growth theory assumes that changes in real output are result of technological shocks within the economy. By focusing on computer and information technology, using ARIMA models and Beveridge-Nelson univariate decomposition this paper estimates the impact of technological shocks on GDP, GDP per capita and labour productivity (long-term) growth of few most developed countries.*

**Keywords:** *computer and information technology, productivity and growth, ARIMA models, Beveridge-Nelson decomposition, developed countries*

### **1. INTRODUCTION**

Long recognized as a driver of progress and prosperity, technological innovation became an essential factor in displacing existing economic structures by laying down fundamentals for new economic forces and opportunities. From Karl Marx to Joseph Schumpeter, scholars have long noted the role that technological improvement plays in economic progress and wealth accumulation. Both, Marx and Schumpeter, concluded that the dynamics of technological improvement is what enables capitalism to constantly revolutionize itself (Schumpeter, 1947, p. 411). Economic development and growth turns on harnessing human creativity across the entire spectrum of innovation through productivity; from the creation of new technologies and new firms to new and improved processes, increased labor productivity, more efficient manufacturing and production systems, and increasing effectiveness in the delivery of services (CGI, 2011, p. 9). Namely, progress depends on new standards of economic efficiency i.e. productivity growth. A growth in productivity can come from changing methods or increasing resources, or, for some time from both. For the number of years economists were skeptical regarding effects of computer and information technology on aggregate productivity and economic growth, however new studies have found that the surge of productivity (especially in the USA in the 1990s) has been largely the result of the adoption of new technologies (Edwards, 2001, p. 3). The computer equipment manufacturing industry comprised only 0,30% of USA value added in the period 1960-2007, but has generated 2,70% of economic growth and 25,0% of productivity growth (Jorgenson, Ho and Samuels, 2011, p. 2). The so-called 'New Economy' associated with advances in computer, information and communication technology is often related to transformation of economies from industrial to information societies. However, some state that the advances made by using these new industries are far from the benefits associated with the two industrial revolutions. Up until the end of the 1980s economists had trouble to distinguish actual benefits from such technologies. The potential of computer, information and communication prospect, however, was made clear in the 1990s (Šimurina and Tolić, 2008, p. 18).



Growth theory assumes that changes in real output are result of technological shocks within the economy. These shocks embodied in technological innovations have permanent effect on real gross domestic product (GDP) growth, raising the standard of living over the time as the economy moves to an improved equilibrium point (Falatoon and Safarzadeh, 2006). This paper analyzes the impact of major technological innovations within computer and information technology over the last 60 years on the real GDP, GDPpc and labor productivity growth of three developed countries by using the time series data for the period 1950-2013. Data are collected from the Conference Board *Total Economy Database*. Following the methodology used by Falatoon and Safarzadeh (2006) we apply ARIMA models in order to generate appropriate forecast functions. Beveridge-Nelson univariate decomposition was used to decompose variable into the sum of a random walk plus drift and stationary components. The paper is organized as follows. Section 2, after the introduction, discusses the theoretical background and reviews the literature. Section 3 reviews used methodology and data. Section 4 evaluates empirical results on the growth and welfare effects of technological shocks. Section 5 provides some concluding remarks.

## **2. THEORETICAL BACKGROUND AND LITERATURE REVIEW**

Since the outbreak of 'path breaking' innovations such as steam engine, spinning machine, railroads, electricity, auto industry, aerospace, computer and information technology we are analyzing the concept of technological growth. In the perspective of time, these innovations have been raising real GDP from one steady-state equilibrium level as they converged to a new and higher steady-state level (Falatoon and Safarzadeh, 2006, p. 241). The growth rate is then stabilized until a new wave of innovation has changed existing *status-quo* state. Linking long-term economic growth with technological progress is deeply embedded in the main message of the Solow-inspired growth models, which treat technological change as exogenous and even more so in the endogenous growth models (Mokyr, 2005, p. 4). Following Neo-Classical growth models and pioneering work of Solow (1956; 1957) we would conclude that technological change, in a Solow's words, is indeed expressed in relatively large 'residual factor' (Dosi, Freeman and Fabiani, 1994, p. 3). But until recently, little progress was made in the formal modeling of technical change itself. As Gancia and Zilibotti (2009, p. 2) point out, despite the obvious importance of technology in explaining modern growth, quantifying the exact contribution of technical progress is not really simple, considering that technological progress is hard to observe and measure directly. New-Growth theory (Romer, 1986; Grossman and Helpman, 1991; Aghion and Howitt, 1992) does attempt to incorporate some measures of technological innovation, however it also provides some limitations on the ways the technology is represented (Dosi, Freeman and Fabiani, 1994, p. 3-4). Furthermore, since innovative activity and technological progress have a positive effect on productivity growth, it means that Schumpeterian growth hypothesis which predicts that productivity growth is driven by the levels of research intensity in the economy, in fact holds (Rajabrata, 2011, p. 16). Following endogenous technological approach some second-generation Schumpeterian growth models were developed (Aghion and Howitt, 1998; Howitt, 1999; Peretto and Smulders, 2002; Ha and Howitt, 2007). As we already pointed out, technological improvement is economic phenomenon which is hard to observe, measure and quantify. Process of linking technological progress and economic growth triggered research patterns into independent modelling of these variables which are then intertwined in profound composite indicators. These composite indicators can be classified in three categories: (1) those used for measuring an aspect individually (analyzing own component factors), (2) analyzing two related aspects linked using components of both variables and (3) indicators generated to analyzed progress with the inclusion of other components (such as technological

innovations, socio-economic status etc.). The use of composite indicators in general provides a mechanism for modeling nation's progress in some relevant aspects such as composite technological innovation (Shanmuganathan, 2008, p. 2708). However, even these composite indicators are surrounded with controversies giving the fact that indicator weights could be manipulated. We can conclude that empirical irregularities could obstruct theoretical setting of a research. This is the reason why many economists rely on theoretically inclined macroeconomic modeling. Advances in computer and information (plus communication) technology often referred as ICT sector is regularly labeled as 'third industrial revolution'. Though there is no compelling evidence that these technological improvements constitute the next industrial revolution, its full potential is being revealed and materialized in the lower prices of information technology, reduction in the cost of capital, rapid productivity growth and significant improvement in organizational techniques<sup>18</sup>. From new innovations like software, robotics, biotechnology and nanotechnology to improvements in manufacturing systems and processes, technology makes economies and societies more efficient and productive. Getting back to *Solow's paradox* – we see computers everywhere but in productivity statistics – it is quite the obvious why many economists were skeptical about the productivity reach of the computer and information technologies. Most of the skepticism rose mainly from inadequate approach in measuring technological contributions. Another problem is that most of the aggregate studies on computer and information technology vs. economic performance use categories such as 'computer using' and 'computer producing' industries. A limitation of such studies evolves from the fact that they do not specify the exact mechanism through which investment in computer and information technology affects productivity and growth. Perhaps the most important insight from these micro studies is that investments in technology do not have a large 'direct' effect on productivity. Their impact is indirect, and is mostly related to changes in other aspects of the productive process. Investment in information technology plays the role of a facilitator that allows other innovations to take place (Edwards, 2001, p. 3-4). Again, this also explains why our study converges to more economy-wide implications i.e. to macroeconomic approach. Ultimately, computer and information technology was important element of growth dynamics of the most of the developed countries in last few decades. Furthermore, computer derived technology became also an important element in explaining cross-country income differences. Considering that technological progress is the fundamental force underlying long-run GDP growth, we can conclude that it can also explain why some countries have been so much more productive than the others (Tomić, 2012, p. 1293). Next section will provide us some insight into the reason why developed countries are developed and why many other countries are only participants in the 'catching-up' process.

### 3. METHODOLOGY AND DATA

In order to test effects of technological progress on growth and productivity of selected countries we have applied methodology used by Falatoon and Safarzadeh (2006). Their approach is based on Neo-Classical growth models of Solow (1956) and Swan (1956) who assume that real GDP per unit of labor is a function of capital per unit of labor and technology:

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<sup>18</sup> There are also negative effects: irrational exuberance and accumulation of intangible assets, widening wage inequality (capital –skill complementarities vs. skill biased technological change).

$$Y/N = f(A, K/N) \quad (1)$$

where  $Y$  is real GDP,  $N$  is labour unit,  $K$  is capital input and  $A$  is technological improvement. Since growth theory assumes that in equilibrium real GDP of unit of labour grows at the rate of technological growth, it means that with technological innovation of  $A$ , at the so-called steady-state, real GDP will grow at the rate of innovation growth ( $\dot{A}$ ). If we consider technological innovations as supply shocks which have a permanent effect on the trend of GDP, a decomposition of such variable on its permanent and irregular components could reveal impact of technological improvement on the growth rate of real GDP between two 'path breaking' innovations. As to ensure appropriate decomposition of the deviations of the real GDP growth from its long-run growth into its deviations due to demand shocks and technological improvement within time, Falatoon and Safarzadeh based their modeling on the equation:

$$\dot{Y}_t = \dot{A}_t + \dot{N}_t \quad (2)$$

so that the trait represents the rate of change of the respective variable. If  $\dot{Y}^*$  and  $\dot{N}^*$  represent potential values, equation (2) can be reformulated to interpret both, deviation of real GDP growth from its long run and growth rate of potential real GDP per unit of growth for effective labour so we get:

$$(\dot{Y}_t^* - \dot{Y}_t) = \alpha [\dot{Y}_t^* - (\dot{A}_t + \dot{N}_t^*)] \quad (3)$$

$$(\dot{N}_t^* - \dot{N}_t) = (1 - \alpha) [\dot{Y}_t^* - (\dot{A}_t + \dot{N}_t^*)] \quad (4)$$

Equations (1) and (2) should be interpreted as follows; an increase in the growth rate of technological improvement depending on the value of  $\alpha$  will accelerate the rate of real GDP while positively impacting on the rate of growth of real output; but with the time passing by, the excess output gap will become smaller so the effect of the technology shock will eventually fade away, pushing the rate of growth to its long-rung potential (Falatoon and Safarzadeh, 2006, p. 242-244). In order to evaluate the permanent trend in the growth and productivity variables we have to extract conditional expectation of the limiting value of the forecast function derived from ARIMA models, similar to the above mentioned authors. An ARIMA model is appropriate for this kind of analysis since it predicts a value in a response time series as a linear combination of its own past values, past errors (shock or innovations) and current and past values of other time series. Besides, ARIMA procedure provides a comprehensive set of tools for univariate time series model identification, parameter estimation and forecasting, and in that way it offers great flexibility. To identify appropriate ARIMA models we have to recognize its elements  $p$ ,  $d$  and  $q$ . Lags of the differenced series in the forecasting equation are called auto-regressive terms ( $p$ ), lags of the forecast errors are called moving average terms ( $q$ ), and a time series which needs to be differenced to be made stationary is said to be an integrated version ( $d$ ) of a stationary series. Based on those elements we can estimate proper ARIMA model. In the literature on trend/cycle decomposition, Beveridge and Nelson (BN) approach was recognized as a model based method for decomposing a univariate or multivariate time series into permanent and transitory components. Beveridge and Nelson (1981) showed how to decompose ARIMA ( $p, 1, q$ ) i.e. proposed a definition of the permanent component of an  $I(1)$  time series  $y_t$  with drift  $\mu$  as the limiting forecast as horizon goes to infinity, adjusted for the mean rate of growth over the forecast horizon,

$$TD_t + BN_t = \lim_{h \rightarrow \infty} y_{t+h/t} - \delta h \quad (5)$$

where  $TD_t$  represents deterministic trend. The stochastic part of permanent component (7),  $BN_t$  is referred as the *BN* trend. The implied cycle (*C*) at the time  $t$  is then

$$C_t = y_t - TD_t - BN_t \quad (6)$$

so Beveridge and Nelson suggested that if  $\Delta y_t$  has Wold representation  $\Delta y_t = \delta + \psi^*(L)\varepsilon_t$  then  $BN_t$  follows a pure random walk without drift (Zivot, 2005, p. 5):

$$BN_t = BN_{t-1} + \psi^*(1)\varepsilon_t \quad (7)$$

To conclude, the long-horizon conditional forecast used to calculate the *BN* trend corresponds to an estimate of the permanent component of an integrated time series. This forecast will be different at each period as additional information becomes available. Data on growth and productivity variables (real GDP, real GDPpc, real labour productivity (LP) per person and per hour) for three developed countries (United States, Japan and Germany) were collected from the Conference Board *Total Economy Database* for the period 1950-2013. Variables are converted to 2013 price level with 2005 EKS PPPs in order to obtain real category. Data span is chosen based on the assumption that commercial usage of computer and subsequent technologies started immediately after the II World War. Country selection was based on the fact that these countries have grown over the past century probably faster than during any previous period in history. But also, Japan and USA have been exchanging on the first and second place of the annual list of countries with most inventions for a long time, only Germany and lately Korea obstructing that order sometimes. Hence, the importance of computer and information improvements has been an important part of their growth and development. Likewise Falatoon and Safarzadeh (2006), we also divided the sample periods into sub-periods based on the major technological improvements in computer and subsequent industries over the last 60 years, with classification being selected by the *rule-of-thumb*. In order to evaluate trend perspective, we estimated growth rates for all the variables and for all sub-periods. To estimate adequate ARIMA models we performed logarithmic transformation on the variables and tested the presence of a unit root. For this purpose we used Augmented Dickey Fuller test (1979), Phillips-Perron test (1988) and Kwiatkowski-Phillips-Schmidt-Shin test (1992). Generally (though with some exceptions), all tests confirmed the presence of unit root for all the variables and for all the countries in a whole and in its sub-periods. Graphical displays of the observed variables also suggest that they are not stationary in levels. In conclusion, variables reveal a non-stationary behavior. This means that we have to apply appropriate degree of integration before we run ARIMA models. Now that we know all the characteristics of our variables, we can estimate ARIMA models for all the countries. Due to several facts (small sample, loss of degrees of freedom, similar results in whole period and when divided in sub-periods), ARIMA models were estimated for a whole period and then divided into its sub-periods (as growth rates). The model selection was based on Schwartz Bayesian Criterion being the most restrictive one. For each model we checked for serial correlation in residuals. ARCH tests indicated no problem of autocorrelation and there were no problems of normality in residuals. Since all the variables had to be differenced in order to obtain stationarity and we wanted to gain some flexibility in moving average terms so we can filter out the noise and more accurately estimate local mean, ARIMA (1, 1, 1) models were

estimated for all the countries<sup>19</sup>. The permanent trend in the variable (as a measure of economic prosperity impact of technological progress) was presented as the conditional expectation of the limiting value of the forecast function derived from the obtained ARIMA models. For each sub-period growth rates were calculated so that the economic prosperity impact of innovation could be measured as a geometric mean<sup>20</sup> of the permanent trend component of the decomposed series for that sub-period. Systematization of the results by the country can be found in the Appendix<sup>21</sup>.

#### **4. THE IMPORTANCE OF COMPUTER AND INFORMATION TECHNOLOGY: EMPIRICAL EVALUATION**

An invention leads to innovation, and the innovation, in turn leads to further inventions, and to the solution of more and more technical problems. This is probably the best way to describe the manner in which computer and information technology helped in creation of economic prosperity and well-being, especially in developed nations. Computer and subsequent technologies improved technical innovation potential, as the capacity to develop and advance further. The reason for choosing three developed countries in explaining the importance of technological shocks in computer and subsequent industries for their development path could be found in next few facts. Following the latest edition of the Global Creativity Index (GCI) that addresses the challenges of future development, by shifting the dialogue from a narrow focus on competitiveness and growth to a broader focus on creativity and prosperity, we found those three countries highly rated. On the Global Technology Map (CGI, 2011, p. 6) Japan takes second place, ranking fourth in R&D investment, third in researchers, and second in innovation. Japanese companies have not only consistently pushed the technology envelope, they have followed through, building reliable, subsequent generations of products, from high quality cars to flat panel displays. The United States ranks third, finishing sixth in R&D investment and seventh in researchers, but solidly in first place for innovation. With its infrastructure for entrepreneurial venture capital finance in Silicon Valley and elsewhere, the United States has seen a long list of high-tech start-ups turn into global giants, including Microsoft, Apple, Google and Yahoo. Again, we have to acknowledge that Japan and USA have been exchanging on the first and second place of the annual list of countries with most inventions for a long time, with Germany being always in the top behind these two economic giants. On CGI tables for 2011, Germany holds respective 9<sup>th</sup> place in technology index, 8<sup>th</sup> in R&D investment and 7<sup>th</sup> in innovation. These three countries have grown over the past half century (except during the First and Second Industrial Revolution) probably faster than in the other historical times. Our results strongly confirm such statement. During the observed period, inclined by the commercial usage of computer and subsequent industries, average GDP growth was well over 3,0% and average GDPpc growth above 2%. After the II World War, Japan had an incredible growth path (in average GDP growth 4,80%, GDPpc growth 4,06%) whereat Computer and information related industries contributed the most to the positive co-movements of other economic indicators (aggregate income effect, investment, research and development, employment etc.). Therefore, Japan had benefited the most from these industries. Interestingly, Computer and subsequent industries had a stronger long-term

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<sup>19</sup> Except for the USA when assessing the lnGDP: ARIMA (1, 1, 2) and lnGDPpc: ARIMA (2, 1, 1).

<sup>20</sup> A common example of where geometric mean is the correct choice is when averaging growth rates. Geometric returns (also called compound returns) involve slightly more complicated maths than the arithmetic returns. The geometric mean is calculated by multiplying all the (1+ returns), taking the  $n$ -th root and subtracting the initial capital (1). The result is the same as compounding the returns across the years. Geometric mean is an important tool for calculating portfolio performance for many reasons, but one of the most significant is it takes into account the effects of compounding.

<sup>21</sup> For detailed insight into data analysis, tests and results please contact the author.

impact effect on the European economies, than on for example the USA economy (Tomić, 2012, p. 1296). However, if we want to evaluate the aggregate impact of that industry, beside macroeconomic indicators we would need to observe the correlation between the profit rates, wage rates, levels of labor productivity etc., i.e. correlation between some microeconomic indicators, either cross-sectionally or over time. So we also evaluated the effects of the increase in labor productivity over the observed period (which was followed by the fall in hours engaged in the production process). Labor productivity increase per person and per hour was ranging from 1,68% to 1,87% in the USA, from 3,80% to 4,11% in Japan and from 2,61% to 3,54% in Germany. Our econometric results suggest that the technological progress in main innovation industries was the highest contributing part of the long-run growth of GDP and GDPpc, as well of labor productivity in the observed period. We have to be very careful in interpretations since the results do not represent contribution factor, but rather an approximation of the aggregate growth in the observed variables which came of general technological improvements. Historical evidence suggests robust correlation between the capabilities of innovating and export shares, per capita income and rates of growth. Hence, data suggest that sources of economic growth have changed in the 20<sup>th</sup> century, increasing even more the importance of technological and organizational improvement compared to the accumulation of so-called tangible assets (Dosi, Freeman and Fabiani, 1994, p. 22). In the 19<sup>th</sup>, industry with the highest absolute and relative contribution to the output growth of selected countries was a Rail road industry, however Oil industry also showed a remarkable influence on GDP and GDPpc growth in that period (Tomić, 2012, p. 1296-7). The industry that gave the highest relative contribution to the average output growth in the 20<sup>th</sup> century was the Computer industry with an average GDP growth rate of 3,51%, average GDPpc growth of 2,09%, LP per person growth of 2,15% and LP per hour of 2,45% for the USA (estimated by technological improvements), meaning that technological progress of that industry was in fact entirely integrated in improved standard of living. This was even more so true for Germany (average GDP growth rate of 5,62%, average GDPpc growth of 4,99%, LP per person growth of 4,52% and LP per hour of 5,55%) and especially Japan (average GDP growth rate of 8,62%, average GDPpc growth of 7,54%, LP per person growth of 6,95% and LP per hour of 6,64%) Subsequent industries, closely related to the Computer Industry, likewise showed significant influence. Together, their average and cumulative impact effect on the GDP growth within technological domain was 3,06% and 9,16% for USA, 4,50% and 13,49% for Japan, and 3,08% and 9,24% for Germany. We can conclude that technological progress by all main contributing (computer and subsequent) industries assured permanent welfare effect that generated political, social, cultural and economic power of those countries worldwide. As such, technological progress has a universal character which constitutes long-term fundament for economic development and growth.

## 5. CONCLUSION

Before going on to conclusion, let's review the importance of macroeconomic modeling of economic growth by citing Robert. M. Solow (1957, p. 312): *'In this day of rationally designed econometric studies and super-input-output tables, it takes something more than the usual 'willing suspension of disbelief' to talk seriously of the aggregate production function. But the aggregate production function is only a little less legitimate concept than, say, the aggregate consumption function, and for some kinds of long-run macro-models it is almost indispensable as the latter is for the short-run. As long as we insist on practicing macro-economics we shall need aggregate relationships.* Our study is not a 'fancy econometric work' but a simple endeavor pointed towards clarification of some growth related questions.

Indicators that reveal connection between technological progress and economic growth can easily be manipulated and misinterpreted by economists who want to confirm their theories of hypothesis. This paper implemented widely used Solow's model in order to evaluate the growth effect concept of technological innovations in computer and subsequent industries. We have to accentuate that our study was not focused on confirming the hypothesis of Schumpeterian growth models or hypothesis of global convergence of income but on appreciation of the dynamics of technological change and its impact on the contingency of growth and development patterns of developed countries. Therein, we showed that technological progress in the observed period was in fact entirely incorporated in the improved living standard of selected countries, having in such manner enormous welfare effect which conceptually designed subsequent growth.

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### Appendix

USA	Industry	1	2	3	4	5	6	7	8
1950 -	Computer	3,86	2,35	2,30	2,56	3,51	2,09	2,15	2,45
1973 -	Silicon	3,19	2,19	1,11	1,32	3,20	2,23	1,14	1,33
1990 -	Information	2,46	1,41	1,63	1,72	2,45	1,49	1,64	1,70
<b>Average</b>		<b>3,17</b>	<b>1,98</b>	<b>1,68</b>	<b>1,87</b>	<b>3,06</b>	<b>1,93</b>	<b>1,64</b>	<b>1,83</b>

JAP	Industry	1	2	3	4	5	6	7	8
1950 -	Computer	9,35	8,14	7,53	7,31	8,62	7,54	6,95	6,64
1973 -	Silicon	3,91	3,07	2,87	3,31	3,82	3,00	2,93	3,41
1990 -	Information	1,13	0,99	1,01	1,71	1,05	0,92	0,96	1,69
<b>Average</b>		<b>4,80</b>	<b>4,06</b>	<b>3,80</b>	<b>4,11</b>	<b>4,50</b>	<b>3,82</b>	<b>3,61</b>	<b>3,91</b>

GER	Industry	1	2	3	4	5	6	7	8
1950 -	Computer	6,04	5,36	4,79	5,92	5,62	4,99	4,52	5,55
1973 -	Silicon	2,16	2,18	1,97	3,03	2,04	2,09	1,91	2,93
1990 -	Information	1,53	1,37	1,08	1,67	1,58	1,41	1,07	1,70
<b>Average</b>		<b>3,24</b>	<b>2,97</b>	<b>2,61</b>	<b>3,54</b>	<b>3,08</b>	<b>2,83</b>	<b>2,50</b>	<b>3,40</b>

**1** GDP growth, **2** GDPpc growth, **3** LP per person, **4** LP per hour, **5** GDP growth due to technological progress, **6** GDPpc growth due to technological progress, **7** LP per person growth due to technological progress, **8** LP per hour growth due to technological progress

\* average growth rates

\*\* possible slight differences in aggregation due to a rounding-up problem

(Source: Author's calculation. Systematization based on Falatoon and Safarzahed, 2006)

### USA

lnGDP ARIMA (1, 1, 2)

	coefficient	std. error	t-ratio	p-value
<b>const</b>	0,0310011	0,00333871	9,285	1,61e-020***
<b>phi_1</b>	-0,799968	0,299147	-2,674	0,0075***
<b>theta_1</b>	0,969718	0,300267	3,230	0,0012***
<b>theta_2</b>	0,234266	0,137865	1,699	0,0893*



Mean dependent var	0,030946	S.D. dependent var	0,022351
Mean of innovations	-0,000043	S.D. of innovations	0,021708
Log-likelihood	151,8360	Akaike criterion	-293,6719
Schwarz criterion	-282,9563	Hannan-Quinn	-289,4574

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,0133012) = 0,908183$

Test for normality of residual - with p-value = 0,812486

### lnGDPpc ARIMA (2, 1, 1)

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0199494	0,00110639	18,03	1,11e-072***
<b>phi_1</b>	0,887680	0,0871895	10,18	2,41e-024***
<b>theta_1</b>	-0,841838	0,137640	-6,116	9,58e-010***
<b>theta_2</b>	-0,158162	0,127676	-1,239	0,2154

Mean dependent var	0,019291	S.D. dependent var	0,022116
Mean of innovations	0,001259	S.D. of innovations	0,021240
Log-likelihood	152,4964	Akaike criterion	-294,9929
Schwarz criterion	-284,2772	Hannan-Quinn	-290,7784

Test for normality of residual - with p-value = 0,217295

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,471082) = 0,49249$

### lnLPperson ARIMA (1, 1, 1)

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0172063	0,00243942	7,053	1,75e-012***
<b>phi_1</b>	0,816590	0,215287	3,793	0,0001***
<b>theta_1</b>	-0,716790	0,248260	-2,887	0,0039***

<b>Mean dependent var</b>	<b>0,017085</b>	<b>S.D. dependent var</b>	<b>0,013170</b>
Mean of innovations	-0,000206	S.D. of innovations	0,012881
Log-likelihood	184,7527	Akaike criterion	-361,5054
Schwarz criterion	-352,9328	Hannan-Quinn	-358,1337

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,386182) = 0,534313$

Test for normality of residual - with p-value = 0,329251

### lnLPhour ARIMA (1, 1, 1)

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0189272	0,00286726	6,601	4,08e-011***
<b>phi_1</b>	0,898841	0,100843	8,913	4,95e-019***
<b>theta_1</b>	-0,752320	0,132178	-5,692	1,26e-08***

Mean dependent var	0,018857	S.D. dependent var	0,010674
Mean of innovations	-0,000380	S.D. of innovations	0,010106
Log-likelihood	199,9536	Akaike criterion	-391,9071
Schwarz criterion	-383,3346	Hannan-Quinn	-388,5355

Test for normality of residual - with p-value = 0,128183

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,709967) = 0,399455$

## **JAP**

### **lnGDP ARIMA (1, 1, 1)**

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0501978	0,0244337	2,054	0,0399**
<b>phi_1</b>	0,954164	0,0472648	20,19	1,26e-090***
<b>theta_1</b>	-0,547281	0,155980	-3,509	0,0005***

Mean dependent var	0,045837	S.D. dependent var	0,040171
Mean of innovations	-0,002429	S.D. of innovations	0,024898
Log-likelihood	142,6179	Akaike criterion	-277,2358
Schwarz criterion	-268,6632	Hannan-Quinn	-273,8641

Test for normality of residual - with p-value = 0,00164531

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,190018) = 0,662902$

### **lnGDPpc ARIMA (1, 1, 1)**

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0426046	0,0189774	2,245	0,0248**
<b>phi_1</b>	0,935271	0,0606922	15,41	1,40e-053***
<b>theta_1</b>	-0,533612	0,167429	-3,187	0,0014***

Mean dependent var	0,039207	S.D. dependent var	0,036888
Mean of innovations	-0,001901	S.D. of innovations	0,024814
Log-likelihood	142,9607	Akaike criterion	-277,9213
Schwarz criterion	-269,3488	Hannan-Quinn	-274,5497

Test for normality of residual - with p-value = 0,00396876

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,264912) = 0,606765$

### **lnLPperson ARIMA (1, 1, 1)**

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0392079	0,0171020	2,293	0,0219**
<b>phi_1</b>	0,934035	0,0582016	16,05	5,88e-058***
<b>theta_1</b>	-0,529493	0,162314	-3,262	0,0011***

Mean dependent var	0,036809	S.D. dependent var	0,033765
Mean of innovations	-0,001685	S.D. of innovations	0,022553
Log-likelihood	148,9845	Akaike criterion	-289,9690
Schwarz criterion	-281,3965	Hannan-Quinn	-286,5974

Test for normality of residual - with p-value = 0,00913348

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,254406) = 0,613989$

### **lnLPhour ARIMA (1, 1, 1)**

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0429885	0,0149627	2,873	0,0041***
<b>phi_1</b>	0,893557	0,0745403	11,99	4,13e-033***
<b>theta_1</b>	-0,288445	0,160191	-1,801	0,0718*

Mean dependent var	0,039904	S.D. dependent var	0,030923
Mean of innovations	-0,001414	S.D. of innovations	0,019772
Log-likelihood	157,2401	Akaike criterion	-306,4801
Schwarz criterion	-297,9076	Hannan-Quinn	-303,1085

Test for normality of residual - with p-value = 0,013269

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 3,61074) = 0,0574077$

### **GER**

#### **lnGDP ARIMA (1, 1, 1)**

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0412113	0,0246512	1,672	0,0946*
<b>phi_1</b>	0,981020	0,0259469	37,81	0,0000***
<b>theta_1</b>	-0,739453	0,0873928	-8,461	2,65e-017***

Mean dependent var	0,032023	S.D. dependent var	0,029703
Mean of innovations	-0,003953	S.D. of innovations	0,022339
Log-likelihood	149,3537	Akaike criterion	-290,7075
Schwarz criterion	-282,1349	Hannan-Quinn	-287,3359

Test for normality of residual - with p-value = 0,25527

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 1,00041) = 0,317212$

#### **lnGDPpc ARIMA (1, 1, 1)**

	<b>coefficient</b>	<b>std. error</b>	<b>t-ratio</b>	<b>p-value</b>
<b>const</b>	0,0382826	0,0217035	1,764	0,0778*
<b>phi_1</b>	0,979730	0,0273508	35,82	5,23e-281***
<b>theta_1</b>	-0,757927	0,0837825	-9,046	1,48e-019***

Mean dependent var	0,029253	S.D. dependent var	0,027855
Mean of innovations	-0,003805	S.D. of innovations	0,021946
Log-likelihood	150,5353	Akaike criterion	-293,0706
Schwarz criterion	-284,4981	Hannan-Quinn	-289,6990

Test for normality of residual - with p-value = 0,416945

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 1,04107) = 0,307573$

### lnLPperson ARIMA (1,1,1)

	coefficient	std. error	t-ratio	p-value
<b>const</b>	0,0292974	0,0201097	1,457	0,1451
<b>phi_1</b>	0,987377	0,0178799	55,22	0,0000***
<b>theta_1</b>	-0,743160	0,0804514	-9,237	2,53e-020***
<b>Dummy</b>	-0,0439401	0,00901468	-4,874	1,09e-06***

Mean dependent var	0,025662	S.D. dependent var	0,022588
Mean of innovations	-0,002962	S.D. of innovations	0,014410
Log-likelihood	176,7951	Akaike criterion	-343,5901
Schwarz criterion	-332,8744	Hannan-Quinn	-339,3756

Test for normality of residual - with p-value = 0,0560599

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,0021587) = 0,962942$

### lnLPhour ARIMA (1,1,1)

	coefficient	std. error	t-ratio	p-value
<b>const</b>	0,0376084	0,0230648	1,631	0,1030
<b>phi_1</b>	0,987078	0,0184424	53,52	0,0000***
<b>theta_1</b>	-0,674729	0,101086	-6,675	2,48e-011***

Mean dependent var	0,034473	S.D. dependent var	0,022390
Mean of innovations	-0,002618	S.D. of innovations	0,013311
Log-likelihood	181,6775	Akaike criterion	-355,3550
Schwarz criterion	-346,7824	Hannan-Quinn	-351,9834

Test for normality of residual - with p-value = 0,247082

Test for ARCH of order 1 - with p-value =  $P(\text{Chi-Square}(1) > 0,376163) = 0,539664$

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## **TRANSFER OF INTANGIBLE RESOURCES THROUGH CROSS-BORDER ACQUISITIONS– THE CASE OF SERBIA**

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### **ABSTRACT**

*Transition from centrally planned to market economy in Central and Eastern European countries has begun more than two decades ago. Although some of these countries completed the process of transition successfully, Serbia and some other East European states are still going through this process. Deregulation of FDI, which are often made in the form of acquisitions, is one of necessary steps towards successful transition. Because the target companies usually lack the resources, most often intangible resources, that are necessary for doing business in market economy, these resources are transferred from foreign companies to targets. FDIs thus increase the competitiveness of transition economies and set the basis for reindustrialization, the last stage in the process of transition. The results of the empirical research into the transfer of marketing-related, technology-related and human resources-related intangible assets will be presented in this paper. The research includes a survey covering forty-six enterprises acquired by foreign investors in the previous period, and a case study on two enterprises. The results show that the acquired companies, either privately-owned or state-owned previously, needed a considerable transfer of intangible resources to improve their business performance. The targets were not market oriented, business functions were not coordinated and the acquired technology was outdated. Finally, the research shows that the acquired human resources lacked the necessary competences and had to undergo training, and the transfer of knowledge was also made through hiring expatriate managers.*

**Keywords:** *Cross border acquisitions, Human resources, Technology, Transfer*

### **1. INTRODUCTION**

Political and economic shift from centrally planned to market economy in Central and Eastern European states more than two decades ago brought about radical changes in the business environment. In socialist economies companies were focused on contracting for an amount of goods and services which would then be delivered to state agents at predetermined prices. Consequently, demand was low, and the companies did not need to adjust marketing mix elements to consumers' needs. Since there was no competition and demand exceeded supply, there was no need for supply differentiation and promotion. Activities such as market research, branding and advertising were largely disregarded, and the prices and distribution channels were state-controlled (Golden, Doney, Johnson and Smith, 1995, p. 29-49). Transition from centrally planned to market economy and liberalization of economic relations in ex-socialist states enabled multinational companies from developed countries (MNCs) to acquire local companies, previously predominantly state-owned. Restructuring of the acquired companies and their adaptation to market economy were especially great challenges facing MNCs. Specific feature of international acquisitions in transition countries is the need to disinvest from non-business assets, which make a considerable share of state-owned

companies' assets, and make heavy investments to enable the acquired companies compete in the market, which is more a characteristic of brownfield investments than of acquisitions (Meyer and Estrin, 2001, p. 575-584). This paper investigates restructuring of internationally acquired companies in Serbia and transfer of lacking, mainly intangible resources. The first part of this paper gives a brief analysis of the resource based theory of competitive advantage, and the second part shows the results of a research into the transfer of marketing-related, technology-related and human resources-related intangible assets in international acquisitions in Serbia, based on surveys and in-depth interviews.

## **2. RESOURCE-BASED THEORY OF COMPETITIVE ADVANTAGE IN GLOBAL BUSINESS ENVIRONMENT**

The key question the resource-based theory examines is: What are resources and how to define them? One of the most widely accepted definitions is that resources are all tangible and intangible assets related to a company in a long or medium term (Wernerfelt, 1984, p. 171-180). At the same time, the authors emphasized the difference between resources and competencies. The term "resources" covers (Barney, 1996, p. 143): 1. physical; 2. financial; 3. human; and 4. organizational resources. Competencies are a "binder mass" which connects resources in a way that they can be used to gain competitive advantage (Hooley, Broderic and Moler, 1998, p. 97-115). The base premise of resource-based view is that there is an imperfect market of heterogeneous and immobile resources within the industry. Since every company is a unique bundle of resources, the key question is how to identify resources which will enable a company beat out the competitors. To bring competitive advantage, resources must be: 1. valuable; 2. rare; 3. inimitable; and 4. non-substitutable (Barney, Wright and Ketchen, 2001, p. 625-641). Valuable resources are those that reduce operating costs and increase revenues, i.e. create value for stakeholders. Valuable resources are only those resources which can help offset external threats and take advantage of the available opportunities. Resource-based theory is thus directly related to SWOT model, i.e. there is complementariness between resource-based view of competitive advantage and industry structure model (Barney, 1991, p. 99-120). Possession of valuable resources is not a sufficient condition for gaining sustainable or temporary competitive advantage. As long as the number of companies possessing a valuable resource is smaller than the number of companies needed to achieve a perfect competition for this resource, the resource can be a source of competitive advantage (Barney and Delwyn, 2007, p. 70). Valuable and rare resources do not automatically bring a sustainable competitive advantage. These resources bring temporary competitive advantage if they are not hard or costly to imitate. Imitator companies have two options: to copy the rivals' resources directly or to counter them with a substitute. Substitutes often cannot be as effective as original resources, so that is a partial substitution (Barney, 1991, p. 99-120). When the costs of copying exceed the positive effects of the copy, the copying is needless. To protect themselves, many companies create barriers to imitation to make the relationship between the processes and performances unclear to rivals. Mix of tangible and intangible resources is used to this effect. Social complexity is another obstacle to imitation of resources. In this case, the relationship between the resources and performances is easy to understand but their social complexity makes it hard for competitors to imitate them. Social complexity as a barrier to imitation is imminent in intangible resources. This is a wide range of intangible resources from interpersonal relationships within management, corporate culture, reputation among customers and suppliers etc. (Barney and Delwyn, 2007, p. 64). Patents are often used to protect resources from imitation. However, patent can be obtained for only a limited range of resources, and in some cases it can lower the costs of imitation (Baughn, Denekamp, Stevens and Osborn, 1997, p. 103-117).

Companies can get resources in three ways: 1. internal development of resources 2. strategic partnerships and 3. market transactions. Internally developed resources are more likely to be a source of competitive advantage because they are more likely to be valuable, rare and inimitable (Barney and Tong, 2006, p. 63). A company will internally develop resources which will bring competitive advantage only if its corporate culture and business system in general encourage initiative and innovation. In today's global business environment none of the companies has enough market strength to internally develop all the resources necessary to gain competitive advantage. This especially applies to short-cycle industries (Barney, Wright and Ketchen, 2001, p. 625-641). Many companies therefore have to enter into strategic partnerships, through which they try to gain access to partner's resources and finally develop new resources. By combining the transferred resources with its own intangible and tangible resources, company creates confusion among the rivals about the type and combination of resources that bring competitive advantage (Hitt, Ireland and Santoro, 2006, p. 27). On the other hand, resources obtained through market transactions most often are not a source of competitive advantage, because they are not rare. Resources gained through acquisition of entire company are specific. Company acquires resources which are the source of competitive advantage and thus makes them unavailable to competitors. Intangible resources that cannot be gain through market transactions (thrust, reputation etc.) can be obtained through acquisitions. To identify the resources which can be a source of competitive advantage, to adequately combine them with the existing resources and to create confusion among the competitors about the real source of competitive advantage is a special challenge to companies. Most empirical research has shown that total value created through acquisition is usually transferred to target's shareholders, while, under the best scenario, no value is created for the shareholders of the acquirer company. According to the resource based theory, besides the complementariness between the target's and investor's resources, combination of these resources must produce the largest cash flow not easily imitable by the competitors, to create value for investors (Barney and Delwyn, 2007, p. 213). Otherwise, any competitor in combination with the target can produce equal synergy effects, and therefore will compete fiercely for the target. This will increase the price of the target and the total value created through acquisition, or its largest share, will be transferred to target owners. Since companies operate in different industries and institutional environments, resources are not of universal value. Currently valuable resources can loose their value due to changes in business environment (threats and opportunities). The resource-based theory also holds that the resources which are valuable, rare and inimitable in one institutional context can be worthless, easy to imitate or common in a different one (Peng, Sunny, Pingham and Chen, 2009, p. 63-81). MNCs from developed countries often overlook this fact and try to "copy" the strategies that proved successful in domestic markets. However, business strategies abandoned in countries with efficient institutions proved very successful in emerging markets, because companies take on some of the functions of undeveloped and inefficient formal institutions (Khanna, Palepu and Sinha, 2005, p. 63-77). Institution-based view of competitive advantage is based on these findings. The intention behind the institution-based view of competitive advantage is not to formulate a new theory, but to add the lacking complementary elements to the industry structure theory and resource-based theory.

### **3. INCREASE IN COMPETITIVENESS OF INTERNATIONALLY-ACQUIRED COMPANIES IN SERBIA THROUGH THE TRANSFER OF INTANGIBLE ASSETS**

The analysis of the transfer of intangible assets to internationally-acquired companies in Serbia is based on short questionnaires and in-depth interviews. The sample comprised 95 companies. The companies were selected on the basis of the data collected from the Serbian

Privatization Agency, SIEPA (Serbian Investment and Export Promotion Agency), AOFI (Export Credit and Insurance Agency), personal information and the Internet. These are relevant cross-border acquisition with at least two-year post-acquisition period. At the first stage of the research, through the network of personal contacts, communication was established with a number of companies which agreed to fill out the questionnaire. At the following stage, the questionnaires, the cover letter and an empty envelope with the surveyor's address printed on it were sent to the remaining companies. 44 companies, or 46% of the sample, took part in the survey. The questionnaires employ five-point Likert scale.<sup>22</sup> The case studies are based on in-depth interviews with the top management of the *FBC Majdanpek* acquired by the *Alpine Group* from Russia, and *FOD Bor* acquired by *ATB Group* from Austria.

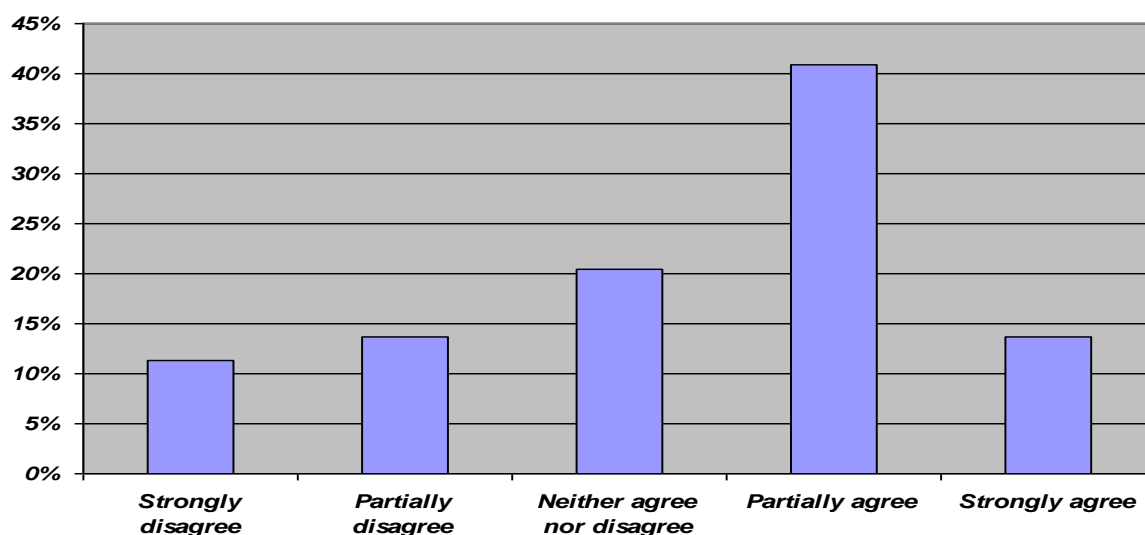
### **3.1. Improvements in market orientation of internationally-acquired companies**

Market orientation is a business approach that focuses on customers' needs, competitors' activities and business function coordination, with the aim of long-term strategic orientation and profitability (Deng and Dart, 1999, p. 631-654). Market orientation of a company is evaluated on the basis of the three focuses and the two business outputs. There is an extensive literature on the effects of market orientation on business performance, and the general conclusion is that market orientation leads to improved business performance. More importantly, the thesis that under market and technology turbulence the relationship between market orientation and business performance gets closer has been proven. It has been proved in practice that marketing oriented companies deliver a superb business performance in transition countries with unstable markets (Hooly et al., 2000, p. 273-285). Lack of awareness about how important it is to meet the customers' needs was the largest problem the foreign investors encountered in acquired companies in transition countries. The need to abandon the existing business model and develop new capabilities arises as the first necessary step after the acquisition. To gain a long-term competitive advantage, the acquired companies must be enabled to develop their own marketing capabilities on the basis of the transferred knowledge, which would be in line with business environment in transition countries (Dixon, Klaus and Day, 2010, p. 416-436). Transition to market economy puts domestic companies under the competitive pressure of foreign and domestic rivals. State-owned companies in transition countries lack the competencies to develop market orientation and deliver a corresponding business performance. Empirical analyses have shown that privatized companies (Shipley, Hooly, Cox and Fonfara, 1998, p. 367-387) and foreign companies, in joint ventures or separately, (Deng and Dart, 1999, p. 631-654) are more marketing oriented than state-owned companies. Majority of foreign investors who took part in the survey on market orientation of internationally acquired companies in Serbia agreed that these companies were not marketing oriented. Figure 1 shows the evaluation results of the statement: "*The acquired company was not marketing oriented so we had to make large investments in development of marketing capabilities.*"

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<sup>22</sup> 5 – strongly agree 4 – partially agree 3 – neither agree nor disagree 2 – partially disagree 1- strongly disagree





*Figure 1: Evaluation of market orientation of acquired companies*

The results show that more than 54% of foreign investors absolutely or partially agree with the statement. Only 24% of foreign investors were absolutely or partially satisfied with the market orientation of the acquired companies. Most of the respondents who disagreed with the statement are the investors who acquired the targets previously owned by a domestic natural person or legal entity, which proves the thesis that privately owned targets are more marketing oriented than state-owned companies. Case studies proved that the foreign investors made considerable investments to improve market orientation and ensure business function coordination in the acquired companies.

Fabrika bakarnih cevi Majdanpek (FBC Majdanpek) was privatized in 2004 and the Alpine Group from Russia became the new owner. Before the privatization the enterprise delivered a quite poor business performance, and today it is among the largest Serbian exporters. It exports its products to Russia, Turkey and 15 EU member-states. To increase marketing capabilities of the company, the foreign investor first introduced technology change needed to obtain the certification necessary for EU market. The company produces components for many precision instruments so they have to meet stringent production standards. Demand for these products is standardized so the company does not have to cope with the pressure to adjust to customers' preferences. The company does the promotion of its products primarily at specialized fairs abroad, also used as a marketing research instrument, and on the Internet. Advertising in technical journals was abandoned because it proved inadequate.

FOD was a daughter company of RTB Bor (Mining and Smelting Basin Bor) till 2008. More than 95% of goods and services were delivered to the mother company till 2003. When ATB Group acquired this company in 2008, it already was marketing oriented. The foreign investor transferred the know-how for production of new machine components and helped the company obtain the certification necessary for export to EU (mostly Austria and Bulgaria) and the USA market. The company does the promotion of its products at specialized fairs or by the word of mouth. The company competes for big projects abroad under the umbrella of parent company's strong brand name and reputation. In Serbian market, the company uses a network of direct sellers who visit larger enterprises operating in mechanical engineering and construction industry. Direct selling is important to this company because they produce and

deliver specialized goods and services, which require a direct contact with buyers. The information obtained from the direct sellers about their performance is especially useful for supply, production and human resources functions.

### **3.2. Development of technology competencies in internationally acquired companies**

Positive effects of FDIs on the host country are inflow of the lacking investment capital, increase in employment, positive effects on the balance of payments, stronger competition and improved technology competencies (Meyer and Sinani, 2004, p. 445-466). FDIs can affect technology competencies directly, but also indirectly through vertical and lateral relationships that foreign companies establish (technology spillover), and demonstration effect. Transfer of technology to transition countries is a very complex issue and depends on many factors: internal characteristics of MNC, business environment, and internal characteristics of the company which receives the transfer of technology. MNC with advanced technology will most probably try to transfer it abroad through single-handed investments, instead of joint ventures. This way companies try to preserve the source of competitive advantage and prevent uncontrollable spillover effect. The level of technology transfer depends on the degree of institutional development and integration into global economy. MNCs tend to transfer mature technologies that have proved efficient to countries with undeveloped market institutions and low level of integration into global economy (Tihany and Roath, 2002, p. 188-198). Finally, technology spillover depends on absorption capabilities of receiver and development of complementary industries. If the local receiver does not have the necessary absorption capacities (intangible and tangible assets) it is quiet unlikely that the transferred technology will be exploited efficiently, so companies usually transfer technology of older generation (Meyer, 2004, p. 259-276). Additionally, absence of complementary industries can make the technology transfer needless and useless. Empirical research has shown that there is a close relationship between international acquisitions and greenfield projects, and technology transfer to host country (UNCTAD, 2000, p. 175). Technology transfer through cross-border acquisitions in transition countries is especially massive because these acquisitions have many characteristics of brownfield investments (Meyer and Estrin, 2001, p. 575-584). This is to say that companies in transition countries are often “neglected” and need to undergo restructuring and receive technology transfer. Even when foreign investors transfer mature technology to acquired companies due to mild competition and superior market position these companies hold, there can be noticed a considerable improvement in technology competencies of targets. Due to an atypical process of transition, level of technology competencies of Serbian companies fell in 1990s. In this part of the research foreign investors evaluated technology competencies of the acquired companies. Figure 2 shows the evaluation results of the statement: *The level of technology competencies of the target was extremely low so we had to invest considerably into new technology solutions*. The results show that more than 45% of foreign investors absolutely or partially agree with the statement. 27% of foreign investors disagree with the statement, i.e. they think that technology competencies of the target were satisfactory. Data show that some targets already had technology competencies that could provide for good business performance, but lacked other intangible assets (business culture, system of management, reputation etc.) necessary to gain higher competitive position. Additionally, the global economic crisis put off considerable investments in technology solutions so the foreign investors continued to exploit the acquired technology. The results of the survey correspond closely to the results of the case studies.

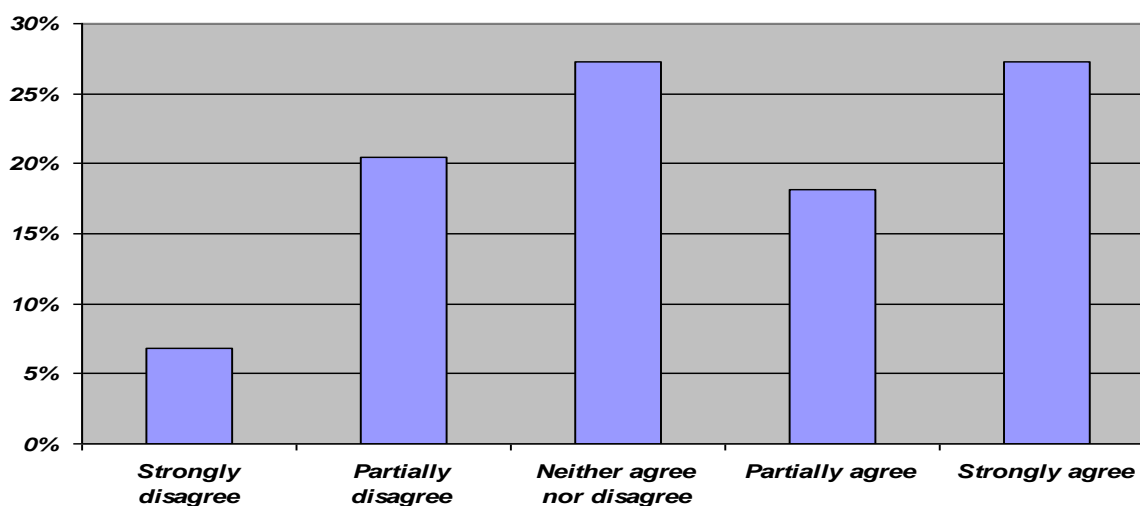


Figure 2: Evaluation of technology competencies of the acquired companies

After the acquisition of FBC Majdanpek was completed, the foreign investor continued to exploit the acquired equipment for a while. Alongside with gradual modernization of equipment, new production lines were installed, and all with the aim of expanding production portfolio and obtaining the necessary export certificates. Eight years after the acquisition, technology capabilities of the company were increased, although some items of the acquired equipment were still in use. Modernized technology brought rise in production and about 30% decrease in the number of production workers.

FOD Bor was acquired at the very beginning of the world economic crisis, which had an adverse effect on investments in new technology solutions. Technology capabilities of the company, already on a satisfactory level, were increased slightly in the meanwhile. The foreign investor increased production capacities slightly and modernized only few items of equipment. However, intangible technology transfer from the foreign investor was invaluable. Namely, ATB Group transferred their production schemes for new goods and services and thus helped FOD develop advanced solutions. Additionally, FOD gained many export certificates with the assistance of the parent company.

### 3.3. Increase in human resources competencies of internationally acquired companies

Acquisitions in transition countries usually imply employee right-sizing, employee skill training and recruitment of new stuff possessing the lacking skills (Santalainen and Leimman, 2003, p. 75-89). Employee right-sizing brings down costs in the short run. However, one should be very careful with this measure because it can cause quality employees drain (Krishnana, Hitt and Park, 2007, p. 709-732). Therefore, human resources management should, right after the acquisition is completed, start an open communication with employees to prevent uncertainty and rumor spreading (Scweiger, Csizar and Napier, 2002, p. 53-70). Mere imitation of training and development strategies applied in developed countries will not produce desirable effects because of the specific institutional and cultural environment and the fact that the employees usually lack tacit knowledge. Training and development strategy should be designed in such a manner that it increases efficiency and effectiveness of employees, but at the same time allows for the peculiarities of the new environment. There are three levels of knowledge upgrading: 1. technical level 2. systemic level 3. strategic level (Meyer, 2002, p. 266-276).

Acquisitions in transition economies often imply intensive investments in new technologies. However, employees lack experience with new technologies, hence the need for technical knowledge upgrading. This type of training is the most simple since it usually refers to transfer of explicit knowledge. Systemic knowledge upgrading refers to acquisition of new procedures and integrative approach to business processes. This training usually includes management, but can also comprise some production and clerical workers. This is a combination of explicit and tacit knowledge, so the transfer is much more complex than on technical level. Finally, at the strategic level managers change their cognitive framework for doing business and performing management tasks (Meyer, 2002, p. 266-276). This is a tacit knowledge, so the transfer is time-intensive and besides the formal trainings it implies experiential learning. One of the major problems involved in acquisitions is that acquired employees often fail to meet business requirements in spite of additional training. Although transition countries possess large labor force, they lack workers with specific competencies (Sheksnia, 1998, p. 460-465). Foreign investors therefore have to recruit new employees. This often implies high costs and sometimes, especially when foreign investor is a late follower, it is impossible to find such employees in local market. Consequently, companies recruit expatriate managers. This part of research also includes a survey carried out among foreign investors and two case studies. Figure 3 shows the evaluation results of the statement: *Human resources in the target lacked the necessary competencies so we invested in their training*.

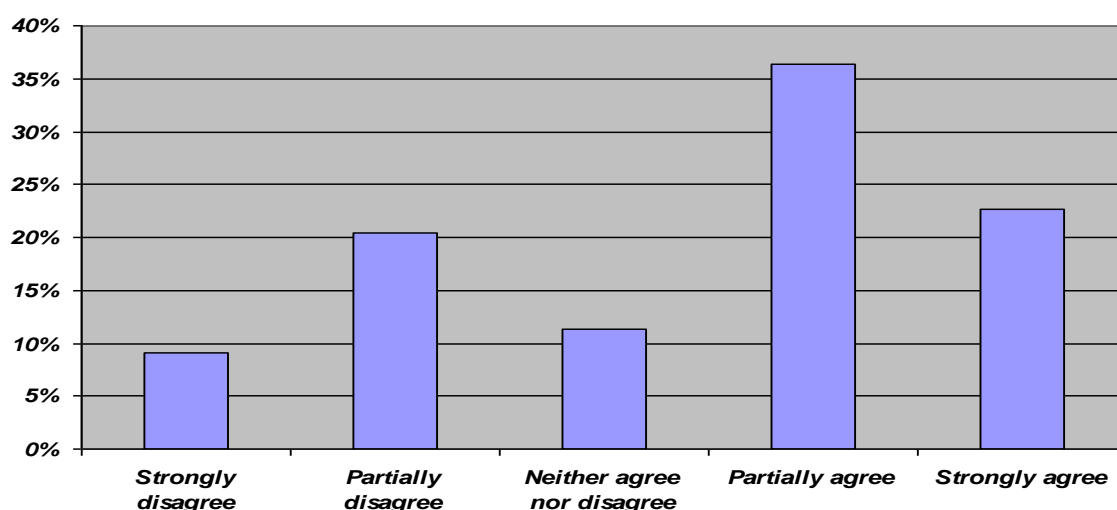


Figure 3: Evaluation of competencies of the acquired human resources

The results show that more than 60% of foreign investors absolutely or partially agree with the statement. Only 29% of foreign investors disagree with the statement, i.e. they think that the acquired human resources had a satisfactory level of competence. These results support the thesis that foreign investors most often invest in training and development of the acquired employees to increase their productivity.

At the next stage of the research, foreign investors' view on recruitment of expatriate managers was analyzed. Figure 4 shows evaluation results of the statement: *The acquired management lacked adequate competencies so we had to recruit expatriate managers to upgrade transfer of managerial competencies*.

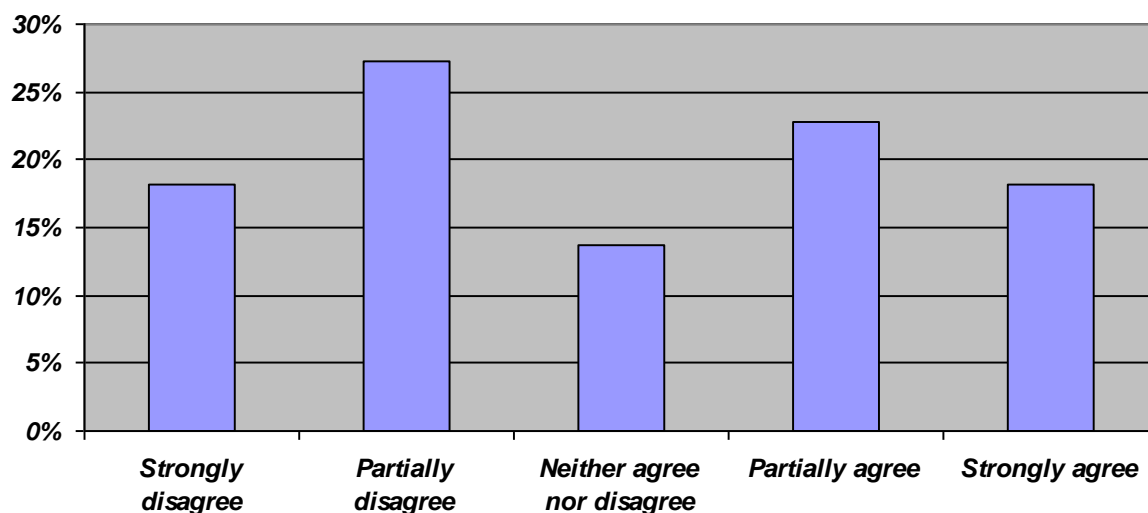


Figure 4: Evaluation of the statement about recruitment of expatriate managers

The most significant survey result is that foreign investors have polarized opinions on recruitment of expatriate managers. About 41% of respondents absolutely or partially agree with the statement, and 44% disagreed that they had to recruit expatriate managers to the acquired companies. These results are consistent with theoretical explanations that engagement of expatriate managers is a highly efficient vehicle for transferring managerial knowledge from the parent company to acquired targets, but that it also involves great risks and high costs. The results of the case study correspond closely to the survey results.

*Prior to acquisition of FBC, foreign investor tested the production workers. Those who failed to meet the minimum standard were dismissed. Training of new employees was obligatory and they received it in the factory. They took tests after two months, and those who failed to meet the standards were dismissed. When a specific piece of equipment is installed, a number of workers receive training in the suppliers' factories. These workers learn how to use the new equipment and then transfer the gained knowledge to their coworkers. The new owner invests heavily in management training. Managers attend specialized courses and seminars, and read technical literature provided by the company. Foreign investor relies largely on expatriate managers' service. Employees from Russia hold top managerial positions, though they gradually include local managers. It is interesting to mention that besides the experienced expatriate managers, foreign investor recruits young employees from Russia, who thus gain experience of international business management.*

*No expatriate managers were recruited to FOD. CEO of ATB Sever Subotica, via which ATB acquired FOD, is from Austria and occasionally visits FOD, but local managers run the company on the daily basis. Employees receive the training for new goods and services at ATB Sever. Experienced workers and foremen train new employees to use the equipment and inform them on their rights and responsibilities. When a new piece of equipment is installed, a number of workers receive training in the suppliers' factories and then transfer the gained knowledge to their coworkers. No special training was given to management, apart from technical literature.*

#### 4. CONSLUSION

Many Serbian companies had low level of market competencies due to belated transition. Foreign investors had to transfer considerable intangible resources to these targets to enable them operate in the market. This paper deals with the effects foreign investors produce on marketing orientation, technology competencies and human resources competencies in internationally acquired companies in Serbia. The research includes a survey covering forty-six internationally acquired companies and in-depth interviews with managers in two enterprises. The survey shows that:

- More than a half of the respondents think that marketing orientation and coordination between business functions of the acquired companies were unsatisfactory so they had to make additional investments to increase their market competencies.
- More than 45% of respondents agree that the level of technology competencies of the acquired companies was quite low so they had to invest in its improvement.
- More than 60% of the respondents think that the acquired human resources lacked the necessary knowledge so they had to invest in their training. More than 40% of the respondents agree that after the acquisition they had to recruit expatriate managers to train the local managers run the company.

On the basis of the results of the survey and in-depth interviews we can conclude that: 1. foreign investors in Serbia made considerable investments in development of marketing competencies of the targets, but the transfer of intangible assets is larger in acquisitions through privatization; 2. foreign investors invested in development of technology competencies of the targets, but many of them continued to exploit the acquired technology or made incremental investments due to the world economic crisis; 3. foreign investors invested in development of human resources competences, but their opinions on recruitment of expatriate managers are polarized because it is an efficient vehicle for transferring intangible assets to local subsidiaries but it also involves great risks and high costs.

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## **TERRITORIAL MARKETING AS A PROMOTIONAL TOOL (NIZHNY NOVGOROD EXPERIENCE)**

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### **ABSTRACT**

*In the article the authors examine the territorial marketing as a strategic management process, the importance of which is growing in the modern economic environment. A variety of geographical areas, such as cities, regions and countries can become objects of the territorial marketing. Marketing activities aimed at improving the competitiveness of the territory are similar to marketing campaigns of commercial organizations, as the territory is seen as an object of potential investment.*

*The authors conducted a comparative analysis of different approaches to designing a marketing strategy for the development of the city and chose the most effective one of all the alternatives considered. The activities connected with creating the city image within the investment climate improvement program of Nizhny Novgorod region were assessed. The results of the research show that there is a piecemeal approach to the creation of a marketing strategy for the city development.*

*The authors decided to develop a program aimed at creating Nizhny Novgorod image. At the first stage, there was conducted a quantitative study to determine the attitude of Nizhny Novgorod residents to their native city. The number of residents surveyed was 2,500. The survey revealed fuzzy positioning of the city.*

*The authors have chosen the marketing infrastructure as the main marketing strategy of Nizhny Novgorod. The essence of this strategy is to increase the degree of civilization of market relations in the selected area. The main objective is the development of local infrastructure in order to improve the standard of living and working conditions. Extension of the underground network, a growing number of sports facilities, increased housing construction, as well as new transport links in Nizhny Novgorod region make marketing infrastructure a promising direction of the area development.*

**Keywords:** *Marketing of infrastructure, marketing strategy of the city, territorial marketing*

### **1. INTRODUCTION**

In its work, the authors examine the territorial marketing as strategic management process, which in today's economic environment is acquiring greater relevance. Thus, under the territorial marketing refers to marketing interests of the territory, its internal actors and external actors in the attention which the territory of interest [1, 12]. As objects of territorial marketing can be different geographical areas: city, state, region, country. Marketing activities undertaken to improve the competitiveness of the territory, similar to marketing campaigns commercial organizations, as in the territorial marketing territory is an object of potential investment.



## 2. CHAPTER

As part of the study, the object of which acted city of Nizhny Novgorod, the authors conducted a comparative analysis of different approaches to developing a marketing strategy development of the territory. Currently there are 4 groups adopted strategies:

1. marketing image;
2. marketing appeal;
3. marketing infrastructure;
4. marketing people, staff.

Within each of these groups has its own set of strategies aim towards a particular area, use a specific set of methods and tools to achieve this goal and achieving targets. [2, 27] The authors have identified the main parameters that are common to all groups of the territory development strategies:

1. Object
2. Thing
3. Purpose
4. Target Audience
5. Contact audience
6. Tools
7. Implementation time
8. Costs
9. Risks
10. The expected result

The authors reviewed existing strategy of territorial marketing in selected parameters. Results of the comparative analysis are presented in Table 1.

*Table 1: Comparative analysis of the marketing strategies of territories*

Characteristic strategy	Marketing image	Marketing appeal	Marketing infrastructure	Marketing of the population
Object	Territory	Territory	Territory	Territory
Subject	The image of the area	Characteristics of the territory, the priority for the residents	The infrastructure of the territory	Characteristics of the territory, the priority for employee and student population
Purpose	Creating the desired image	Creation of the territory, human-oriented, taking into account the lifestyles, behavior and needs of certain categories	Achieving the desired level and quality of life of the population	Creation of the territory, oriented at maintaining the optimal level of business life

Target audience	Residents and tourists (in the case of the tourist centre)	Population	Investors	Working people and students
Audience contact	All possible media	State, credit, finance, medical institutions, social institutions	All possible media, venture funds, public noncommercial organization	Commercial and noncommercial organizations, provide employment opportunities, educational institutions.
Tools	Integrated marketing communications, Internet marketing	The program of development of the territory, state support programs territory, state program of support of social projects	Internet marketing, marketing communications and marketing activities c priority PR-direction	Program of support and development of small and medium business state support program for young specialists.
The time of realization	From 3 to 5 years	From 5 to 7 years	From 7 to 10 years	From 1 to 5 years
Costs	The lowest compared with other strategies	Co-financing from the state budget	The highest as compared with other strategies	Co-financing of the state and commercial companies.
Risks	1) the vagueness of the design of main components of the desired image 2) the ineffectiveness of instruments of marketing communications 3) the mismatch of the components of the generated image of the existing on the territory of the archetypal cultural symbols	1) misuse of allocated funds 2) strengthening the role of the state in the territory 3) controversial ideas residents of attractive area	1) misuse of funds 2) high level of competition among territories 3) the inefficiency of the proposed measures	1) lack of interest from commercial organizations of young specialists and other at-risk groups 2) the inefficiency of the proposed measures 3) dependence on a single developed industry
Expected result	A clear, distinctive and original image of the territory in the minds of the target audience	Retention of indigenous people and increase the number of visitors	Achievement of stable competitive advantages in the field of infrastructure of the territory	The creation of a balanced business life of the territory

In their paper, the authors assessed the activities aimed at creating an image of the city under the city program to improve the investment climate in the Nizhny Novgorod region and concluded that existing activities are scattered in various contact force participation of audiences in the organization and planning of the same events. The authors felt justified continuation of this study to analyze the dynamics of the process of consolidation of the contact groups.

### **3. CHAPTER**

At the second stage of the study authors conducted a qualitative research method in-depth interview, the purpose of which was to make the associative array image of the city of Nizhny Novgorod in the minds of residents and visitors. Were organized and conducted 25 in-depth interviews of respondents. As a result we obtained a list consisting of 14 associations:

1. The pocket of Russia
2. Merchant city
3. Business centre
4. The closed city
5. The city's military history
6. The capital of the Volga region
7. Town at the confluence of the rivers Oka and Volga
8. Fair
9. Minin and Pozharsky
10. Industrial city
11. The city of Gorky
12. GAS
13. Krasnoye Sormovo
14. Chkalov stairs

### **4. CHAPTER**

In the third stage the authors have continued to work with the materials obtained in the course of in-depth interviews. The results of the previous phase formed the basis of a survey conducted by the authors of the study. The survey was conducted by personal interview developed by the authors on the study questionnaire. Portrait of respondents was as follows: people over the age of 18 years living in Nizhny Novgorod city or guests, students and staff of the Nizhniy Novgorod companies, people who have reached retirement age. Of the respondents: 59% were natives of the city, while 41% of respondents participated in the survey are in town. The aim of 90% of respondents, making it a study. When choosing a place to live, work and study respondents primarily pay attention to the 3 parameters area:

1. Ease of transport interchanges.
2. Site security.
3. Degree of land improvement.

Distribution of answers to the question: "What criteria are important to you when choosing where to stay?" Are presented in table 2. (respondents could choose not more than 5 answers)

Given the data presented in Table 2, it should be noted that the level of organization of transport interchanges, most respondents valued at 3 points out of 5 possible and that means on the one hand, the existence of certain problems in the infrastructure of the territory, and on the other, the presence of opportunities to use marketing tools infrastructure as one of the strategies for the development site.

*Table 2. Criteria of a choice of territory for living.*

Criterion	The number of respondents who chose the variant of answer %
Security	14
The ratio of the number of new houses and the old Fund	3
Convenience to transport interchanges	17
The number of kindergartens, schools and medical institutions	4
The number of playgrounds, parks and squares	2
The number of stores with goods of daily demand	10
The number of shopping centers	6
The number of theatres, cinemas, museums and other cultural and entertainment venues	4
Number of cafes and restaurants	3
Number of business centers	1
The number of Parking lots and the degree of their facilities	3
The degree of territory accomplishment	13
Ecology	7
The number of large enterprises and jobs	4
The level of development of the educational environment	4
Level of prices for goods and services	3
Density of population	2
Another answer	2

From the perspective of the survey participants, site security can be estimated at 3-4 points out of 5 possible. These results give a right to talk about the lack of satisfaction of residents and visitors and the security level to form a program of activities aimed at improving the security of the territory. Accomplishment of territory as one of the parameters characterizing the infrastructure on the territory of the respondents assessed 3-4 score of 5 possible. The authors concluded that this option requires further investigation. Remarkably, in Nizhny Novgorod against all 3 parameters territory selected by respondents as key in determining the place of residence, work or study did not collect a lot of points higher. Appreciation in relation to the study area received parameters such as "Number of cafes, restaurants, bars and nightclubs", "Number of shopping centers" and "Number of convenience stores." At the same time, the territory of these parameters are not named by respondents as critical when choosing a site to live, work or study. Thus, we see the gap between the attractive grounds and the actual situation in the study area. The authors suggest as the main marketing strategy of development of the city of Nizhny Novgorod marketing infrastructure. The essence of this strategy is to increase the degree of civilization of market relations in the selected area. The main task - the development of local infrastructure in order to improve living and working conditions. Expansion of the underground construction of sports facilities, housing facilities, as well as new transport interchanges in Nizhny Novgorod and the region suggest the marketing infrastructure as a promising direction of development of the territory.

As a basis for the development strategy chosen authors propose to take two associations: Nizhny Novgorod - a city at the confluence of the Oka and Volga (unique feature that allows you to work with the transport infrastructure) and Nizhny Novgorod - the capital of the Volga (marketing infrastructure). To compile the program development of the area should continue research in this direction.

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## LONG-TERM BUSINESS EFFICIENCY MANAGEMENT IN ECONOMIC TURMOIL CONDITIONS

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### **ABSTRACT**

*The main current macroeconomic trends such as: speed of technical progress, globalization and urbanization, visible changes of communication and human habits together with financial crisis “second wave” risk seriously challenge business sustainability and long-term profitability. At the same time starting from 2008 efficiency agenda has been in the center of the focus all over the business world. The wide variety of business optimization programs and cost cutting activities has been successfully implemented. Based on that there would not be a big future potential going forward in this direction. To tackle these challenges business should look for new approaches. Based on Baltika Brewery practice one of the opportunities is optimization of total value chain structure going outside the boarder of one company, involving all counterparties (suppliers and customers), managing business environment. The real examples of this integrated way of efficiency management have been already successfully implemented such as supply financing, consignment scheme based on developed VMI system (vendor management of inventory), and different kinds of clusters. There are two key factors of success in all these implementations: the presence of initiator who organize the new way of collaboration and manage risks on one hand, on the other hand an economic model of clear results calculation and split between all counterparties involved. Looking forward the potential of this approach definitely is the way to keep business profitability and sustainability in the future.*

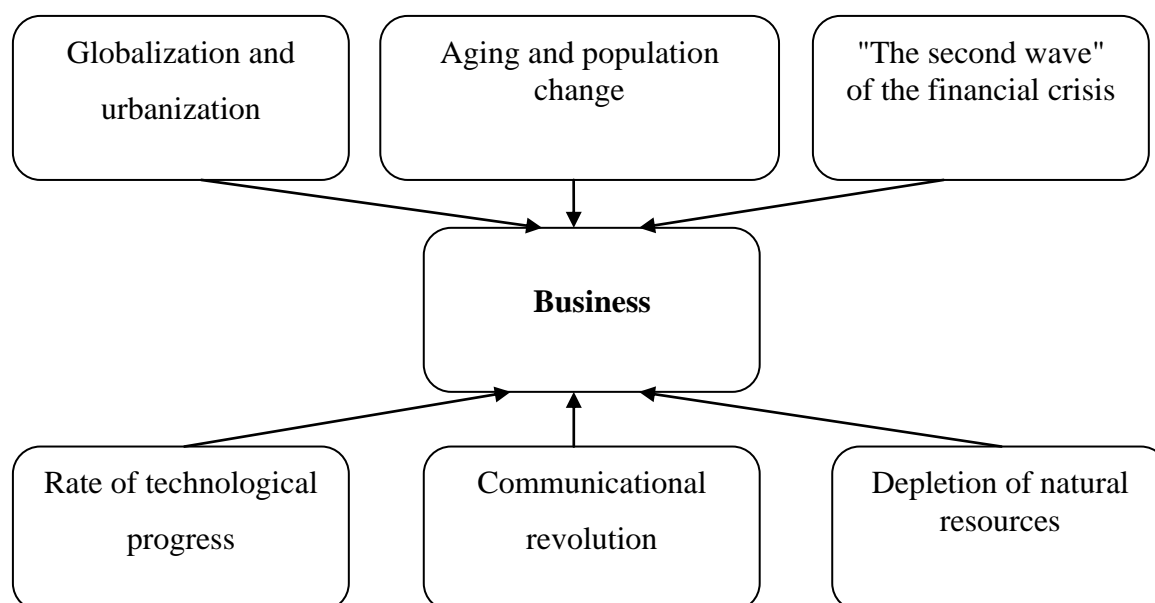
**Keywords:** *long term efficiency, full value chain optimisation, supply financing, consignment*

### **1. THE MAIN TRENDS OF THE GLOBAL ECONOMY AND THEIR IMPACT ON THE MANAGEMENT EFFICIENCY**

Today it is obvious that any business, company, enterprise (hereinafter company) today bases its strategy on a detailed macroeconomic factors trends analysis that may have an impact on the success of its work in the future. Therefore, the FMCG companies scrutinize the demographic situation in the countries where they do business, consumer behavior and confidence figures, the savings to spendings proportion; B2B sector keeps a close watch over all commodities, oil and gas prices, energy, transportation and other tariffs growth. In general, from long-term business profitability point of view the following 2 main groups of factors should be considered:

- influencing the growth potential of the business in the future, and it is ultimately always associated with an increase in the number and quality characteristics of the potential consumers and macro economical factors (political and social stability, environmental conditions);
- determining the availability and pricing of necessary resources for the business (commodities trend, infrastructure development and the presence/absence of projects to improve it, the tariff policy of the state and the natural monopolies).

Figure 1. presents the world development trends that should be highlighted as important from this point of view.



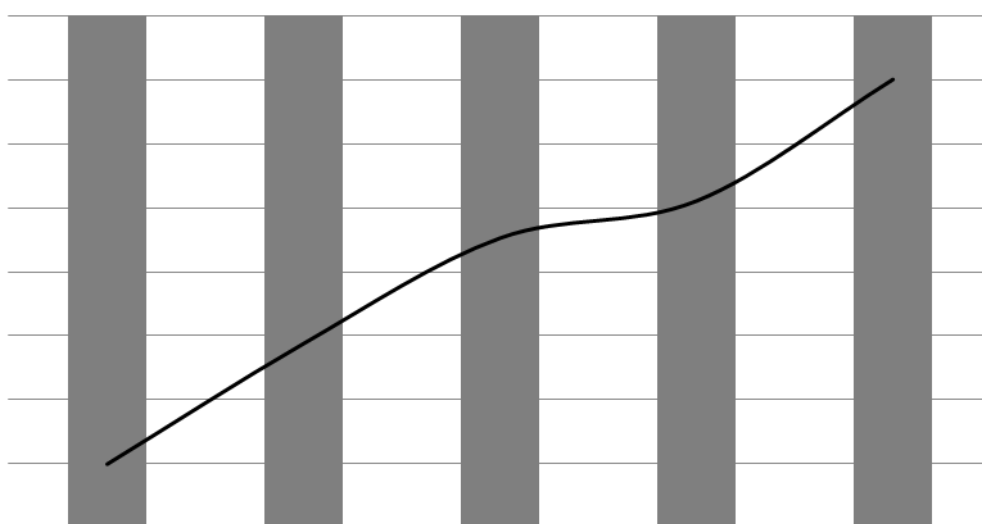
*Figure 1: Main macroeconomic trends*

Here is a brief analysis of the major trends and their impact on long-term business efficiency:

- **Demographics:** population ageing, an increase of the share consumers with lower purchasing power, an increase in the number of urban residents. Under this influence the infrastructure sectors growth will continue, along with migration from less developed to more developed countries. Based on that the infrastructure projects growth, further migration and consumer demands pattern change can be expected;
- **Natural and ecological,** which will play more and more significant role in business stability: Depletion of the natural resources and cost of production growth (as long as there is no viable alternative to oil and gas) attrition of agricultural land as a result of aggressive use, climate change, etc. All this will have a significant pressure on the cost of production in coming years, at the same time increasing the business investments in environmental projects, waste utilization, etc;
- **High speed of technological progress and innovation** is making product life-cycle shorter. As a result, on one hand the speed of R&D and new product launch comes to the fore as a major source of future growth and efficiency. On the other hand, it raises the issue of payback period and ROI for innovations. The speed of consumer preferences change on the market is such that companies have to invest into new generation of products not waited for return on previous investments;
- **The communication revolution:** the increasing prevalence of virtual, social networks communication, which provides unprecedented ease of reaching a potential consumer with product information and advertising. Besides that complete change of the way how people communicate with each other has the visible impact on consumer needs and demands. Additionally an important consequence of this is also the information "communism" - most of the information, knowledge today is "free of charge" every moment available over the Internet;
- **The threat of a "second wave" of (if not the "tenth wave") of the financial crisis.** The potential impact of this factor middle-term so substantial that require it to be described more detailed below.

## 2. FINANCIAL CRISIS AS A PERMANENT STATE OF THE MODERN WORLD ECONOMY

The fact that the word "financial crisis" was the most popular word in the world since the summer 2008 and to the end of 2010, hardly to be questioned. As well as, if this is not the case today, and we do not utter this phrase often, it is not that the crisis had been successfully overcome, and that we are simply psychologically tired of repeating it. An objective look at the state of the world economy and the short-term outlook of its development gives us a clear idea that the crisis is here with us now, and unpopular and hard steps to eliminate it are still to be taken. As particular evidence to that is remaining tense situation in Europe, worsening the situation on emerging markets particularly China. As well as the fact that, since 2009 United States total debt has not been diminished but even increased by more than 1.5 times the 9.5 to 17.226 trillion dollars in 2013, surpassing the size of the gross national product of the year (see Figure 2).



*Figure 2: The United States national debt dynamics and debt ratio to gross domestic product for 2008-2013*

For better understanding of the full impact of the adverse macroeconomic environment on future business performance, the reasons behind it should be carefully analyzed. The current model of the world economy is based on idea of growth. Everything that has growth potential is considered good and successful. This principle of economic growth assumes that people demands are practically unlimited; we just have to find the right forms how to meet them and to provide these goods or services with affordable price. All modern analytics valuation models are built on future cash flows estimation assuming future market and market share growth. It is obvious that under these "rules of the game" to find the new sources of growth is perceived as a key driver of success. Future growth potential is considered as more important factor than working on current business profitability. Many global business "break-through" of the last two centuries clearly are the result of "thirst for growth" internal engine. So in the first half of the 20th century introduction management as a separate function and implementation of norms and job standards, along with the mechanization and automation of production processes significantly increased the labour productivity and business efficiency. It drove consumer prices down, making products more affordable. The consumption went up maintaining economy growth for decades. Unfortunately this population wealth growth was accompanied by a visible birth rates reduction in those countries offsetting consumption

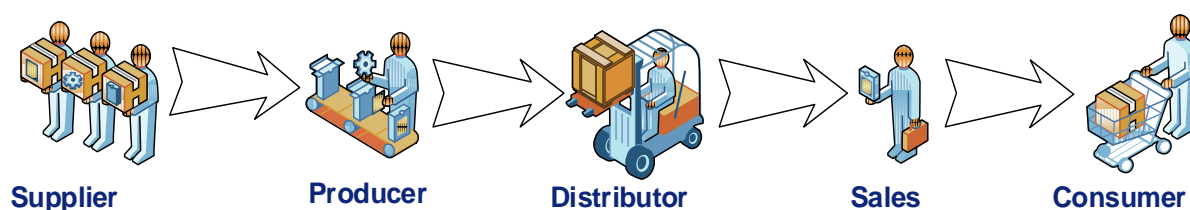


boost. As a result now consumption is stabilized or even reduced. Finally having exhausted domestic sources of growth in their local economies, big businesses in developed countries turned their attention to third world, becoming into transnational companies. They are massively investing in the establishment of production facilities in these countries. Definitely affordable product prices in this part of the world were supposed to be lower due to lower purchasing power and GDP per capita ratio. At the same time they expected to get stable volume term to growth and maintain business profitability through: lower prices for incoming resources (labor, energy), the reduced effective tax rate as a result of investment incentives from the governments, savings on research and development launching existing products, economies of scale: many management functions were centralized and their fixed costs were to be distributed to a large number of units. This process is known as globalization. Its characteristic features are the integrated needs of people around the world, the reduction or even loss of national features in consumption, urbanization, as new production requires workers who come from rural areas, wide usage of advertising power for making consumer's demands internationally similar. Opportunities provided by globalization for many years to satisfied corporate capitalism thirst for growth. While it is clear that, like any other source, these opportunities are not unlimited. The cycle looks the following: growth of production causes a lack of infrastructure, resources as a result production costs go up until these costs are not equal to the level of costs in the countries from which international capital migrated in search of growth. So there are newspapers and magazines with headlines like "Labour supply will run low of China?", or "The end of economic miracle". To be honest, there are different opinions on the future of globalization as along with East Asia in the world there is India, Africa and some Latin American countries. However, it is seen that the main potential of globalization to keep the world economy growth is already in use. At the same time it should be noted that, despite the reasonable demand for additional financial resources to be able to invest, the business globalization itself could not drive the financial crisis of 2008-2010, the center of which is located in the United States. This is supposed to be the result of the incorrect use of globalization opportunities under the politics pressure. Definitely, among the multinational companies, most of them are many American ones, but closer look clear shows that they are American only historically, from legal an economical point of view usually they are registered in the offshore areas; production is located in developing countries. Their successful business growth did not and does not affect the US national GDP and taxes income growth. How has the growth of the US economy been provided for last 20 years or so? It has been done in innovative manner as never was done before. The financial and monetary system had went out of the box their original meaning - a diverse material content products measure of the value, and has become the growth factor itself, ensuring the well-being of the population today, borrowing from future generations. Perhaps at the beginning of the current crisis, US officials and the FRC, switching on the printing press, earnestly sought to spur the growth of production in their own country due to low rates of credit based on the almost zero interest-rate and high image of government bonds and US financial market as a whole. Probably, this logic would have worked well if American goods were competitive, but due to globalization mentioned above American market overflowed with cheaper Chinese goods without letting financial resources to achieve the goal. It was happening practically invisibly as inflation stayed low maintaining by Chinese products low prices. Risks were hidden inside the processes until the financial bubble has blown. Thus, the United States borrowed money the entire world to support the welfare of its citizens be increasing of consumption of Chinese goods and unreasonable rise in the real estate prices. Inside this loop one cannot see the main: source of borrowed funds repayment, it does not create a value added, which would be a logical way to reach the lender, which is why the debt keeps on growing despite all these

"anti-crisis measures". It is important to emphasize that the United States is not the only country that attempts to use similar mechanisms to support growth, it is just that all the other's possibilities of use are significantly lower due to economies size, the weakness of the national currency or a more adequate political system limiting this disbalance. Though some European countries examples having access to a much larger reservoir of financial resources after joining the EU clearly show what happens when politicians and economists are stepping on the "slippery" growth path by an infusion of financial resources in consumption, even with the lack of direct emissions mechanisms. All this makes us not very optimistic about the future. From long-term business efficiency prospective a lot of risks and challenges are seen. As a set of basic macroeconomic factors in the foreseeable future will have severe pressure on costs upwards, and hanging bubble of financial debt will deter potential growth needs. The events of 2008-2009 clearly showed the inability of the governments and politicians to play the role of a reasonable regulator, to take appropriate measures to resolve the problems. And this was true for all countries and even to the European Unity of (EU) whose economies are hit hardest by the crisis. Thus, there are reasons behind to believe that in the short term, the world economy will stay in a state of crisis.

### 3. THE SEARCH FOR NEW SOURCES OF ECONOMIC EFFICIENCY

In a situation where the influence of macroeconomic trends to the efficiency is largely negative, and sources of growth, retrospectively helpful, in perspective do not have great potential. Economy as a whole and the businesses themselves have to meet the challenge of finding new sources. It is difficult to find them inside companies, of course, the sharing best practices, new technologies and TPM, LEAN and other management tools have not lost their relevance and should be part of the plans for the future. However, the expectations that the results of this important and necessary efforts will be able to fully offset the impact of negative external factors is not reasonable. New solutions to make significant strides towards improving efficiency have to be found. Practical experience of performance management in a large FMCG company ("Baltika Breweries") shows the possible direction for this search. In Figure 3 schematically represented the entire value chain from the production of raw materials to the sale of the finished product to the end consumer at retail outlet.



*Figure 3: The value chain, the consumer sector*

It clearly highlights the individual chain links and their relationships, in most cases, these links are independent legal entities, each having its ownership and management structure. The market economy rules declare freedom of individual economic subjects to choose the performing strategy and tactics on the market, harmonizing their interaction on the basis of supply and demand price balance. On the one hand, it allows to reach from a supplier an optimal price for incoming resources in a short-term scale, but, on the other hand, due to the volatility and short-term nature of relationships between the individual elements of the value chain, doesn't provide full synergy effect from the system optimization as a whole, beyond the capabilities of local optima. This is synergy effect is one of the significant sources of business efficiency in the future. To exploit this potential, it is necessary to create

attractiveness of economic interaction, in which each of the parties would be interested in improving not only their individual results, but also in enhancing the total efficiency of the whole chain (part of it) through participation in the overall success and then introduce the organizational model of this interaction. Here are some practical examples of such models.

### **3.1. Factoring with suppliers**

Factoring with suppliers is a special form of financing that helps the Supplier to be paid by the Bank-Factor for the goods or services shipped earlier than Customer pays this money according to the contract terms. Paying for the assignment in the transition of the claim, thereby Factor finances Supplier's working capital, but the financing price (interests to pay) is based on the Customer credit risk calculation as this the consumer who will repay the debt to the Bank-Factor after the transfer when a deferred payment on the original contract with the supplier has expired. From the description of the scheme it is clear that at a time when Customer's credit rating and financial strength significantly higher than Supplier's one, this scheme creates an additional synergy effect that is not available to each of the participants separately. So the Supplier receives financing with better price than it is available for him as to a separate borrower. The Customer has now the possibility to increase the terms of payment under the contract, improving his own Working Capital the Bank-Factor is able to increase funding of Supplier with less credit risk.

### **3.2. Customer warehousing consignment scheme (Producer or Distributor)**

Customer warehousing consignment scheme (Producer or Distributor) involves the transfer of ownership of the goods delivered by the supplier to the customer warehouse, not at the time of delivery and transfer of the right of control and responsibility for the goods as it usually happens, but at the time of the usage of the goods or in the production process or in the process of its further delivery within the supply chain to the final Consumer. This scheme allows the Supplier to reduce safety stocks on their own warehouses. The safety stock is to offset unexpected changes in demand from Customer. Based on that all warehousing costs go down. Furthermore Supplier is able to optimize their working capital through later VAT, excise and income tax payments, to reduce the uncertainty level by automatically receiving information about the movement of goods in the warehouse. The Customer frees up additional working capital, as in this case, all stocks on consignment warehouse are reflected out of their balance sheet. In addition, similar to factoring scheme additional positive financial income is available if there is a visible leverage between Supplier and Customer financial strengths. It should also be noted that in this scenario an additional effect can be provided through better services to Consumer, lower level of Out-of-Stocks. Summing up the above mentioned examples of the value chain optimization-enhancing the total and individual efficiencies it should be emphasized that to implement these instruments the initiator is needed, a leader who will take a risk and come over the burden of new way of working launch. Now when a Company starts to play this role of the Leader inspiring and managing other participants within the same value chain, it becomes the subject of economy growth. The more such players we have, the more economy growth potential will be realized. The positive results that have been gotten from the implementation of this approach in practice during last 2-3 years, allow us to face into the future with optimism despite the difficult macroeconomic environment. It should be added that significant opportunities to improve long term business efficiency can be realized through different legal and organizational forms of collaboration as clusters, consortia and investment partnerships, which we should pay attention in our practice. However, their detailed analysis lays beyond the scope of this article.

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## **ASSETS MANAGEMENT IN ELECTRIC UTILITIES WITH DIFFERENT LIBERALIZATION LEVEL: CROSS-COUNTRY ANALYSIS**

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### **ABSTRACT**

*Russian electricity generation companies faced with necessity to make decisions under new market conditions. As electricity sector is capital-intensive one of the most important aspect to succeed is to manage its assets effectively. In Russian Federation electric utilities companies faced with challenge to manage assets in competitive electricity market quite recently so it's useful to find out some examples to follow from the world's companies' experience in this field. To do so the most appropriate way is to analyze successful international experience in it to find out good examples for Russian companies to follow. As for international experience some main players on electricity markets (predominantly competitive market) in such countries as France, UK, Germany, US, China and Russia were regarded. In this article the analysis of main assets' components is presented with discussions of their dynamics in different countries since 2000. The dynamics of dupont analysis ratios, leverage ratios, financial stability and liquidity ratios are presented. Assets have a quite complicated structure and as usual its management differs from current branch of economy. So due to analysis presented in article it will be possible to define distinguish features of assets management all over the world. Comparison of final conclusions for foreign companies (for France, UK, Germany, US and China) with Russian ones will allow to define differences, disadvantages and possible opportunities for development in assets management for our electric utilities companies. Moreover it will be able to find out future development direction for decision-making process in assets management for electric utilities companies in Russia.*

**Keywords:** *assets' analysis, electric utilities, management.*

### **1. INTRODUCTION**

For being competitive on electricity market it's important to make right decisions in management. As electricity is capital intensive field the most valuable component of competitiveness is effective assets' management (Vause B., 2005). Russian electric utilities have to manage their assets on new electricity market. As they don't have experience in management so it's important to analyze international one for implementing some main principals for sustainable development in the future in Russian companies. For defining distinguish features in dependence of liberalization level and some similarities we planned to research both European and US electric utilities. In this article results of european electric utilities are presented. Such countries like France, Germany, Italy, Czech Republic, Switzerland and Portugal were used. All of them have different level of liberalization so analysis of assets' structure for companies in these countries allow to analyze international experience in assets' management that could be useful for Russian electricity market. Moreover it will be able to make conclusions about similarities in assets structure for electric utilities regardless on country and market liberalization. So for each country we consider main players on electricity market, analyzing the rate of fixed and current assets, structure of both

of them since 2000 till 2012. Changing in some key factors could be explained with economic development or electricity market in country.

## 2. ELECTRICITY MARKET AND ELECTRIC UTILITIES IN DIFFERENT COUNTRIES

For analyzing international experience in assets' management companies in seven countries were included in research. Some main features of electricity market and information about electric utilities that were included for current country are presented in Table 1.

*Table 1: Electric utilities and some their characteristics in different European countries*

Country	Electric utility	Some features of electricity market	Information about company
Czech Republic	CEZ group	Electricity market demonstrates further integration of markets in the central European region, where cross-border intra-day transmission already was used on all national borders with the Czech Republic. Transmission system is controlled by government for protection of customers.	CEZ Group is an established, integrated electricity conglomerate with operations in a number of countries in Central and Southeastern Europe and Turkey, headquartered in the Czech Republic. Its principal businesses encompass generation, trading, and distribution of power and heat, as well as coal mining.
Germany	E.ON	Electricity market in Germany is competitive and electric utilities compete with each other for customers. In Germany there are two international electric utilities known all over the world – E.ON and EnBW, which deal not only with generation but also with transition, distribution and renewable projects.	E.ON is one of the world's largest investor-owned power and gas companies. At facilities across Europe, Russia, and North America, our more than 72,000 employees generated approx. EUR132 billion in sales in 2012. In addition, there are businesses in Brazil and Turkey we manage jointly with partners. E.ON's diversified business consists of renewables, conventional and decentralized power generation, natural gas, energy trading, retail and distribution. We supply around 26 million customers with energy.
Germany	EnBW		It's actively and dynamically shaping the future of EnBW. With products and services, innovative power and technical plant and equipment for the new

			developments in the energy landscape and actively shaping the new energy concept introduced in Germany. Company presents 13,400 MW installed capacity, 59.1 TWh generation capacity has € 1,319.7 million adjusted EBITDA.
France	Schneider Electric	As generation in France is predominantly nuclear, government control all processes on electricity market. So electricity market in France isn't liberalized and companies aren't supposed to compete with each other.	Innovation is part of Schneider Electric's DNA and supports its strategy to meet the planet's energy challenge and make the smart grid a reality. In 2012 company sold electricity for 23 946 euros predominantly in Western Europe (30%).
Italy	Edison	Liberalization process was began in 1999 and separation of function was made. Wholesale and retail markets were created. Production and trading became free and managed by private companies, while transmission and distribution, being natural monopolies, are regulated by the state.	Founded in 1884, Edison is Europe's oldest energy company. Today, it's the second largest energy company in Italy and a European leading operator with operations in the supply, production and sales of electric power and hydrocarbons (natural gas and crude oil). Edison operates in 10 countries in Europe, Africa, and Middle East and employs about 3,200 people.
Portugal	EDP	Portugal's electricity market has been opened up to competition. That means that customers now choose electricity supplier from a number of companies. Generation is also opened for competition.	EDP disseminates its public positions and commitments in order to give a clear, concise idea of the main principles of its policy and actions that the EDP Group has publicly recognised. EDP's public positions and commitments are binding on the members of its corporate bodies and the employees of the companies of which the Group owns or controls 100%. The Group also undertakes to promote their full application as far as possible by the other companies in which it has shareholdings and in relations with its stakeholders.

			Compliance with EDP's public positions and commitments is assessed for each policy and each area of intervention, in terms of management and internal and external auditing mechanisms and the results of third-party assessments and inspections.
Switzerland	Alpiq Holding	Electricity market in Switzerland isn't highly competitive and there are only several main players on the market. Government try to control all processes on electricity market in country.	Company was founded as a regional electrical utility in 1894, and went on to become a leading Swiss energy company. As an independent service provider, company became active across Europe in the production, trading and sale of electricity. At the same time it delivered energy services related to all aspects of energy and its applications.

### 3. CONCLUSIONS

For analyzing assets' structure of electric utilities shares of fixed and current assets were regarded. Also structures of fixed and current assets were also analyzed. Research was made for 12 years – since 2000 to 2012. On fig.1 and fig.2 dynamics of share of fixed assets for European companies are presented.

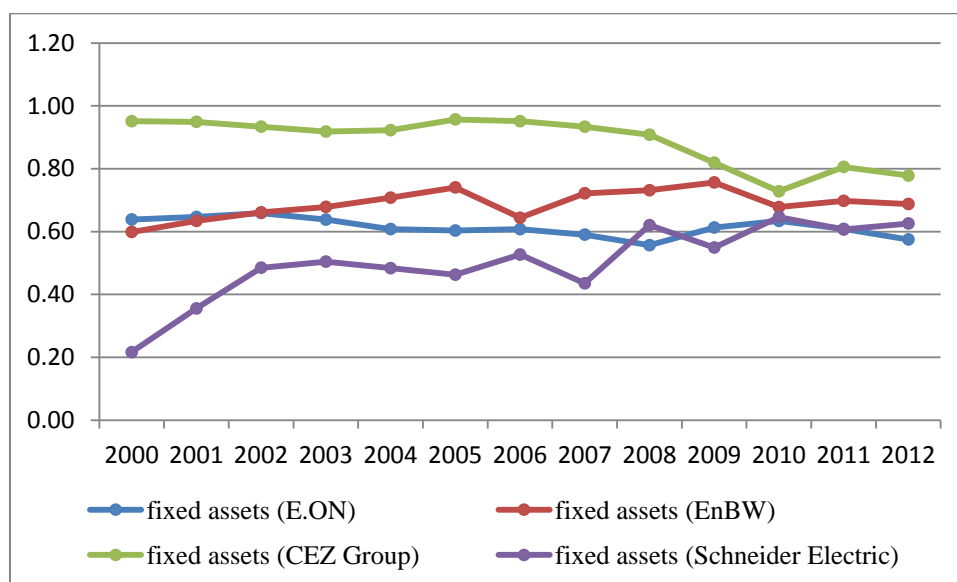


Figure 1: Dynamics of fixed assets for electric utilities in Germany, Czech Republic, France.



For Germany two main market players were included in research – E.On and EnBW, they have about 60% of electricity market in the country. After analysis of assets' structure since 2000 to 2012 we could conclude that share of fixed assets is bigger than share of current ones. For EnBW fixed assets present 60 % of total assets amount and it seems to be stable since 2000. As concerns E.On share of fixed assets demonstrate approximately the same with EnBW's level – about 65 % of all company's assets. Property, plant and equipment with accumulated depreciation take the most part in fixed assets – about 60% for each (as depreciation is included in balance sheet with minus sum of shares give more than 100 %). Differences between two German companies are observed in equity's share: it differs from 44% for EnBW (and demonstrates stability since 2000 to 2012) to 27% for E.On. Share of long-term liabilities also differs: from 56% for EnBW to 70% for E.On. But increasing tendency for long-term liabilities (from 60% for EnBW in 2000 to 70%, and from 45% to 56 % for E.On) and equity is common for both companies. Moreover insignificant growth in current assets could be observed (especially since 2008-2009) – that is supposed to be an attempt of German companies to increase their financial stability under conditions of turbulent environment. For France only one company was included into research because of lack of information – Schneider Electric. Significant growth in share of fixed assets is observed since 2000 till 2012 from 22% to 63%. So there is opposite tendency in fixed assets' dynamic than German companies have. And goodwill has the biggest rate in fixed assets – 57%. Equity for French company grew drastically from 12% to 50%. Also the difference with German companies presents in structure of liabilities – shares of long-term and current assets are predominantly the same. These features could be explained with tough government regulation in electricity market in France and state ownership of main market players (such as Schneider Electric). So companies don't need to manage assets for remaining competitive on electricity market as most of them are state that reduce their risk of financial problem. Czech companies demonstrate the same dynamics like German companies. Fixed assets present the most part of companies assets (from 90% in 2000 to 71% in 2012), with the biggest part in equipment and plant (about 60% from 2000 to 2012). Moreover like for German companies the rate of current assets grew from 2000 to 2012 from 10% to 30%.

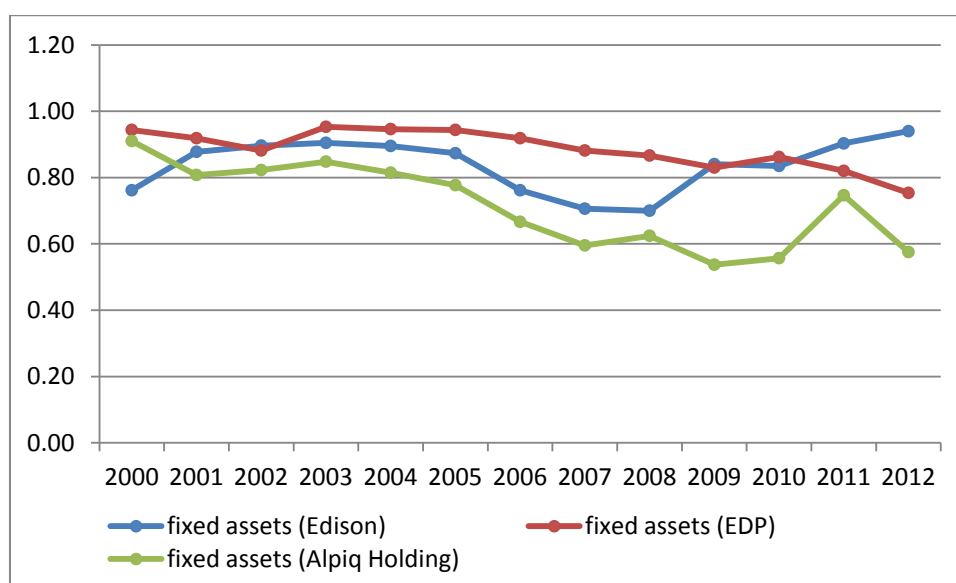


Figure 2: Dynamics of fixed assets for electric utilities in Italy, Portugal and Switzerland.

For Italy we used only one company – Edison, because of lack in annual reports for another main electricity market – Enel. For Edison fixed assets play significant role – it has more than 90%. Structure of fixed assets is similar with German and Czech ones – property, plant and equipment play the most important role. Current assets' share has less than 10% of total assets, where receivable have the biggest share. Growth in equity is observed from 2000 till 2012 from 7% to 20% (the biggest growth took place after 2008). Long term liabilities also have more share than short-term ones. Portuguese EDP also demonstrates the decline of fixed assets since 2000 from 94% to 75% in 2012 and current assets increased from 50% to 73%. Structure of fixed assets is similar with German, Italian and Czech ones. For Switzerland Alpiq Holding was considered. Current assets also grew from 2000 to 2012 from 9% to 42%. That could be explained with attempt to increase financial stability of companies. Equity also grew but was quite unstable from 2000 till 2012 – it was 39% in 2002, 5% in 2002 and 34% in 2012. Long term liabilities also grew significantly – from 3% to 62%. Analysis of electric utilities in these European countries allowed to figure out some common facts in assets' management regardless on liberalization level:

1. For increasing financial stability and consequently competitiveness electric utilities in different European countries try to increase rate of current assets (short-term assets) and equity. This conclusion was made as European countries increased share of current assets and equity after 2008. It could be a signal of companies' attempt to increase their financial stability.
2. As electric utilities are capital intensive ones they need a great amount of money for investing in new capacity, that could explain huge rate of long-term liabilities in total company's liabilities. But this growth may increase company's operation risk as one day company will have to pay all their debts.

Conclusions could be useful for Russian electric utilities in creating strategy of assets' management but to received results should be complemented with analysis of assets' structure for US electric utilities.

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## THE RELATIONSHIP BETWEEN ROMANIAN AVIATION INDUSTRY TURNOVER AND NATIONAL GDP

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### ABSTRACT

*Since its emergence, at the beginning of the 20th century, the national aviation industry was considered one of the top industries. Acknowledging the potential of the industry, we try to focus our attention towards the status of several long established aviation company and the wellbeing of the economy as a whole. The purpose of this paper is to establish a correlation between the turnover of the most important aerospace companies and the gross domestic product (GDP). In order to achieve the research aim, a linear regression was designed. Following market dynamics the study shows a direct relationship between the specific company turnover and national GDP in the case of Romanian entities operating in aeronautic industry. This relationship confirms Maslow's hierarchy of needs.*

**Keywords:** *Aviation industry, GDP, Linear regression, Romania, Turnover*

### 1. INTRODUCTION

One of the main business function, on which this study is based on, is the marketing function. It ensures that the goods and services are delivered from the producer to the consumer by using market research, advertising, and most importantly sales (Bund and Carroll, 1957; Krasnikov and Jayachandran, 2008; <http://www.mindset.co.za/learn/node/47533/5#>). The sum of products sales and/or services rendered at microeconomic level represents the company's turnover (Dictionary of Economics, 2001). Seen on a bigger scale, it assembles the gross domestic product (GDP). In order to provide a better understanding of the relationship between the two indicators (turnover and GDP), we decided to conduct an analysis at sector level. Thereby we compiled a simple linear regression that should confirm or not the relationship between the sectors turnover and the 'national' turnover (GDP). Using the collected data from the relevant companies, on a five year period, we managed to rebuild the regression for enterprise-level study, resulting the same type of direct connection between the variables.

### 2. LITERATURE REVIEW

System of National Accounts is a concept used by all nations in the world. The first set of such accounts was explained in a report to the U.S. Congress in 1934, drafted by the Bureau of Foreign and Domestic Commerce and National Bureau of Economic under the management of Simon Kuznets (Bureau of Foreign and Domestic Commerce and National Bureau of Economic Research, 1934). Alongside Kuznets, professor Richard Stone has laid the groundwork for the UK National accounts in 1938. Both have later received a Nobel prize for their findings. The concept, organization and functioning of national accounting systems of most countries is today under the auspices of the National Accounts System of the United Nations (SNA), which is in force from 1995, with the 1993 version, that has replaced the one from 1968. All European Union countries have gradually adopted directives now fit into the European System of Accounts (ESA). In the case of Romania, the European system of

national and regional accounts with the 1995 version (SEC-95) was implemented starting 1998. Previous research that studied the history and importance of using national accounts have set GDP as the main reference indicator of the economy (Raipuria, 2002; Hein and Tarassow, 2010; Ben-Ami, 2013, Kulshreshtha and Singh, 1996; Matkowski, 2004; Mohanty and Raghavan, 1990; Kansal, 1992; Jalali-Naini, 2005; Hosein and Lewis, 2005). GDP estimates helped in assessing the economy's overall productive capacity and the impact of moving from consumer spending on goods and services to government expenditure (Landefeld, Seskin and Fraumeni, 2008). Seen as a stand-alone index, GDP depicts the main needs and demands of the population, if calculated using the expenditure approach. Most often, GDP is considered to be a value added index (Kulshreshtha and Singh, 1996; Ben-Ami, 2013). At industry level, the indicator that best represents the companies status is the turnover. The turnover consists of all revenues obtained by current activities namely the sales of goods and services rendered, including subsidies, after deducting commercial discounts offered to customers. The turnover does not include financial and extraordinary income. The concept of turnover can be classified into several categories: net turnover, average turnover, marginal turnover and critical turnover, each highlighting a different aspect of the company activity. (Minister of Public Finance Order, 94/2001; Niculescu, 1997; Vâlceanu, Robu and Georgescu, 2005; Carcello, 2008).

### 3. RESEARCH DESIGN

The aviation industry includes all activities that results in added value (namely GDP) by manufacturing aero structures, components, assemblies; production and integration of electronic systems, communication and IFF systems; MRO (maintenance, repair and overhaul) and upgrades of military and commercial aircrafts. With the purpose of demonstrating the relationship between the two variables, we collected the required data from Ministry of Finance, Bucharest Stock Exchange, Eurostat.

*Table 1: Sample Data*

	Company name	NACE Code	Analyzed period
1	Aerostar	35.30 – Manufacture of aircraft and spacecraft	2008-2012
2	Eurocopter	35.30 – Manufacture of aircraft and spacecraft	2008-2012
3	Unison Engine Components	35.30 – Manufacture of aircraft and spacecraft	2008-2012
4	Romaero	35.30 – Manufacture of aircraft and spacecraft	2008-2012
5	Turbomecanica	35.30 – Manufacture of aircraft and spacecraft	2008-2012
6	Avioane Craiova	35.30 – Manufacture of aircraft and spacecraft	2008-2012

Therefore, we collected data for the major companies in this sector: six entities operating in the aviation industry that are listed on the Bucharest Stock Exchange (Tier I, II and III) as can be seen in Table 1. All these companies, considered captive suppliers (Sturgeon, 2002; Sturgeon and Lee, 2001), were analyzed over a period of five years, from 2008 to 2012.

#### 3.1. Hypotheses Development

The main purpose of this study is to analyze the link between turnover at sector level and GDP. In order to reach the aim of the research, the following two research hypothesis were developed:

- Hypothesis 1 (H1): There is a significant positive relationship between turnover at sector level and national GDP.

- Hypothesis 2 (H2): There is a significant positive relationship between turnover of enterprise-level operating system aviation industry and national GDP.

### 3.2. Regression Model

After establishing clear objectives, it was concluded that the best approach in solving the theory is by using linear regression. The following regression model was used to test whether there is an association between turnover and GDP of entities operating in the aviation industry in Romania.

$$(H1) R1: GDP1 = \alpha_1 + \beta_1 TTTS + \varepsilon_{1i}$$

$$(H1) R2: GDP2 = \alpha_2 + \sum \beta_{2i} TT_{it} + \varepsilon_{2i}$$

The dependent variable is represented by the gross domestic product (GDP). The independent variables are represented by the turnover at sector level (TTTS) – in the first regression, and the turnover of each analysed company (TT<sub>i</sub>), where i stands for the serial number from Table 1, t represents the year and  $\varepsilon$  is the error term.

### 3.3. Regression Analysis

#### 3.3.1. Regression statistics

In order to analyse the two hypothesis, we performed a logistic regression analysis. Table 2 and Table 3 present the regression statistics. Thus, if we analyse the overall accuracy of the regression, we find a close relationship between the two variables in the first hypothesis (R<sup>2</sup> is a little over 80%). For the second hypothesis we find an R<sup>2</sup> of 0,0081 that implies that only 0,8% of the variance of the output variable is explained by the variance of the input variable.

Table 2: Regression statistics for H1

Table 2. Regression statistics for H1Regression Statistics	
Multiple R	0,911420582
R Square	0,830687478
Adjusted R Square	0,774249971
Standard Error	16627287684
Observations	5

Table 3: Regression statistics for H2

Regression Statistics	
Multiple R	0,090376747
R Square	0,008167956
Adjusted R Square	-0,027254617
Standard Error	32266597825
Observations	30

#### 3.3.2. Analysis of Variance

In the ANOVA analysis, we study to what extent to regression result is not accidental. The most important indicator is the value of Significance F. In case of Hypothesis 1 (Table 4),

there is a probability of 3% that the regression results are random, where in case of the second hypothesis, there is a probability of over 60%.

*Table 4: Regression – Analysis of Variance (ANOVA) for H1*

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
<b>Regression</b>	1	4,07E+21	4,07E+21	14,71871	0,031223
<b>Residual</b>	3	8,29E+20	2,76E+20		
<b>Total</b>	4	4,9E+21			

*Table 5: Regression – Analysis of Variance (ANOVA) for H2*

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
<b>Regression</b>	1	2,40071E+20	2,40071E+20	0,230586196	0,634819825
<b>Residual</b>	28	2,91517E+22	1,04113E+21		
<b>Total</b>	29	2,93918E+22			

### 3.3.3. Regression Output

Reliability of the regression, presented in Table 5 for H1 and Table 6 for H2, is better noted by the P-value indicator. It represents the probability that the value of the two indicators ( $\alpha$  and  $\beta$ ) to be random. In the case of H1, the P-value of the intercept ( $\alpha_1$ ) is <1% and in the case of independent variables ( $\beta_1$ ), 3%, that implies that there is a probability of more than 95% in both cases that the value of the coefficients may not be happenstance. In Assumption 2, the P-value for  $\alpha_2$  is a insignificant, but the significance for  $\beta_2$  is a little over 60% that indicates that the result is not reliable.

*Table 6: Regression Output for H1*

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
Intercept	3,6802E+11	4,46E+10	8,25133	0,00372	2,26E+11	5,1E+11	2,26E+11	5,1E+11
TT <sub>TS</sub>	303,741650	79,1716	3,836498	0,031223	51,78228	555,701	51,78228	555,701

*Table 7: Regression Output for H2*

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95,0%</i>	<i>Upper 95,0%</i>
<b>Intercept</b>	5,321E+11	11293572	47,11717	3,25096E-28	5,08987E+11	5,5525E+11	5,08987E+11	5,5525E+11
<b>TT<sub>it</sub></b>	56,28400	117,2109	0,480193	0,63481982	-183,8118227	296,37983	-183,8118227	296,3798

Taking into account the results of the regression analysis we can confirm the first hypothesis. Thus, it shows that there is a positive relationship between the aeronautics industry total turnover and the national GDP. In case of the second hypothesis, we cannot say with certainty that there is a correlation between the variables analysed seeing that there are numerous indicators that favour randomness.

#### 4. CONCLUSIONS AND FURTHER RESEARCH

This study aims to analyse the link between the aerospace industry companies turnover and the national GDP over a five year period – since 2008 to 2012. To achieve the goal of this paper, we have developed two hypothesis regarding the connection between the aerospace industry and the national GDP. The results of the study show that there is a positive correlation between turnover of the sector and GDP (H1) but we couldn't demonstrate any relation between the turnover of the most important aerospace companies and GDP (H2). Considering the history and tradition of each company presented in this study, we concluded that they are profit-led, thus confirming the seminal theoretical conclusions of Bowles and Boyer (1995) and Bhaduri and Marglin (1990). There are a few drawbacks of this study. First of all the population is undersized, but the fact that the same companies were analyzed for the entire period stated in the study, increases the relevance of the observations. Second, the independent variable is not set to the completely main component of GDP. Regarding further research, there is a wide range of possibilities. For example, the population can be extended to all companies listed on the Bucharest Stock Exchange. Also, a comparative analysis can be drafted studying the relation between the Romanian aeronautical industry and a similar sector from another emerging country, research regarding the linkage between turnover at sector-level and GDP. In many theoretical models, the main factor determining economic growth is gross capital formation (Matkowski, 2004). Thus a future research will focus on analyzing the influence capital formation on value added. An interesting approach towards the companies turnover would be by analysing the main stakeholders influence on it. Marketing of products and services on international markets instead of a domestic one can bring a change in turnover. Following the same line of thought, we can observe nationwide the grounds for aeronautical production imports (e.g. insufficient or inadequate domestic production) and adjusting it for a higher competitiveness thus becoming an issue of global buyers and performance of local suppliers.

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## THE REMITTANCE INFLOWS' IMPACT ON SAVINGS IN THE SERBIAN ECONOMY

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### **ABSTRACT**

*Remittance inflows represent one of the most significant sources of foreign funding for most developing countries. These funds have also proven to be one of the most stable sources of external financing for developing countries during the past few decades and in the period of the last global crisis. They are much less responsive to economic cycles and economic shocks than foreign direct investments and other private and official capital flows. The benefits that a developing country can have from stable cash inflows are various as far as they are directed in activities that contribute to economic growth and development. Theoretically, channeling remittances into savings and investments can lead to long-term economic growth. Formal transfer of remittances through the banking system and financial markets can lead to stronger financial stability and development of new financial instruments. Since remittances reduce the volatility of GDP and may contribute to financial system development they are able to additionally boost country's growth and development. Finally, these resources significantly contribute to the fight against poverty and inequality. Taking into account all the positive impacts the remittances may have in developing countries, the goal of this paper is to investigate in further detail the relationship between remittances and savings in Serbian economy. With this analysis, we aim to test whether there is a potential for remittance inflows channeling not only in consumption, but also in various investment alternatives that could provide long-term benefits to the local economy.*

**Keywords:** *Economic Growth and Development, Financial Sector, Investments, Remittances, Savings*

### **1. INTRODUCTION**

Over the past decade remittances to developing countries have significantly increased. Officially recorder remittances have reached around USD 401 billion in 2012 and are expected to reach USD 515 billions in 2015. They remain one of the most significant and stabile external financial sources after FDI that is surpassing the level of official foreign aid and private debt and portfolio equity flows to these countries (The World Bank, 2013, p. 1). It is important to notice that unofficially transferred remittances are estimated to represent additional significant unregistered inflows. The problem of underreporting is especially pronounced in developing countries with weaker financial system and economic and political instability.

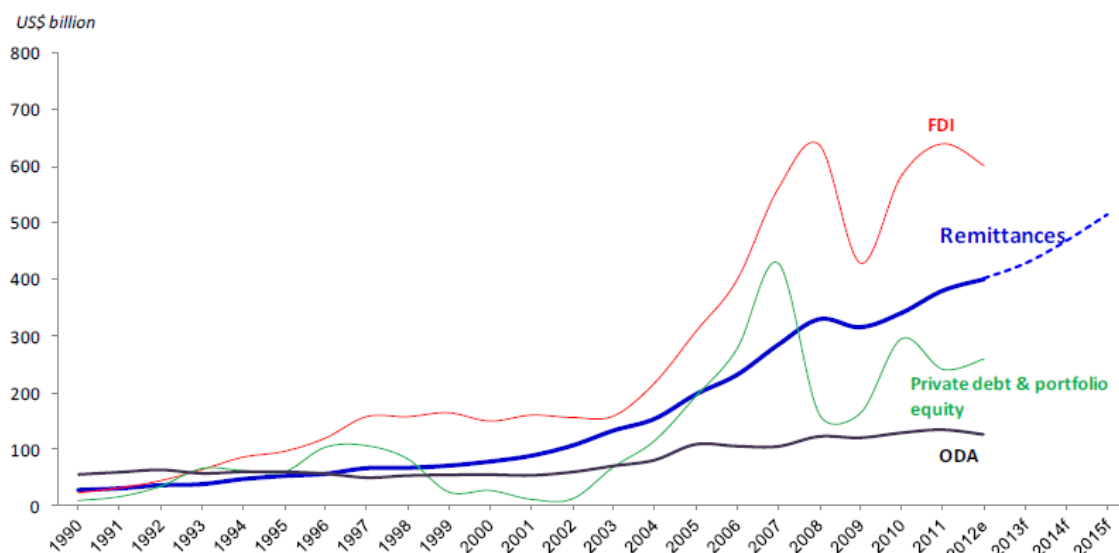


Chart 1: Remittances and other international inflows to developing countries  
(The World Bank, 2013, p. 2)

Most of the papers dealing with remittance flows to developing countries confirm their positive influence on local consumption and social position of local population. Recent theoretical and empirical studies suggest remittances' economic potential in circumstances when they are properly channeled into investment opportunities (land, housing, financial assets, microenterprises, education, etc.) that can boost economic growth. The goal of this paper is to investigate the effects remittances may have on both, home country consumption and savings, which opens possibilities for their channeling into profitable investments. The theoretical discussion is followed by empirical evidences based on Serbian economic data. Finally, suggestions are provided for possible improvements of remittance channeling into productive uses.

## 2. REMITTANCES AND CONSUMPTION IN RECEIVING COUNTRIES

In this part of the paper we examine consumption patterns related to the inflow of remittances. The initial economic position and households' living standard are main determinants of remittances usage in the home country. Better initial economic situation allows migrants and their families to use remittances more for savings and investments. On the other side, for very poor migrants' families, the priority is to increase consumption and meet existing financial obligations rather than to save received funds. The main motive for sending remittances to the country of origin is the concern for individuals and families. According to the so-called *Insurance hypothesis* (as it is defined in Kapur, 2003), remittances have a role of insurance in lower income countries and a significant impact on poverty and equality. Also, because they provide an additional income to individuals/households, they are critical for personal consumption in poor states. Empirical facts show that the inflow of remittances increases when home country experiences some sort of macroeconomic shock, which is in accordance with the above mentioned hypothesis. The increase of the value of remittance inflows is due to the fact that the remitter experiences a positive income shock due to the devaluation, while the receiver faces a negative income shock because of the recession. According to the results of one empirical research (Kapur, 2003) using balanced and unbalanced panel data, share of remittances in personal consumption is higher during the period of economic downturn than during the "regular" times. Apart from this effect of poverty alleviation – resulting from the fact that remittances increase the average income and provide less vulnerability to shocks, it is

especially important to emphasize their potential to increase the long-term consumption. Investing this additional income into savings, production or human capital can provide long-term benefits, by increasing the economic growth, future consumption and therefore reducing the dependence on external sources of financing. Although savings and investments based on remittance inflows can generate various long-term benefits for individuals and the home country (see the next part of this paper), the effects they have on current consumption can also be very positive if remittances are used for consumption financing of domestically produced goods and services. Additionally, this positive effect is pronounced if that consumption provides an individual with better life conditions (household, hygiene and physical and mental well-being), which consequently increases labor productivity. As a result of higher consumption remittances also increase the amount of money collected from indirect taxes. As some previous research studies (see e.g. Kapur, 2003; Zarate-Hoyos, 2004) show remittance receiving households have higher propensity to save than non-remittance receiving households. At the same time, former households have lower income elasticity for current consumption and for durable consumer good expenditures than the later. In literature, the negative effects of remittances were also stressed out and may include the following: inflation, depreciation, slower GDP growth, conspicuous consumption by migrants who do not invest money in productive uses, which then has a negative influence on the consumption behavior of non-migrants. Also, one additional negative effect can be found in literature – remittance receivers can lose the motive to work, because they are secured with the regular inflow of money. In essence, the lack of productive investments based on remittances may be a consequence of insufficiently developed institutions and infrastructure which do not provide opportunities for productive and efficient usage of these resources. It is, therefore, important to emphasize that the state and the quality of institutions and regulations, and not only migrants, have the main role in channeling remittances into savings and investments.

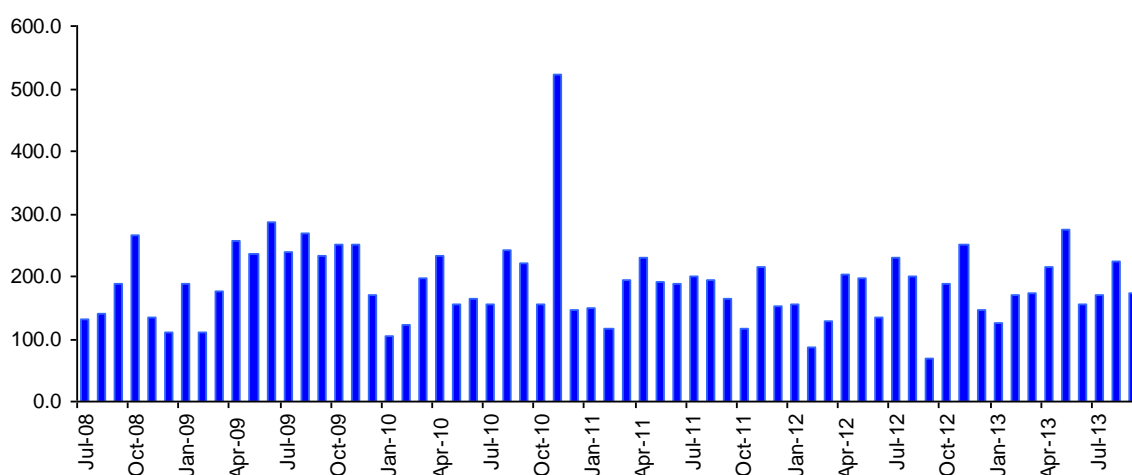
### **3. REMITTANCES AND SAVINGS**

Although migrant transfers to home country are mostly altruistic in nature, they may also significantly contribute to local capital accumulation. Total transfers to home country thus may be divided into two parts, remittances that support home families' present consumption, and the part that is put to savings that may potentially increase future consumption. That means that remittances may have indirect positive effects on both poverty and growth through channels such as savings and investments. The use of remitted funds for savings and investments can be initiated either by migrants themselves or the receiving households. In general, migrants will diversify their asset by saving in both host and home country. The decision on asset allocation depends in great amount on the macroeconomic characteristics of both economies, the level of investors' protection, household characteristics (primarily original wealth level), cost of official money transfer, potential rate of return on investments, etc. Poorer families usually receive higher transfers. On the other side, investments in the home country are positively correlated with home country household resources. The wealthier migrants and their families usually save more (Osili, 2007, p. 447). Thus, there exists certain threshold income level necessary for present consumption (Balde, 2011, p. 16). If remittances received increase the income level above the threshold they may be directed to savings and investments. Investments in the host country are usually safer than investments in the home country, thus they should bring lower return to the migrant. But since home country investments have to be monitored from abroad and that effect is pronounced if the home country is less developed, that adds additional transaction costs and reduces net return for the migrant. Also, if he transfers returns generated in his origin country abroad to the country where he works, the exchange rate changes additionally affect generated returns. The more

often home country household receives the remittances from abroad within one year, the more it is inclined to potentially save some portion of that money (International Labour Organization, 2010, p. 4). However, the less developed the home country is and the less knowledge and trust is connected to saving opportunities in the local banking sector and other financial products, the more of the saved money is kept at home. The additional reason why this money sources are often kept out of banking sector include often small amounts of remittances received and high transaction cost incurred that follow remitting and depositing. In the first quarter of 2013, the global average total cost for sending remittances was 9.1 percent, as measured by the World Bank's Remittance Prices Worldwide database.<sup>23</sup> In addition, local banking costs for depositing are stated to be significant although they vary among developing countries.

#### 4. SOME EMPIRICAL EVIDENCE FOR SERBIA

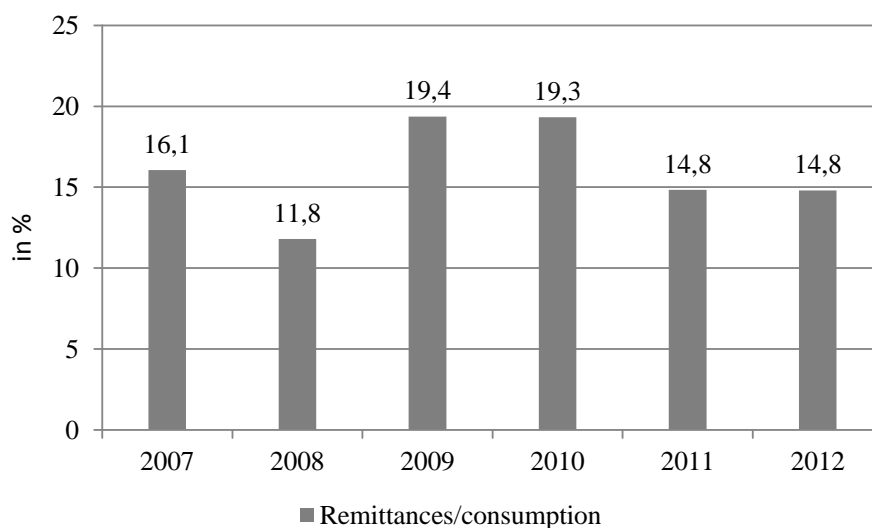
Remittances from abroad are a particularly significant source of foreign capital in Serbia, as their post-crisis amounts in absolute terms exceed all other categories of capital inflows from private and public sources. Unfortunately, Serbia ranks among countries with high transfer costs. The commission charges on money transfers to Serbia are, in percentages, relatively higher for smaller amounts, which decreases incentives for many migrants to send money through formal channels. The significant portion of these inflows enters the country through informal channels and is often not invested into productive activity. According to Suki, 2006, 2/4 to 3/4 of total remittances' inflows in Serbia are unregistered. The invested amounts were estimated to be insufficient and low. This may have negative long-term effects on economic growth and development. The annual level of remittances sent to Serbia is very high (the average is EUR 2.24 billions, or 7,5% of GDP for the period 2007-2012). That is 70% higher than the average inflow of FDI in the same period. The amount of remittances sent home by Serbian migrants is estimated to have reached around EUR 2 billion or almost 11% of GDP in 2013 (the National Bank of Serbia – data at the end of the third quarter of 2013). As our previous papers show, these resources appear to be quite stable over time (Janković and Gligorić, 2012, pp. 215-236; Gligorić and Janković, 2013, pp. 212-222).



*Chart 2: Remittances inflows in Serbia, in millions of EUR (National Bank of Serbia)*

<sup>23</sup> <http://remittanceprices.worldbank.org>

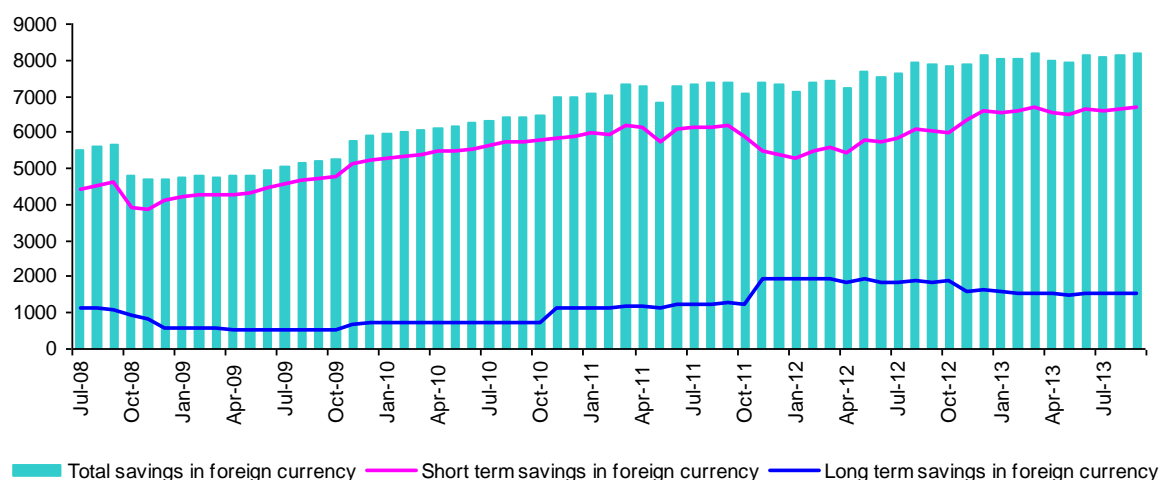
The question that remains is which part of remittances to Serbia is used for current consumption, to cover everyday needs, and how much remains for savings and investments? Because the data necessary to empirically estimate this is unavailable, we can only suppose, based on the facts that Serbia is a developing country with a relatively underdeveloped financial market, high private demand and low level of investments – that a larger part of remittances goes to current consumption and non-productive uses. The remittances sent to Serbia help local households to solve some of their financial problems and mostly are spent on immediate basic consumption. Dominant amount of these resources is altruistic in nature. Even though a certain part of remittances is used for savings, they should definitely be channeled more towards long-run development through increase in investments and production. In Serbia we can also find a confirmation for the *Insurance hypothesis* if we take a look at data on remittance inflows before and during the crisis. Namely, remittance inflows in Serbia were extremely high in 2009 and 2010, as a consequence of providing more income to remittance receiving households in order to protect them from recession. Chart 3 presents the share of remittances in individual household consumption. It shows that this ratio has increased from the average of almost 14% in 2007 and 2008 to the average value of 19.5% in 2009 and 2010, but it decreased again in 2012 and 2013, when domestic economy started to recover. Still, because of a high dependence on imports, we think that remittances in Serbia have significant influence on local currency appreciation, which consequently has an adverse impact on the trade deficit.



*Chart 3: Serbia: Share of remittances in individual consumption, 2007-2012, in % (Authors' calculations based on data from Statistical Office of the Republic of Serbia and National Bank of Serbia)*

In one survey that examined development financing and the remittance market in Serbia and Switzerland it is stated that (SECO, 2007, p. 17): “Migrant-sending households in Serbia use most of their remittances sent from Switzerland to help pay for recurrent living costs and basic needs. This is particularly true among older recipient households. Remittances are most commonly spent on: utilities (water, electricity, and gas), phone service, petrol for cars and farm machinery, food, medicine and healthcare, household appliances and furniture. Remittance income is very rarely used to pay for non-essentials. Beyond consumptive expenditures, recipients also use remittances for social expenditures such as basic education and health care, although at much lower rates”. Although the deposit base of the banking

sector in Serbia is constantly growing, it is estimated that large number of remittances receivers keeps their savings outside of the formal banking and broader financial sector. However, it is important to note that official estimates on the level of remittances received are partially based on the household savings in the banking sector, indicating that some smaller amount of this resources passes through, predominantly, transaction deposits and short-term savings accounts to consumption. Thus, investments of these funds in longer-term sustainable economic activities are, for now, quite limited. Since Serbia faces low external capital inflows based on FDI, portfolio and other investments, and at the same time copes with big external inequalities (high public and total foreign debt, high current account deficit), very limited opportunities and unfavorable borrowing conditions, as well as slow economic recovery in Europe and the rest of the world, money from remittance inflows will become even more important in the following period. Therefore, economic policy should be oriented and “wisely” devised to channel this stable and high inflow of money into productive uses. Giving up a part of current consumption for the sake of providing future growth and the prospect of larger consumption, as well as stronger economy and consequently better living conditions for all citizens, should be well devised and infrastructurally and institutionally supported by the state.



*Chart 4. Total, short-term and long-term household savings in foreign currency, in millions of EUR (Authors' presentation based on the National Bank of Serbia data)*

This is a reason why we continue with main recommendations for developing countries and Serbia that could stimulate more significant remittances' transfer through formal channels with clearer orientation on savings and productive investments.

## 5. RECOMMENDATIONS FOR GREATER REMITTANCES' CHANNELING INTO SAVINGS AND INVESTMENTS

Recommendations for more efficient channeling of remittances into savings and investments include:

- Better coordination between national authorities of remittance sending and receiving countries and reduction of administrative constraints for efficient remittances' transfer. Regulatory authorities in sending and receiving countries should enter into bilateral agreements in order to formalize and facilitate transferring, recording and channeling of funds. The process could take the form of a public-private partnership, with participation

of financial institutions. In addition, a unified clearing system could be developed for all countries involved in this process.

- Higher efforts of monetary authorities in recording and channeling of remittance flows (some African and European banks have established agencies in countries with high migration to capture migrants' savings and help them channel these resources into productive uses in their home countries).
- A greater role played by banks in the transfer of remittances should lower transaction costs and increase the transfer speed and reliability of these resources. The decrease of transaction costs for remittance transfer and depositing in both urban and rural areas demands closer mutual cooperation between banking sectors in sending and receiving countries and also with Money Transfer Agencies. This should lower transaction costs of transfers and accelerate the sending of remittances through formal channels.
- A more developed infrastructure that supports money transfers from abroad would at the same time facilitate access to other financial services (such as current accounts, savings accounts, and credit instruments) for a broader population, which would, in turn, foster the development of the country's financial sector. This would also allow these institutions to encourage entrepreneurship and other investments by using the funds received to attract deposits and offer loans, advisory services, insurance and custody operations.
- Increased competition between formal transfer intermediaries and lower costs of transfer services would increase migrant interest in sending remittances through formal channels that provide numerous benefits to recipients, such as easier access to financial institutions, cheaper finance for the broader public, lower cost of investments due to more options for diversification, and better education of receivers about alternative forms of employing funds.
- Further development of formal channels for remittances' transferring could be based on creation of innovative products that would make it possible for migrants to directly invest into their home countries in land, real estate, education, microenterprises, insurance, etc. This proposal includes development of remittances-backed financial products (remittance backed micro loans, consumer loans, educational loans, car loans, loans for houses/construction, loans for development of agricultural firms, event financing schemes, medical insurance products, etc.);
- Investments based on remitted funds could be additionally stimulated by creating a better climate for investing, as well as with incentives for putting funds to productive use (e.g. tax breaks, etc.).
- Very important aspect for more effective remittance channeling into investments that could boost economic growth is comprehensive education of remittance receivers about possible savings and investing schemes.
- Finally, the gradual regulation of remittance flows would be desirable, so that they could be better studied and this segment of the market developed without excessive government intervention that could abrupt additional inflows of these funds.

These and other possible improvements of the regulatory environment and financial system could contribute to greater remittances' inflows into Serbia through formal channels and their more efficient channeling into investments, which is expected to have a positive impact on economic growth and development of the country.

## 6. CONCLUSION

Remittances can play a significant role in home country development through both, poverty reduction and savings. Migrants' savings have a potential to increase investments and indirectly economic growth in labor exporting countries. The distribution of received

resources between consumption and savings depends in large amount on migrant and home family income distribution. The large amount of transferred resources still reaches the receivers through informal channels. In this paper we have provided some recommendations that could help remittances channeling into productive uses via formal intermediaries. There still exists a big potential for financial institutions in Serbia to attract unused savings of those receiving remittances into financial system.

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## NATURE - SPIRIT RELATION

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### ABSTRACT

*As part of Kant's theoretical philosophy nature has only the status of the existence of things under laws. Reason is a legislator of nature, and nature is just mechanical, just a sphere of necessity, while conversely the mind e/sphere of opportunity and freedom. So it seems that Kant's characteristic ambivalence turns and between nature and mind, as there is between freedom and nature, noumenal and phenomenal and so on. But Kant's terms are not uniform, so he observes nature from a different angle. It is not only the aggregate of things, blind mechanical order. Through it runs certain, we do not quite fathom, but still discernible purpose. In the end we ourselves are part of that nature, and its inherent purpose stream in us (of course, all this said there is no theory, but there are virtually legitimacy). Nature is not, as they say, left by God. Moreover, Kant sometimes equated with the very providence, and it figures as mental. Man is for this philosopher highest purpose of nature. By giving man the mind and free will, which is based on the mind, the nature of the man who endowed the potential to develop and thus fulfill its determination. At the same time, nature wants to release the man himself, to make everything out that for their achieved state does not owe anybody anything. Nature is like that man everything goes beyond the mechanical design of his animal existence created entirely from itself, and not gaining any other blessedness or perfection of the one that is free from instinct, himself has created his own mind. Only then will one be able to have a sublime sense of dignity and pride of himself and his work.*

**Keywords:** *nature, man, spirit, mind, freedom, philosophy, world*

### 1. INTRODUCTION

However, man's effort toward the establishment of the state of general world civil order, as curd which will develop all the primal endowment of the human species, under the watchful eye of the tutelary nature. While individuals follow their own particular interests, nature is trying to give it some direction and all subordinate to the true human purpose. Nature has endowed man antisocial sociability, which produces antagonism necessary for man's activism, the condition for the creation of cultural goods. In addition, the nature instilled in us a dual endowment for two different purposes, namely for the animal and for moral mankind, and man must defeat the nature of his subordinates. According to Kant, man is his own greatest enemy. Life's problems often cite man, a creature endowed with imagination, to yearn for paradise, where could their existence daydream in quiet leisure and uninterrupted peace. However, between him and the notional seat of bliss implanted mind, overwhelmingly encouraging the development of those skills that are rooted him and not allowing him to return to a state of crudeness and vulgarity from which it was pulled. In all this, the man is not without the support of nature. Kant emphasizes both sides and the freedom of man and nature custody, on the long road to human ascent itself. This is clearly seen if we compare some of the claims Königsberg's philosopher. He refers, for example, says: Soon to recognize that this success, reaching the immense distance does not depend so much on what we do (e.g. the

education that we provide junior world), or the method by which we need to manage to encourage him, but from what human nature will do in us and with us, to make us the track, which we by themselves would not easily inclined. In contrast, Kant's belief about the idealism that is deeply rooted in the very nature of man, it is evident in the following lines: Nature did not give the man all the perfection of which he is capable, he himself should be developed. Human nature does not develop, but the freedom. For humanity he should be grateful to myself. Attempted synthesis of both torque is expressed in the following statement: highest perfection and bliss of the people is the last purpose nature if they are the creators of perfection and bliss. Kant states that mankind in its development located halfway. She left the stage natural unity with nature, and there is a period which puts him in front of the task to develop their full potential. The world was still young. Half of the world is hardly detected. Man has not yet reached its determination in education, religion, way of life and civic order, and of international law. Therefore, one must not be left to become lazy and passive, but must make maximum efforts to develop their talents. But, man longs for happiness, contentment, humility. It is necessary to come to a reconciliation of man and nature, to re-establish unity, but this time at a higher level, as the work of man. It is necessary to persevere until the perfect art again becomes nature, which is the ultimate goal of moral determination of the human species. Kant points out, according to my theory, the creator sole purpose of morality is not the man himself, or happiness itself, but the highest possible good in the world, which consists in their union and mutual fit. Reconciliation is therefore necessary, but, as yet postulated, was postponed indefinitely. Since it occurs only infinite progress, the question remains whether it is realistic achievable. One of the reasons for Kant's postulation of the idea of God to be sought in the fact that God is the guarantor of the highest good. If it may not be realistically achievable on earth, his ideal, transcendent existence can not be brought into question. However, in the very historical reality, man's effort toward self-improvement and reconciliation with nature, with God's help, contributes to the distance between the ideal and the real is getting smaller.

## **2. KANT'S PHILOSOPHY AND WORLD TODAY**

After pointing out the Lukacs's assessment of Kant's philosophy, which can be considered as a kind of prior diagnosis, before I try to present my vision, I will mention only two grades that are different in that they emphasize or liberating or enslaving its dimension. Bloch points out a universal human achievement Kant's emphasis on human freedom, dignity and the need for upright walking. On the other hand, Adorno reconstruct enslaving dimension of dialectical development that led to the repressive world today, and as well as in Kant's philosophy, revealing moments that have contributed to it. According to Adorno, Kant equalization will with the mind at the same time suppressing the sensual, natural. The other side of Kant's glorification of free will is that in this way allows the justification of punishment regardless of the empirical circumstances. Adorno says: All the terms in the Critique of Practical Reason should, in praise of liberty, to fulfill the gap between imperative and man, the repressive notions: law, coercion, respect, responsibility. The causality of freedom corrupts freedom in obedience. Kant and the idealists after him, cannot stand freedom without restraint, but his conception of her unconcealed be fear of anarchy, which is later civil consciousness imposed liquidation of personal freedom. Will, upon review of Kant's role in the constitution of the world today, to talk about the merits or on Kant's plea for today's world, depends primarily on our assessment of the world. It seems that because the focus really seeking accountability. However, despite our dissatisfaction with the present world, we must not be unfair to Kant, and it should be noted that in his time some things were not yet visible, that are manifested in the whole nature and philosopher from Königsberg and was not able to consider all hazards.

Kant was at work building the spiritual prerequisites for a new world, and even he could not perceive its inadequacy. After all, Kant and by some dams, believing that the time ensure safety for humans. But Königsberg's philosopher did not anticipate the strength of a flood, which will resist the force of the dam. Kant, in fact, by a sharp boundary between the two spheres: theoretical and practical. In the practical sphere superior theoretical, and it even, in a sense, a theoretical sphere serves as a means. The definition of man is achieved in the practical field, and Kant's reservations about the emerging technical civilization known. The conscientious scientist there is a moment when the intelligible sphere it is not allowed to exceed a certain sacred boundaries. Public use of reason is above private. Kant seems that these provide a space in which humanity will not be able to be compromised, after all, each field has its own space, and therefore can not come to a mutual confrontation. In the theoretical sphere of infinite space, where progress is constantly sense confirms, while ethics is static in its timeless principles, and the individual is still in the same relation to his conscience. However, since the continuous progress takes place in the sensory world, it seemed that there was no danger to supersensory world. However, in reality these two spheres are not separate as is the case with Kant, and a series of mediation showed that the objective of the social sphere of communication is stronger than the subjective, individual, ethical. Reason is repressed mind, a man's technical power is getting out of practical reason. We are faced with the tendency of the underlying inversion: theoretical and pragmatic gains precedence over the practical. Techniques such theoretical child threatens to outgrow their instrumental role and becomes an end. Virtually mind today is losing its ability, and the right, the design grown man's theoretical power. Kant was once possibly could say that anyone can be a being of man to be used as a vehicle (except for another man who is also an end in itself), and that he does not see anything dangerous. It was a single thing in nature, rather than on the nature, nature in general. Moreover, it seemed that she was, as such, beyond the reach of man's manipulations. But an unexpected dynamism theoretical power, more individual things turned into a mere means, and there is a danger that the induction of an incomplete and complete, that all nature, including man as a part of it, becomes a tool of manipulation. While Kant and not thought of that, today we no longer do looks amazing. Hunger for maximum productivity is insatiable, dams were destroyed, and all seemed to depend only on theory of mind. The man is now in a position to create a natural kind and thus interfere with the once sovereign domain of nature. One step ahead of the ability to create a new type of man, which could lead to a situation in which every human effort for self-improvement of the internal redundant and it is much easier (and more economical) to produce a more technical condition. While the above may even say that it was only the forerunner of the possibility that it might not be true, some facts are still undeniable. Nature (and those in man) is threatened by man, thus becoming the mere material left at the mercy of the Homo Faber. The possibility of environmental disaster has become a reality, and indeed the nature of the whole is called into question: is there such an arsenal of nuclear weapons to disappear and the world of phenomena, and the world of things in themselves, and the history and purpose of nature. Today's philosophy is far from being a legislator mind. It seems that she has long played a role in preparing the ground for their own techniques, and with all its vast categorical apparatus became unnecessary technical world. The awareness about the triumph of technique, as well as feelings of guilt because of their direct uselessness, permeate and some philosophy courses, especially those who see themselves as a function technique. Others, who are trying to be the conscience of mankind, not to overpower the noise of machinery. Is the man got out of the ability to contain and develop technical power that is launched? Is there a person in this situation the possibility of an action or must defer situation and adapt? It seems that the responsibility now already more pale in opaque and unreachable whole mechanism,

each innocent does its job, so it seems that no one really is not liable, because the system controls everything. The situation is, so to speak, hopeless situation where almost nothing can be done, but the situation in which more and more used, which adjusts. Does not permeate that atomic too much stable harmony world, does not allow you just one maintaining status quo? Is the new formulation of the categorical imperative, it is appropriate for our time, as follows: Act so that you always aim to 'll create destruction of mankind? Each collision of duties should be dealt with accordingly, and are therefore raises the question of whether the self must take responsibility for any revolutionary action. Only now Kant's position against the right of rebellion is gaining weight, there are more primary duty of support. This duty is constantly presents potential revolutionaries, much to moralize, while at the edge of the criticism and turn towards you, but one side tries to push against those who would change existing ones. It is after all just a sign that there is less moral, because each of his exaggeration of only actually existing subordination. Kant held that we can not know whether we do something really out of moral reasons and today it is still the case before. The rule of profit and advertising every good work pays off, and it would be before it is considered as a good investment. While Kant's position in principle required to remain at Needing and thus, in the view of his critics, implicitly contributed to preserve the facticity, the ruling position of the West almost explicitly required to remain at the current situation, which admittedly can be improved, but not overcome higher principle. Social foundations underlying the law and ethics, which the West dictates the overall world from the standpoint of superiority, treated as untouchable. Being a revolutionary is to be immoral according to the current. Therefore moralistic condemnation of the revolution, are very popular in our time, miss and do not realize the historical justification of any future revolutionary action. Today, in this long period of restoration, almost no one revolutionary enthusiasm. Capitalism is not only far from the exhalation, but after the collapse of socialism grew in strength and confidence. In the winning mood West continues to dictate the pace of the world, without some freshness and enthusiasm, but the technical routine. Lulled by comfort (which Kant eschewed), the free world stands in futility and boredom, inertia which, however, does not apply to technical improvement, production and consumption. Mass culture of its industry awareness leads to, in order to Marcuse said, the triumph of the happy consciousness. A man stands in his one-dimensionality, devoid of unnecessary doubts and dilemmas. Kant aspired to remove unnecessary and fruitless dilemmas in theoretical sphere, but now removes any contradiction, and even the existential doubt, also from the practical sphere. Internal metaphysics is unnecessary because it is still the incalculable moment content that avoids the formal system. For our world is really a lot of reasons to say that the phenomenal world, the world of the play. After so many films illusion lost a clear boundary between image and reality. The problem is really something to feel like a reality, not just a picture, because more often we are in touch with the picture, something virtual, but with life itself emphatically. Kant seems to have right when he says that we are to ourselves knowable only as phenomena, and today really feel that way more often. We play a passive observers, observers in themselves fatigued world. Our world is no longer as young as it was Kant, but not dying. Its stickiness and viscosity draws us into his Eleatic One. Sanity is slowly permeating the totality, and we must ask ourselves whether it is still of the mind, or is he just true? Is not it phenomenal world engulfed the world of things in themselves? Are there more opportunities for faith in the mind? Is not all hope long since outmoded? It's hard to respond to all. Let's just say that Kant would not have been satisfied with this world, which has undermined the mind, and the individual remains at a minimum program that follows Königsberg's philosopher, attempts to preserve the vast desert oasis mind. Everyone must first fight in the face with himself (recall that according to Kant, each for himself his biggest rival), and even stoic accept the position if

the chances for action minimal. Any reconciliation is lost, which leads to a series of successive omnipresent defeat. What Kant has to offer the world today is the rehabilitation of practical reason. But the question is whether the postulate of re-establishing the primacy of technical over practical be achieved on the assumption of Kant's conception of reason, or will still remain on helpless need. It seems, in fact, that the transformation of the world, which can only lead to the primacy of the practical over the technical, historical need, not ethical relationships. If it is true that the outlook for the transformation of the world require collective action, it is clear that Kant's teaching can hardly be a more solid foundation for it. After all, it seems that Lukacs's convincingly pointed to the limits of Kant's conception of reason and individual positions, and events in the political field as well as to confirm the impotence of social democracy, which refers to Königsberg's philosopher, to handle the situation. Perhaps the highest level of the individual to be the conscience of mankind. However, such a position is essentially defensive, no matter how it was justified in a situation of stagnation. If things are viewed from this angle, there is no doubt that Hegel's conception of the mind, especially its rational core, offers far greater potential for possible action to groundbreaking rearrangement of unjust social relations. Hegel's wake, after all, developed the Marxist idea of the real, this existence of action learning that insists on the socio-historical dialectic and collective revolutionary subject. Despite the failure of realization of Marx's ideas about the construction principle of different social relations, Hegelian concept of the mind thus not refuted. Still is, in fact, it seems that the doctrine of dialectical mediation of the subjective and the objective, of freedom and necessity, provides a more realistic picture of the possibilities of socio-historical action, and therefore about individual responsibility.

### 3. CONCLUSION

However, looking at the ethical and religious point of view, Kant's conception of reason, even in regard to the possibility of eventual transformation of existing social relations, it is not without potential. Anyway, to get to the revolutionary changes of the world, it is necessary to first occur inside the revolution. Without this inner, moral and religious transformation of individuals, the revolutionary possible action would soon prove to be a violent, and freedom and justice will remain a mere proclamation. What to say at the end? This means that, regardless of whether it represents Kant or Hegel's conception of the mind, in today's world domination of rational thought and the rule of techniques necessary to make the distance against him. Only in this way one will not remain trapped in facticity. For every one who sees injustice of social relations, who did not meet the intended role of the system, it remains imperative to not give up the mind and ideas, you do not end up in resignation, not to recognize the victory of the existing potential. With it remains utopian hopes that the global plan come true, Kant's description of the feelings of the sublime, in which a man is unable reaching totality in return sees deeper infinity own subjectivity, as may again be allowed to participate for a second mind.

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## RESTRUCTURING OF ESTONIAN MANUFACTURE UNDER GLOBAL FINANCIAL AND ECONOMIC CRISIS

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### **ABSTRACT**

*The structure of Estonian manufacture in 2008 was out-of-date and required cardinal and fast changes toward greater value-added. It was not possible for Estonia only by raising the technological level of enterprises and increasing so-called technical productivity to catch up in terms of productivity with developed industrial countries. The Estonian manufacture needed fundamental and substantial structural changes. The international financial and economic crisis, starting in 2008, provided for structural changes an exceptionally good chance. Unlike the rich industrial countries, Estonia was not in the least interested in keeping its status quo, and wanted to change it quickly and essentially. After the incomplete stabilisation of economic environment, the structure of Estonian manufacturing is, without any doubt, better and more effective than before: (1) technological level higher; (2) organization of work more perfect; (3) value added and productivity higher; (4) position in value chain better; and (5) maybe also the value chain itself new and better. But problem is that there are fewer jobs in the new structure of manufacturing than before the crisis. Another problem is that new technologies and high-value jobs were created mainly in Estonian capital city – Tallinn and around it. Only top specialists and skilled workers in the capital city benefited from these, not “ordinary people” in other regions. Such structural changes even increased structural unemployment and economic, social, regional, etc. stratification.*

**Keywords:** *crisis, manufacture, restructuring, stratification.*

### **1. INTRODUCTION**

Manufacturing enterprises operate increasingly more in international networks and value chains. They locate procurement, production, distribution, marketing, sales and servicing in different countries across the world. They perform every operation where the price-quality ratio is best. Success of advanced industrial countries is based on specialization in profitable, high-value-added activities. Incomes of the participations in the world economy are most influenced by whether and how they can find a niche in the high-value-added branches and value chains. The structure of Estonian manufacture in 2008 was out-of-date and required cardinal and fast changes toward greater value-added. It was not possible for Estonia only by raising the technological level of enterprises and increasing so-called technical productivity to catch up in terms of productivity with developed industrial countries. The Estonian manufacture needed fundamental and substantial structural changes. The international financial and economic crisis, starting in 2008, provided for structural changes an exceptionally good chance. It had a purifying and disciplining effect, enabled to eliminate from the manufacturing wrong investments and inefficient enterprises. Assets were redistributed from passive economic agents to active ones and the favour of those who had capital for growth financing. During boom years, the economy was mainly simply expanding, but during decline years, new ideas and more effective ways were searched for. All sorts of developments, international relocation of production and reallocation of economic power gathered speed. Transnational relocation of production – mainly throw direct foreign investments, subcontracting, outsourcing, offshoring, offshore outsourcing – was growing in

an increasingly faster pace. Unlike the rich industrial countries, Estonia was not in the least interested in keeping its status quo, and wanted to change it quickly and essentially. The global financial and economic crisis provided for this an exceptionally good chance.

## **2. THE STRUCTURE OF ESTONIAN MANUFACTURE BEFORE GLOBAL FINANCIAL AND ECONOMIC CRISIS**

Most fundamental changes in Estonian manufacturing took place in 1992-1999 when manufacturing adapted to new political and economic conditions. After the drastic structural changes in early 1990s (in connection with regaining independence and transition-reversion-return-comeback from planned economy to market economy) and the Asian-Russian crisis provoked slowing down the growth in 1998-1999, the Estonian manufacture enjoyed eight years (2000-2007) a relatively stable and fast growth. It stabilized around 10% in 2001-2006. In the period 2000-2007 the structure of Estonian manufacturing had become more stable. Structural changes in this period were quite slow, insignificant and painless. Entrepreneurs grew used to it and believed that it's the way it has to be and would be. The predominant opinion of this period was that Estonia had almost accomplished its great ambitions: (1) re-establishment of independence – August 20, 1991; (2) withdrawal of Russian troops – August 31, 1994; (3) NATO membership – March 29, 2004; (4) European Union membership – May 1, 2004; (5) Schengen zone membership – December 21, 2007. Many were the opinion that there was only one big aim left to accomplish for Estonia – join the EMU, Economic and Monetary Union of the European Union (what took place January 1, 2011). Then the Estonia would be most integrated country in Northern Europe – only Estonia would be involved in four integrated programs of western democracies (EU, EMU, Schengen zone, NATO) in this region, in addition also OECD (Estonia was invited to join May 27, 2010) and other important international organisations. But relatively stable development and missing fundamental structural changes were really dangerous for Estonian manufacturing. In 2000-2002, labour productivity in Estonian manufacturing increased faster than production volume. In 2003-2007, when the increase in production stabilized, the volume of output and productivity almost equalized. During that period Estonian manufacturing enterprises did not contribute to productivity growth and where production demand increased also additional labour force was hired. The increase in labour costs augmented enterprises' costs, which in turn led to price increase of products and reduced competitiveness of Estonian manufacturing enterprises. Employment in Estonia was unfortunately concentrated into sectors of manufacture where it was not possible to significantly increase productivity and hence also value-added. Enterprises operated to a small extent in those economic sectors where productivity increase was more feasible or in less profitable part of value chains. Such conditions set limits to the further capacity of Estonian manufacturing. A research ordered by the Estonian Development Fund from Tartu University (Arengufond, 2008) calculated that if all branches of Estonian manufacturing achieved the productivity that was in the respective branch of manufacturing in the most advanced countries in European Union while the distribution of Estonian labour between branches of manufacturing remained the same as it was, then productivity of Estonia would attain only 56% of Irish, 78% of German, 80% of the Finnish and 90% of the Danish level. Hence, it was not possible for Estonia only by raising the technological level of enterprises and increasing so-called technical productivity to catch up in terms of productivity with the developed industrial countries. The structure of Estonian manufacture was out-of-date and required cardinal and fast changes toward greater value-added.



### **3. CHALLENGES AND OPPORTUNITIES PROVIDED BY GLOBAL FINANCIAL AND ECONOMIC CRISIS FOR ESTONIAN MANUFACTURE**

Notwithstanding all sorts of financial and economic regulations cycles are inevitable in a market economy. The year 2007 already showed the first signs of slowdown in production growth. The beginning of decline cycle appeared in manufacturing in the beginning of 2008. A global financial crisis broke out in September 2008, which soon grew into a global economic crisis. Every time a major crisis hits, it brings about new breakthroughs in science and technology; promotes fundamental changes that take place in relatively short period of times; gives birth to new industries; and forms new growth points in economy. The global financial and economic crisis – starting in 2008 – also had a far-reaching impact on the world economy and brought challenges and opportunities to all countries and fields. But developments in the world are only the context for specific developments in the manufacturing of concrete country. Global financial and economic crisis had very different overall effects on different countries. The world financial crisis that began in 2008 affected countries in different ways, depending on their forms of international integration (Myant and Drahokoupil, 2011; Wade, 2008; 2009; Friedman, 2009; Stiglitz, 2009). The Estonian economy is very small and very open. It actively participates in international trade, but is small enough compared to its biggest trading partners. Therefore Estonian policies in practise do not alter world prices, interest rates, or incomes. The Estonian economy is a typical price taker. Due to the very small domestic market, export is main driving force of the economy and the main source of economic growth. As the Estonian economy substantially depends on export, it, manufacturing included, is extremely sensitive (much more than large countries with big domestic markets and more closed economies) to all influences of the global economic environment. Global financial and economic crisis was very badly timed for Estonia. An inner structural crisis had already developed in the Estonian economy. The Estonian economy had already grown weak and vulnerable to external shocks. Sharp deterioration of global conditions meant for Estonia amplification and piling up of two big factors (inner and outer), and contraction of the economy was inevitable. The Estonian manufacturing had reached the stage of faster, more radical and painful changes again. It was realized that further development in Estonia would be to a very large extent determined by external factors – developments in the world (especially in EU) and in the economic environment. They determine in the main challenges, opportunities and economic playground in Estonia. In 2008, compared to 2007, production in Estonian manufacturing decreased 4.5%. The year of 2009 turned out to be an even more difficult. In 2009, compared to 2008, Estonian manufacturing production decreased as many as 28%. This was caused by inadequate demand on both domestic and foreign markets. But in addition to big difficulties, the global financial and economic crisis provided for Estonian manufacture also an exceptionally good chance for change and development. The situation changed considerably and it was not possible to go on as before. The global financial and economic crisis had a purifying and disciplining effect, enabled to eliminate from the manufacturing wrong investments and inefficient enterprises, and lowered the proportion of domestic market focused branches. Assets were redistributed from passive economic agents to active ones and in favour of those who had capital for growth financing. During boom years, the economy was mainly simply expanding, but during the decline, new ideas and more effective ways were searched for. Now at last it was possible to realize changes that were impossible to do during stable and fast growth. During the global financial and economic crisis, several industries with long historical traditions (for example cotton industry) disappeared in Estonia. Also several relatively new enterprises set up by foreign capital in 1990s, which were primarily focused on cost advantage (low taxes, cheap labour, electricity, water, etc., partly

also cheap resources and materials bought from Russia) and not interested in operating for long in Estonia, terminated their activity. Many low-technology, labour-intensive and low-capital-intensive productions that came to Estonia during 1990s moved to CIS or Asia. Unlike the developed and rich industrial countries Estonia had not in the least interested in keeping its status quo, and wanted to change it quickly and essentially. The global financial and economic crisis provided for this an exceptionally good chance. All sorts of developments, international relocation of production and reallocation of economic power in the world gathered speed. Although: (1) the global financial and economic crisis had caused an economic decline in countries Estonia was exporting to; (2) the protectionist tendencies – also inside European Union – had grown stronger; (3) suppliers demanded advance payments; (4) the Estonian kroon being pegged to euro – until the end of 2010, before joining Economic and Monetary Union of the European Union (EMU) and bringing into use euro – had grown more expensive for some currencies (Sweden, Russia, Ukraine, etc.) of export countries; and (5) loan raising was much more difficult than previously, etc., attempts were made by Estonian manufacturing enterprises to take maximum possible advantage during the global financial and economic crisis. There were also positive developments for entrepreneurs: (1) raw material prices in the world market had fallen; (2) real estate was cheaper; (3) wage pressure had abated; (4) the failing enterprises disappeared from the market leaving gaps and many enterprises were looking new cooperation partners; (5) supply chains were changing; and (6) many international corporations were selling local subsidiaries; etc. Estonian manufacturing had potentially a splendid opportunity to exit from the global financial and economic crisis as a winner, and take up a more dignified position in international division of labour than before the crisis. This, however, demanded many fundamental changes. The state of Estonia (in the first place Enterprise Estonia, Development Fund, Tallinn Entrepreneurship Agency, various techno parks, ministerial units of innovation, etc.) had tried, within the their limits of competence and financial resources, to create innovative economic environment and provide general recommendations for economic development. The recommendations of the state arise from matter of fact that: (1) the wealth distribution scheme in the contemporary globalized world is very contradictory; (2) success of manufacture is based on specialization in useful, high-value-added activities; and (3) incomes of the participators in the world economy are most influenced by whether and how they can find a niche in a high-value-added branch and value chain. Unfortunately, the state of Estonia was not able (competent) to say what exactly should be done and can be done. Entrepreneurs themselves had to devise a successful business plan. In 2007, Estonia was given the 163<sup>rd</sup> place in terms of labour market flexibility in the international rating of 181 countries (Eurostat, 2013; ILO, 2013). The new Employment Contracts Act (Employment Contracts Act, 2008), which entered into force on July 1, 2009, improved situation in the Estonian labour market. Now the labour market is more flexible and labour force can easily and rapidly move from low-productivity branches to more productive ones. The educational system changed more flexible too. A problem for Estonia during the boom years was that the labour market gulped down people with three years of general higher education who needn't be and were not specialists. Large drop-out numbers from high-schools threatened long-term competitiveness of Estonia. Economic decline and related unemployment provided many with a forced opportunity to continue education and graduate. At the same time, career counselling of high-school graduates improved significantly, as well as retraining and continuing education (Estonian Ministry of Education and Research, 2013). Most of manufacturing enterprises had the following strategy options in that period: (1) lower costs – revise all processes and their management (organizational innovation); (2) change their production or services – differ from others (product or service innovation); (3) increase revenue – sales outside Estonia, continuing internationalization, cooperation with partners; (4)

replace labour with capital – investment, reduce labour-intensive production; and (5) change the position in existing value chain or find new better value chain – move toward end consumers or toward product development. Usually Estonian manufacturing enterprises in this period acted in the following ways:

1. tried to shift from branches and activities where it was difficult or practically impossible significantly increase productivity and value-added, to more profitable and promising ones;
2. operated increasingly more and actively in international networks and value chains. They located procurement, production, distribution, marketing, sales and services in different countries across the world and performed every operation where the price-quality ratio was the best. Transnational relocation of production – mainly through foreign investment and subcontracting – was growing at an increasingly faster rate. Most of enterprises tried to find their opportunities in the “declining” market and profitable niche;
3. tried increase value-added and profitability by developing production, technology and sales, to climb up in value chain. Producers or service providers used mainly three possibilities to raise the value: (1) turn into a product developer; (2) turn into a brand holder; and (3) move up in the value chain to higher value-added products/services;
4. set target to high-technology production, which as rule, guarantees greater value-added and higher productivity. But owners and executive managers of Estonian manufacturing enterprises understood that high-technology branches shouldn’t be identified with high-technology production. All branches today contain segments of high-technology production and products, effective marketing channels, well-known brands, etc. In the global market a brand owner in low-technology branch earns as rule more than subcontractors in high technology branches. Value-added in electronics industry as a whole is definitely higher than in textile industry. But on the other hand, there are many low-productivity enterprises and entire branches in electronic industry (primitive subcontracting, assembly operations, etc.). And, for example, in textile industry there are old, famous enterprises producing billiard, game table fabrics which own a well-known brand and earn enviably high profits, and very successful factories producing various specific products (cloths for firemen and racers, bulletproof fabric, etc.);
5. tried to implement a strategy of big Western corporations, dedicated themselves only to product development, logistics and marketing. They tried to administer trademarks, product portfolios and value chains. Production was organized in some “cheap” countries. Such leading manufacturing enterprises tried to work as “producer without a factory”;
6. tried to be competitive at least in subcontracting market (if it was not yet possible to be successful with end products). They tried to shift from single procurement contracts to long-term contracts, become standing suppliers, participate in R&D activity, achieve high technological competence, and being aware of the whole production cycle. Enterprises tried to orient to such high-technology subcontracting that the customers were not capable of doing themselves. For that enterprises needed to own something that customers didn’t have – know-how, specialists, equipment or something else. These were the subcontractors by whom customers concluded long-term contracts with and assisted in introducing standards, management systems, etc. For such subcontractors customers paid well and such business partners were respected. There was much less sense to orient to such subcontracts which could be done cheaper than by the customer himself (a better price to quality ratio), for production for which the contracting entity had no sufficient production capacities or what was ordered outside to diversify risks (so as not to create own production capacities which, when the conjuncture grew worse, would remain under-utilized);

7. tried continuously to use their proximity to West-European market, their ability to produce small quantities, as well as operative and flexible production. In China and India one can get a subcontract at a better price-quality ratio than Estonia. Fortunately for Estonia, these countries are far away from large Western firms. Those who order subcontracts prefer to avoid large time differences, long air travel; they have problems with an inadequate infrastructure, different culture and food that they are not accustomed to. Therefore West-European firms have so far preferred Estonia. Employees of large firms in Nordic countries and Western Europe, which are up to three hours travel from Tallinn, prefer Estonia to China and India regardless of the worse price-quality ratio. However, time is not working in favour Estonia. The price-quality ratio is growing more and more significant.

#### **4. CHALLENGES AND OPPORTUNITIES OF ESTONIAN MANUFACTURE AFTER THE INCOMPLETE STABILISATION OF ECONOMIC ENVIRONMENT**

In 2010 Estonian economy started to recover from the crisis, the confidence of entrepreneurs and consumers improved, especially significant was growth of export volumes (Estonian Institute of Economic Research, 2010). While in the middle of 2009, Estonia was the country with the largest decrease in manufacturing production among the EU Member states, then already in the 2<sup>nd</sup> quarter of 2010 Estonia became the country with the most rapid growth of production (Eurostat, 2013; Statistics Estonia, 2013). However, the influence of global financial and economic crisis was not over yet and there was still a risk of some setbacks during further improvement of world economy: (1) support packages of many countries had restored their domestic demand, increasing demand also for Estonian exports, including subcontracting. When the main destination countries for Estonian exports (Finland, Sweden) terminate their economic revival programs, demand in these countries – particularly for subcontracting of Estonian manufacture – may decrease again and so will Estonian exports; and (2) there was a risk (temptation) that under fallen labour costs (wages) Estonian manufacturing enterprises do not accomplish any fundamental changes – cheap workforce enables to produce and sell again labour-intensive, but low value-added products and services. This however will lead to repeat crisis. Moving out of the crisis is the immediate challenge, but the biggest challenge is to escape the reflex to try to return the pre-crisis situation. There raised new problems and old problems grow sharper. After the incomplete stabilisation of economic environment, the structure of Estonian manufacturing was, without any doubt, better and more effective than before: (1) technological level higher; (2) organization of work more perfect; (3) value added and productivity higher; (4) position in value chain better; and (5) maybe also the value chain itself new and better. But problem was that there were fewer jobs in the new structure of manufacturing than before the crisis – 135.0 thousand in 2008 and 108.4 thousand in 2010 (Statistics Estonia, 2013). Unemployment remained extremely high, and continued to be problematic. Another problem was that investment-intensive new technologies and high-value jobs were created mainly in Estonian capital city – Tallinn and around it. Only top specialists and skilled workers in the capital city benefited from these, not “ordinary people” in other regions. Not all people are enough qualified and do not fit into high-technology production. Such structural changes even increased structural unemployment and economic, social, regional, etc., stratification. Unfortunately the competitiveness of subcontracting manufacturing enterprises of Estonia was negatively affected by that airport of Tallinn lags significantly behind the airport of Riga by number of airlines and destinations. Price-quality ratio of subcontracting in Baltic countries is more or less the same and West-European enterprises which order subcontracts from the Baltic region had therefore started to prefer Riga where they can fly from many cities without changing planes. Restructuring of

manufacture was also disturbed by unsatisfactory infrastructure. While previously cost and profit were the main determinants in the traditional location theory, then nowadays soft factors such as “quality of life” (housing and environment), “image” of the place or “private” reasons are very important determinants. Modern living and work environment are very important for potential high-technology investors and skilled labour. Highly skilled workers/specialists, as a rule, have a well-kept and demanding for the living conditions family. They are willing to live and work only in region where there is a good infrastructure, or move to such place from a place that does not satisfy them. A high-quality living environment is an increasingly important location decision factor for companies which need to attract young and talented educated staff. The availability and range of high-quality affordable housing is increasingly important.

## 5. CONCLUSION

During global financial and economic crisis all sorts of developments, international relocation of production and reallocation of economic power in the world gathered speed. This provided for Estonian manufacture an exceptionally good chance for change and development. Unlike the developed and rich industrial countries Estonia had not in the least interested in keeping its status quo, and wanted to change it quickly and essentially. Estonian manufacturing had potentially a splendid opportunity to exit from the global financial and economic crisis as a winner, and take up a more dignified position in international division of labour than before the crisis. After the incomplete stabilisation of economic environment, the structure of Estonian manufacturing was, without any doubt, better and more effective than before: (1) technological level higher; (2) organization of work more perfect; (3) value added and productivity higher; (4) position in value chain better; and (5) maybe also the value chain itself new and better. But problem was that there were fewer jobs in the new structure of manufacturing than before the crisis. Another problem was that investment-intensive new technologies and high-value jobs were created mainly in Estonian capital city – Tallinn and around it. Only top specialists and skilled workers in the capital city benefited from these, not “ordinary people” in other regions. Not all people are enough qualified and do not fit into high-technology production. Such structural changes even increased structural unemployment and economic, social, regional, etc. stratification.

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## LOCAL ACTION GROUPS IN SOCIAL AND ECONOMICAL DEVELOPMENT OF COMMUNES

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### ABSTRACT

*Polish accession to the European Union has set many challenges facing the country in a variety of ways: social, economic and political. It created a chance of getting financial support for rural development. The chance of growth among local communities depends on the capacity to self-organize their efforts and making creative, collective actions. The activities of local authorities depends on people, their ideas and the way in which they understand the goal of the local authority, so the level of social capital may significantly influence the pattern of local social politics. In order to stimulate community involvement in development of the area and make better use of its resources, there is a need to build social and economical capital in the country. Due to the low level of activity and engagement of rural communities in local structures, reluctance to cooperate, stimulating activities, promotion or training maintained by the Local Activity Groups, are especially important for the development of rural areas. This article aims to highlight the role of the Local Action Group (LAG) in the social and economic communities implementing the Common Strategy of the Local Development.*

**Keywords:** *Local Action Group, Local Development Strategy.*

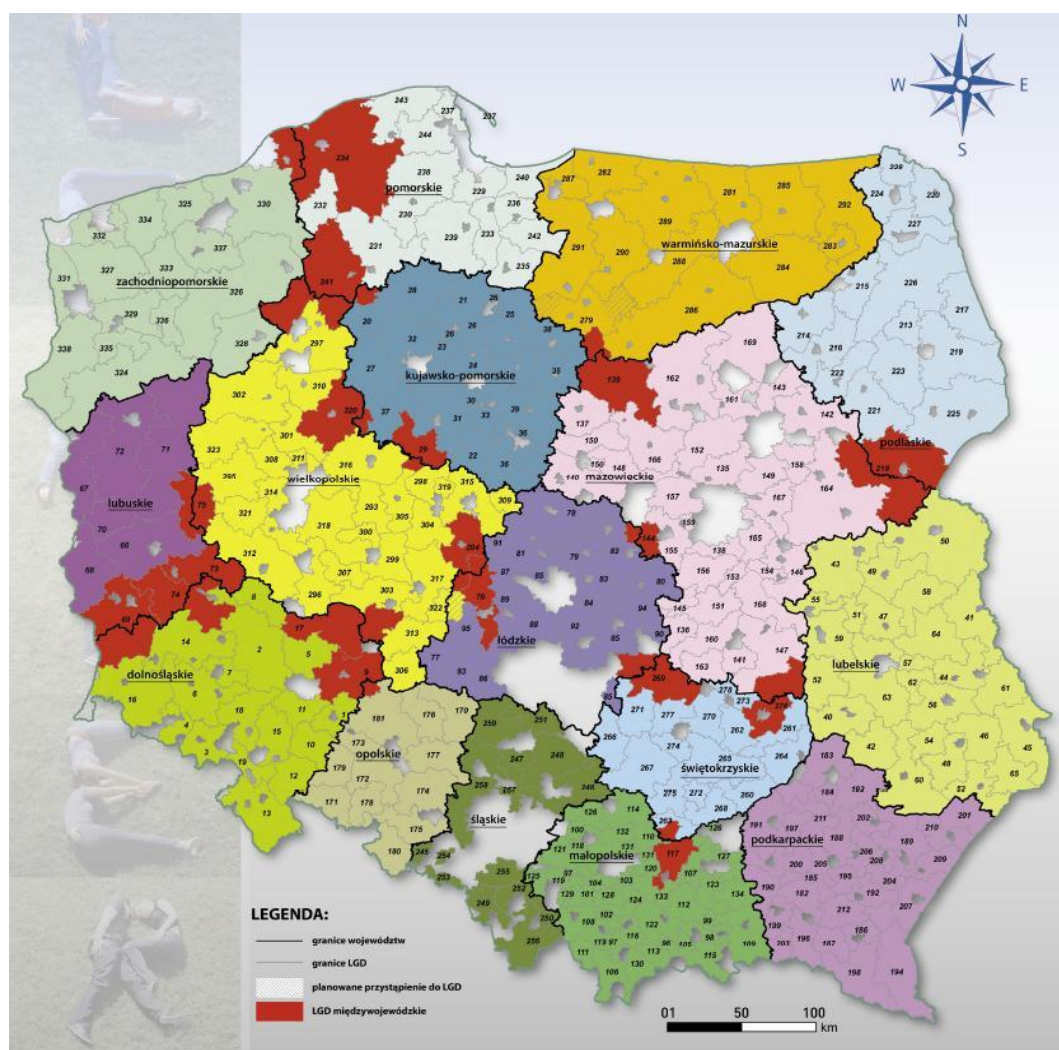
### 1. INTRODUCTION

In order to stimulate community involvement in development of the area and make better use of its resources, there is a demand to build social and economic capital in the country. Due to the low level of activity and engagement of rural communities in local structures and reluctance to cooperate, stimulating activities, promotion or training maintained by the Local Activity Groups, are especially important for the development of rural areas.

**Local Activity Group (LAG)** is a type of territorial partnership formed usually in rural areas, bringing representatives of local organizations together (both public, private sectors among with non-governmental) and the inhabitants of the area designated communities. Local Action Group performs Local Development Strategies (LDS) in the area of 10 thousand to 150 thousand residents. This condition is designed on one hand - to provide "local" character, and on the other hand - to provide adequate capacity for the implementation of the strategy (*Status of implementation of the Rural Development Programme 2007-2013*, 2012). A very important element in the creation of LAG is that at least 50% of its members belong to the private and non-governmental sector as well as to is representative for the area in which it operates.

### 2. LOCAL ACTION GROUPS IN POLAND

LAGs as residents associations, businesses or local authorities can maximize the benefits of their site for social and economical recovery. External support - the development of a particular region is local and it is very important. The country sees the rapid development of LAG (Map 1).



Map 1 Local Activity Groups in Poland ([www.ksow.pl](http://www.ksow.pl))

Local Activity Groups in Poland was divided into three categories according to the number of inhabitants of the area covered by the action (Supera Markowska, 2008, p.72):

- small groups from 10 thousand to 50 thousand people;
- the average group size: more than 50 thousand to 100 thousand people;
- a large group of more than 100 thousand to 150 thousand residents.

The category of small groups includes 187 groups, ie 55% of all Polish LAG. The category of medium-sized groups includes 140 LAGs. The largest groups account for only 3.24% of all LAGs in the country (Kwatera, 2010, p. 95.). The area covered by the local development strategies is being resided by 16 877 180 people - 91.29% of rural population in Poland and 44.27% of all Poles (UM, 2012). Most of LAG is located in western and northern parts of Poland. The Mazovian Voivodeship operates 35 local action groups (Table 1). Polish LAGs work as foundations, unions and the “special” associations established under the provisions of the Act of 7 March 2007 on support for rural development with the participation of the European Agricultural Fund for Rural Development (Journal of Laws No. 64, pos. 427, with later amended) (*Audit Report*, 2012, p 21). Out of the 338 LAGs in Poland until 310 groups chose form of association. In addition, there are 21 foundations and 7 trade associations (Augustynowicz, 2011, p. 4).



*Table 1: List of Local Action Groups Masovian Voivodeship  
(the Ministry of Agriculture and Rural Development, 2012)*

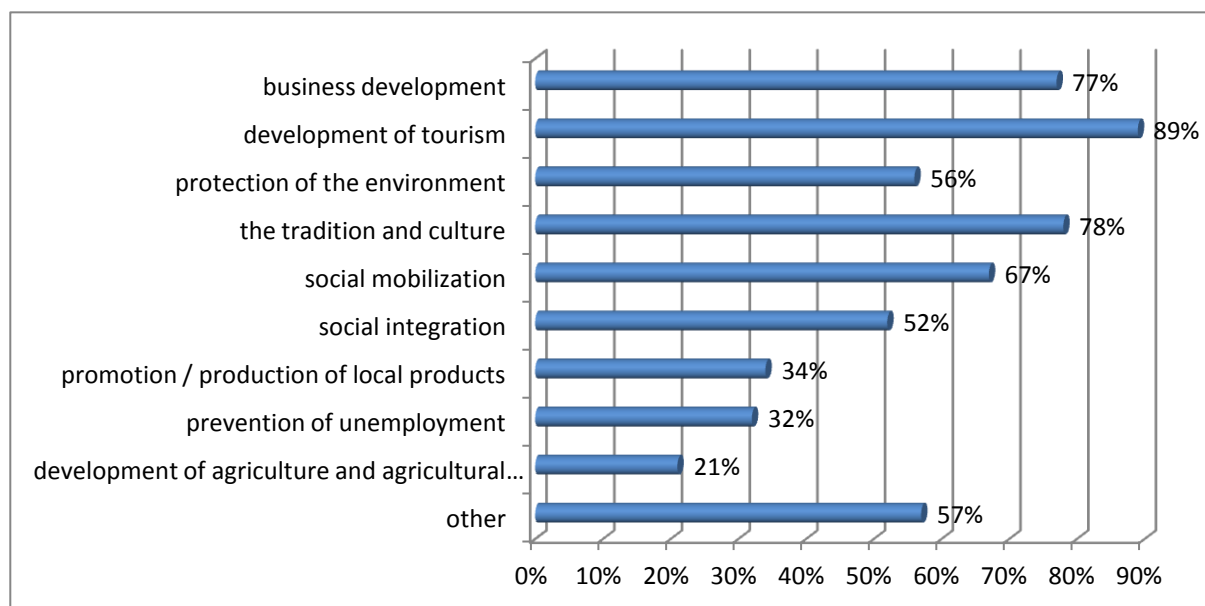
No.	Name of Local Action Group
	Development Association of Plock
	Local Action Group "Zapilicze"
	Local Action Group Orzyc-Narew
	Association of Communes and Towns Development District Garwolińskiego
	Association "Land Blooming Orchard"
	Local Action Group "Forest Kozienicka"
	Union of Associations "Partnership the Lagoon Reservoir"
	Association of Local Action Group "Let's be Together"
	Association of Local Action Group "Sierpeckie Partnership"
	Union of Associations "Kurpsie Together"
	Local Action Group Commune Nadpiliczna
	Association "Together for Radomka"
	Development Association of Commons Tarczyn, Prażmów - Local Action Group today LAG Pearl Mazovia
	Local Action Group "Plain Wołomińska"
	LAG Nature Society and Culture
	Association "Green Bridges of Narwia"
	Association "Legacy and Development"
	Association of Local Action Group "Chełmońskiego Land"
	Local Action Group "Common Route"
	Local Action Group - Friendly Mazowsze
	Foundation Partners Group Local Activities "Train Krasinski"
	ASSOCIATION "CAPITAL-LABOR-DEVELOPMENT"
	Local Action Group "Echo of the Forest Bolimowska "
	Local Action Group Minsk Land
	TOTAL ACTIVE Foundation
	The association "Between the Vistula and the Kampinos"
	Association of Social Self-Local Action Group
	Local Action Group "Warka"
	Local Action Group "All Together"
	Association of Local Action Group "Neighbor Mazowsze"
	Association of Local Action Group "Green Neighborhood"
	Local Action Group "GREEN SIOŁO"
	Local Action Group "On sandstone"
	Association of Local Action Group - Powered by county Garwolińskiego
	Association of Local Action Group "TOGETHER FOR DEVELOPMENT"

### 3. LOCAL DEVELOPMENT STRATEGIES

Local Activity Groups are responsible for creating and implementing a local development strategy for their territory and the distribution of grants for these purposes. Local rural community is developing a Local Development Strategy (LDS), the content of which must be consistent with that defined in the implementing regulations. One of the main elements of the strategy is to present the general and specific objectives. Objectives should meet the SMART criteria, that means to be (Futymski and Kamiński, 2008, p. 26):

- S (specific) - a solution to the problems identified by the strategy and challenges;
- M (measurable) - measured by indicators - objective must have a indicator and scale values;
- A (ambitious) - ambitious;
- R (rational) - possible to achieve;
- T (time-bounded) - in a specified time horizon.

Most LDSs implemented by LAGs indicate specific objectives included within the following areas: prevention of unemployment, promotion or production of local products, social mobilization, the tradition, environment, development of tourism, the development of agriculture (Figure 1) (Ministry of Agriculture and Rural Development, 2009, p 14).



*Chart 1 The specific objectives of the LAG in Poland (in %) (own study based on MRRiW, 2009, p 14)*

Among other objectives LAGs most indicate a higher quality of life, education, improve safety, improve infrastructure, public space and the overall promotion of local communities. Budgets of Local Action Groups (grants) depend on the number of people registered for permanent residence in the LAG. The implementation of the local development strategy LAG has at its disposal is an amount equal to the product of number of inhabitants and rate of 116 zł. In addition, LAG can get 29 zł operating costs and 3 zł for cooperation projects.

#### **The role of the LAG in the selection of projects and operations financed by the EU**

- implementation of LDS (about 79% of the LDS budget);
- preparation, implementation of projects and transnational cooperation (approximately 2% of the LDS budget);
- strengthening the institutional capacity of LAG and its members (up to 15% of the budget);
- acquisition of skills and activation (approximately 4% of the budget).

The implementation of LDS is selected through projects a competitive process, in four patterns: country renewal and development, diversification into non-agricultural activities, creation and development of micro and small projects. Each LAG based on the LDS chooses topics of projects and determines the total pool of funds for financing projects in every scheme. LAG requests Provincial Government to open call for grant aid, assess the proposals of the LDS, evaluates applications based on local criteria for selecting and recommending proposals for grant support. LAG also monitors the implementation of projects that have received support and advises the implementers. LAG is not fully autonomous in decision-making, calls for proposals and the funds paid by the regional authority or the Agency for Restructurization and Modernization of Agriculture.

#### 4. ASSOCIATION OF SOCIAL HELP LOCAL GROUPS AS AN EXAMPLE OF LAG IN POLAND

The initiators of creation of Social Help Association - Local Action Group (SHA - LAG) were institutions from public administration and local government, social security and trade unions (Kapczyński L., 2010, p 3). SHA-LAG brings together 68 members, including 16 legal entities and 52 individuals. Among the members of the Association there are Representatives: Regional Labour Office in Ciechanów District Employment Offices in Mława and Żuromin, entrepreneurs, representatives of local governments in Biezuń, Żuromin, Lutocin, Kuczbork, Lubowidz, Siemiątkowo, Radzanów, Strzegowo, Szreńsk, Wiśniew, Lipowiec Koscielny, Głinojeck and Lidzbark, Association tourist farms "Green Northern Mazowsze", University of Warsaw - Faculty of Management's Ciechanów and farmers (Assumptions to LDS for SSS-LAG, 2009, p. 6). The areas of SHA-LAG's Effect are mostly rural (9) and urban areas (4). Głinojeck, Biezuń, Żuromin and Lidzbark counted as urban and rural areas, have less than 20 thousand residents, so they can be incorporated into the present institutions (Map No. 2). LAG area is 4.48% of the Mazowieckie Province and is inhabited by 1.46% of the total population of region and 1.0 % Warmia – Mazury. 1.1 % LAG area is inhabited by 87 875 people<sup>24</sup>, including 3 668 unemployed.<sup>25</sup>



Map 2. Area covered by the implementation of LDS ([www.ssslgd.pl](http://www.ssslgd.pl))

The aim of SHA-LAG is implementation of tasks related to the development of local action to minimize effects of unemployment, promotion of entrepreneurship in rural district of Żuromin, Mława, Głinojeck and town with district Lidzbark. The SHA - LAG provides assistance to families in difficult situation, people with disabilities, people at risk of social exclusion, through charitable activities, integration, cultural and scientific organization of training courses and conferences to stimulate economic activity, providing expert advice in the field of fundraising, business and professional qualifications. The aims of the association contain also activities and developing cultural awareness of society, keeping local traditions,

<sup>24</sup> Data according to the Civil Registration Offices Municipalities included in the LAG area.

<sup>25</sup> Data by PUP in Mławie and Żuromin and VLO Ciechanów.

protection the environment, ecology, development of science, culture and arts, promotion of physical culture, sport and active recreation (Table 2) (Długolecki, 2012, p. 55).

*Table 2: The main objectives and details recorded in the LDS  
(own study based on Długolecki A, Stefanski J. 2012)*

<b>Vision</b>	Area attractive for settlement - "Want to live here" and promoting development of local entrepreneurship, weekend tourism center, the area known in the region with local products				
<b>General Objectives</b>	<b>I.</b> Improving the quality of life in rural areas including conditions of employment.			<b>II.</b> Valorisation of natural and cultural resources.	
<b>Specific Objectives</b>	<b>I.1.</b> The development of tourism and agro-tourism	<b>I.2.</b> Development and promotion of entrepreneurship, including agricultural services	<b>I.3.</b> To develop the products and services of local people	<b>II.1.</b> Preservation and promotion of cultural and natural heritage	<b>II.2.</b> The development of agriculture through advice, training and promoting modern methods of farming, with particular emphasis on environmental concerns and healthy food

The general objectives are strictly linked to the planning documents for the region. These documents include: Mazovian Province Development Strategy 2020, the District Development Strategy Żuromin, Mława, Ciechanów, Działdowo and Development Strategies of each of the member municipalities. In each strategy, the records of employment growth competitiveness can be found, shaping the identity of the region, development of tourist infrastructure, recreation and social services, promoting innovation and environmental protection.<sup>26</sup>

The following projects (defined as number of projects or operations), and preferred types of operations include strategic intentions LDS (Table 3).

<sup>26</sup> More: SR WM, intermediate objectives 1-5.

*Table 3: Objectives and measures to achieve in 2015*  
(Długolecki A, Stefanski, J., 2012)

The general objectives	Indicator	The value of the expected in 2015
I. Improving the quality of life, including conditions of employment  II. Valorisation of natural resources and culture.	Migration rate per 1,000 population	- 3
	Entrepreneurship rate - the number of operators in the TAX per 1000 inhabitants	56
	Number of tourists per 100 inhabitants (Schneider's indicator)	350
Projects	Indicator	The value of the expected in 2015
<b>I.1.1.</b> Development of infrastructure, gastronomy and accommodation	1 Number of new and modernized dining options	3
	2 Number of new and modernized farms for tourism, including e-services	5
<b>I.2.1.</b> Creation of new businesses, investment support existing and creation of new jobs	3 Number of new, upgraded or better-equipped enterprises including e-services	28
	4 Number of farmers or family members who started a non-agricultural activity	14
	5 Number of new jobs, including self-employment	28
<b>I.3.1.</b> Creating a base for hiking, cycling and water mainly along the river Wkra	6 Number of new hiking trails	3
	7 Number of new cycle paths	3
	8 Number of developed sites related to tourism (parking, lighting these places, the sidewalks at these locations), including town centers	13
	9 Number of bases for the development of gastronomical infrastructure and accommodation along the hiking trails	8
	10 Number of modernized existing and new demarcated and marked trails for hiking	3
	11 Number of new boathouses	2
	12 Number of purchased equipment for water sports	4
	13 Number of executed promotional activities in the field of tourism	4
<b>II.1.1</b> Sports adults, children and adolescents	14 Number of new or modernized sports and recreation facilities, including a base for active leisure of children and young adults	15
	15 Number of cultural or sports and recreation or better equipped teams (clubs) sporting or artistic groups	17
	16 Number of new or modernized playgrounds	13
	17 Number of new or modernized dayrooms	40
<b>II.2.1</b> Efforts to adapt to the requirements of local EU waste management and environmental protection in the LGD	8. Number of farmers covered by training and consultancy	60

To realize these indicators SHA LAG have a budget of 10 433 040,00 zł. (it's about 2 484 057, 14 EURO), which are designed for the execution of selected projects. In addition, the SHA LAG applying for funds from the Regional Operational Programme, Mazovian Human Capital Operational Programme, the Operational Programme Infrastructure and Environment and Innovative Economy (<http://pokl.mazowia.eu/>).

SHA LAG finances, supports and develops:

- tourism by creating a base for hiking, cycling and water centered around the river Wkra (Newsletter, 2010);
- entrepreneurship by creating a new businesses or provide support for the development of existing or creation of new jobs, creating vacancies, modernization of enterprises, their use in e-services; for farmers and their family members to create the possibility of starting a secondary activity that would be a an additional source of income; the large and absorptive market for goods and services, and a number of farms, poultry and eggs;
- rural economy through the provision of advice and training operation to adapt to the requirements of households of Common Agricultural Policy, especially on environmental issues and waste management in the area of LAGs and therefore promotes projects that contribute to creation of the information centers, organizing cycle training to farmers and of producers to local products;
- rural tourism through the creation or modernization of infrastructure, gastronomy and accommodation on farm tourism;
- promotion of local products and services, training and promotion of traditional products, environmental and regional construction of facilities for the purpose of promotion, organization of events, exhibitions and fairs;
- the local heritage by including equipping of sports clubs and arts, building of sports facilities for the children to their summer and winter activities, upgrading playgrounds, organization of recreational, cultural and sporting events, rallies, etc.

The main source of funding for activities LDS is the budget, which amounted to 10 433 040,00 zł. This amount is broken down to following operations:

- 1 410 000 zł for operations for action: *Diversification into non-agricultural activities*,
- 1 804 137,76 zł for the *Creation and development of micro-enterprises*,
- 5 924 816.37 zł for *Renewal and development of villages*,
- 1 293,135,87 zł for *Small projects*.

In the period 2009 - 2012 SHA LAG activities were carried out under "*Implementation of local development strategies*":

- two calls for proposals on "*Small Projects*" in 2010 and in 2012;
- three calls for proposals on "*Renewal and development of villages*" - in 2010, 2011 and 2012;
- three calls for proposals on "*Creation and development of micro-enterprises*" in 2010, 2011 and 2012;
- three calls for proposals on "*Diversification into non-agricultural activities*" in 2010, 2011 and 2012.

The influence of implementation the LAG on the development of the region is dependent on the scale of resources allocated to specific objectives and actions.

## 5. CONCLUSION

Local Action Group is a new organization in the area of social life in the Polish countryside. Their aim is to stimulate the activity of rural communities and their participation in the development and implementation of local development strategies. Looking for new ways to improve the quality of life in rural areas, to act as advisors, provide training, and activate the local community. Completed projects in accordance with the LDS influence the development local economy through business development, introduction of new services and products. With the financial assistance received there are new jobs being created which provide income, and also a source of livelihood for the applicant and his family. Infrastructure projects improve the quality of life in rural areas, as exemplified by the built sports fields, providing residents access to modern sports infrastructure. These projects are also affected by an increase in the attractiveness of rural areas.

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## MARKETING PERSPECTIVES FOR THE CONSTRUCTION SECTOR

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### **ABSTRACT**

*The rapid trend of globalization and technological change has made it difficult for construction companies to survive in the competitive world. The current crises in the global economy have particularly affected the construction sector in developing countries such as Croatia. This paper gives a short survey of the Croatian construction industry during the past several years and proposes models for its recovery. One of the models is entering the global market, which brings many problems. Croatian construction companies have very low performance on international markets and this is a serious problem for the entire Croatian economy. International marketing operations are therefore rapidly becoming increasingly important, but international marketing strategies are not the same as domestic strategies.*

**Keywords:** *construction sector, Croatian construction, internationalisation, international marketing strategies*

### **1. INTRODUCTION**

The construction sector always has a strong impact on a country's entire economy. Today this is the only activity that is truly universal – global. Many people say that construction is a specific activity – and they are right, it is. Every industrial activity is specific in its own way. Like for any other activity, marketing for the needs of construction means understanding and adopting general marketing principles and applying them to the specific and particular conditions in construction. Construction companies began to introduce marketing strategies more seriously at the end of the eighties, because the economic crisis in the former Yugoslavia had reached worrying proportions. In 1991 the war in Croatia began and lasted for almost five years. A direct consequence of the destruction of factories, hospitals, schools and the entire infrastructure of many towns, the exceptionally great "costs of war", was the disappearance of many companies and people lost their jobs. Although the reconstruction of destroyed cities and infrastructure started as early as the beginning of 1992, a significant renewal process did not begin until 1995. Renewal began with more intensity with the ending of the war and the greatest investor was the state. By that time the construction sector had been drastically transformed (the large construction companies had disappeared or were struggling against great difficulties brought about by transition). Many new small to medium size companies were born and Croatian construction began to expand as there was more work than the builders could do. The market was imbalanced and there was no need to introduce any kind of marketing strategy at that time. Construction activities increased even more after 2001, triggered by a new investment cycle connected to the road infrastructure and housing. However, after a "golden age" in the construction industry lasting for about seven years, in 2008 the global economic crisis spread to Croatian construction, too. This was primarily expressed in decreased sales of properties, smaller investment into shopping centres and business premises, and cuts in infrastructure projects. Many companies found themselves in a



rapidly changing, more complex and uncertain environment, and business strategies became crucial for their survival on the market. This led to strategic company management which meant managing the company so as to avoid the many dangers facing it while taking advantage of all opportunities. Today most strategic indicators show that Croatian construction is still in a deep crisis. Some of the models for the future of Croatian construction might be a clearly defined marketing strategy, entering new markets and the internationalisation of operations, seeking for market niches or the association of Croatian construction companies. Research carried out in 1996 in more than 400 companies in the USA showed that marketing strategy pays and proved that a marketing business strategy has a very important positive effect on various indicators of business success, such as for example return on investments, sales increase and new products development (Walker, 1996).

## 2. THE IMPORTANCE AND SPECIFIC FEATURES OF THE CONSTRUCTION INDUSTRY

### 2.1. The importance of the construction industry for the national economy

The construction industry has always been closely connected with the social and economic activities of every country. It is a moderator and motor of the overall economy of countries on their national territory, whose results are expressed through the level and dynamics of growth, and the national product (Medanić, 1997). Today construction is the only activity that is, on one hand, truly universal, global, and on the other, very specific.

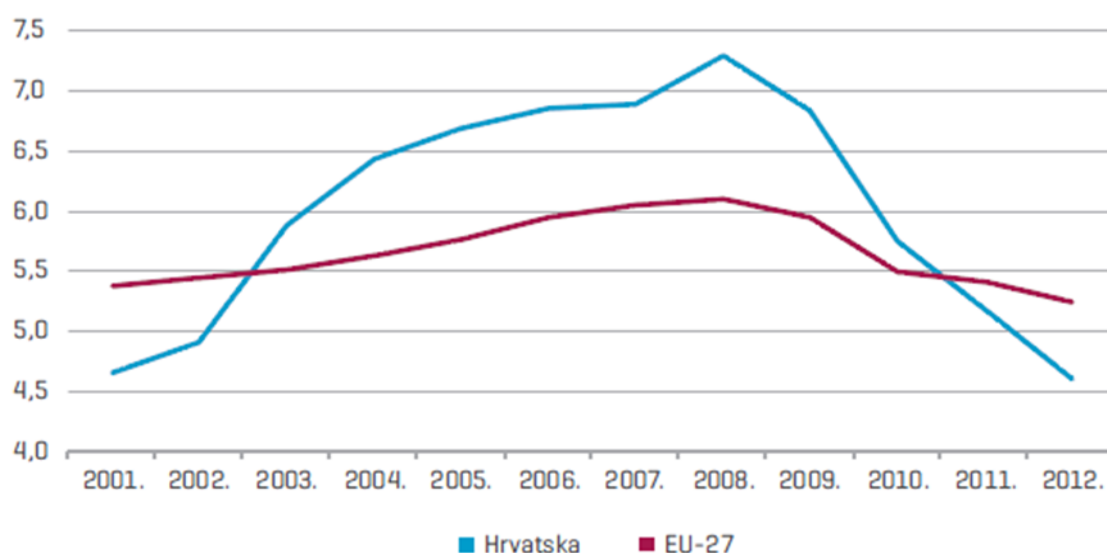


Figure 1: Share of construction in the GDP, in %  
(Eurostat, 2014)

The importance of Croatian construction for the entire economy is expressed in all the significant sector indicators. At the beginning of 2001 the share of construction grew in the Croatian GDP and this trend continued during the construction boom, when the Croatian Government adopted many development programmes such as the Subsidised Residential Building Programme (POS) and a four-year plan for the accelerated construction of motorways. It peaked in 2008, when construction reached more than 7% of the GDP. During all this period the share of construction in the GDP was higher in Croatia than the EU average (Figure 1). The economic crisis, which spread through the USA at the beginning of 2008, began with the second-rate loans for the purchase of the real estate properties. Soon it spread to all the rest of the world, including the Croatian economy, and the construction sector

suffered most. The share of construction in the GDP kept decreasing in the 2008-2012 period, even falling below the EU average (Buturac, 2013). Data on the number of employees also show the great importance of construction. In its peak year (2008.) construction sector employed 11% of the total work force. Furthermore, about 10% of all companies were construction companies and they made about 8% of the total income (FINA, 2011). The activity of the construction sector encouraged the development of other complementary activities: mining and excavation (gravel and sand), the processing industry (cement, bricks, glass, timber, sanitary ware), business services (project design). For example, in the construction materials industry the cement market dropped by two thirds in the crisis years. Domestic cement consumption has decreased by more than 60% since 2008, making the cement industry a collateral victim of the decrease of construction (Bisnode, 2013).

## **2.2. Specific features of the construction industry**

Construction is a worldwide activity with many special characteristics in comparison with other economic activities, in the first place with “normal” industries:

1. Immobility of construction products (buildings) – in all industries the product changes place in the production process, while the factors of production (people and machines) are static; in construction it is the opposite – the product (the constructed facility) is static, it does not change place, at the end of the “production process” it remains where it was made and the factors of production (people and machines) move to the next location, to the next “product”.
2. Complexity and size of construction products – this characteristic of the construction product makes it more difficult to organise building technology, to organise time and spatial processes on the construction site while making optimum use of the capacities of available resources (Čulo, 1997). A large number of specialised operatives appear on the building site and this number keeps increasing with the increase of specialised work.
3. Length of the production process – the time of building (beginning, construction and handing over) a facility is long-lasting and can take several months, or even several years. Cost-effective work on a project is very often jeopardised because deadlines are not kept and it becomes impossible to hand over the finished facility at the agreed time. This plays an important role in analysing investment effectiveness, contracting work on a new project and satisfying public needs.
4. Significant labour participation – human labour has always been decisive in construction: loading, unloading and transporting material takes up about 40% of all the work by immediate construction workers. Mechanisation of production processes in construction still lags behind that in product industry, because although machines are already replacing human work, this is taking place much more slowly than in industry.
5. Use of large quantities of materials – the facilities constructed by one company are distant from each other and also from the construction-materials production centre or the warehouse. Considering the large quantities of materials necessary and sometimes the great distances over which they must be transported, it is especially important to organise transport rationally.
6. Seasonal character of construction production – construction as a process, because of outdoor work, is strongly influenced by climate and meteorological conditions which depend on the special features of the construction location, the season and the like. Besides by climate, the seasonal character of construction is also affected by other factors, such as employment, customs of the labour force, the influence of winter on construction work, how well the company is equipped for work under winter conditions. An analysis of construction production in the Republic of Croatia shows that it is two to three times

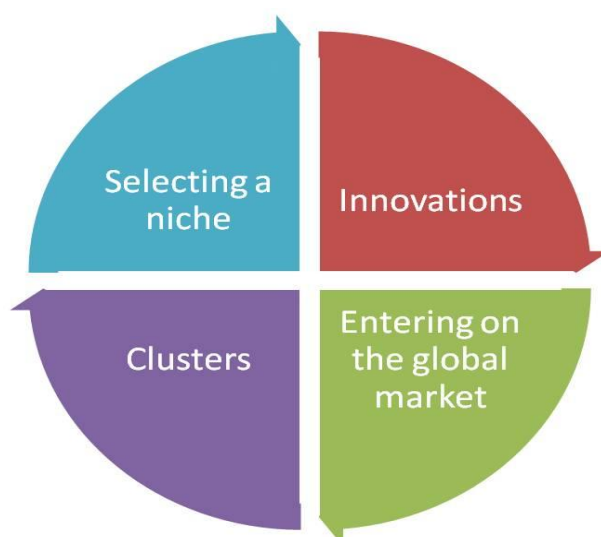
smaller in the first quarter of the year than in the fourth quarter, although weather conditions in these two periods are similar. This is so because of insufficient preparations for coming work during the winter. However, the weather does not affect every kind of construction work equally – its influence is much greater in constructing roads than in constructing buildings.

7. The one-off nature of production in construction – because of this separate preparations are needed for every project because the buyer/investor contracts the work and influences the place, size, quality and purpose of the future facility. These separate preparations lead to larger expenses and less-detailed technical documentation, which results in a high level of improvisation on the building site.
8. Unlike in the “normal” industry (where production for an unknown buyer dominates), in the construction sector production to order is the usual, as their highly individual nature, construction facilities are almost always made to order of a buyer/investor.

All the above shows that a lot is internally and externally conditioned, because of which construction and construction operations differ from other economic activities. These differences come to expression in the business aims of construction companies and impose on them demands for internal management and more exhausting external adaptations to environmentally-imposed working conditions. This furthermore indicates that there are objective reasons for the need to approach marketing in construction differently than in other industries.

### **3. MARKETING PERSPECTIVE FOR THE CROATIAN CONSTRUCTION SECTOR**

The purpose of marketing philosophy implementation in business organisation is to create and strengthen the company as a constantly growing concern. This opinion and point of view puts before the company the task of combining the things it does best with the best way of presenting them to clients (Pettinger, 1998). It is evident that the marketing function and the use of marketing activities are expressed the least of all activities in the construction industry. In Croatia, this was probably because of the constant growth, before the global crisis, of construction work and of construction as an industry. There was always work for engineers and there was no need to define and implement a clear marketing strategy as part of the overall business strategy, or to use the marketing function. In 2009 the Faculty of Civil Engineering Zagreb carried out a survey on the implementation of marketing strategies in Croatian construction companies. The research results show that Croatian construction companies do not make sufficient use of marketing. Because of this, due to their low awareness of the importance of marketing, and facing the crisis on the properties market, both in state investments and in reduced financing, they lost their place on the market and business efficiency. The question is, how can Croatian construction companies return to global construction and become competent on the global market. Figure 2 shows some of the ways/models for the recovery of the construction industry.



*Figure 2: Models for the recovery of the construction sector*

One of the models for the recovery of the construction industry could be for Croatian construction companies to enter clusters or consortiums. With the advance of the crisis and the easier entrance of foreign competitors on the domestic market, the idea of links with a foreign partner could be a guideline for domestic construction companies, even if only for a particular project. However, Croatian construction faces another problem, a lack of investments and foreign investors. Foreign investors in Croatia, gathered in the Foreign Investors Council (FIC), identified the reasons for this in their “White Book”, a document assessing the Croatian investment climate.

Among the gravest problems they mentioned legal insecurity, high and inconsistent taxes, parafiscal charges, long-lasting court proceedings and labour legislation. Because of these obstacles, Croatia is under many criteria one of the worst European countries for investment. In the World Bank and International Financial Corporation report “Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises” about the ease of doing business, Croatia takes 84<sup>th</sup> place in a total of 185 world countries (Figure 3).

Rank	Economy	DB2013 reforms	Rank	Economy	DB2013 reforms	Rank	Economy	DB2013 reforms
1	Singapore	0	63	Antigua and Barbuda	0	125	Honduras	0
2	Hong Kong SAR, China	0	64	Ghana	0	126	Bosnia and Herzegovina	2
3	New Zealand	1	65	Czech Republic	3	127	Ethiopia	1
4	United States	0	66	Bulgaria	1	128	Indonesia	1
5	Denmark	1	67	Azerbaijan	0	129	Bangladesh	1
6	Norway	2	68	Dominica	1	130	Brazil	1
7	United Kingdom	1	69	Trinidad and Tobago	2	131	Nigeria	0
8	Korea, Rep.	4	70	Kyrgyz Republic	0	132	India	1
9	Georgia	6	71	Turkey	2	133	Cambodia	1
10	Australia	1	72	Romania	2	134	Tanzania	1
11	Finland	0	73	Italy	2	135	West Bank and Gaza	1
12	Malaysia	2	74	Seychelles	0	136	Lesotho	2
13	Sweden	0	75	St. Vincent and the Grenadines	0	137	Ukraine	3
14	Iceland	0	76	Mongolia	3	138	Philippines	0
15	Ireland	2	77	Bahamas, The	0	139	Ecuador	0
16	Taiwan, China	2	78	Greece	3	140	Sierra Leone	2
17	Canada	1	79	Brunei Darussalam	2	141	Tajikistan	1
18	Thailand	2	80	Vanuatu	0	142	Madagascar	1
19	Mauritius	2	81	Sri Lanka	4	143	Sudan	0
20	Germany	2	82	Kuwait	0	144	Syrian Arab Republic	1
21	Estonia	0	83	Moldova	2	145	Iran, Islamic Rep.	1
22	Saudi Arabia	2	84	Croatia	1	146	Mozambique	0
23	Macedonia, FYR	1	85	Albania	2	147	Gambia, The	0
24	Japan	1	86	Serbia	3	148	Bhutan	0
25	Latvia	0	87	Namibia	1	149	Liberia	3
26	United Arab Emirates	3	88	Barbados	0	150	Micronesia, Fed. Sts.	0

Figure 3: Ranking of the ease of doing business (*Doing Business*, 2013, p. 3)

Investing in research and development, and product and services innovation could also help Croatian constructors to compete on the European and global markets. Croatian constructors cooperated on the domestic and foreign markets successfully until the end of the 1980s, and their experience made them recognised participants in the international construction sector. Although the whole world is competing on the global market, it is open and varied especially in the case of potential cooperation or finding niches, i.e. specialised production. Today entering global markets is increasingly becoming a survival strategy for all companies, especially for construction companies, because domestic construction companies have become much too small, and regional, even European, companies are in the same or similar stagnation or decline. Participation in international business makes it necessary to adopt new marketing principles, new technologies and educate personnel. Since Croatia has become an EU member state, the construction sector has also become an important part of the global economy and there is an increasing need for domestic construction companies to spread their business operations to foreign markets.

#### 4. INTERNATIONALISATION OF THE CONSTRUCTION INDUSTRY

Research into the internationalisation of construction companies is becoming increasingly important, both in the academic community and in construction practice. Existing research shows a variety of problems facing construction companies in the internationalisation of their operations, and potential strategies have been designed for construction companies entering international markets. Construction is generally known as an activity with many specific features which differs from other industries, whereas most research to date and knowledge about foreign-market entry strategies refer to production companies. Only a small number of researchers have touched on the internationalisation of construction companies. For example, Low and Jiang (2003) focused on the internationalisation of Chinese construction companies. They proposed a structural index of 5 factors identifying “truly global” companies: 1) ratio of foreign and total income, 2) degree of international distribution, 3) foreign managerial structure, 4) participation in specialised fields and 5) general internationalisation index.

Gunhan (2005) developed a foreign-market entry decision model for construction companies, which can also be used for other industries. The model consists of two steps: in the first step the company, on the grounds of a SWOT analysis, makes the decision about whether it is ready to enter foreign markets, and if it finds that it is, it compares the gains and losses. If the gains exceed the potential losses, the company chooses a business strategy for entering foreign markets. Cullen (2002) proposed a decision-making matrix that takes into account all the available foreign-market entry strategies. David Crosthwaite focused on the process of construction company internationalisation, especially in Great Britain. In his paper Crosthwaite (1998) showed the results of empirical research into the internationalisation of British construction companies between 1990 and 1996, with emphasis on the geographical characteristics of these companies' foreign business activities. He showed that most companies preferred to seek opportunities on developed markets as opposed to developing markets because of the secure environment and low level of corruption on mature markets. Accelerating globalisation and technological changes place great obstacles before companies that want to survive in the competitive world, and this is especially so in the construction industry. It is difficult to face the challenges of today's international construction system unless companies are more agile, adaptable and effective (Drewer, 2001). The company management chooses the strategy for entering the international market, and this depends on the company product, the technology at its disposal, personnel qualifications, the management itself and other resources (Root, 1987). This choice of strategy is considered the most critical decision of international marketing because it determines how the company will position itself on the international market (Terpstra, 1987). Construction companies respond to today's extremely competitive environment and increasingly sophisticated demands in construction by using strategies such as acquisitions, mergers, joint ventures, licenses and product/service development (Gunhan, 2005). Presence on foreign markets can be established by founding branches or merging with domestic companies (Low, 1996). According to Gunhan (2005), construction companies find three kinds of strategies the most suitable for entering foreign markets: turnkey contract, joint venture and own daughter-company. However, it was Chen (2005) who focused most on the choice of strategy for entering international construction markets. On the grounds of a case study of 94 construction companies on the international construction market, he divided strategies in two basic groups: permanent and temporary, and within these two groups he classed seven strategies characteristic of construction companies. These are: joint venture project, solo venture project and BOT (Build-Operate-Transfer) as **temporary strategies**, and representative office, branch office, joint venture company and solo venture company as **permanent strategies**.

*Table 1: Business strategies for entering international construction markets*

<b>Temporary Strategies</b>	Joint venture project	Joint investment on a project basis, also called <i>contractual joint venture</i> . Profit and other obligations are determined by contract for each party and last only for the duration of the project.
	Solo venture project	Own investment on a project basis, the company independently submits a tender or independently undertakes the project in a foreign country.
	BOT (Build-Operate-Transfer)	BOT is a system of financing the construction of infrastructure facilities ( <i>Project Finance</i> ). Private sponsors take responsibility for financing and constructing, maintaining and managing the infrastructure facility during a determined time period. They cover their investment by charging user services on a concession basis.
<b>Permanent Strategies</b>	Representative office	A formal company that performs business activities in a foreign country in the name of the management.
	Branch office	Part of a domestic company that performs business activities in a foreign country, but does not have legal status.
	Joint venture company	Created by the joint investment of two or more companies, at least one of which is outside the host country of the joint venture.
	Solo venture company	A company's own investment in a completely new company in a foreign country. The most complex and most expensive strategy for entering foreign markets.

Croatian construction companies have enough knowledge and experience to implement the most demanding export projects on foreign markets. According to data of the Croatian Chamber of the Economy for the last five years, exports grew from US\$128 million in 2007 to US\$330 million in 2011. Although it is growing continuously, the export of construction projects is still only about 15% of the income Croatian construction made in the times before the crisis. The Croatian Chamber of the Economy assesses that Croatian construction companies should aim to make at least 30% of the total value of their works abroad.

Croatian construction companies could realise this goal by opting for some of the international marketing strategies used by construction companies and submit tenders for international projects in the following fields:

- Civil engineering
- High-rise construction
- Water management
- Constructing gas and water supply installations, sewerage and other pipelines
- Making communication and energy transmissions lines
- Water protection and kindred public utility activities

## 5. CONCLUSION

Just as construction is the motor of the national economy, so the international construction sector is an important part of the global economy. International construction can be looked on through construction projects where one company, seated in one country, carries out construction work in another country (Mawhinney, 2001). However, since construction operations are specific and differ from all other activities, the definition of international construction is also much more complex. Because of this, focusing on foreign markets is not a simple process for construction companies, which Croatian constructors could adopt overnight. A fast recovery is still not in sight for Croatian construction. The reasons for this must primarily be sought in the slowing down and lack of investments in the public and private sector, great liquidity problems in construction companies, and the lack of foreign investment. In recent years Croatia has managed to go through the demanding process of harmonising with European social and economic standards, which was a precondition to be included in the EU. This process includes regulations in construction and connected activities, bearing in mind the possibility of competition. In keeping with the frequently used phrase “crisis as a chance”, which can probably be applied in this case, weaknesses such as the low level of business infrastructure development can be used to secure investments that will be largely co-financed from favourable, partly also non-refundable, EU funds. Having already constructed the motorway network, in the near future it will be necessary nevertheless to continue the development of road and railway infrastructure. Therefore, Croatian construction companies should concentrate on exporting their knowledge and experience on civil engineering projects, more precisely on building highways and ports as they managed to have very references and financial effects in the last ten years (HGK, 2012). Croatian construction companies should submit tenders in foreign countries in which they could be project bearers and could predominantly use their own highly educated personnel. For less complex work on these projects they should take in to consideration a possibility of employing the local workforce in respective country. Entering foreign markets with well-defined business and well thought-out marketing strategies should be an essential factor in the successful project management of domestic construction companies on the large global market.

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## **EFFECTIVENESS OF ECOLOGICAL EDUCATION AND AWARENESS IN PUBLIC POLICY: MICROECONOMIC ANALYSIS OF REGULATION EFFECTS AT REGIONAL ENERGY MARKET**

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### **ABSTRACT**

*Ecological safety is one of the most important challenges for the people all over the world. Remedies applied are often a part of public policy and, as a rule, undermine losses of public welfare in a short-run to achieve environmental goals. These losses may be considered as a fee paid by society for cleaner environment. The aim of the state as a regulator in this context (or even a kind of its social responsibility) is to choose the way to better environment which guarantees a minimum public welfare loss. Welfare effects are construed here in microeconomic perspective – as welfare changes measured at the markets under regulation. Ecological education and awareness represent a rare case of regulation which could result in gain of public welfare. The arguments come from theoretical analysis of situation when the information first unavailable is transmitted to consumers, and they change their preferences. Public welfare gain as a result of consumers' awareness on NOx emission, measured at Novosibirsk regional energy market, could run up to 25 mln of rubles per month (regional market is based on energy consumption and production data). This gain of welfare could occur if consumers show rational reaction, which undermines a decrease of energy demand as a response on information of energy production externalities; or if they react at all. The second remark is crucial for regulation effect. It means that consumers have to consider ecological information as meaningful. These values and behavior are next to ecological education. As some researches show the cleaner environment is out of the priorities for people in Russia. Therefore Russian government has to promote ecological education. Sufficiency of current efforts is considered in the paper as well.*

**Keywords:** *ecologic awareness, ecological education, environmental policy, microeconomic analysis*

### **1. INTRODUCTION**

Being a part of public policy environmental regulation is very sensible to efficiency matter. Its benefits sometimes are hardly to be measured and are hardly to be expected soon enough to be transmitted to political benefits for the authorities today. As for the costs, environment-friendly behavior is rather expensive thing both for the state and for the society. For the State it means considerable efforts (and the budget is always limited). For the society it results in rather restrictive changes of production and consumption patterns. Being painful enough to change polluters' behavior environmental regulation affects domestic producers' competitiveness which is a crucial point for the state. So if the regulator is wise enough to follow long-run benefits of cleaner environment, it is anxious for environmental regulation costs efficiency. Regulation costs here mean losses in public welfare which can be considered as a price of better environment for the society. The aim of the state as a regulator in this context (or even a kind of its social responsibility) is to choose the way to achieve environmental goals which guarantees a minimum public welfare loss. Public welfare is considered usually as a sum of consumers' and producers' net incomes (incomes after expenses incurred). It is measured, as a rule, in a macroeconomic way (for national economy).

In the meantime microeconomic analysis allows to measure welfare of the market actor's as a sum of consumer and producer surpluses. The last approach seems to be convenient for regulation effects analysis, since the regulation often affects some of the markets, not all of them. Still, in most cases of environmental regulation we face the losses of surpluses sum. If the society cares of the environment, it can accept these losses. But the most interesting thing is that if the people care, they can change their preferences so the environmental goal can be achieved without negative welfare changes. Going further with the concept of consumer sovereignty it can result in eco-friendly behavior of producers without any substantial efforts from the state. To observe this idea more precisely we start from conventional microeconomic analysis of market welfare change resulting from consumer preferences alteration. We apply then this analysis to the case of Novosibirsk regional energy market and see how and when environmental regulation can bring welfare gain. Finally, we conclude whether or not regional or federal authorities in Russia are doing enough to take advantage of social awareness as an instrument of environmental policy.

## 2. SOCIAL AWARENESS AS AN INSTRUMENT OF ENVIRONMENTAL POLICY: MICROECONOMIC ANALYSIS

The most common environmental regulators considered in the textbooks are taxes and standards – as a kind of generalization for direct (administrative) and indirect (economic) policy instruments. Both of them, as well as many other, affect producer (polluter), which results to supply decrease. Conventional microeconomic analysis demonstrates then market welfare loss as for the case of environmental tax (Figure 1). Transfer to the state is  $S_{pIDFB}$ , and the welfare loss is  $S_{DEF}$ . Compare it with the case, where consumers are informed about negative effect of good's consumption or production. If they care of, they change their preferences, which results in demand decrease (Figure 2). We can reach the idea of welfare gain if we imagine the situation as following: curve  $D_1$  reflect false preferences (consumption under externalities ignorance), while curve  $D_2$  reflects consumers' real preferences. Therefore the figure between two curves cannot be interpreted as surplus loss. It seems like they don't want to buy amount  $Q_1-Q_2$ , but they do. So their excess expenditures are equal the figure  $ACQ_1Q_2FB$ , and they will gain this amount while adjusting preferences.

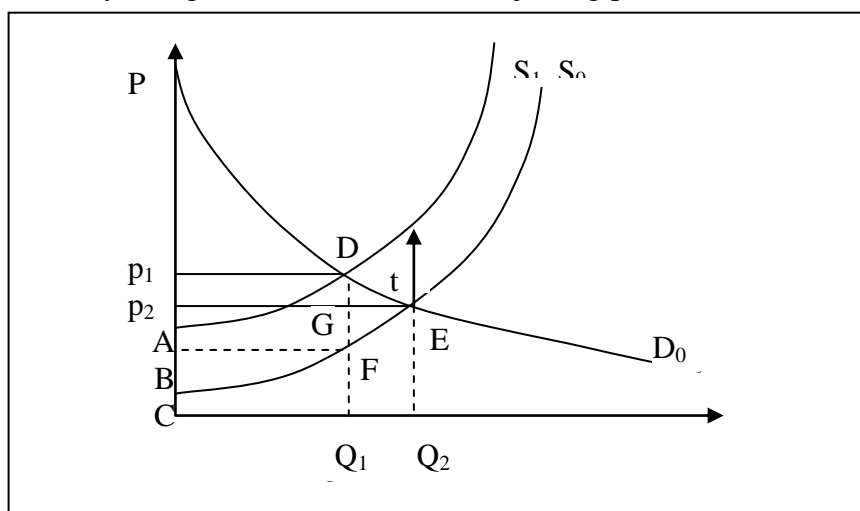


Figure 1: Market under regulation: environmental tax

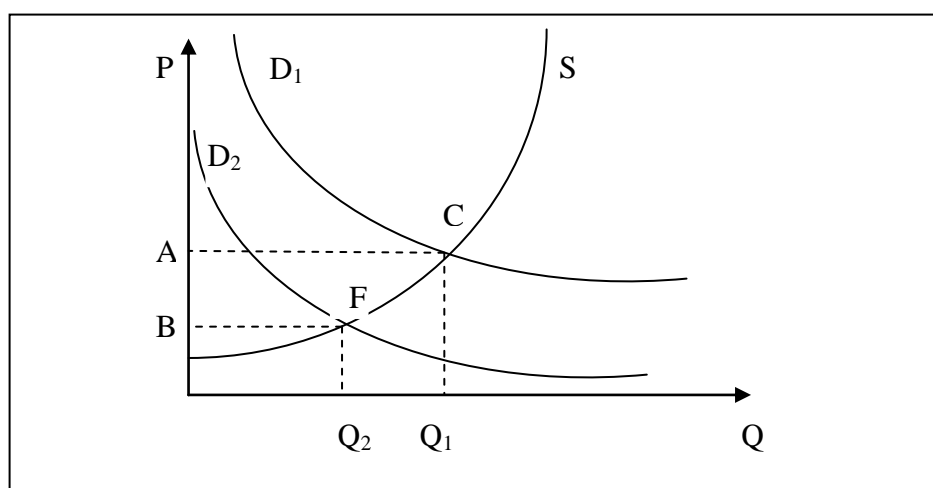


Figure 2: Market under regulation: information campaign  
(as in Arnold, 1994)

As for the producer's side, his surplus loss is equal to the figure  $ACBD$ . All in all we have net gain of market welfare measured as the figure  $CQ_1Q_2F$ . Arnold (1994) provides more detailed analysis of the case. To apply this analysis to the case of Novosibirsk regional energy market, the market itself was modelled, environmental goal was chosen and responses of regional energy company were estimated.

### 3. MODELING OF REGIONAL ENERGY MARKET

Modeling of demand and supply at regional energy market started with research by N.Suslov, A. Mishura (2003). Empirical basis for their modelling consists of monthly data on energy consumption and prices for different groups of energy consumers within the period 1995-2000. For the purpose of current research regression analysis of demand functions was made on monthly data of energy consumption, prices and accumulated price indexes for the period 1998-2003 with further adjustment to the changing structure of energy consumption. Energy prices were considered as exogenous variable, because tariffs are first fixed by regional regulator and then affect consumers decisions. As data series derived were nonstationary, we turned to logarithm difference. Dummy variable was introduced to meet seasonal changes of energy consumption. ADL model was considered for demand modeling:

$$x_t = \mu + \varphi_1 x_{t-1} + \alpha_0 z_t + \alpha_1 z_{t-1} + \varepsilon_t.$$

Suppose factor  $z_t$  and error  $\varepsilon_t$  are stationary, then if  $|\varphi_1| < 1$  the target variable is stationary as well. For expectation of the equation we've got the following:

$$\bar{x} = \mu + \varphi_1 \bar{x} + \alpha_0 \bar{z} + \alpha_1 \bar{z}.$$

Or:

$$\bar{x} = \frac{\mu}{1 - \varphi_1} + \frac{\alpha_0 + \alpha_1}{1 - \varphi_1} \bar{z} = \mu' + \lambda \bar{z}.$$

This equation describes long-run stationary condition of the process.

Table 1 shows estimates of demand functions for different group of consumers. Price and consumption lags coefficients were calculated on data of energy prices and production in 2005 weighted according structure of energy consumption for year 2002.

*Table 1: Estimates of energy demand functions adjusted to energy consumption structure in 2005 (Limanova, 2011, p.148)*

Consumers	Demand function formalization	Demand function estimate
Industry	$E_t = 10^{-0.0098} \left( \frac{P_t}{P_{t-1}} \right)^{-0.4807} \frac{E_{t-1}^{0.719}}{E_{t-2}^{-0.281}}$	$E_t = 320259.6 * P_t^{-0.4807}$
Agriculture	$E_t = 10^{0.000925} \frac{P_t^{-0.2403}}{P_{t-1}^{-0.372} P_{t-2}^{0.1317}} \frac{E_{t-1}^{0.6162}}{E_{t-2}^{-0.3832}}$	$E_t = 59444.73 * P_t^{-0.2403}$
Forestry	$E_t = const$	727
Transport and communications	$E_t = 10^{0.0247} \left( \frac{P_t}{P_{t-1}} \right)^{-0.1777} \frac{E_{t-1}^{0.8796}}{E_{t-2}^{-0.1204}}$	$E_t = 217187.6 * P_t^{-0.1777}$
Construction	$E_t = 10^{0.0523} \left( \frac{P_t}{P_{t-1}} \right)^{-0.2831} \frac{E_{t-1}^{0.7205}}{E_{t-2}^{-0.2795}}$	$E_t = 17245.53 * P_t^{-0.2831}$
Communal services	$E_t = 10^{0.1602} \frac{P_t^{-0.4412}}{P_{t-1}^{-0.1409} P_{t-2}^{-0.3003}} \frac{E_{t-1}^{0.7048}}{E_{t-2}^{-0.2952}}$	$E_t = 13124 * P_t^{-0.4412}$
Final consumption (population)	$E_t = 10^{0.0812} \left( \frac{P_t}{P_{t-1}} \right)^{-0.7814} \frac{E_{t-1}^{0.5245}}{E_{t-2}^{-0.3755}}$	$E_t = 60454.01 * P_t^{-0.7814}$
Other	$E_t = 10^{0.0423} \left( \frac{P_t}{P_{t-1}} \right)^{-0.4621} \frac{E_{t-1}^{0.592}}{E_{t-2}^{-0.408}}$	$E_t = 149882.6 * P_t^{-0.4621}$

Regional demand function is calculated by the aggregation of individual demand functions:

$$E_{pblH} = 727 + 320259.6 * P_t^{-0.4807} + 59444.73 * P_t^{-0.2403} + 217187.6 * P_t^{-0.1777} + 17245.53 * P_t^{-0.2831} + 13124 * P_t^{-0.4412} + 60454.01 * P_t^{-0.7814} + 149882.6 * P_t^{-0.4621}.$$

This function allows estimating energy demand per month for Novosibirsk region.

Starting point for supply modeling is the idea that regional energy company is an example of natural monopoly. As the average cost of the company are falling while energy production increases, the only producer at the market operates more effectively than several companies. It means that regional energy operator is regulated by the state. Price policy for the energy is based on the level of average costs plus normal profitability. Prices vary for different kind of consumers, which allows realizing cross-funding for some groups of energy consumers. This consideration is important, because it brings us to the idea of supply function as a horizontal line at the level of average costs of energy production. Analysis of market welfare changes resulting environmental regulation comes then to consumer surpluses difference before and after regulation.

#### 4. ENVIRONMENTAL REGULATION MODELING

Environmental goal setting is based on the information about heat and power plants emissions of air pollutants and their contribution to pollution of the environment in the region. Heat and power plants are the main air polluters in Novosibirsk region among stationary sources of pollution. They generate over 20 % of air pollutant emission (see at Обзор состояния

окружающей среды в г. Новосибирске за 2005 г. Новосибирск: мэрия г. Новосибирска, Городской комитет по охране окружающей среды и природным ресурсам). Two pollutant –  $\text{NO}_x$  and benzapirene – are the most problematic for energy sector. Their emission causes regular violation of maximum permitted concentration (MPC). So hypothetical environmental goal here is 10 % reduction of  $\text{NO}_x$  emission (real concentration of  $\text{NO}_x$  near heat and power plants in Novosibirsk is about 1.1 of  $\text{NO}_x$  MPC (Limanova, 2011, p. 153)), which means 153.5 tons of  $\text{NO}_x$  reduction per month. We're going to consider consumers' preferences changes after information campaign. They are expected to reduce energy consumption as much as needed for heat and power station to abate 153 tons  $\text{NO}_x$  per month. That's why we need to convert  $\text{NO}_x$  remission into energy production. The combustion of 1 kg of coal generates 4 kilowatts of power and 4 grams of  $\text{NO}_x$ . It's not difficult to calculate desirable decrease of energy consumption - 153 mln of kilowatt-hours. Now we can imagine perfect world, where regulator knows precisely desirable parameters of regulation and sounds reasonable enough to convince people to act; and the people are eco-friendly to be convinced, they do act and they act predictable. That's what we need to estimate effects of regulation.

## 5. ECOLOGICAL AWARENESS EFFECT FOR MARKET MEASURED WELFARE

As we arrived to the situation of absolute elastic supply for energy market (energy company provides any amount of heat and power at the price fixed by the regional authorities), let's first adjust our theoretic model.

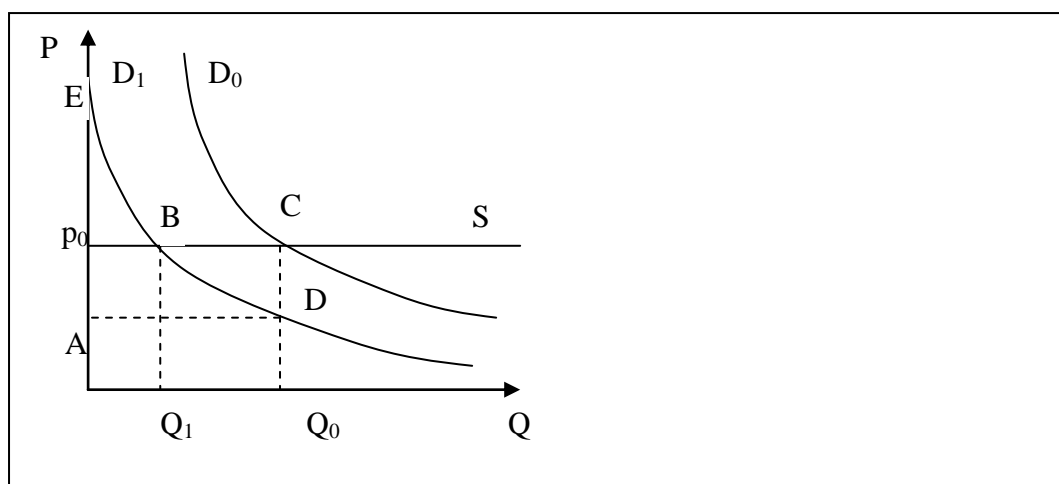


Figure 3: Ecological awareness effect at the market with absolute elastic supply

We analyze the situation when previously unavailable information about energy consumption externalities is delivered to consumers. If they react, and react rationally, we can observe changes of their preferences, for instance, energy saving. For the case of absolutely elastic supply of energy at regulated price, as we see at figure 3, there is no producer's surplus. For the consumers we can imagine as they buy amount  $Q_0$  at price  $p_0$  while willing to buy amount  $Q_1$ . They pay for this extra amount  $Q_0 - Q_1$   $p_0 \cdot (Q_0 - Q_1)$  though they value it as area under  $D_1$  curve within the interval  $[Q_1; Q_0]$ . If the consumers adjust the amount to buy, they win area BCD. That's welfare gain for this kind of market.

Let's estimate this gain if consumption decrease is 153 mln of kilowatt-hours,  $p_0$  is equal 0.91 roubles/kilowatt-hour,  $Q_0$  is 870,5 kilowatt-hours (as it was in 2005). Net change of welfare measured at the market is equal area BCD, i.e.:

$$\Delta W = Q_0(p_0 - p_1) - \int_{p_1}^{p_0} D_1 dp$$

Or:

$$\begin{aligned} \Delta W &= 260288.5896 - \int_{0.611}^{0.91} D_1 dp = 260288.5896 - (616714p^{0.5193} + 78247.64p^{0.7597} + 264122.1p^{0.8223} + \\ &+ 24055.7p^{0.7169} + 23486.4p^{0.5588} + 276550.8p^{0.2186} + 278664p^{0.5379} - 152273p + C) \Big|_{0.611}^{0.91} = \\ &= 25085.1896 \end{aligned}$$

As we see, estimated welfare gain is near 25 mln. roubles monthly. This estimate is to be considered as upper edge for a number of reasons. First, regional demand aggregates different consumers' demands, not only population, whereas information campaign is aimed to the people. Second, people in Russia in general do not share ecological values to get desirable feedback (see, for example, Blam (2005)). Third, the other (institutional) consumers are not interested to save energy as their clients (people) do not put eco-friendly behavior in claims.

## 6. CONCLUDING REMARK ON POLITICAL APPROPRIATENESS

Well, the truth is that ecological information as theoretically very attractive instrument for environmental policy, hardly to be effective for real life in Russia. To make it acting it is to rely on ecological values people share. Is it possible then to grow these values? Yes, it is. As any other values, they can be produced by education and training. That's why ecological education is crucial to the point. It is a part of public policy as well. The problem is that new values as a base for a new ideology are forming for a long time. It is a matter of generation, frankly speaking, which takes for politicians to make hard decision: to launch costly programs and keep going without any hope to get feedback for decade(s).

How realistic is this in Russia? The legislative base favors to ecological education. It's mentioned both in federal law on environmental protection and in Ministry of natural resources and the environment plans. Ministry report on achievements and plans for 2014-2016 (<http://www.mnr.gov.ru/regulatory/detail.php?ID=131696>) is arguing that ecological culture and education corresponds to the Concept of long-run development for Russian Federation up to year 2020 adopted by Russian government in 2008. However we often face a gap between normative and positive sides of reality in Russia, so let's see to the other side. To start with, the share of environmental protection does not exceed 0,15% of federal budget expenditures for last 3 years (see the structure of federal budget expenditures <http://www.protown.ru/information/hide/6395.html>), there are no ecological education or ecological culture mentioned within. There were no educational expenditures planned in the budget of the Ministry of natural resources and the environment for year 2012. For the year 2013 the Ministry planned to spend about 4.9 mln roubles for ecological education which is about 0.004 % of Ministry budget. The same share is planned for year 2014. Every year I ask my students whether or not they had some experience in this field studying in the school. The answers are negative - without exceptions.

So we have to conclude that the government doesn't spend enough efforts for ecological education. No wonder. If the society is not interested for something, politicians prefer to ignore it. Somehow it reminds a vicious circle.

The positive thing is that the government really becomes more transparent. I've got response for every question addressed to governmental bodies for the last couple of years. In this sense

the one who wish to be aware will be aware. If either society or the state would try, the vicious circle could change direction.

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## COMPETITIVENES OF THE SEECs' POSITION VIS A' VIS EUROPEAN COMPETITIVENESS

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### **ABSTRACT**

*A widely accepted definition of country competitiveness refers to the ability of an economy to provide its population with high and rising standards of living and employment. This is the approach we follow in this paper: competitiveness describes the overall economic performance of country (GDP per capita and GDP growth, employment, labor productivity and total factor productivity). The objective in this paper is to provide an aggregate picture of recent trends in some South Eastern European Countries, and to describe main differences among them and EU-member states, especially new member states. During the transition period, GDP per capita (taken as a measure of the standards of living) in the SEECs has been lagging behind the one of the EU-25 and especially of the EU-15 (before enlargement). Also the labor productivity and the total factor productivity in SEECs have been slowing down or remained stagnant during 1990-2000 period. In the light of the Lisbon strategy 2005 which aimed at boosting productivity growth by investing in research and development, improving European infrastructure, enhancing human capital and promoting competition in EU-countries, the task of SEECs is very difficult but inevitable condition for successful EU-accession. SEECs must promote their own strategy aimed at realizing the comprehensive reforms in order to promote their production structure, productivity, employment, and standard living. However, SEECs have to realize these tasks if they want to narrow competitiveness gap between and EU countries (real convergence). This is condition-sine-qua non for successful accession.*

**Keywords:** *competitiveness, global competitiveness index, integration process, real convergence, transition reforms*

### **1. INTRODUCTION**

Generally speaking the competitiveness is ability of an economy (firm, region, nation) for its successful presentation on the domestic and the international market, e.g. successful inclusion in the international economic relations. Improvement of a national economy or industry competitiveness means increase of their export capacities and face with foreign import on domestic market. The most generally, competition can be defined on two levels: national and from a firm aspect. This paper will deal with the competition from national aspect which means ability of an economy to produce goods and services that can pass the world market test, parallel with the increase of the living standard of its citizens and increase of the employment opportunities, e.g. the supply of working places to respond the demand for the appropriate working places. The economy competitiveness as a system' competitiveness defines the ability of an economy for appropriate inclusion in the international market, which means that measure for competitiveness of a certain country is not only the market sustainability, as it is a case for a firm. Also, positive or negative trade balance is not a single indicator to express the country' competitiveness ability, because there are cases of foreign trade surplus in terms of economic crisis, and reverse. After more than twenty years of transition towards market economy and all turbulences that the transition economies, particularly the Balkan countries have undergone, on one hand, and almost the same period of

encouragement of the mentioned countries by highly developed and mature EU integration, on the other, to cooperate, primarily on economic bases (example CEFTA), it is more than important to open the question of the competitiveness of each of these countries and the region as a whole. This is also necessary from the aspect of serious efforts made by each Balkan country towards EU accession and its ultimate goal-EU integration. Thus the focal points of the Lisbon strategy from 2005: productivity increase by investing in research and development of the European infrastructure, particularly investment in human capital and promotion of European countries' competitiveness – have not to be neglected within transition Balkan countries' efforts towards realization of the complex reforms as an inevitable base for sound market economy. Namely, the SEECs have to fulfil certain criteria (political, economic and social) for their integration in the European Union. Regarding the economic criteria, the basic one is establishment of functional market economy capable to face the competitive EU economies. During the transition period in the SEECs the GDP per capita and GDP (measure for the living standard) rapidly declines, with long-term prognoses for abortive GDP per capita behind the EU-25 and particularly behind EU-15. Also there was a fall in the Europeanization of the banking system or the fast improvement of the market institutions on the one hand and the 'balkanization' of the judicial system or the preservation of the states discretionary rights on the other hand, are quite opposite actions from the integral approach toward changes. The analysis of the variety of success in the implementation of the radical reforms aiming at the market economy is very important to understand the 'success of failure' of transition economies. What is the reason that some countries are developing faster and the others slower? Briefly speaking, the advanced transition countries somehow have managed with integral approach to coordinate the economic and political reforms in the real life, till now. Other situation is with the less advanced countries that have realized their economic reforms in more or less conflicting political environment. In the last mentioned countries the governing capacity was mostly engaged in the realization of the political conflicts, less engaged in the realization of the economic reforms and the least to improve labor productivity and the total factor productivity. These trends are opposite from the economic criteria fulfillment towards creation of functional market economy with potential for competitiveness improvement and successfully to cope with the EU competitiveness. In this regard, the paper will deal with the SEECs positioning within the European and international competitiveness, comparison with the Central European countries- the new EU members. This paper will also deal with the weak points of the reforms and economies, along the need of focusing on relevant authorities and economic players' efforts for their successful overcoming. At the same time this is the precondition for competitiveness strengthening of the countries in the Balkan region and to cope with competitiveness within the EU.

## **2. PROGRESS IN RADICAL REFORMS – PRECONDITION FOR PRODUCTIVITY GROWTH**

For more than twenty years the transition countries have been on their reforms course toward market economy and parliamentary democracy. Liberalization, privatization, structural reforms are usually explained by their dynamics in the realization through different programs. The capacity of changes as a sum of individual and collective abilities for implementing EU economic, political, cultural and other standards are most important for the whole social development. The capacity for changes must be realized through an integral approach towards changes. Implementation of the EU standards in the economic system cannot be realized without the same process in the political system. The scope and the speed of reforms realization in the economic and the political development could be better accessed revising their mutual results produced in the second transition phase. The first phase includes changes

which mark stabilization and privatization of small and medium sized enterprises. The second phase includes the changes of the privatization of the big enterprises, corporate governance, reforms of the non-financial sector, infrastructural reforms etc. General assessment for progress in transition process of SEECS is positive having in mind the changes and progress in transition indicators divided in three groups, by IBRD' methodology (Transition report, EBRD, 2006). In fact, the first years of transition in the less developed countries passed in suffering from a significant deterioration in economic activity and wealth and ended up in transformational recession. The stabilization that has been achieved in these countries, could not provide adequate environment for growth and development, because there have been no conditions for growth of production and exports. The cumulative decline of the GDP per capita in period 1990-2000 amounted 33% in Albania, 16% in Bulgaria, 36% in Croatia, 15% in Hungary, 21% in Romania and 14% in Slovenia. In Serbia and Montenegro the decrease was much bigger (Babanassis, Stergios, 2003). The cumulative decline of the output is about 22,6% in advanced countries and 50,5% in less advanced ones. However, transition has been a difficult process for all countries. Falling output, growing unemployment and collapsing institutions have been commonplace. Longterm macroeconomic stabilization (stable economic growth with low inflation) needs a more progressive adaptation and a more gradual approach in terms of creating and consolidation the market institutions and it can hardly be achieved without technological modernization and restructuring of the economies. Recently, it becomes clearer that the link between reforms and growth in transition countries is more complex than many policy-makers and analysts had originally thought. While many countries continue to make advances in market reform, economic growth rates and living standards vary widely across the region. However, around 2005 year most transition countries had closed the productivity gap, compared to other countries at similar income levels. The relatively low national savings ratios, net foreign direct investment (FDI) and employment levels hamper economic growth and raise concerns about the sustainability of the real convergence process to EU. The average gross national savings ratio represented less than 11% of GDP in the Western Balkan economies in 2005 and if the substantial official transfers channeled into the region are excluded, the average savings ratio drops to around 8% (Western Balkan in Transition, European Economy, 2006, p. 17).

*Table 1. Economic growth and living standards in SEECs  
(Transition Report, EBRD 2006, p. 6)*

	<b>Albania</b>	<b>Bosnia and Herzeg.</b>	<b>R.of Macedonia</b>	<b>Serbia</b>	<b>Montenegro</b>	<b>EU-25</b>
GDP growth rate (annual average 2000-2005)	5,7	5	2	5,5	2,7	2
National savings(% of GDP in 2005)	16,7	-0,9	22	10,3	n/a	20,9
Gross domestic investments % of GDP)	23,6	21,9	23,4	18,4	n/a	20,1
FDI net % of GDP (annual average 2001-2004)	4	4,8	4,3	4,1	3,7	n/a
Labor force participation rate % (2004)	58,4	43	55,8	68,6	64,7	69,7
Unemployment rate % (2004)	14,5	48	37,2	32,4	22	9,1
Index of real GDP in 2003 (1989=100)	129	57	78	52	n/a	n/a

However, there are more fundamental reasons to expect a long-term slow-down in next years. These relate to the nature of the catch-up in productivity that followed the recessions in countries in the transition region in the early 1990s, the slowing of structural reforms since the mid-2000s, and the political and social repercussions of the crisis and the low growth seen since 2008. Physical capital growth was initially constrained by the depreciation of obsolete means of production. Also saving rates had historically been low, particularly compared with fast-growing Asian countries, making foreign capital an important source of investment. On the other hand, educational attainment was relatively high at the start of the transition process, comparable to the levels seen in advanced countries, which initially limited the scope for growth in human capital. In the early 1990s countries in the transition region faced sizeable productivity gaps due to inherited capital and production structures, but also inadequate and ineffective institutions supporting economic activity. Structural reforms, as measured by the average of the EBRD' indicators, advanced rapidly until the end of the decade. Thereafter the reform process began to lose momentum, and by the mid-2000s it was stagnating in most countries in transition (Transition Report, EBRD, 2013, p. 13). The reforms slowed even in areas such as governance, enterprise reform and competition policy, which remain substantially below the standard of advanced economies in all transition countries. The countries in SEE still have problems with the transition towards credible market-based institutions and financial systems. The risk is that they will need another decade to become "normal" market economy. Central Europe with Slovenia, perhaps Croatia (and the Baltic states) are well advanced institutions building; The Balkan States are a mixed bag, with Romania and Bulgaria somewhat more advanced than Albania, Serbia, Montenegro and

Bosnia and Herzegovina. Some authors (Daniel and Alfred, 2006) find that poor countries might end up in a self-made poverty trap in which an inefficient political system does not dare to reform the economy because it is feared that this will have unacceptable social consequences. As long as bad policies are not reformed the country does not grow and might even get poorer. Over time it will remain very difficult to implement reforms, so this situation might persist. It seems that politics has made conversion into supra-system, derogating its role and place in the society and subordinating all other subsystems to its objectives and interest. Under such condition the factor "distance from Europe" gains importance from a cultural and historical point of view. The distance (time distance rather than physical distance) is stressed here by lagging in the implementation of the reforms in countries which have experienced war or political conflict (Macedonia, Serbia, Montenegro, Bosnia and Herzegovina and Croatia). It should be pointed out that the higher economic growth rate is the basic condition for social stability and political stability as well. Indirectly, it determines the competitiveness capability of these countries to cope with EU market forces. The production and export structure of the South Eastern European countries is much worse than in the countries from the Central Europe. The Balkan countries still have high percentage of agricultural production -17% of GDP, while Central Europe have similar percentage as EU (4% and 2% respectively). Even more, some Balkan countries have increased agricultural production in the transition period. In the production structure of those countries still dominate labor –intensive industries with labor prices far under the wages common in the OECD countries and even in the Central Europe. The competitive advantages of this region are relatively homogenous (mostly for the clothing and shoes production industry), excluding Bulgaria, increasing its exports of capital intensive products: iron and other metals, while Macedonia and Romania appear as producers of textile and steel products. Specialization in only a few products motivated with the comparative advantages certainly secures inferior position in the international labor division with paralyzed possibilities for an adequate inclusion in the world market and providing conditions for a self generating growth in the future. An integral approach expressed through a new development strategy is necessary for elimination of weaknesses which burden these countries and dangers of their persistent lagging behind in the development. The fortification of institutional quality and the struggle with the deviations which increase the inefficiency of institutions are crucial for realization of the new development strategy.

### **3. COMPETITIVENESS OF THE SEECs**

Apart from its position, each country is faced with the challenge of the world market inclusion, which inspects the country's ability for creation of successful economic growth and improvement of its competitiveness. It is more than obvious that factors influencing the national competitiveness are different as much as numerous. On the other hand all these factors have different impact in different countries considering the initial conditions and the level of development. For example, the macroeconomic environment has crucial relevance in establishment of stabile macroeconomic aggregates that will enable development and growth. But is not sufficient condition for productivity growth. Institutional environment of the economic actors, including property rights, the quality of legal (judicial) system, the political processes management and the fight against corruption are key factors in defining the competitiveness, particularly for the transition economies. After certain period of time, factors that determine the rise in competitive ability are replaced by other factors that have become more important. Thus, it is not possible to measure the competitiveness considering one factor or one group of factors. The Global Competitiveness Index (GCI) (The World Economic Forum, The Global, Competitiveness Report, 2013-2014) comprises three groups of factors with twelve indicators: 1) index of basic requirements (such as institutions, infrastructure,

macroeconomic), which are key for factor –driven economies; 2) efficiency index (higher education and training, market efficiency, labor market efficiency, financial market development, technological readiness, market size) –key for efficiency-driven economies; and 3) index of innovative factors (business sophistication and innovation)- key for innovation-driven economies.

Concerning the Global competitiveness index, SEECs do not register any improvement in their position (table 2) for last three years, excluding Bulgaria and Bosnia and Herzegovina.

*Table 2. Global competitiveness index (The Global Competitiveness Report, World Economic Forum, 2011-2013.)*

	<b>2010/2011</b>	<b>2011/2012</b>	<b>2012/2013</b>	<b>2013/2014</b>
Country	Rank	Rank score	Rank score	Rank score
Montenegro	49	60 4,27	72 4,14	67 4,20
Bulgaria	71	74 4,16	62 4,27	57 4,31
Croatia	77	76 4,08	81 4,04	75 4,13
Romania	67	77 4,08	78 4,07	76 4,13
Albanija	88	78 4,06	89 3,93	95 3,85
Macedonia	79	79 4,05	80 4,04	73 4,14
Serbia	96	95 3,88	95 3,87	101 3,77
Bosnia and Herzegovina	102	100 3,83	88 3,93	87 4,02

*2011-2012 rank of 142 countries; 2012-2013 rank of 144 countries; 2013-2014 rank of 148 countries*

Comparing with 2010/2011, almost all SEECs have shown aggravation as a result of the weak institutions and regarding the second group of factors because of the bad market efficiency. But, in 2013/2014 compared with 2012/2013 only two countries have moved down: Albania from 89 on 95 place, and Serbia from 95 on 101 place. Albania has moved several place down because of second group of factors-efficiency enhancers and from 92 place failed to 100 place. According to the index of innovation and sophistication factors, Albania fall down for six places in 2013/2014 compared with 2012/2013. Serbia has shown aggravation in basic requirements (from 95 on 106 place) and also in market efficiency (from 88 on 92 place).

Regarding the competitiveness scale it is interesting to make a comparison of the SEECs position and the world, Europe and Balkan:

*Table 3. Global Competitiveness ranking, 2013/2014 (The Global Competitiveness Report 2013/2014)*

Top 10-most competitive countries		New EU member states	
Switzerland	1	Estonia	32
Singapore	2	Malta	41
Finland	3	Poland	42
Germany	4	Czech Republic	46
United States	5	Litvania	48
Sweden	6	Latvia	52
Hong Kong SAR	7	Bugarija	57
Netherland	8	Cyprus	58
Japan	9	Slovenija	62
United Kingdom	10	Hungary	63

South Eastern Europe	
Montenegro	67
Macedonia	73
Bosnia and Hezegovina	87
Albania	95
Serbia	101

SEECs are positioned in the lowest part of the list of 148 countries, except Montenegro.

During the first decade of the transition process the SEECs reiterated to the basic development factors allocated in the basic labor intensive branches that are characteristic for primary industrialization phases. Degradation and lower positioning on the competitiveness table is a serious warning for realization of some pessimistic forecasts in the international labor division and the SEECs' position according to the theory of comparative advantages. This theory is generally static one and puts the mentined countries at the very bottom of the international labor division scale. During the last decade the above mentioned countries have registered some improvement on their position to the efficiency driven economies. This is quite sensitive issue considering the severe struggle for expansion on the European and world market, caused by changes in the balance of development factors, from effectives towards innovative ones.

#### 4. CONCLUSION

Development by definition means change towards better situation, at the same time abandoning the equilibrium (macroeconomic), but also including inequity and unsettlement of status quo situation. SEECs are realizing their system's reforms with inadequate speed and comprehensiveness. This could be the key of successful reforms. In other words, reforms' non synchronization leads to low development level and unsatisfactory domestic savings that are not sufficient for new start of investement cycles. The FDI flows were not as expected or

announced before, although relying on foreign capital as an impetus for new investment cycles in these countries and the region as a whole, is not realistic neither opportunity. It seems that the authorities that have passed and still are passing the reforms have not realized that transition is a complex of reforms interactions. Countries that left the old system and redirected towards quite new direction, had not institutional capacity to realize the transition reforms as overall policy. As a consequence – and without the benefit of the initial productivity boost associated with the global integration and liberalization seen in the 1990s and early 2000s – growth in potential output per worker is projected to be modest in the next 10 years (around 2 to 4 per cent on average) and to decline further in the following decade. At that rate convergence will stall in some countries and slow to a crawl in many others. On the basis of current policies only CEB countries are projected to reach or exceed 60 per cent of the average per capita income of the EU-15 over next 20 years, with most transition countries remaining far below this threshold. How can countries escape from this growth trap? Key factor for institutional changes that can positively affect the reforms is definitely the competitiveness. The competition forces on constant investment in knowledge and new skills in order to achieve maximum effect. Unsatisfactory institutional capacity in the SEECs – economic and political- is one of the most stressed reasons for production of high level of corruption and uncertain business environment directly demotivating the business sector to invest in new technologies and employment. Thus, we can conclude that the economic development depends on the quality and capacity of the institutions and the government as well. Reforms' quality and progress require sound institution capacity that will be able to create sound climate where the knowledge and the skills will be fundament of the competitiveness on each level and will be problems' solution.

Therewith, the sound business climate will whet the domestic economy's competition diamond and will prepare it for competition on the European as well as world market.

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## **INFORMATION TECHNOLOGY APPLIED TO PRODUCTIVE SECTOR AND CREATION OF STRATEGIC ALLIANCES. WOOD CASE**

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### **ABSTRACT**

*The paper puts emphasis on analyzing three aspects: first builds a baseline of wood sector taking into account the subsectors of forests, sawmills, barracks, carpentry and outlets. The geographic area considered for the study includes the 5 major cities of the department of Tarija: Bermejo, Entre Rios, Villa Montes, Yacuiba and Tarija as the capital of the department of Tarija. A real analysis of the situation was made in the wood sector based on management of the company divided into 9 modules: strategic management, human resource management, processes management, financial management, quality management, management customers, infrastructure and equipment, safety and research and development, which led to identifying the strengths and the weaknesses that were taken into account by public and private performers involved in the sector and then shaped in a document of the strategic lines of the sector. Second, the application of information technology to the productive sector in the processing and dissemination of information allowing real-time queries. Third, the emergence of strategic alliances between different institutions: Departmental Government, Municipalities, International Cooperation Agencies, the Academy and entrepreneurs all with a common goal and where each institution was strengthened.*

**Keywords:** *management, sector, wood*

### **1. INTRODUCTION**

One of the policies of the Institutional Development Plan of the Faculty of Economics and Finance is "Developing scientific and technological research in interaction with regional and national environment"<sup>27</sup>. Moreover, in 2006 the Departmental Council on Productivity and Competitiveness in various forums and meetings with representatives of public, private and academic sectors reached consensus regarding what the production chains that were to be prioritized in the department being one chain timber. In this context, students of the Statistical Technician Career, myself as a research professor and the Servicio de Cooperación Holandés para el Desarrollo SNV surveying a baseline of the wood sector in the Department of Tarija with primary information mainly relating mainly to the management of the company applying information technology in both the processing and dissemination of data. The paper contains a methodological part, then the main results of the wood sector is through the corporate governance variables analyzed, the strategic lines of the sector, the application of information technologies and the creation of partnerships between various participating institutions.

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<sup>27</sup> Plan Facultativo de Desarrollo Institucional 2009-2013. Pag 16.

The paper contains a methodological part, then the main results of the wood sector is analyzed using the business management variables that has been studied, information that was important to the design of the strategic lines of the sector, the application of information technologies and the generation of strategic alliances between the participating institutions.

## **2. METHODOLOGY**

### **2.1. Planning**

Defining objectives, coordinating activities, time calculation and prior to starting work resources.

### **2.2. Awareness**

First approach to the target population, which enables us to: Understand the different performers, generate collaborative environment, to communicate our goals and raise awareness of the importance of the project for the development of the sector.

### **2.3. Generation of Information**

It includes questionnaire design, pilot testing, field work planning, training interviewers and data collection.

### **2.4. E.T.L.**

Extraction - Transformation and Loading Data

Processes ETL is one of the most important and most valuable components in a structure that involves the integration of multiple data sources, thus represent a mainstay as much accuracy or updating of data is required.

ETL processes are responsible for retrieving information from all necessary sources (surveys, interviews and existing documentation) format it, clean it and integrate it into a datamart, a data warehouse<sup>28</sup>, which is a knowledge base or any other type of digital repository. In summary, the ETL processes collect data and enable the underlying information may be submitted using the relevant analytical tools and reporting.

### **2.5. Data Processing and Analysis**

Organization and summary of information obtained in the study by statistical methods and use of technology tools (Access, SPSS and Excel for trend analysis multidimensional variables crossing OLAP analysis) aimed at enhancing the interpretation of the observations and make inferences about reliability thereof.

### **2.6. Reporting and Consensus in plenary**

Study results are useless if not reported and consensual with key players, despite obtaining accurate these tests must be validated by the target population, so the final document socialized has the support of all involved.

### **2.7. Generation of policies and strategies for the Sector**

For the generation of the sector policies and strategies will take into account all the information generated, proceed to develop the SWOT matrix that will allow the generation of

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<sup>28</sup>Data Warehouse is a database used for reporting (1) and data analysis (2). Integrating data from one or more disparate sources creates a central repository of data, a data warehouse (DW). ([http://en.wikipedia.org/wiki/Data\\_warehouse](http://en.wikipedia.org/wiki/Data_warehouse))

various strategic alternatives, according to the characteristics and needs of the sector. With the help of a Coach the consistency of the mission, vision and values are analyzed, as well as develop creativity and participation of people within the sector.

## **2.8. Final Report**

The information collected can be processed can be viewed and analyzed in different formats: Datawarehouse (used tool access) that allows the same query, crossing variables in real time available for wood sector, national, departmental and municipal governments, universities and research groups.

Digital Report: Reports the main results in web pages UAJMS University through its Centro de Información Empresarial y Planificación Estratégica CIEPLANE information on its system (SIET).

- Written report (Publications - magazines).
- Oral report: Seminars and workshops.

## **2.9. Dissemination**

Socialization of the study case results to the stakeholders, public institutions and to the population in general.

## **3. MAIN RESULTS - TARIJA TIMBER SECTOR**

Faced with the urgent need for state and municipal institutions, responsible for setting policies and developing strategies to support the productive sectors, it is necessary to have relevant information about the productive sectors prioritized by the State Government of Tarija. In the particular case of wood the goal was to have a snapshot of the current status of wood processing enterprises at different stages. In this sense, it was possible to collect, process and analyze primary data from 509 productive units in the municipalities of Entre Rios, Villa Montes, Yacuiba, Bermejo and Tarija in sawmill, barracks, trim and outlets subsectors and synthesized secondary information about the forest subsector, this analysis is performed only with secondary information provided by the Forest Superintendence and the ZONISIG.

### **3.1. Subsector-Forest**

The department of Tarija has extensive forest cover accounted for 70% of its territory; forests are concentrated in regions of the valley, and Chaco plain sub Andean, each one with different features and conditions. According to forest management superintendence 2009 timber volume extracted grounder in the Department of Tarija is about 2437.7 m<sup>3</sup>r, which under a conversion efficiency of 50% lumber is 1.5 million board feet. However, statistics from legal lumber movements reported a total movement of just over 500 thousand board feet for management 2009. The timber movement is concentrated in the town of Entre Rios with a total of 420,275 board feet which correspond to 85% of the forest lumber with certificates of origin registered in the Department of Tarija during the 2010 administration. Cedar is the species with the largest use, followed by walnut, quinine and the chick, which together constitute more than 75% of the total volume. Clearly then the great pressure that have these species although it should be emphasized that currently has no instruments to ensure the sustainability of resources as a basis for the development of the forest industry in the long run.

### **3.2. Subsector - Sawmills, Barracks, carpentry and Outlets.**

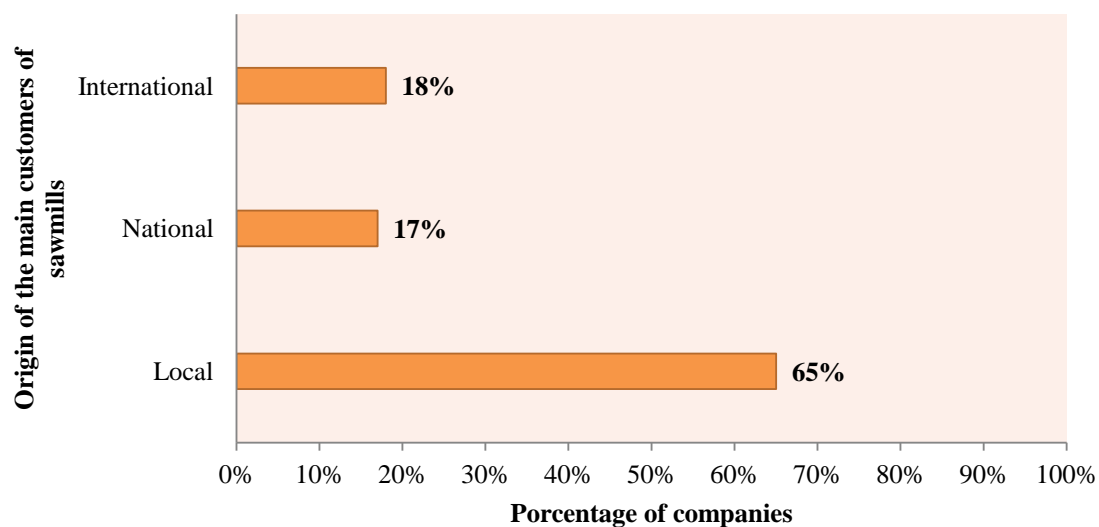
The wood industry in the department of Tarija has led to the creation of 509 production units including 52 sawmills, 35 barracks, 60 trim and 362 outlets in the different municipalities of the city of Tarija.

The average age of sawmill operation is 14 years, although there are companies with 50 years experience, in the barracks the average age is 12 years old while the oldest company has 30 years in the industry, in terms of joinery the average age is 12 years, similarly they have atypical cases of companies with more than 50 years despite operating this time, these still remain as microenterprises.

*Table 1: Total Productive Units according to municipality and subsector (CIEPLANE, 2011)*

SUBSECTOR	MUNICIPALITY					TOTAL
	Ciudad de Tarija	Yacuiba	Bermejo	Villa Montes	Entre Ríos	
<b>Sawmills</b>	6	30	3	7	6	52
<b>Barracks</b>	23	10	-----	2	-----	35
<b>Carpentries</b>	180	74	51	31	26	362
<b>Outlets</b>	38	12	3	7	-----	60
<b>TOTAL</b>	247	126	57	47	32	<b>509</b>

The department of Tarija is a source of raw material production units not only for the department but also for national and international companies; this is clearly seen in the figure below.



*Figure 1: Origin of the main customers of sawmills (CIEPLANE, 2009, p. 54)*

The main species of wood most marketed by the barracks are: the carapa, red cedar and walnut.

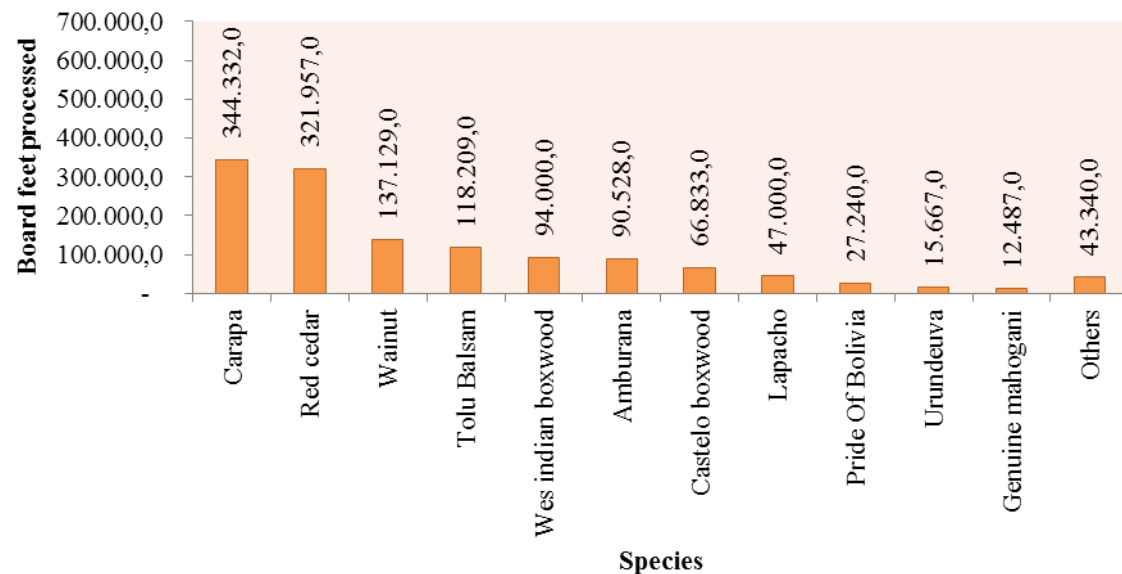


Figure 2: Raw material processed in barracks by species  
(Superintendencia Forestal, 2011, p. 89)

The Wood Sector of the Tarija state generates about 2,679 direct jobs in the four subsectors considered for the study, given the characteristics of the sector and the work done, it is important to emphasize that traditionally welcomes male labor representing 95% of total employment. The female workforce currently occupies space at the administrative level, sales and their participation in the process of manufacturing, furniture design positions and finishing them. The sector has 63% of permanent jobs, compared to 37% of temporary jobs these workers are hired in peak periods, it should be emphasized that the sector has an unstable staff with low wages forcing workers to leave their jobs and undertake other activities with higher wages. 91% of workers possesses empirical knowledge, i.e., are formed on the basis of work experience gained in the course of time in the different subsectors. Despite the shortcomings in the technical training the sector companies have, only 38% of them provided training to their employees. Skill levels are low in the number of workers and investment, making it difficult to improve performance, capacity and efficiency of workers. The rate of absenteeism is higher in the case of the woodwork, the results suggest that workers missing 4 days for every 100 days, similar situation have the barracks where the result is 3 days a month, finally sawmills have the lower rate with 1 failure per 100 working days. The gross income from domestic and foreign sales during 2011 was \$us 14,362,664 and the amount processed was about 23,724.838 board feet of which 58% has been processed by sawmills, barracks 6% and 36% by joinery. The sector has yet to be linked with information and communication technologies such is the case that only 11% have a computer, this item is not encouraged. On the other hand, a problem identified is that 7% of companies do not have any means of communication (i.e. landline, mobile or internet), which makes communication with customers and suppliers difficult.

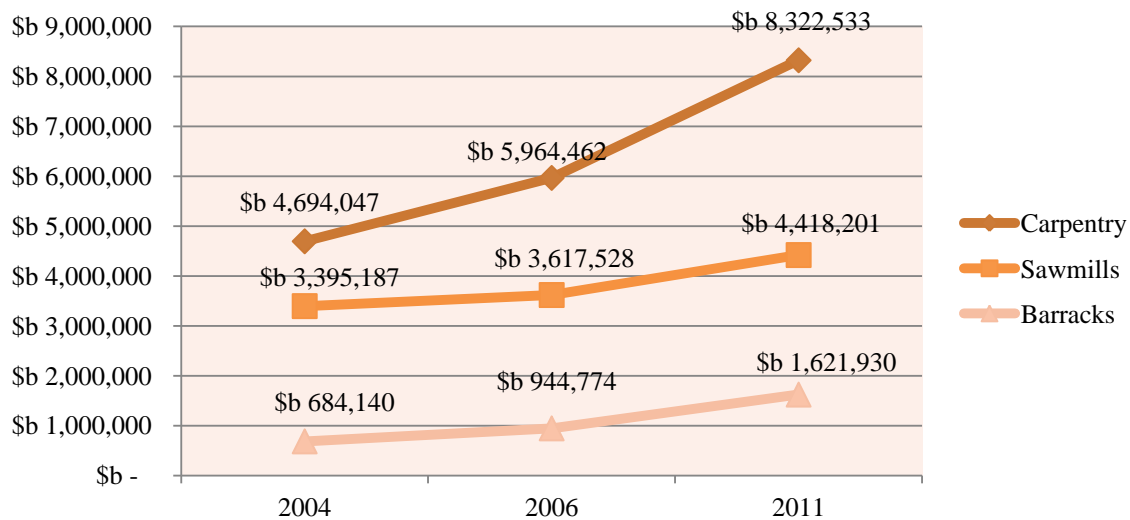


Figure 3: Evolution of the gross (M.E. Aparicio, 2009, p. 56; 87; 109)

An alarming indicator within the sector are high accident rates presented especially in the barracks who recorded 13 injured persons per 100 workers in 2011, in the case of sawmills rate was 6% and 3% in joinery, there were no manuals for accidents. Work clothes in the case of companies that offer not used by workers. The products offered are mostly locally sourced (62%), although we should note that at the time of the survey, one in four outlets did not have any furniture produced in the region. Products from within the country (national), were mostly made in the department of Santa Cruz, registering a 33% national providers and 5% furniture suppliers are from other countries, in this case mostly from Argentina. Through correspondence analysis, the preference criteria of furniture with their place of origin are associated. So buying domestic furniture were associated with price, the local furniture with its finish while international furniture origin by its design. 24% of the furniture offered in the department was red cedar, and then amburana with 21% of the products, the tolu balsam took third place with 12% and the rest of the species used in wood furniture can be seen in figure 2. It is noted that in recent years the supply of melanin and prefabricated furniture has increased mainly for its price, design and easy handling. The preference for the wood species of the area is mainly due to the durability and quality of it despite being expensive. Finally the main demands identified by the different sub-sectors are: the difficult access to financial resources, which must be consistent with the reality of companies, training programs for workers, support for introducing technology companies, implementation of wood drying kilns and finally opening new markets.

### 3.3. Strategic Lines - Diamond Porter

The department of Tarija has established that the promotion and development of micro, small and medium enterprises is one of the main policy instruments for productive transformation and the fight against unemployment and poverty. In this sense, through information collected have been formulated strategies built through participatory techniques with the main actors and supporting institutions, with the aim of improving the productivity and competitiveness of the wood chain<sup>29</sup> (CIEPLANE, 2011), becoming the second most important productive activity of the department. The design of the Tarija wood sector strategies was built from the development of the Porter Diamond summarizing the same weaknesses and potentialities of the sector, from which it continues to design development strategies for the sector.

<sup>29</sup> Estrategias del Sector Madera de Tarija.

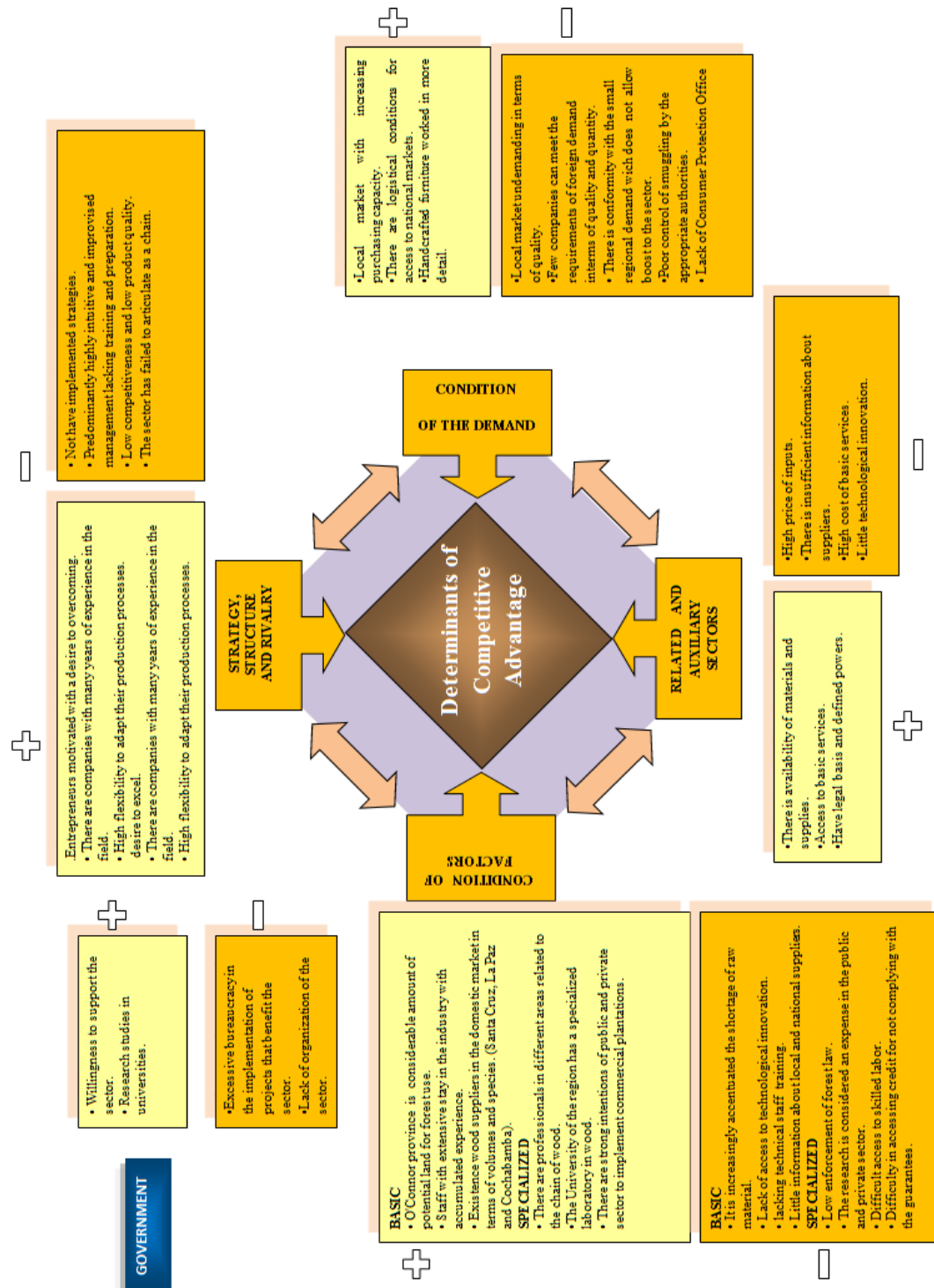


Figure 4: Porter Diamond - Tarija Wood Sector

#### 4. IMPORTANCE OF IT FOR TARIJA'S WOOD SECTOR

Information technologies are an essential part of the success of this project, because it has enabled the development of efficient and timely manner different actions in the converging computing, telecommunications and data processing.

The impacts of IT are summarized in the following points:

##### 4.1. Information technologies to generate a Baseline

The importance of systematizing and developing a computer system that stores information has generated a baseline for the Wood Sector, it has a first measurement of key performance indicators. This serves to initiate actions by establishing a starting point for any intervention of different actors involved (Wood Sector, Universities and research centers, national, departmental and municipal governments).

##### 4.2. Information technologies as a mean to generate a data system for real-time query

Thanks to computer systems (data managers) has generated a data repository for easy access, fed from many sources (data collection through surveys, interviews, existing documentation, etc), turned into information groups, for the specific case were collected 10 specific areas as shown in figure 5, to allow further consultations, analysis, reporting and basis for decision-making.

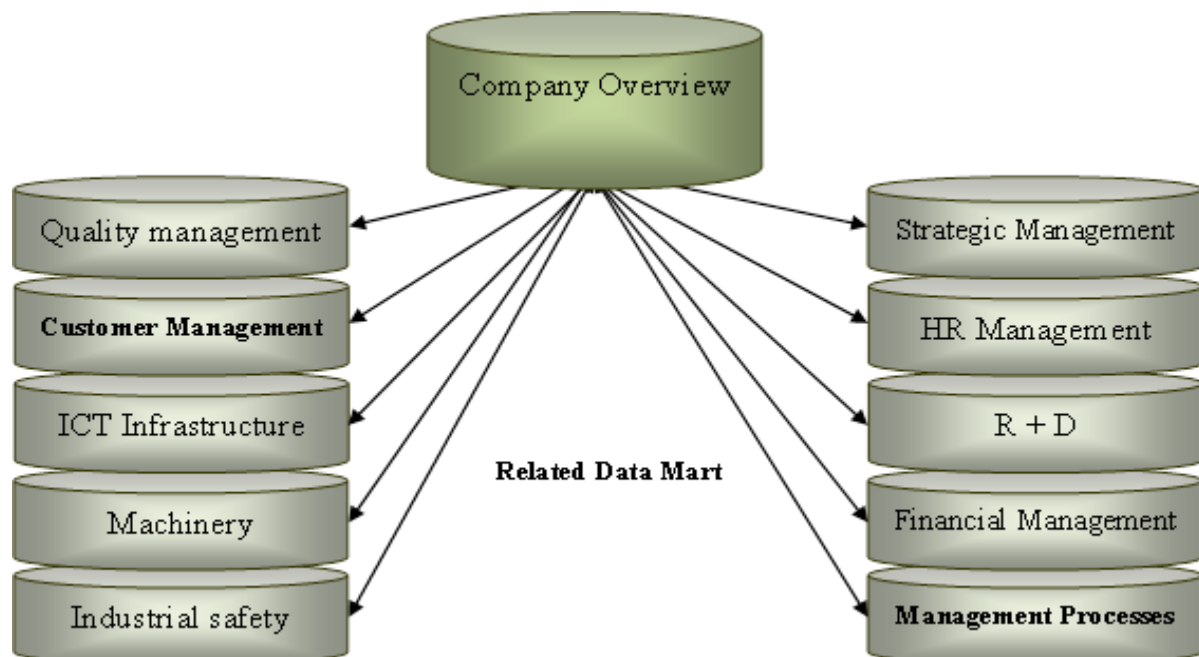


Figure 5: Related Data Mart (Own Elaboration)

The Wooden Tarija Sector had a wealth of important information scattered in different formats and IT enabled compilations from transform, standardize and upload the data to a DATA WAREHOUSE allowing governments, universities, researchers and anyone interested in a sector study, perform fast queries, variables crossings, reports from different angles, showing only aggregated information without violating the privacy of the companies.



#### **4.3. Information technologies as the basis for the organization**

Data collected and processed information were the basis for decision making, the Departmental and Municipal Government along with Juan Misael Saracho Autonomous University and entrepreneurs, materialized meetings to discuss the current situation and propose Wood Sector lines strategic to counteract major shortcoming of it. The information was presented in a program leading to the development of schematic design texts and also makes slide shows, text and image animations which facilitated the understanding of the present and therefore the group discussion. The participatory process of brainstorming and input from officials, experts, entrepreneurs and others summoned were systematized in software (MAPAMIND) facilitating collaborative work in real time, adding notes, valuation maps, version history, classification by tags, embedding icons allowing for better organization of ideas and ensuring participation and monitoring of the entire process of planning by all present.

#### **4.4. Information technologies as a tool to inform the population**

Finally, after making the gathering of information, the writing of reports and the preparation of the strategic lines, the information was brought to the region by one of the main means of mass dissemination online. College after verifying the importance of information created a specific website to disseminate business information called SIET. This portal is attached to the main portal of the Universidad Autónoma Juan Misael Saracho it generates traffic of users with more than 200 visits per day has facilitated and allowed to spread this important contribution to Tarija and Bolivian society.

Currently, the main document has 700 downloads posted to your home page.

### **5. STRATEGIC ALLIANCES**

"A Strategic Alliance is a partnership between two or more companies combining resources and expertise to develop a specific activity or group synergies as a strategic option for growth. This type of association can be used to conquer a new market (geographical or sectoral), acquire new skills or gain critical "<sup>30</sup> (Nunes, 2012). In the literature concerning this issue, the concept of strategic alliances is related to agreements, associations or groups usually from private companies to achieve strategic objectives considered. In the timber sector case study is chronologically recount how alliances were giving no prior programming was done. Firstly, the joinery subsector of the Tarija city, petitioned the Departmental Government through the Productive Development Unit to be assigned a space in the industrial park that was being implemented at that time to develop their activities and called for further support and training in managerial and administrative, production and trade within their production units. In this context, neither the Government nor the Departmental Association of Carpenters that at that time was newly organized had no even information about how many carpenters were in the city and less data about their production, administrative and financial capacities to have a reference point from where to build a comprehensive support project for the subsector.

#### **5.1. Emerging partnerships between universities, international cooperation agencies, associations and productive departmental and municipal governments**

The SNV Dutch Development Cooperation Service noted the needs of carpenters and decided to cooperate in the subsector needs they raised, but recognized that the main flaw was that there was no information to develop a plan of action. Thus, this cooperation agency made

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<sup>30</sup> Source: [www.knoow.net/es/cieeconcom/gestion/alianzaestrategica](http://www.knoow.net/es/cieeconcom/gestion/alianzaestrategica)

contact with the Faculty of Economics and Finance it facilitated the relationship with the teacher and students of the subject of Workshop Internship of Superior Technical Statistics Career at the public university "Juan Misael Saracho" from Tarija. In this course, students guided by a teacher looking and/or attending requirements of any public or private institution in the region to make a statistical work that includes collecting, organizing, processing, presentation and analysis of statistical information. The report is then evaluated by a court prior acceptance of the institution or company that is satisfied with the work done. Thus, to formalize these partnerships, the University signed a comprehensive agreement for mutual cooperation between the two organizations for five years and to benefit from this specific one was signed to develop the baseline carpenter businesses in the city of Tarija. The impact of the study was assessed both by the funding agency as subsector joinery, who spoke with the authorities of the Department of Tarija Government through the Ministry of Production. The Ministry assessed the importance of having real information to fully support the development of its policies, lines of action and projects for the wood sector. Thus, in the next run, the departmental government signed a 5-year Agreement with the University and undertook to provide resources for gathering information and creating baselines for 6 priority productive sectors in the Department between these wood sector around the Tarija department that included information about the subsectors Forests, sawmills, Barracks, joinery and Points of Sale, the other priority sectors were grape wines and singanis, tourism, berries and vegetables and textiles manufacturing. This alliance with the government led to the creation of a special department in the University "Juan Misael Saracho" under the Faculty of Economic and Financial Sciences called CIEPLANE. In developing the collection of information for the wood industry in the municipalities of Bermejo, Yacuiba, Villamontes and Entre Rios joined the group of strategic partners' sub-governorates and municipalities of the four cities. In this study case, unplanned flowed partnerships between institutions in which each contributed to what he did best, create synergies to achieve a common goal which was to have an x-ray of the administrative, production, financial, competitive and market management wood subsectors had in the department of Tarija. It is emphasized that each participant also benefited differently. On the one hand, university fulfills its role of research, extension and commitment to the regional situation. The departmental and municipal governments with the availability of information and baselines for the priority sectors in the region will allow them to generate policies and lines of efficient and timely action, in addition to improving their management capacity. International cooperation agencies, efficiently directs its efforts and resources to the needs of the region. Partnerships and wood industry producers become aware and take the actual situation in which the sector is and with these tools are better able to negotiate support from departmental and municipal governments and from cooperation agencies, as well as strengthening their associations. Finally, all institutions to work jointly optimized resources and efforts.

## **6. CONCLUSION**

Today more than ever, being an entrepreneur means being aware of the changes that have occurred in the last years, the Wood Sector Tarija has taken a major leap in strategic management is concerned, 509 companies have been identified and currently act as an industry and not as productive units isolated the same threats that have been identified and strengths of the sector from a joint effort between university, departmental and municipal governments and international organizations supported by Information Technology. This effort has generated a change in the management and planning of Wood Industry in Tarija, participatory management based on information and knowledge that has led to rethink objectives, strategies and targets optimizing resources and efforts, also allows governments to

monitor developments in the sector and efficiently manage public investment. Currently, authorities, research groups, students, organizations and others who wish to make contributions to the sector have a database and reliable information thus enabling studies with real-time queries.

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## NEW TRENDS IN THE REGIONAL DEVELOPMENT

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### **ABSTRACT**

*Regions are fundamental components in economic and administrative structures of each country. In present day, we can see the increase of their importance in the global dimension. This process is more and more visible from year to year and takes place on every continent. The regional policy is a special instrument, which serves for realization of topics in this subject. The assurance to equalize and permanent development, is one of the most significant regional policy issues. For areas designated as regions, the idea of development gives interesting perspectives of new possibilities and brings guarantee for better conditions of life to the society. The word: "development", is strictly connected with the concept of constant economic growth. In the theory of regional policy, from the beginning of the industrial revolution in 18th century until the middle of 20th century, models of exogenous growth dominated. Those ideas were based on capital investment, consumption increase and expansion of big cities and industrial agglomerations. In the second half of last century, it turned out to be economically insufficient. The regional policy needed a new way of development. Scientists, business people and theoreticians of sociology and administration, began to search for a different and more effective method of regional growth. The answer for those efforts were models of endogenous growth. They are concentrated on: human capital, R&D, technical capital, self – government policy and ideas of citizens participation in the management. Those new ideas are opportunities for good prosperity, not only for well – developed areas, but also for poor – developed zones. Today, in the time of global economic stagnation, searching for new solutions in question of regional growth is strongly delimited of those trends in regional development. They opened completely fresh notions and innovative dimensions in the surrounding world in which we exist.*

**Keywords:** *economic stagnation, endogenous growth, exogenous growth, model, regional development.*

### **1. INTRODUCTION**

The term "region" is derived from the Latin word "regio (-nis)". Initially it bore two meanings. The first one denoted the phenomenon of motion in a given direction. The other signified a particular area. The combination of both meanings resulted in a "direction determining space." The part relating to the area dominated, over time, the understanding of the entire term. Currently, it is a popular international word used to define a certain area. In less common translations it can also mean: a land, a province, a locality or a district of the city or the country. It is to be assumed that in the broadest sense, the region is "a relatively homogeneous area separated from its surroundings, distinguished from the adjacent areas by its natural or acquired characteristics, which was created due to noticeable, identifiable factors."

It is advisable to further clarify the concept of the "region". At the moment there are several parallel conceptions that precise the broad approach. For the purposes of this study the most adequate definition seems to be the one that emphasises only two, albeit very important factors. They are (Chojnacki, Z., 1997, p. 12):

- human collective,
- occupied territory.

One can agree that these two essential elements in the vast majority of cases delineate a region. In the overall context, in addition to the delimitation of the territory, it seems particularly important to refer to the human collective as an entity constituting a certain area by taking it in possession, populating it, and then determining binding norms and adapting it to their own, frequently specific needs.

## **2. REGIONAL DEVELOPMENT**

The concept of the term "development" should at this point be limited to the category of phenomena having the nature of transformations perceived as positive, that relate to the observed object of research. This narrows down the content of the concept only and exclusively to positive changes, unambiguously perceived by entities interested in the general course of the case. With regard to the development of the region, the economic aspect clearly comes to the fore, leaving far behind other issues integrally associated with it. In this context, the development of the region is usually equated with economic development, describing a long-term process pertaining to quantitative and qualitative transformations. These quantitative changes include mainly: the influx of capital, new investments, increased production, increased employment, gradually increasing consumption and increased income of society. The qualitative changes include: achieving dynamic technical and technological progress, increasing education, qualifications and work commitment of the labour force, putting an emphasis on the creation of human capital, improving the system of economic relations both inside the country and abroad, modernisation of industrial infrastructure, increasing efficiency and tangible increase of the range and quality of services and products (Markowski, 2008, p. 13). In broad terms, the development of the region is a vast complex of various changes, including goals, needs, priorities and hierarchy of values determined in relation to a particular area. In general, it should have a universal nature. In practice, it is very common to see the process of transformation set to a predetermined and desired direction, resulting from the conditions of a given area. It is important to emphasise that regional development cannot be considered in terms of a simple increase in economic and spatial structure of an area alone. To properly evaluate the entire process described, one should take into account the participation in this phenomenon of a community inhabiting the region, having a sense of their own identity and a clearly distinctive ethnic, cultural and economic character. The community is characterised by: long tradition, daily habits, adopted and professed patterns of behaviour. On the one hand, they represent an integrating factor, and on the other an element which distinguishes it from the surroundings. The concept of development is often referred to as the concept of growth. Both categories can describe the level of the economy from a regional perspective. Economic growth should be seen as a quantitative category, which is expressed by an increase in product per capita. Economic development is a term designating an entire group of broader issues and specific aspects of life of the inhabitants of a given area. They should lead to the improvement of living standards of society within a particular territory. The growth should therefore be understood as a purely quantitative change, whereas the development covers both quantitative and qualitative changes. Occurrence of interdependence between growth and development leads to a conclusion that the occurrence of growth is a prerequisite for the economic development of the region (Bartkowiak, 2003, p. 47). Additionally, attention should be brought to the existence of two significations of the word "development" in relation to regional issues. This scope covers the following terms: "region development" and "regional development". The region development refers to a single region and the phenomena occurring therein. By

contrast, regional development describes the phenomena occurring on a wider scale, for example, in a country or at a supranational level.

### **3. REGIONAL POLICY**

Regional policy is a practical tool for ensuring stable economic growth of particular areas. In its essence, is a set of practical solutions and of different concepts, enriched with theoretical models. Actions of national and local authorities using this basis refer to the development of areas distributed within the state organisms. In principle, the use of regional policy aims to effectively influence, as far as possible, the size, directions and speed of development of given areas. The main objective of the solutions implemented by means of political and legal regulations is to introduce changes to the structure of the already functioning social and economic structure as well as to the spatial arrangement of a given territory. (Strzelecki, 2008, p. 78). Both the scope and the nature of regional policy have deeply evolved over the decades due to continuous transformations taking place both in particular countries and all across the world. Its leading priorities have changed to a great extent. Objectives and tasks were modified as a result of social and political transformations in a given country. The shape of the regional policy followed intrinsically recurs to a number of previous experiences and achievements of the relevant authorities in this field. It is believed that in all cases it should provide a harmonious and dynamic development of the areas concerned. However, in order to achieve those objectives, regional policy is required to try efficiently to use not only its natural resources, environmental values or favourable climate, but also the unique asset provided by the human factor. In their actions persons and institutions responsible for the regional policy are obliged to select an action plan adequate to the area that they were entrusted to administer. They can choose either to use the already beaten track, or to search for new and often risky solutions. All actions of these bodies are closely watched and judged by the society and subsequently analysed by experts in the field. In parallel, attempts are being made to improve and change the methods of region management and the resulting creation of models and interesting scientific theories. At the moment, there is a substantial repertory of concepts and theories that describe the regional development and growth. They are arranged and grouped according to various principles and criteria. One of the most universal classifications uses the division of all theories of regional growth into those of exogenous and those of endogenous nature.

### **4. THEORIES OF EXOGENOUS GROWTH**

Throughout the entire 19th century and most of the 20th century, the most common explanation of the issues and problems of regional development were exogenous growth theories. They assumed a significant impact of external factors on the pace of economic and social progress in less developed areas. According to these concepts, areas of faster development and those more advanced economically, forced the less developed regions to grow, in a way "dragging" them up. The dominant economies of developed countries imposed the speed and the rhythm of technical and cultural progress to underdeveloped countries and regions. Exogenous theories logically explained the phenomenon of achieving higher growth rates by the territories developing slower in relation to the highly industrialised countries. This was explained by the use of ready-made patterns and by the technical and organisational solutions, by following the "beaten" paths of development, by the use of knowledge and experience of the western experts and, above all, by the blessed "inflow of capital from external (foreign) sources." The group of exogenous theories includes: classical and neoclassical theories of economics, the Keynesian model, and, most importantly, theories of sustainable and non-sustainable regional development. Until the early 80s of the 20th century,

the theoretical assumptions of the exogenous concepts coincided, in most cases, with the course of economic phenomena observed in economic practice. Today still, these theories are being corroborated. This is clearly visible when one compares, for example, the growth rate of Poland expressed in GDP with its largest trade partner, namely the Federal Republic of Germany. Poland, for several years weaker and economically less advanced, successfully catches up with the largest and the most dynamic economy in Europe. A similar situation pertaining to economic relations took place with respect to the progress rate of underdeveloped Ireland and the industrial power of the United Kingdom. This was the situation until the outbreak of the recent financial crisis. Later on, due to radically changed global conditions, the exogenous growth theory regarding these two countries was not valid anymore.

## **5. THEORIES OF ENDOGENOUS GROWTH**

By the end of the 1980s an economic phenomenon beyond the established rules of exogenous development was observed. The economy of the United States (U.S.) showed a much faster growth rate than the strongly associated economies of Latin America and the developing countries of Africa did. In accordance with the established rules applicable so far, weaker countries that followed the "beaten" path were supposed to develop faster than the U.S. This, however, was not the case. It provided the basis for the hypothesis that factors other than just external maybe of significant importance for the development of countries and regions. Focus was brought to internal factors. The new idea described the growth created by the forces and capabilities of a particular economic system. The concept of development based on this premise led to the so-called endogenous growth theory. Basically, it was about several converging theoretical concepts which show clear similarities and common elements. The endogenous growth theory aims to prove that the long-term rate of economic growth depends on several crucial factors (elements). The most important of them are:

- investing in human capital,
- investing in technical capital
- funding research and development
- economic policy pursued by local governments.

Human capital and material assets (technical capital) together form productive forces of a region. The theory described is the first example when the role of human capital was emphasised so strongly in theoretical concepts. The labour force is not, as it was previously believed, only the number of people employed, but a value in itself. By investing in education and further training of employees, using their specific skills and experience as well as encouraging them to pursue creative activity, employing institutions can gather unique human groups that shape the character of the region. In this context, human knowledge resources seem to be the most valuable ones. It is on them, and not on raw materials and invested capital, as it was the case until now, the development of various areas should be based (Drucker, 1999, p. 14). The second element of the productive forces is the level and the advancement of technical infrastructure. Investments in its modernisation and expansion create the new value of accumulated material assets, called technical capital. The third important factor is the expenditure on research and development (R & D). They lead to innovations and to technical and technological progress. It is assumed that adequate R & D funding in the relevant field or industry should, after some time, result in a fast-growing and a technologically advanced industry. The fourth factor, a cohesive element that sets the direction of change, should be an active policy of local governments. A policy based on a system of financial incentives and efficient administration, capable of motivating local

communities to take initiatives, risks and specific actions. It should be noted that the theory of endogenous growth does not mean the complete elimination of foreign influence. It admits certain flows and external movements. The most important of them are: free trade and the flow of human and material capital. Trade contributes to the exchange of innovative solutions used by regions to acquire cutting-edge technologies. Research on differences in income achieved on the regional level showed that trade can be a factor leading to convergence or divergence of cooperating areas [Tondl G., (2001), pp. 7 - 33]. An example of the endogenous development drawing on trade and foreign solutions, but using and taking into account its own specifics, was the extraordinarily rapid development of a group of the Far East countries, commonly called "Asian Tigers". Initially the group consisted of only four countries: South Korea, Hong Kong, Singapore and Taiwan. In the first and second half of 1980s, they were joined by Thailand, Philippines, Malaysia, Indonesia and Macau. The common feature of those countries was an unusually dynamic growth of Gross Domestic Product that amounted to several percent per annum and a relatively close mutual location in the region of South-East Asia. The economic collapse of 1997, commonly called the "Asian Crisis", put an end to the accelerated development of these countries.

## **6. EFFECTS OF EU REGIONAL POLICY IN POLAND**

Currently in Poland, thanks to money from EU funds, the exogenous growth model is being pursued. This increase, based on the inflow of capital and investment as well as subsidising selected economic sectors, has been recognised by the state authorities as the best means to remove the gap existing in the level of economic development of particular areas. The government favouring the exogenous model essentially determines the shape and selected directions of regional development. In case of Poland, the use of financial assistance and support was supposed to contribute to increasing the convergence of weaker regions with the most developed ones. Although the plan of catching up in economic and cultural terms with the United Europe is being successfully implemented, unfortunately another important goal of increasing the cohesion of the entire country was not achieved (Przygoda, 2013, pp. 244–246). This means that the concept of transferring capital to the less developed areas by the means of increased investment possible due to foreign and national funds did not bring the expected results. It turned out to be simply ineffective. Since Poland accessed the integration group in May 2004, the observable differences in the development level of particular areas became even more pronounced. This is directly affected by the investors selecting the sites to allocate the capital. They consistently direct their attention primarily to areas that offer them better industrial infrastructure, more developed technical facilities, better living conditions, wide-ranging and fast transport network, access to counselling, financial and legal institutions, a wide array of cultural and leisure organisations, comfortable residential conditions as well as workforce with specialised education suitable for their purposes. As a result, despite the efforts made, local government administration of the less developed regions is less capable of persuading the owners of the capital to invest in the area that they are in charge of, compared with the authorities representing more developed and metropolitan areas. What is alarming in this context is the fact that the state authorities stubbornly cling to the exogenous model of regional development adopted in the past. This can be seen for example in relation to the "National Spatial Development Concept 2030" approved by the government. This official document mainly focuses on the idea of creating in Poland ten leading metropolitan centres. Such a solution is a simple response to external (exogenous) factors affecting regional development, which may be found in well-known concepts, such as the theory of industrial districts of Alfred Marshall, the theory of industrial location of Alfred Weber, the central place theory of Walter Christaller, the concept of sector and region



polarisation of Albert Hirschman, the growth poles theory of François Perroux, or the centre and periphery theory of Raúl Prebisch. Given the EU financial perspective for the next years intends to allocate much less money for regional development projects and programmes, the approach of the Polish authorities may raise legitimate concerns. The question is whether the truncated budget will permit to realise all the goals. But it is not only a Polish problem. It equally involves all regions in the United Europe, which strive to catch up in terms of civilisation and economy. At this point, two questions are to be asked:

*First question:* "Is it justified to follow the exogenous model of regional development nowadays?"

*Second question:* "Have all the potential opportunities and factors likely to maintain the desired pace of regional development been already used?"

## **7. NEW TRENS IN REGIONAL DEVELOPMENT POLICY**

The answer to both questions raised in the previous chapter is provided by the new trends which can be observed in regional policy. We should start by saying that there is a large and untapped potential in solutions and endogenous processes that can act as a stimulant to the desired regional development. The process and in the same time the most promising solution referred to is the granting of administrative functions to regions, increasing the number of elements of direct democracy. Direct democracy involves direct decision-making by all citizens inhabiting a particular territory. Within it, the community has a greater impact on adopted decisions of major importance for the region or country. The tasks of the administrative institutions operating on a continuous basis at the central or local level include preparing draft decisions of significant importance and making decisions of executive or a purely technical and administrative nature. Such a system involves increased participation of the community in managing the development of a particular area. Direct participation of citizens in governing the country or in relation to a lower local level cannot be called a "fully separate democracy system." This is because, in the existing reality, the tools of direct democracy are elements merely complementary to the functioning of parliamentary (indirect) democracy. In such case, one can at most state and determine a larger or smaller "saturation" of the operating systems with various forms of direct public participation in the exercise of power. Currently, the most important tools of direct democracy allowing community members to participate in the exercise of power and in the management of a particular area, are considered to be the following:

- Referendum.
- Plebiscite.
- Civic legislative initiative.
- Citizens' veto.
- Participatory budget.
- Appeal.

In addition to the plebiscite and civic legislative initiative, the recent years saw the participatory budget as the most popular tool of direct democracy. Participatory budget is currently one of the most effective practices aimed at involving citizens in the management process of the areas which they inhabit. More and more local governments, mostly urban ones, are interested in implementing participatory budget (that assumes participation of the citizens in its elaboration) as a flexible, politically neutral instrument, which based on a series of open meetings of residents successfully increases the effectiveness of the implementation of the existing centrally determined policy. Participatory budget was born within a series of grassroots initiatives at the beginning of the 90's of the last century. The place of its birth was

the city of Porto Alegre with a population of over one million, the capital of Rio Grande do Sul - the southernmost state of Brazil. Participatory budget proved to be a very successful initiative. In a short time, it achieved a huge success. Brazil was the first to be fascinated with the opportunities it provided. In 2008, it was introduced by about two hundred (200) cities of this country, covering more than 44 million inhabitants. Two years later, in 2010, the number of Brazilian cities following the principles of civil budget was estimated at nearly two hundred and sixty (260), with more than 54 million citizens. In the last year of the first decade of the 19th century, at least five hundred and ten (510) urban centres in South America were involved in the implementation of the idea of co-management community. Another place where the idea of participatory budget was enthusiastically received is Europe. In 2010, residents of about 200 cities of the Old Continent enjoyed the privilege of participation in shaping their fate (Kębłowski, 2013, p. 12). It is estimated that in 2010 there were at least 795 cities around the world where the participatory budget was used. Although participatory budgeting is most frequently used by the urban centres, it is increasingly resorted to in municipalities and larger units of territorial division. The Swiss Confederation, small in terms of its territory, is considered to be the country to use most elements forming the instruments of direct democracy in an everyday political practice. The reference to its small territory is relevant due to the widespread belief that direct democracy is best suited for small countries. This opinion may be debatable, as in many cases participatory democracy tools are used at the level of large areas, as it is the case in Italy or in some U.S. states.

## **8. IMPACT ON THE REGION RESULTING FROM THE DIRECT PARTICIPATION OF THE COMMUNITY IN ITS DEVELOPMENT**

Direct participation of citizens in the management of the region results above all in a much larger impact of the community on administrative decisions regarding the area which they inhabit. This does not exclude the possibility of their participation of a financial or lobbyist character. In the presented concept belonging to the new trends in regional development policy, the author focused mainly on solutions in the sphere of political instruments. Their use translates into a more dynamic social and economic development of a particular territory. When exogenous financial factors to a large extent are no longer efficient, we must look for new effective solutions. Of course, it would be a mistake to completely abandon the economic tools that have been used so far. The most appropriate procedure in this case is to consider the possibility of reinforcing the results achieved by the use of new (endogenous) factors to the effect of supporting previous achievements. Such desired supportive effect is provided by the application of direct democracy in the task of managing a region. It is a time-tested method, increasingly used in practice due to its proven efficacy [Feld P.L., Fischer J., Kirchgaessner G., (2006), pp. 7 - 27]. The most spectacular effects of the use of elements of direct democracy include the following facts (Frey, 2010, pp. 82–90):

- The community exhibits a greater neighbourhood consistency and a desire to contribute to its immediate surroundings and to the region.
- Public expenditure on education calculated per capita is higher than in other areas.
- The budgets of local government units, where the mechanisms involving inhabitants participating in the decisions concerning their "own territory" are stronger, are clearly "more modest" both in terms of expenditure and revenue.
- Regardless of education, age, gender, religion, financial status and income, inhabitants of regions of more developed direct democracy more readily accept the living conditions, civil liberties and actions of local authorities.
- Per capita income in regions where direct democracy is used to a greater extent is much higher than in other areas.

- There is a growing public life-satisfaction (in German - Lebenszufriedenheit) due to greater "saturation" of elements of direct democracy. Satisfaction with existence is comparable even to the effect triggered by revenue increase.
- The rates of taxes and of duties imposed by the local authorities are substantially reduced.
- The scale of tax evasion in the community is very small or even becomes marginal.
- There is a phenomenon of increased influx of people (increased immigration) to areas using solutions of direct democracy.
- Price of land and property increases in areas where the society participates in the decisions about their future.
- A rich social infrastructure is developed in order to satisfy the growing social needs.
- Corruption, lobbying and other abuses of power are successfully combatted.
- Innovation and entrepreneurship in the area are promoted.
- Public expenditures and revenues plans elaborated are more "compact".
- New businesses are born and the existing ones, but operating in other fields, open their affiliates or agencies or change their principal place of business, choosing regions with a higher degree of direct democracy for this purpose.

The above examples of the effects of use of the elements of direct democracy show that its introduction at the regional level may contribute to maintain or even intensify the development of the area. Implementation of the endogenous model in parallel to the exogenous one should support the efforts of the regions in increasing their investment attractiveness and encouraging people to settle in the area. This will be mainly promoted by lower taxes, significant impact on the solutions adopted in the economic sphere, increased inflow of skilled labour force, less bureaucracy, atmosphere favourable to potential investors, lack of corruption or abuse by the local authorities, interesting opportunities for self-development thanks to improved conditions of education, increase in the value of acquired land and property in the long term, a stable political situation, increase in the number of investments and mutual trust in the community.

## 9. CONCLUSION

The current global economic downturn and the previous deep economic crisis clearly showed that efforts should be made to find more effective means to overcome this adverse situation. The methods of exogenous character used so far proved insufficiently effective in this field. Measures to combat the consequences of the current economic situation can be carried out at different levels. They can be implemented at a regional or national level. Going down to the regional level allows the use of the specificity and uniqueness of an area and of the population inhabiting a given territory. It also provides the opportunity to use endogenous methods of supporting development. An interesting possibility in this regard is provided by new trends in regional policy relating to the involvement of local communities in the field of participation in the direct management of the area that they inhabit. It may be supported by complex elements of direct democracy incorporated into the economic and legal order of a particular state. In addition to the positive social effects, they provide tangible benefits of economic nature. However, the transition from the system of management by a strong administration to allowing inhabitants to participate in the process of directing the development of the region requires a lot of courage, high awareness and good will on the part of both local and central authorities in every country.

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## **FORMING THE FAVORABLE ENVIRONMENT FOR INNOVATION: CASE OF SERBIAN REGION**

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### **ABSTRACT**

*This paper is devoted to the problems of regional innovation system development. The creation of effective innovation system capable to increase the innovation activities is proclaimed as one of the urgent needs for Russian economy. By now, Russian innovative activities are ranked rather low compared to other developed countries. According to The Global Competitiveness Report 2012-2013 Russia is ranked 67 among 144 countries. In the recent years, Russia's lagging in innovative sphere has increased. The most dramatic expression of this problem seems to be low level of demand on innovations. During the period from 2000 to 2011, not more than 10% of industrial enterprises implemented innovations. During the last decade there was a number of state initiatives focused on increasing innovation activity, however the achieved results were not sufficient. The key problem is the inadequately low demand for innovation from the domestic corporate sector. In fact, the government is the only source of internal demand on innovations either directly or through the state economic sector. The existing innovation system appeared to be rather functionally limited: where there is an opportunity to use government resources, there is economic growth (still, not always effective). According to statistics, when science and innovation costs increase, the efficiency of these costs tends to decrease. Siberia is a vast region of Russia that has enormous territory, lots of natural resources, developed industry and large scientific and educational potential. Thus the problems of Siberian innovation system are rather typical for the whole country. In this research we accumulated the information about the largest investment projects which are planned to be implemented in Siberia and constructed indicators of the innovation incentives of the main economic actors. Our analysis shows that in the medium-term Siberian economy is likely to continue to have the status of the resource-driven economy.*

**Keywords:** *Innovation systems, Regional development, Siberia*

### **1. INTRODUCTION**

During the recent years the interest of policy makers, practitioners, and researchers in the development of various long-term strategic documents at both national and regional levels has increased. The strategic objective of development is generally the growth of the competitiveness of a country or region as a basis for sustainable socio-economic development; the main direction for increasing competitiveness is the formation of a knowledge economy. The creation, development, and operation of the knowledge economy is

largely determined by the quality of the innovation system at the regional and national levels. Accordingly, innovation policy should be aimed at creating an innovation system as a set of actors and institutions; the interactions between these should provide the stability and efficiency of innovative processes. Recently considerable efforts have been made to form the Russian innovation system on the national as well as on the regional levels. These efforts were mainly taken from the top i.e. by the state. At the same time while the achieved results don't meet expectations in full, the system problems still remain. Moreover our situation became worse from the point of view of the Russian innovation sphere global competitiveness. The global experience shows that the innovation development is determined by the interaction of institutions, organizations and individuals who create knowledge; ensure the implementation of new knowledge into technologies; and use new technologies to manufacture products and services. New products and services in turn are not only the value for consumers, but they bring in return for the companies – innovation producers. The character of such interactions, roles and functions of separate participants (the most important of them are the state and the created infrastructure) outline the innovation system, its national, regional and industrial characteristics. Siberia is a vast region of Russia which is located to the east of the Urals. At the present time the Siberian Federal District (SFD) includes 12 regions of the Russian Federation. Its territory makes up 30% of Russia's territory, its population – 20 mln people. The Russia's main natural resources are concentrated on the territory of Siberia such as: ferrous and non-ferrous materials, oil, gas, coal, timber, gold and diamonds. Its gross regional product makes up 11% of Russia's GDP. Minerals and metals which are mainly produced behind the Urals make over  $\frac{3}{4}$  of the Russian export. However, natural resources are losing their role of main competitiveness factor in the contemporary world. The ability to create knowledge and to transform new knowledge and technologies into products and services for the national and global markets is getting the main competitive advantage in the knowledge-based economy.

## **2. LITERATURE REVIEW**

The last years the conception of national and regional innovation systems is being actively developed and studied in many works (Lundvall, 1992; Block, Keller, 2008; Cooke, 1992). A range of international centers, in particular SPRU (Great Britain), CIRCLE (Sweden), UMIC (Great Britain), etc. have focused their research on these problems. Among the Russian researchers a great contribution has been made by the works of N. Ivanova (2008), L. Gokhberg (2003), I. Dezhina (2011), V. Polterovich (2009), N. Kravchenko & G. Untura (2011), etc. In the literature concerning the regional innovation systems the main attention is given to the description and analysis of relations between the educational system development, innovation activity and economic results of separate territories. Most works are based on the comparative empirical research of different regions that leads to the formation of general regularities and specific characteristics of regional development. In the work of Doloreux, Parto (2000) some examples of such research in Europe and Canada are given. The study of regional innovation systems is often related to success stories of regional clusters or regional chains of innovation companies (Asheim, Gertler, 2004). Another direction of research is focused on the evaluation of institutional environment influence on the innovation development of territories. The research results are ground for the development of innovation policy. (Cooke, Memedovic, 2004; Mani, 2004). Such research commonly results in the conclusion that there is its own combination of success factors and its own set of institutional characteristics and political initiatives for each innovation region and there is no unified model that can explain success in the innovation system development.

### 3. DEVELOPMENT OF SIBERIAN INNOVATION SYSTEM

Scientific and innovation potential of Siberia is represented by a range of world-scale scientific achievements, the well-developed system of education and training and the developed production complex including a knowledge intensive economic sector. The generation of new knowledge is mostly determined by the academic activity of research institutes, and the system of secondary and higher education. Currently over 400 organizations are working in R&D sector of the Siberian Federal District (SFD) and the number of personnel involved makes up over 58 thousand people. At the comparable quantitative indicators of science employment Siberia as well as Russia has been dropping behind the world leaders regarding quality indices of scientists' age structure and scientific effort financing and effectiveness. The average age of researchers in the SFD is 49 years old and the share of scientists aged within the age of 50 to 70 years old is over a half of the researchers' total number, at the same time in the USA the share of scientists of this age does not exceed 25 %. Eight Siberian universities are included in the top 500 universities of the world<sup>31</sup> but they are ranked in the forth hundred. 33-40% of universities and research institutes have access to up-to-date educational and scientific Internet portals. The Siberian economy is mixed. Its traditional industries are based on 3 - 4 technological waves. Some enterprises of the processing industry use the equipment and technologies of 5-6 waves, for example, laser equipment and technologies, accelerating equipment, electron-beam and photochemical technologies; biotechnologies; catalytic technologies; coal deep-processing technologies and coal chemistry; information technologies, etc. The knowledge intensive sector of the Siberian economy is represented by aerospace industry; production of fuel and power engineering equipment; production of communication facilities including space and telecommunications; instrument engineering; production of medical equipment and some others. The share of high-tech mechanical engineering (production of machines and equipment, production of electrical equipment, electronic and optical equipment, production of transport vehicles and equipment) in the structure of Siberia's processing industries is small – 11.4 % (in the Russian Federation - 20.2 %). In the total industry structure the share of high-tech industries makes up 8% in Siberia (in the Russian Federation – 13%, in the European Union – 16%). For the last 15 years the lag from the developed countries in high-tech industries has increased. At the present Siberia's traditional industries are not characterized by high innovation activity due to the special features of industry structure as well as a result of many other factors. Innovations in the real sector of the Siberian economy (innovation activity of enterprises, implementation of new products and number of advanced manufacturing technologies in use, exchange of technologies) are developing more slowly than in the Russian Federation. In the SFD the foreign trade turnover resulted from exporting and importing technologies and engineering services is 6.6% of domestic indicator. Siberia as well as Russia is a net importer of technologies. An incomparable lag of the Russian (and Siberian) enterprises from the foreign ones judging by the innovation activity indicator can be explained by the fact that in the developed regions of the world there is a developed multi-component innovation system. In Siberia this system is still being formed. Business sector demonstrates an extremely low demand for innovations, the competition which exists and is increasing is based on other innovation-unrelated factors. The low demand for innovations is caused by many problems, for example, inertia of industry structure with the predominance of medium and low-tech industries; engineering backwardness and out-of-date production facilities; lack of qualified personnel; insufficient development of market institutions and infrastructure and many others. We can assert that innovations are not a competitive

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<sup>31</sup> In total 65 Russian universities were included in the Global University Ranking, 3 of them are ranked in the top 300 and the others – in the top 400.

advantage under the conditions of the deformed competition, when the short-term frame of corporate development is dominating. In fact the state is almost the only source of internal demand either direct or by means of the state economic sector. At the present time the demand for innovations is stimulated by the government first of all by establishing state corporations and constraining large companies of the state sector. The problems in the innovation sphere are well known, they are deeply rooted and they affect the economy in whole. The functional capabilities of the current innovation system turned out to be limited: there is growth (not always effective although) in spheres where the use of state resources and capabilities is possible. According to the domestic statistical data (table 1) while science and innovation costs are obviously going up, the effectiveness of these costs is going down<sup>32</sup>. Although the number of patents as well as the number of newly created advanced technologies have considerably increased, the share of companies implementing innovations and the share of innovation products to be implemented remain almost at the same level.

*Table 1: Indicators of Russia's Siberian and European Union innovation development*

<i>Indicator</i>	<i>Russia</i>		<i>Siberia</i>		<i>EU-27</i>
	<i>2008</i>	<i>2011</i>	<i>2008</i>	<i>2011</i>	<i>2010</i>
R&D internal costs, % GDP	1.04	1.09	n/a	n/a	2
Number of personnel involved in R&D, thousand people	761	735	53.9	52.7	1560
Number of granted patents, thousand pcs.	31.5	30.9	2.1	1.8	54.4
The share of organizations implementing engineering innovations in total number of organizations (industry), %	9.6	10.4	7.7	8.8	52.9
The share of innovation products, works, services in total volume of products (industry), %	5.1	6.1	2.1	2.2	German y -14.1

The statistical data (Indicators, 2012; Regions of Russia, 2012) demonstrated that there are no significant movements in the innovation development in Siberia and in Russia as a whole. Although there are increasing total volume of expenditures for R&D, the intensity is decreasing. The number of personnel involved in R&D is also decreasing which creates the threats for the perspectives of long-term development. The results of innovative activities of the corporate sector are not very optimistic. The leading European countries demonstrate opposite dynamics. The intensity of innovation costs (% GDP) in Russia consists on 1.09%, whereas in Japan in 2008 - 3.45%, and in European leading countries such as Finland – 3.87%, Sweden – 3.42%, Denmark – 3.06% Compared to the average level of EU countries our enterprises show over five times lag as per the innovation activity level. There are positive trends in innovative development in Russia and Siberia but the processes are rather slow.

<sup>32</sup> According to publications in the leading scientific journals in the ranking of countries Russia went down from the 8<sup>th</sup> position (1997) to the 14<sup>th</sup> position (2008), for the same period China went up from the 10<sup>th</sup> position to the 2<sup>nd</sup>. In 2008 Russia's share in world scientific publications made up 2.48% (27,5 thousand publications), but in 1997 it made up 3.77% with 27,9 thousand publications, and at the same time the USA had 29.4%, China — 9.69%. The export of domestic technologies in 2008 made 0.833 bln \$, and in the USA (1<sup>st</sup> position) it made 91.9 bln \$.



#### **4. LONG-TERM STRATEGY OF SIBERIA INNOVATIVE DEVELOPMENT**

A landmark event in the system of regional strategic planning has been the elaboration of The Strategy of socio-economic development of Siberia until 2020, where the main goal was established to ensure sustainable improvement and quality of life through a balanced socio-economic system of innovation type. The innovative development of the region was proclaimed to be the most attractive option and the main long-term priority. Strategy implementation process involves the three time phases (2010 - 2011 years; 2012 - 2015 years, and 2016 - 2020 years), which differ in the degree of maturity of the innovation system in the region. Since the first phase (2010 - 2011) has passed, we believe it is important to identify the main achievements and problems of the innovation system. Public policy objectives in the field of development of innovative sphere at this stage consisted of :

- completion of the formation of an innovative infrastructure and innovative business support infrastructure ;
- creation of the unified governance system for inter-regional development processes and technology commercialization ;
- stimulating consumer demand for innovative products and services;
- support for regional and international cooperation , as well as
- improvement of the regulatory framework in the field of innovation.

The main achievement of the past period can be considered the gradual elimination of the consequences of the global crisis and access to pre-crisis level of innovative activity. At the regional level the legislative and rulemaking to support innovation were accelerated. Considerable efforts of the federal and regional branches have been taken for the development of innovation infrastructure , including the creation and development of technology parks, business incubators, technology transfer centers, etc. Largest state institute of development - "RUSNANO " signed an agreement on cooperation in stimulating demand for nanotech products with the Novosibirsk and Tomsk regions, developed a comprehensive program to stimulate demand for nanotechnology products in the Krasnoyarsk Territory. Siberian regions are actively involved in the development of innovative pilot clusters. At the same time, amid positive qualitative changes in legislation, institutional environment , infrastructure, innovation, we see a far rosier picture in terms of achieving the target indicators of innovation system development in Siberia. That is the level of measurable statistics strategic objectives in the field of innovation development is not completely achieved. The table 2 below is compiled on the basis of the indicators included in the Annex to the Strategy of Siberia. The table includes only those indicators that are subject to statistical observation . As can be seen from the data shown in Table 2, there are differences between the expected and the actual results achieved. We emphasize that the development has been seriously delayed by the global crisis that moves in time to the strategic goals for 2-3 years .

*Table 2: The key strategic indicators of Siberia long-term development*

<b>Indicator</b>	<b>2008 fact</b>	<b>2011 plan</b>	<b>2011 fact</b>	<b>percent age of achievement</b>	<b>2015 plan</b>	<b>2020 fact</b>
Number of personnel involved in R&D, persons	53956	57300	52794	92%	59000	61000
Number of patent registered	2163	2700	1861	69%	3600	4200
Number of advanced production technologies	93	138	126	91%	200	340
Foreign trade turnover (exports and imports) in the field of technologies and technical services,% of the figure for the Russian Federation	5.7	8.3	5.4	65%	9	12
Share of organizations engaged in technological innovation in total number of organizations, %	7.7	11	8.8	80%	12 - 15	20 - 25
Number of students per 10 thousand population	488	494	462	94%	496	520
The share of innovative goods and services in total volume of goods and services,%	2.1	5	2.2	44%	8	10 - 15

As could be seen from the statistics, innovative activity of enterprises and organizations of the Siberian rose slightly, although not embodied in the Strategy achieved value. Moreover, the achieved level remains lower than the Russian average. In Siberia share of innovative products in the total volume of goods and services rendered in 2011 reached 2.2%, which is more than in 2008 (2.1%), but less than planned for 2011 (5%) and less than the average in Russia (6.3%). Share of organizations implementing technological innovation in the total number of organizations in 2011 reached 8.8% - more than in 2008 (7.7%), but less than planned for 2011 (11%) and less than the average for Russian Federation (10.4%). Also increased the number of advanced production technologies: in 2011 they became 126, which is more than the 2008 level (93), but less than planned for 2011 (138). The remaining four indicators that are included in Table 2, were not only less than planned in the Strategy, but also below the starting level in 2008 is the foreign trade turnover Technology (2008 - 5.7%, 2011 - 5.4%); number of patents (2008 - 2163; 2011 - 1861), the number of personnel engaged in research and development (2008 - 53956 persons, in 2011 - 52 794 persons); number of students per 10 thousand population (2008 - 488; 2011 - 462). If foreign trade turnover and the number of patents reflect the features of the current situation, the reduction in the number of researchers and students form a threat to the future development. Human capital for innovation - the main factor of development, and an absolute reduction in the number of current and potential future research demonstrates the inadequacy of contemporary politics in the field of science and education. Note that the absolute reduction in the number of researchers and students is typical for Russia as a whole, and not only in Siberia, which makes the situation even more depressing.

In general, the gap between desired and actual ranged from 6% ( number of students per 10 thousand population) to 54% (the share of innovative products in total output ). Thus, Siberia failed to reach the average level of performance innovation. However , although not all targets , reflecting the successful implementation of the first phase development strategy Siberia achieved, individual regions of the Siberia demonstrate positive dynamics of innovation. Tomsk and Novosibirsk regions show higher than the national average, figures for the number of researchers and students. In terms of absolute volume of innovative products and traditional leaders Novosibirsk Oblast (16 billion rubles in 2011 ) , Omsk Oblast ( 14.8 billion rubles ) , Krasnoyarsk Kraiy ( 11.7 billion rubles), Tomsk Oblast ( 11.1 billion rubles). Created by number of production technologies championship in Novosibirsk Oblast (53 technologies in 2011 ) , followed by the Krasnoyarsk Kraiy (33 technologies) and in third place - Kemerovo Oblast, where 14 created advanced technologies. In general, the volume of imports of technology and technical services in Siberian exports exceeds 2.7 times. When this is the only area in which export revenues exceed the revenue from imports - Novosibirsk oblast, and in 2011 , exports exceeded imports by 17 times. Note the comparative advantage of different regions - generation is concentrated in regions with high scientific and educational potential ( number of students , number of researchers , the number of researchers with degrees , the number of established technologies , the cost of R & D) , and the production and development of innovation - in regions with a high concentration of industry. Most balanced innovation systems in Novosibirsk and Tomsk regions , but also in these areas demand for innovation is quite low.

## 5. THE PRIORITY INNOVATION PROJECTS OF SIBERIA'S DEVELOPMENT

During the last few years a significant investments were put into the development of new innovative sector of Siberian economy. Those projects were supported by different state-owned funds among which the “ROSNANO” is the largest. The information about the approved investment projects dealing with the production of innovative products and services in summarized in the table 3.

*Table 3: The priority innovation projects in Siberia*

<b>Project</b>	<b>Investments , bln rubles</b>	<b>Implementa tion period</b>	<b>Actual status in 2013</b>
1.Expansion of nanoink production for digital ink-jet printing and production of UV-LED-technology based printers	1.36	2010	Production started
2.Production of oxide ceramic coatings	0.355	2010	Production started
3.Domestic production of state-of-the-art lithium-ion batteries	13.8	2010-2015	Production started
4.Nanostructured non-metallic coatings	2.44	2011	Production started
5. Large-scale production of polysilicon and monosilane	29.1	2009 - 2013	Postponement
6.Collagen-chitosan nanocomplexes	0.76	2010 - 2011	Postponement
7. The infrastructure of technopark “Academgorodok” development	11.7	2008 - 2014	In progress

The suggested innovation projects are focused on B2B market which can cause difficulties for their implementation. For example, plants are required to change their manufacturing and engineering processes to get the commercial result from nanocoatings and it can cause some difficulties.

The implementation of these projects had met a number of problems such as:

- insufficient consideration of the innovation risks related to the immaturity of innovative technologies and the uncertainty of market research for new products;
- poor study of alternative innovative projects in the absence or underdevelopment of the domestic market for innovations;
- low willingness of private investors to take high risks associated with innovative projects in underdeveloped hedging and insurance mechanisms;
- the lack of flexibility of tools and mechanisms of state support and the provision of long-term government support, which leads to delays in time-to-capacity projects.

Noteworthy is the fact that the timing of the implementation of many projects delayed for several years. During this time, the market conditions, the level of market competition and global prices for similar innovative products can radically change.

## 6. CONCLUDING REMARKS

The Siberian large-scale business is generally oriented to the purchase of import equipment and at the same time R&D knowledge is in a great demand abroad. It means that foreign companies in fact commercialize scientific achievements and transform them into a product which is in demand on the market, and it is natural that they get the most part of the added value. So the capitalization of high intellectual resource is performed outside Siberia and Russia and the considerable means of business sector are eliminated from reproduction processes of domestic R&D sector. The above-listed projects supported by JSC ROSNANO and being already implemented in Siberia are obvious to be considered as the beginning of future Siberian innovation production. It is necessary to emphasize that the development of the Siberian innovation sphere can not be based only on large projects. Institutional changes aimed at the increase of social and business activity, motivation of competition, and the reduction of transactional costs are required as well. One of the most significant factors mostly located within the managerial influence of regional authorities is to form the innovation - favorable institutional environment, to support the development of business initiative and small business, to mobilize investors and to lobby for the interests of the Siberian territories. There are no simple recipes for competitiveness. Creating a “knowledge economy” is not only a goal but a means to increase the level and quality of life and it is therefore necessary not only to supplement the targeted parameters by indicators that reflect changes in the system of norms and values, culture, mentality and traditions of the Russian population, but also to develop special programs to achieve the objectives of social innovation.

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## HOW TO MAKE CAPITAL MARKET A SAFER PLACE FOR INVESTMENTS

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### **ABSTRACT**

*Trust is a key factor for the survival and a efficient functioning of any capital market in the world. Market abuse has a very damaging impact on the confidence of investors and as such should be reduced to a lowest possible level. The history of the financial markets knows a number of forms of manipulation and fraud that systematically affect the trade of financial instruments, designed for making profit which does not match the market conditions. Market manipulation is as old as the market itself. Since the creation of the financial markets, there has been a variety of manipulation and scammers who used lies and scams to mislead investors on the market, and upon that created delusion, exercised unlawful material benefit.*

**Keywords:** *Capital markets, investor, securities, stock market, manipulation, abuse.*

### **1. INTRODUCTION**

One of the main motivations when making a decision to invest is a secure investment. In the capital market it is quite hard to tell that any investment is "safe" but it is very important that investors have the confidence in the functioning of the capital market institutions, and that, when investing in securities or other financial instruments, they enjoy the same legal protection as other investors in terms of availability of information and the security of transactions executed. If so, investors create the trust which is a key factor for the survival and a efficient functioning of any capital market in the world. Abuse in the capital markets is a phenomenon that affects negatively the investors' confidence. If the abuses become common, they can completely destroy the confidence in the market and thus affect its efficient functioning. The phenomena of abuse and manipulation of the securities market is just as old as the market itself. Therefore, this issue has been in the focus of European policy makers for a long time. The EU has in the past shared the legislation in this area in two parts - market manipulation were defined and their punishment was prescribed by the directive on market manipulation. Market abuse, out of which the use of insider trading is the most important, has for many years been the subject of debate within the bodies of the EU, with the opposite and uncompromising attitude even about the need to adopt the regulations. The forms of market manipulation are numerous and they depend on a number of factors such as the legal framework of trade, types of financial instruments in a particular market, the amount of traffic and market liquidity, the dispersion of shareholders, etc. This paper will attempt to present some of the forms of market abuse along with specific practice examples for their better understanding and it will try to answer several important questions such as: What is a market manipulation, why is it bad for the market, and how to detect and punish the perpetrators.

## 2. CAPITAL MARKET MANIPULATION

According to (in this area) the new EU Directive 2003/6/EC<sup>33</sup> – „Market abuse directive“, market manipulation and the use of privileged information were equal in treatment, as well as market abuse - "market abuse". Market manipulation is defined in Article 1 of the Directive as follows:

- transactions or trading orders which give or are likely to give false or misleading signals as to the supply of, demand for or price of financial instruments, which secure, by a person, or persons acting in collaboration, the price of one or several financial instruments at an abnormal or artificial level, unless the person who entered into the transactions or issued the orders to trade establishes that the person's reasons for so doing are legitimate and the transactions or orders to trade, as the case may be, conform to accepted market practices on the regulated market concerned;
- Transactions or orders to trade which employ fictitious devices or any other form of deception or contrivance, or
- dissemination of information through the media, including the Internet, or by any other means, which gives, or is likely to give, false or misleading signals as to financial instruments, including the dissemination of rumours and false or misleading news, where the person who made the dissemination knew, or ought to have known, that the information was false or misleading. In the case of journalists who exercise their profession, the dissemination of information should be assessed taking into account the rules governing their profession, unless that person does not acquire direct or indirect advantage or profits from the dissemination of false information.

In concretization of forms of market manipulation, the Directive provides plenty of clear and practically observable situations, classified into five generic groups: a false picture of the activities, the impact on prices, creating shortages, time manipulation and manipulation based on information.

False picture of the activities includes all transactions whose conclusion will result in the creating of misleading picture for investors that could lead them to the adoption of wrong decisions, to be more precise:

- Transactions in which there is no real change of ownership („*wash sales*“),
- Transactions in which both the supply and demand are entered simultaneously in the same quantities and prices by different but related parties („*improper matched orders*“),
- Participation in a series of transactions that are publicly announced in order to create the illusion of traffic or cost („*painting the tape*“).

Next, more concrete forms of market manipulation, are conscious actions, mostly by well-informed investors and professional participants, with the aim of attempting to influence the price, such as:

- Creating a group that, through mutual successive transactions, raises the price to the artificially high level, and then sell securities („*pumping and dumping*“),
- Increasing the demand for the securities in order to raise its prices - to give the impression that the securities itself raised the demand („*advancing the bid*“).

Creating scarcity, as a third form of market manipulation, implies a remarkable power of one investor (or a narrow group of related investors), because it involves ensuring of such control of the demand for derivatives and/or underlying securities, which gives the dominant position that can be exploited to manipulate prices of derivatives or underlying securities ("*cornering*").

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<sup>33</sup> Directive 2003/6/EC of the European Parliament and of the Council on insider dealing and market manipulation (market abuse), 28th January 2003

Time manipulation is based on the use of characteristic timing or period to deceive other participants in the transactions - buying and selling at the end of time in order to change the closing price, and the use of such prices in deceptive purposes ("*marking the close*"), or trading in order to influence the price at the spot market in order to achieve an impact on the price of its products on the futures market. Finally, manipulation based on the information is simply using knowledge of the investment intentions of other traffic participants (usually clients of the stock broker), in the following ways:

- Purchasing securities for own account and then advising a client to buy the same security at a higher price („*scalping*“),
- Giving orders to buy and sell based on the knowledge that someone else has given or will give an order to buy or sell the same securities at the same or approximate price („*front running*“),
- Spreading rumors in order to stimulate traffic.

For a better understanding of market manipulation we will present two examples from the practices of the U.S. Securities and Exchange Commission.

## 2.1. Practical example

*The Case of U.S. Securities and Exchange Commission (SEC) - Evans Systems and Butch Ballow. (Waren, 2008)*

Evans Systems is a company which operated with furniture in the southwest of the United States. Ballow (last name) committed manipulation of shares of Evans Systems in the period from May in 1998. until May in 1999. raising the share price of \$ 1 on \$ 31 despite the negative financial statements of the company Evans Systems. Namely, the company hired Ballow as a consultant, to maintain a contact with the public and help the company to generate revenue by promoting its shares on the stock exchange. As a compensation for his services, the company paid Ballow \$ 45,000 in cash and enables him the acquisition of 100 000 shares in the company at a price of \$ 1. The company's management could not imagine that Ballow was an experienced manipulator and con man with a thick record in the SEC. Ballow was working together with three other individuals, brother in law (wife's brother), a secretary and captain of his ship. Together they opened 15 separate accounts for securities trading under different names (including legal persons, companies that are owned or controlled by Ballow, all in an attempt to hide his identity) in 10 different brokerage firms across the country. Ballow and his assistants managed, by aggressively buying and selling among themselves so called Wash trade (buying and selling stocks when they are not changing the actual owner of the shares) and matched orders (when buyers and sellers by trading among themselves, give buy and sell orders at the identical price and quantity) to raise the price of shares on the stock exchange. Simultaneously Ballow personally advertised these shares with brokers and investors. He then opened Ballow "margin account" at several brokerage firms. Namely, the margin trading could be defined as trading across limits (margins) of the amount of money an investor has, in fact, this type of trading involves borrowing money from brokerage firm for the purchase of shares. Broker credits trader at the margin and the purchased securities is taken as a collateral. In the case that the value of securities increases, so does the amount of money you can borrow from a brokerage firm. In this particular case Ballow had the possibility to borrow the money from the brokerage firm through a margin account, with borrowed amount being dependant upon the price of shares, if the price is higher, the amount is higher. At its peak the trading price of shares of Evans Systems was 31 \$ per share. Bearing in mind that Ballow acquired the shares at a price of \$ 1, this growth rates created the possibility of taking a much larger loan from a brokerage firm in which he traded on margin. After the Wall Street Journal published the article where it was



stated that the price of shares of Evans Systems unrealistically "exaggerated" and that it is a company with a very poor financial statements whose shares are actually worthless, the price of shares on the stock market suddenly dropped. After a sudden drop of the share prices, brokerage firms, who had been lending money to Ballow for buying shares, needed additional funds to cover the huge losses, and, as Ballow did not respond to calls to make up for the money that was borrowed but simply took the borrowed money from the account and was gone, brokerage houses have suffered losses amounting to several hundred thousand dollars. SEC initiated proceedings against Ballow and his assistants in federal court. Ballow's secretary turned against him so she testified against her former employer, as the organizer of the fraud. It was proved in court that Ballow had committed at least 10 transactions with no change in actual ownership (*wash trade*) and transactions that had been carried out by the participants in the fraud among themselves for the illusion of Trade (*matched orders*). Court punished Ballow with a total fine of \$ 1.1 million, and he was banned from performing any activity in the capital market. SEC also initiated criminal proceedings against Ballow, and he was legally sentenced for several criminal acts, however, just before the start of the sentence Ballow fled from the United States and after a few years on the run was arrested in July 2010 in the Puerto Vallarta (Mexico).

## 2.2. Practical example

*The Case of U.S. Securities and Exchange Commission (SEC) -Tokyo Joe, a manipulation via Internet.*

Tokyo Joe was self-proclaimed investment guru who lived in New York. He was providing investment advisory services over the Internet for a fee. He was charging \$200 a month for a membership to his "*Societe Anonyme*". During the investigation it was found that Tokyo Joe was persuading, i.e. suggesting the investors who used his product-via the Internet to purchase a specific shares by making false statements promising them safe profits. If a sufficient number of gullible investors listened to him, their purchases would raised the demand for such shares, and therefore the price of shares on the stock market would increase. When stock prices reached the desired level, Tokyo Joe would sell the same shares from their own portfolios and gain profits. After gathering evidence it was established that Tokyo Joe did not tell his subscribers two important facts, first that he owned the shares which he was advising them to buy and second, that his intention is to sell them those shares when they their price in the stock market is increased and make a profit. Further investigation found that Tokyo Joe did not tell his clients another important fact, and that it is that he was actually paid by companis whose stock he promoted to do so (so called "touting" - promoting certain shares in an effort to attract investors). Tokyo Joe was charged of fraud lawsuits against him were initiated for compensation for the damage caused deceived investors. He was punished with disgorgement of all ill gotten gains and he was fined with more than 400.000,00 \$, and he has been prohibited from using the site on the internet for the purpose of investment advice.

## 2.3. Insider trading

There is a widespread opinion that the trade based on inside information in which an entity participates on the use of non-public information, is unfair, and that giving benefits to insiders discourages regular investors and reduces their confidence in organized markets<sup>34</sup> (Karmel, p. 83). Trading on the basis of the inside information is simply defined as the use of material, undisclosed information in the trading of securities and financial instruments. Disclosure of

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<sup>34</sup> SEC – USA Securities and Exchange Commision USA Securities and Exchange Commision processed in 1995 the 45 cases of insider trading and in the last 10 years dealt with over 400 cases.

material information about the issuer or a share in the securities market will immediately and almost always affect the price action since the price reflects all publicly available information about it. The price of shares is not affected by information about the company that is not publicly available, and its growth can lead to information that promise future income, as will information about the less promising revenue impact on lowering the price. Individuals who possess inside information have the ability, on the basis of such information, from the moment of obtaining such information until the time of their publication, to trade in the market achieving profit or avoiding the losses. Some authors group the reasons for the legal regulation of trading based on inside information, into three main categories: Inside trading hurts investors and reduces investors' confidence in the securities market, then such trading is infringing respective issuers of securities which represents theft of company's ownership and, therefore, should be prohibited even if there are no harmful consequences for investors. The sensitivity of the price of securities to the information about them and their issuers, requires constant replenishment of regulation in this area. The immorality of every trading based on inside information is founded on various reasons. According to some authors, trading based on inside information is immoral, since it enables the realization of large profits with little effort. However, the fact that one can achieve large profits by trading on the basis of inside information with little effort, has nothing to do with whether such a practice is immoral and whether it should be deemed illegal (McGee, 2004). Arguments against trading on the basis of inside information arise from the standpoint that unequal access to information is unfair, that such trade promotes greed and has. In contrast to these standpoints, there are authors whose opinions support this kind of trade. They emphasize the arguments that trading based on inside information enables earlier disclosure inside information, and thus a faster change in the price of shares (Meulbroek, p. 1661). The support to permitted trading based on inside information is that they are an ownership and forbidding owners to trade based on them would be a violation of ownership rights. This opinion is supported by that according to such trading does not result in significant injury to long-term investors and causes the market to operate more efficiently (Manne, p. 936). However, it is possible that the owner of inside information acquires profit from them without trading, for example if you know that stock prices will fall, and you refrain from the purchase. Regulation of trading based on inside information is a relatively new phenomenon, and the prohibition of this type of trading was first adopted by the U.S.<sup>35</sup>. These solutions have been followed by other states, so that until the year 2000 87 states adopted the regulations on trading based on inside information, and 39 states have conducted at least one investigation of such trading. In accordance with the requirements law of the European Union, Member States have adopted national laws prohibiting trading based on inside information. For the purpose of legal regulation of this area and in order to establish equal opportunities for all participants in the capital markets, at European Union level, the Council of Europe first adopted Directive on the harmonization of trading rules based on inside information (Council Directive 89/592/EEC, 1989, p. 30-32). Privileged (inside) information, according to the adopted directive, is defined to be unavailable, not publicly disclosed, with precise nature and it refers to one or more issuers of securities or to one or more of the securities themselves. The information with specified characteristics will be considered privileged if, in case the publication, it has a significant impact at price of the securities to which it relates. The nature the securities and their price sensitivity condition a rare non-public information about securities or issuer that does not

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<sup>35</sup> In the U.S., trade based on inside information is regulated by the Law on Securities Market (Securities Exchange Act) of in year 1934, which stipulates (Article 10 (b) and 10 (b) -5) that to securities market prohibits fraud in the purchase or sale of securities. In addition, Article 17 (a) prohibits fraud in the offer to purchase or sell securities.

affect their price. The precise nature of the information requires that it is a fact, not a speculation or a rumor. Inside information whose disclosure would significantly affect the price of shares, and which are mostly related to the issuer talk about the expected results of operations, profit and loss. The concept of inside information is almost identically established in the UK regulations, as the current information, which is reliable and unavailable in the market and is legally designated as "new and fresh". As rated in terms of the continuous development of the financial markets, this directive can not adequately respond to new manifestations of abuse in the market, it is a new Directive which is regulated by two forms of abuse of insider dealing and market abuse - abuse of the market. The content of inside information is based on that of the previously applicable directive on trading on the basis inside information. Directive on insider dealing and market manipulation (market abuse) (Directive 2003/6/EC, 2003) considers any information on exactly certain facts (rumors can not be considered privileged information), which is not known to the public or publicly disclosed, which, if it was known to the public, would have a significant impact on the price of financial instruments that it refers to, and which relates to one or more issuers and financial instruments. As in the previously applicable directive, it is required that the cumulative conditions are met and that it is the information in connection with either the issuer or the financial instruments which is not publicly disclosed, and if it was, it would significantly affect their price. The position and characteristics of subjects when trading with inside information was established by the applicable Directive of the European Union through imposing a ban on the activities on the basis of possession inside information, not specifically defining the main and secondary insiders. The use of the advantages and gaining economic benefits from its position by persons who possess inside information as institutional insiders as well as members of the administrative, management or supervisory bodies of the issuer, owners of shares in the share capital of the issuer or as persons who have access to information through the implementation of their employment, professions, liability or criminal activities is forbidden. Participation in the share capital of the issuer as basis for acquisition inside information requires to be specified, since in many cases only with minor part of the participation in the capital assets will allow obtaining inside information. The Directive included a new source of gaining inside information and that is by including the criminal acts of their acquirer. The Directive spread the inside trading ban from the enumerated persons to all other persons who possess inside information and know, or should know, that this is privileged information. European Union Directive on market determined a ban on holders of inside information to be in three forms - most importantly - in relation to the buying and selling of financial instruments to which the information relates, then publishing inside information, and recommendations for buying or selling based at such information. The basic ban is for holders of inside information to use them directly or indirectly in the acquisition or disposal, for own accounts or for a third party, financial instruments to which the information relates. The acquisition and disposal of financial instruments to which the inside information is equated and prohibited. Furthermore, the ban on disclosure of privileged information to another person is determined, unless it is done in a regular performance of business, profession or obligations of the parties. This prohibition also includes a recommendation or inducement of another person on the basis of inside information, to acquire or dispose of financial instruments to which the information relates. The mentioned Directive, in contrast to earlier one, has expanded the term inside information not only to securities but also to financial instruments in general, such as financial derivatives - units in investment funds, money market instruments, foreign exchange and interest rate instruments, options to buying or selling these types of financial derivatives, including transactions with cash. In addition to aforementioned, the following is included - currency options, options

related to interest rate, derivatives relating to commodities, and other financial instruments that are included in the regulated market, the Member States and there is an application for their inclusion<sup>36</sup>. It is important to note that the aforementioned Directive, for the first time, introduces commodity derivatives into the object of inside information. Besides expanding the definition of an object of the application, there is also a special group of persons in respect to which insider dealing is defined upon. Those are the mediators, or persons who execute client orders in the market. For them, the privileged information is also the information they received from the client, or the one their client said, referring to the client's orders both fulfilled and unfulfilled. General conditions which constitute a privileged (inside) information apply to this group of people. Non-public information, which, after the publication may affect the price of the securities to which it relates, must be released without delay in order to lose ability to give their holders an advantage in trading. Its exclusivity is lost and it ceases to give a privileged position to its holder at that moment when it is made available to all interested parties. For this purpose, the Directive establishes obligations of the issuer of the securities to, as soon as possible, inform the public of inside information that is directly related to the issuer. Unlimited access to inside information published on the website of the issuer, determined to include the obligation of Member States to ensure that issuers make the publication on their website in the proper time.

## **2.4. Practical example**

As an example of trading on the basis of the inside information we will present a case that happened on the Warsaw Stock Exchange, in April 2003. It all started when the company X announced a decision to convene an extraordinary general meeting of shareholders, and one of the items on the agenda was making a decision on the purchase of own shares. Namely on April 23<sup>rd</sup> 2003, an extraordinary general meeting of shareholders was held (from 10:00 to 15:00), where the decision was made to purchase 10% of its own shares through a public offering. The shareholders assembly, on the specified day and meeting, decided to purchase its own shares for double amount of money than previously planned, and set the price per share to be 6.60 PLN<sup>37</sup>. At the time of the decision, the company X shares were traded on the Warsaw Stock Exchange at an average price between 1,93 PLN, and on April 23<sup>rd</sup> 2003 (at the time of the extraordinary general meeting of shareholders) purchases of large quantities of shares of X were recorded. As there was a reasonable suspicion that this was a trade based on the inside information, the Polish Commission for the Securities, as a market regulator, initiated a process of supervision over these transactions. The Commission has, in the process of supervision of the disputed transactions collected all orders for the purchase of shares of Company X, and has interrogated all the CEOs of companies and brokers. As it was determined that the orders were given by telephone, the Commission has, in accordance with its statutory mandate, received from the telephone company a listing of phone calls of the ordering parties to purchase shares. Based on the collected evidence, it was found that persons A and B, shareholders of the company X, after the decision on purchasing its own shares, used mobile phones during the break at the meeting to contact their brokers and ordered the purchase of the shares. The Commission has canceled the disputed transaction and initiated criminal proceedings against those persons who were later convicted of criminal proceedings.

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<sup>36</sup> Article 1. and 3. European Directive on insider dealing and market manipulation (market abuse)

<sup>37</sup> PLN – Polish zloty – currency in Poland.

### 3. CONCLUSION

Manipulations in the capital market is a phenomenon that is as old as the market itself. The creation of market has brought along manipulations and frauds which are intended to, through deceiving honest and fair investors, bring an illegal profit to its perpetrators. It is important to emphasize that manipulation is never the goal itself. Namely, manipulators never use manipulative techniques just to raise or lower the value of a financial instrument on the market. Manipulation is actually a mean by which, on the basis of reducing or increasing the price of financial instruments on the market, one achieves the ultimate goal - unlawful gain. We can conclude that the securities markets are convenient places for the exercise of manipulation and fraud, and that is for several reasons. Primarily because this market attracts a huge number of investors, who often do not understand or do not understand sufficiently the risks involved in investing in financial instruments. Second, many investors, because of their ignorance and frivolity, look at the market as a casino in which the sole purpose of investing is short-term gain. In addition, in some countries, is a noticeable and obvious malpractice by authorized market participants, ie persons who have license to serve as a broker, investment advisor, investment manager and so on. Regulation related to the prevention of insider trading is part of the regulations related to the protection of the integrity of the market and enabling all market participants equal opportunities when trading in securities and other financial instruments. Prompt and fair disclosure of information to the public strengthens market integrity while selective disclosure by issuers can lead to a loss of investor confidence in the integrity of financial markets. As confidence is the key to success of any effective functioning of markets, there is a legitimate interest of society to regulate this area legally. When the abovementioned is taken into account, it is indisputable that the regulator has no easy task to make sure the market place trade is conducted at fair conditions. However, as the capital market is an indispensable element in the functioning of most developed economic systems, the market must be organized in a way to attract honest investors while others need to be sent a clear message that in such markets they are not welcome. We believe that the primary way to establish an efficient capital market, in addition to adequate legal framework that will enable investors good protection from unscrupulous investors and manipulators, an effective supervision by regulators and punishment of the perpetrators of illegal acts. As for the prescribed punishments, we believe that currently, the most efficient would be the U.S. model of punishment where, in addition to fines and imprisonment there is also a mandatory disgorgement of all ill gotten gains of the perpetrators of illegal acts in the capital market.

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## THE RESTORATION OF PUBLIC SECTOR OF MEXICO THROUGH THE FISCAL POLICY AND THE CONTEMPORARY ECONOMY

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### ABSTRACT

*In Mexico, since the early 80's, neoliberal economic policies are aimed at economic liberalization and fiscal discipline. Since then it has prioritized macroeconomic stability at the expense of public finance constraints and increased productive investment that prevent sustained economic growth of the country. In this context, the Mexican government continues to express that the economy is controlled by the market, however, in reality is necessary the intervention of State and the implementation of fiscal policies progressive, allowing restructure the public sector to better allocation and distribution application of economic resources. The aim is to show the impact of fiscal policy on economic growth from an endogenous perspective that allows the wedges visible by the repeated use of economic policies go against the development of production and economic welfare of the majority of Mexicans. To support the theoretical method, we analyze the main contributions of the scientific literature on the economic and fiscal, contrasting with statistical evidence to identify the ravages of contemporary economy and globalization, what reveal the lack of resources to encourage the public sector Mexico and limited ability to pay tax to economic development, limiting government revenue capacity, hence, arise a better implementation of productive public spending and increased state intervention in the economy, as a means to restructure the public sector and generate productive optimal conditions to ensure productive development and the financial solvency of Mexico. This could be achieved through fiscal policy with more levying higher revenues and the implementation of progressive spending to encourage investment in industrial infrastructure, productive development and social spending.*

**Keywords:** *Fiscal policy, ability to pay, revenue capacity, contemporary economy*

### 1. INTRODUCTION

The recent financial and public debt crises in developed countries has resurfaced once again in the discussion about the role of public expenditure and the role of the state, because large sums of money should have gone to the productive areas (including large corporations) and banking, however, have been used to pay the debt. Recent events of international crisis, has led to a growing interest in the economic and social actors on the recovery of forgotten public policy objectives now recovering value, to be left behind, for the preeminence of the Washington Consensus, and they seem to win again the interest of the makers of public policy. One of these elements is forgotten Development Agenda, through a gradual and long-term fiscal and taxation policy as a key instrument for growth and economic development. The progressive tax policy is crucial to improve the ability to pay in the private agents and

increase state revenue capacity. In this article, the way the public sector capacity, the various functions of public spending and the privatization scheme, through which the public sector finances, influence the economic provisions of the government's performance and explains to private agents. Given these constraints, constant pressures to reduce fiscal activism arise, and thus inhibit the increase in the level of tax and tax revenues. The subliminal idea that has been led to believe, is the argument and incrementing high public spending harms the stability of prices, and also harms economic growth. In general, the Mexican government supports that increasing public spending positive impact is insignificant, arguing that its impact would be more harmful than the distortions generated taxes and fiscal resources why are used to finance public spending, or if, said spending displaces private spending (Tanzi, 2009). In this context, the challenge for Mexico and other developing countries, is "to enhance the catalytic role of the public sector with high social returns policies, avoiding the effects of displacement associated to inadequate financial management and possible distortions of the tax system" (Martner, Podestá and González, 2013, p. 7). We agree with what refer us Martner, Podesta and Gonzales (2013), by exposing how important it is for both economic growth and for building a level playing field, designing fiscal policies with countercyclical capacity, but emphasizing the importance of tax policies and tax revenue with collection capacity, which would consider the strategy of positive impact on income distribution, increasing quality in spending and tax revenue collection systems, efficient and equitable fiscal capacity. However, we must be clear that to carry out this strategy of positive impact on development objectives: economic growth, distributional equity and social inclusion, fiscal policy, and the taxes, has several hacendarios instruments as components public spending, taxes and the deficit or debt, which in turn require public institutions to be properly managed and administered. We know of the existence of problems of political economy, institutional capacity, fiscal sustainability problems and efficiency costs of taxes and debt that may limit the ability to implement fiscal policies, but the functions of fiscal policy explaining for Musgrave and Buchanan, (1999): supply of public goods, adjust income distribution and stabilize the macro economy, enhance the growth of the economy, provided that there is sufficiency in the first two conditions or features of fiscal policy, and for that financial liquidity required in the economic activity and the Mexican state prosecutor.

### **1.1. The Problem: Lack of tax collection capacity**

In Mexico, since 1982 an economic policy designed from the ground of the Washington Consensus is applied. For over three decades, the Mexican government has chosen to issue debt to finance their public spending. The elimination of trade activities, privatization of enterprises, preferential tax regimes, tax exemption and strong fiscal discipline, have generated a decrease in the tax base and low in sources of wealth of the State, diminished tax collection and financial capacity of the Mexican State. In this scenario of economic liberalization, have also led to special tax regimes and the tax exemption, has led to a decline in the tax base and low in sources of wealth of the State. These actions have led to the Mexican economy has slowed, and maintained a sustained rise in commodity prices. Along with this, in the first half of 2013, it had increased in goods, given the increased value added tax (VAT) on food and medicine, on the grounds of poor collection tax. While, the data show that offers CEPAL (2013a, p. 5) in the group of countries with the lowest tax burden, the case of Mexico, during of the last ten years, experienced a reduction in tax load (in the narrow sense). One explanation for the low levels of collection and unproductive taxes, is due to the implementation of a restrictive fiscal policy and regressive, whose ratios represent different tax rates, preferential arrangements, high exemptions, special treatment and subsidies high.



In the last fifty years, Mexico has been the Latin American countries with lower taxes and greater amount of transactions exempted from VAT, however, is also of the countries that reduced selectively the tax base by establishing zero rates or exempt items, for what the government Mexican, is proposing to increase the tax rates to offset the decline in the tax base, which has affected a reduction in tax revenues as a percentage of GDP. Lowering taxes has a negative impact on growth, recognizing that the main obstacles to growth, indicate possible reforms of fiscal policy, either on taxation or public spending and its impact on growth, which is where it was due restoring the role of the public sector as a catalyst and dynamics driving force of the economy of Mexico.

## **2. THE LINK OF FISCAL POLICY AND GROWTH: THEORY AND EMPIRICAL CONTRIBUTION**

Even as the Inter-American Development Bank, recognizes that the major theoretical and empirical contributions to the literature of growth and fiscal policy, focusing on Latin America, are supported in the work of Kong (2007) and Myles (2009), shows that the significant link of fiscal policy and economic growth, growth diagnostics offer, made by Agosin, Fernández Arias and Jarraillo (2009) and Rojas Suarez (2010), Martner, Podesta and González (2013), focus on identifying the limitations of growth, with the purpose of for develop tax reform actions and for mitigate the constraint of financial activity of the State. Although these studies lead us to identify constraints to growth, from a physical perspective, this study is based on the tenets of Keynes (1945), and suggestions of Raul Prebisch (1950; 2008) and Aníbal Pinto (1965) on the social distribution of tax instruments for the support for economic , as well as in the conceptions of Celso Furtado (1968), on the renewal of the development agenda in developing countries, arguing in the best application of productive public expenditure, and subtracting weight to fiscal discipline leading to the containment of public spending. With all these arguments, this abstraction largely focuses on the proposals of ECLAC (2010 and 2011) expressed in the publication: "Time for equality: closing gaps, opening trails" as well as the effects adverse to the economic liberalization policies implemented in Mexico, that have generated the last three decades. Nationally, we can analyze studies that expose the relationship between fiscal policy and economic growth.

These have been developed through a theoretical and methodological body called "endogenous growth models", assumed that fiscal policy can affect growth, provided that the application of public expenditure and obtained resource, express characteristics of ability to pay and contribution in the private agents and revenue capacity in the public sector<sup>38</sup>. Meanwhile, Ramirez Cedillo (2008), correlate well with endogenous growth perspective, but his think is that these models are based in almost always assumed public finances in balance based on fiscal discipline, so do not give importance that deserves the real risk of falling into a fiscal deficit. In this context it is considered that in making any fiscal policy should be that considered the countermeasures should be taken at a time of economic crisis to determine the pro-cyclicality or counter-cyclicality you deserve or was due to apply to restore economy public sector. Hence in the coming years, our country will face the challenge of increasing participation in financing flows in an international context marked by low growth and fiscal fragility, so it is required that the Mexican State have the resources to increase public spending and investment in the productive and social sectors. We know that the Mexican economy is marked by the rule of fiscal discipline that involves taking different situations in

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<sup>38</sup> In endogenous growth models, it is considered that there are some types of government expenditures that are productive and others are not. In contrast, from the perspective of income, it is observed that among the instruments to be used for government revenue there are that not distorting and that distorting the market because they affect the behavior of economic agents in markets.

terms of fiscal space available, mainly due to strong fiscal constraints facing, making it difficult to finance the finance constrains public policy and politics tax from a tax perspective. With this, a recent study by CEPAL (2013b, p. 17) provides for a reduction in official development assistance and social spending for development, which particularly affect countries like Mexico. It also argues that it has installed a stage and greater uncertainty for the next two years (until 2015) has complicated the task of accelerating progress towards achieving the commitments of the Millennium Declaration.

## **2.1. Fiscal Impact of the global crisis**

It is widely documented by Zettelmeyer (2006), French-Davis (2009), Huerta (2009), Kohli, Loser and Sood (2010), Stiglitz (2010) and others, that in past three decades, Mexico has had a poor performance economic, largely due to the high vulnerability to external shocks, usually by the free flow of capital and the unfavorable conditions offered by business changes accounting for the Mexican economy. Moreover, the pro-cyclical policy of fiscal policy, has led to financial crisis unsustainable and moments that offer low rates of investment and savings, together with adverse effects on labor productivity and income distribution (Pagés, 2010). On the fiscal front, numerous studies have shown that the international crisis of 2008-2009, was generated in a cyclical force and regressive fiscal policy pro. The financial crisis exposed the fiscal imbalances of developed economies and for various reasons, this fiscal decoupling stuck to issue debt instead of increasing the tax base to international financial capital and foreign trade, to collect more taxes. The reasons that led to the fiscal imbalance, ranging from flexibility to general systems of taxation to corporation tax, electoral unpopularity or indirect taxes on labor income, to the lax enforcement of tax laws. Either way, the financial crisis, can set a high price and situate debt to many countries in the era of indebtedness. It has been corroborated that the neoliberal model, present in the last thirty years has generated weak public finances of Mexico, which has meant limiting the tax bases as a result of widespread exemptions, special treatments and fiscal wide flexibility. It is clear that the discussion on the problems faced by economic agents, (whether companies, families and public institutions) is widely related to the adverse economic and financial events that arose following the recent economic crisis. Based on data offered by the National Institute of Statistics, Geography and Informatics (INEGI), and analysis by Sánchez Díaz (2013), in the last ten years, our country has registered an unfavorable developments in the economic growth (See Figure 1).

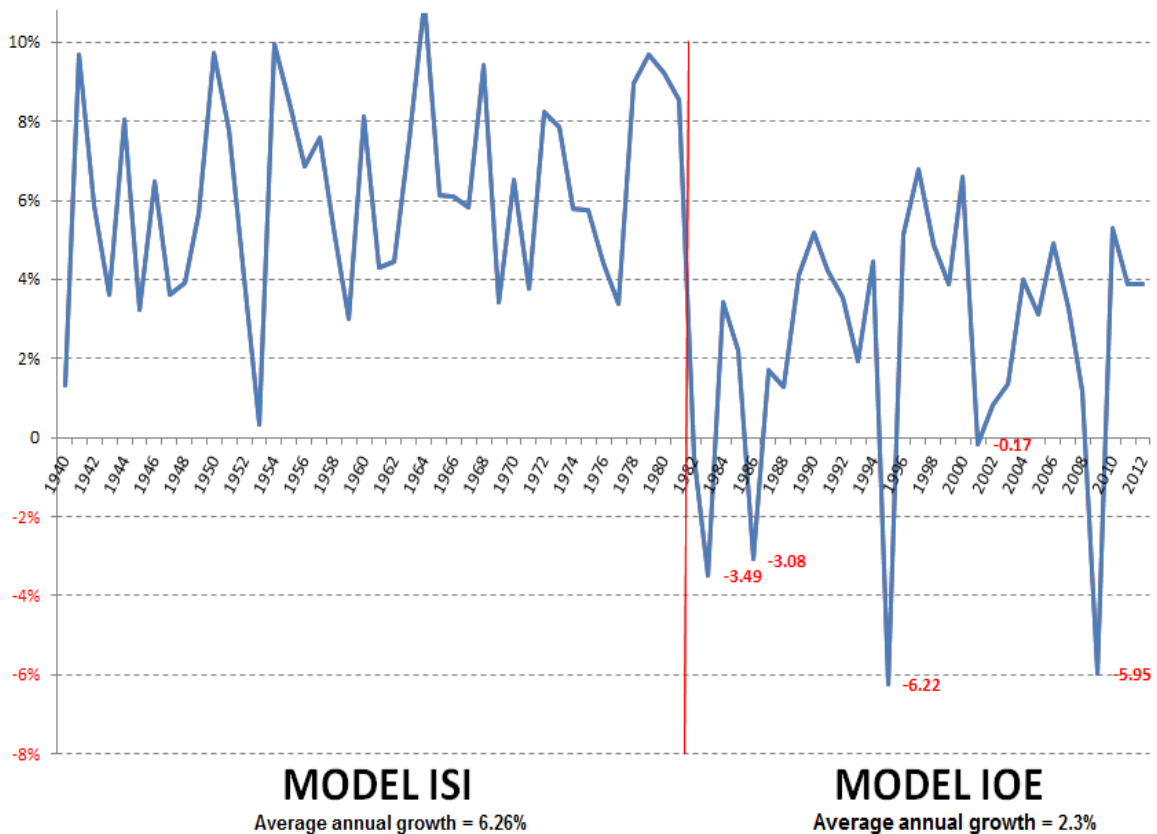


Figure 1: Mexico 1940-2012: Evolution of annual GDP growth rates under the ISI and IOI models (in%) (Diaz, 2013)

This Figure 1 we can see that in the years in which the industrialization model import substitution applied, is growing at annual average rates of 6.6%, in contrast with the current neoliberal model shows that after years of economic crisis in Mexico negative growth rates in 1983 had a rate of -3.49%, in 1987 a rate of -3.08 was recorded in 1995-a rate of 6.22, he had by 2002 a rate of -0.17% was recorded and is recorded the year 2009, a -6.54%. We can see that in the years in which the ISI model is applied, not had negative rate, and the application of the model IOE, the economy grows below its powers, namely with the application of neoliberal economics Mexico just reaches the 1.95% average annual growth. Undoubtedly, these results of poor economic performance, are attributed to the policies of trade liberalization that Mexico has adopted from the Washington Consensus, where the slowdown in aggregate demand has been constant, and the lack of investment in the productive sector has been a permanent. It is clear that the neoliberal model negatively impacts the economic growth and that increase government revenue, while the Mexican government chooses the easy way fiscal policy: containment of public spending in order to maintain sound public finances, the higher tax rates consumption, new taxes, special schemes to finance capital and elimination of tariffs; prevents the state revenue available enough to invest in infrastructure, education and health resources, and therefore the development of the country are closed. The lack of liquidity in the public finances of the country, largely due to the weak fiscal structure that prevents you spend and invest in the quantities demanded by the economic reality, thereby justifying the need to increase tax revenues and tax mainly in Mexico consumption, since the social and productive purposes claim and justify a significantly higher revenues without the Federal Government wants to appreciate and recognize that to those most affect

this type of economic policy is to the most Mexicans. So well, in terms of public revenues in accordance with those reported by Manrique (2005), when the model prevailing ISI, tax revenues in foreign trade, they provided to the government the 30% of the Gross Domestic Product (GDP) in 1960, and 20% of GDP in the early seventies, however, as a result of trade liberalization, in actuality these tax revenues do not represent the fifth of GDP. With the poor results in the economic growth of Mexico, has been restricted productive activity and the creation and formalization of employment, the development of businesses and professionals, creating minor conditions to increase the taxable capacity of economic agents, reducing extreme poverty and the tendency of high inequality in income distribution is becoming longer.

### 3. CONCLUSIONS

Unlike what happens in developed countries, using fiscal policy to mitigate the pressures of the economic cycle, in Mexico, the pro-cyclical tax remains in force since its inception in the early 80's, just as they start applied the suggestions of the "Washington Consensus." Without prejudice, it is encouraging to decreased spending and sell public companies, without implying an increase in productive spending (capital). Moreover, since the international financial crisis in 2008, Mexico, citizens, companies and especially the public sector have failed to recover, even when have shown greater resilience against adverse international context. In this sense, after less growth since 2009, with all that there was a recovery with low inflation and balanced fiscal accounts, the economic and financial situation in Mexico has remained until today, but you can not project for coming years to continue containing the spending public productive. In summary, progress in the past decade were interrupted by the crisis in 2008, whose persistence has slowed progress toward the goals of economic development. Although the measures implemented in 2009 helped boost growth, with a view to have a positive incentive effect of the strategic sectors of the economy while generating more jobs, our country must continue to confront the high informality, reduced productivity and low income affecting a high percentage of the working population without access to quality jobs and social protection, or the encouragement of the productive sectors. In this sense, rises the less ability to pay, and therefore the very low revenue capacity for the Mexican State, hence, there is an awareness that the reality facing Mexico, following the recent international crisis (2008-2009) is adversity, this requires several policy responses. Regarding fiscal policy, it is essential to reconsider the results that the country has had on public finances and economic growth in the last thirty years. It is from this reflection that as development actors slated should to participate: governments, financial institutions, multilateral institutions, analysts, academics and society as a whole, with the aim to refine policies of greater economic and financial scope to cushion future economic crisis, and to do this we need more progressive outlook and the fiscal policies, allowing incentives and raise aggregate fiscal capacity of the Mexican state demand. In studies that have been conducted on the growth, a reduced economic capacity for the workers, professionals and entrepreneurs suggested, fosters a low rate of private savings, which would be a major growth impediment a particular country, then the stance of fiscal policy should be on changes in the tax system to promote increased savings rates. This can be achieved only by increasing the taxable capacity of economic agents, thereby fostering the restoration of the public sector. After the failure of neoliberal policies on growth and development in emerging countries has begun to mention the need to implement economic policies against cyclical and progressive; since, our country continues to perform with fiscal discipline, the ability of THE fiscal politic, prosecutor for stabilizing the economy shrinks and tends to work pro-cyclically, i.e., to reduce productive public spending, is lost the chance that the government, through a policy of spending directed

at employment, lost the industry or the agricultural sector to stabilize the economy. In this sense, as a measure of the contemporary economy, to restore the public sector is preferable to implement a counter-cyclical policy, which although may incur fiscal deficit could at least ensure the implementation of spending on the productive sector so it is suggested to apply a counter-cyclical policy that seeks ways to increase profitability of private agents (generate taxable capacity) that seeks to solve pressing social needs that can guarantee full employment, and make a surplus in revenue capacity supported government. Then, we consider that if this measure achieved restore the public sector, the virtuous circle of fiscal policy, which is in the expansion of productive public spending would be generated, since thereby be achieved encourage productive investment and employment and endowing private agents of taxable capacity, and in turn giving the government an area of opportunity to increase their revenue capacity. Finally, we consider that well worth incurring fiscal deficit, as more productive public spending, given new opportunities to create jobs and further investment, having as a consequence an increase in the strength of economic activity. This would occur, provided it is able to generate taxable capacity in economic agents, which would imply a higher tax collection, which therefore represent greater revenue capacity. For to promote progressive policies with long term vision is necessary to analyze both the past and the future of the economy, to identify faster and more effective to sustained and inclusive development paths, hence, we need a more dynamic financial activity, that moves at the pace of financial capital, i.e., taxing the entry and exit of international finance capital, to allow more funding in the short term. The new goal is to raise taxes on international financial capital and not taxing consumption that affects the majority of Mexicans, for Mexico to be more self-sufficient. So well, the question is Can Mexico follow the same steps similar Central American countries such as Brazil and Argentina? The answer is not obvious, since the capacity of states to raise depends largely on the tax and economic capacity of economic agents, who in the end are those who contribute. If clear, one of the indicators of revenue capacity of any country, given the proper functioning of its tax administration, but especially for the taxable capacity of economic agents. This indicator appears to be the variable (taxable capacity) more accurate revenue capacity of states. But in times of economic or financial crisis, the tax capacity is affected, and therefore also the revenue capacity of the state.

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## **DEMOCRACY, DECISION-MAKING ARENAS AND PUBLIC POLICIES: THE BRAZILIAN HOUSING PROGRAM *MINHA CASA, MINHA VIDA***

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### **ABSTRACT**

*This paper analyzes the political and institutional arrangements of Programa Minha Casa Minha Vida (PMCMV), the new housing program in Brazil, with an aim to evaluate its democraticity – the participation of a plurality of actors, both from government and society – and its effectiveness – the achievement of the established goals. The hypothesis is that PMCMV can be considered a public policy with institutional arrangements that are politically legitimate and also bureaucratically enablers to achieve its objectives. The selected data, however, showed that this hypothesis was only partially confirmed. Even though the established goals were achieved through management and monitoring arrangements to raise its efficiency, the PMCMV failed to include important social actors such as the popular *pró-moradia* movements and organized groups of urban theorists and practitioners, whose demands were not addressed in the decision-making arenas.*

**Keywords:** *Brazilian housing policy; bureaucracy; democracy; institutional arrangements.*

### **1. INTRODUCTION**

The housing program "Minha Casa, Minha Vida" (My House, My Life – "MCMV"), launched in Brazil in the past years within the Growth Acceleration Program ("PAC") to boost the economy and create jobs by building low-income housing subsidized by the government, represented a significant change in the decision-making pattern that governed the developmental policies of the past, especially in the housing policy of the so-called "BNH model".<sup>39</sup> Using the decision-making pattern of the military years as a basis for comparison, this work focuses on the institutional arrangements of Brazil's new housing program, examining it from the democratic point of view and with regard to its effectiveness in achieving the proposed goals. In other words, it questions if such arrangements encourage, or not, broader participation of the multiple stakeholders involved in them, and whether they favor, or not, coordination of its implementation and achievement of the proposed goals. From the theoretical standpoint, the work is anchored in contemporary democratic theory, related to the impact of institutional design on the results of public policies. Therefore, we note the comparison made by Lijphart (1999), based on empirical studies, between the performance of majority-type democracies, which concentrate power in the executive branch,

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<sup>39</sup> Brazilian Housing Bank (BNH).

with the institutional arrangements of democracies that he calls consociationalists, in which decision-making is more fragmented. Contrary to conventional views, the author indicates that there is no proof that majority democracies are of higher quality, or that the speedy processes achieved in this majority model necessarily lead to better results in governmental policies. Other researchers have also questioned normatively the majority-democracy model. Stark and Brustz (1998) indicate that governments' capacity for effective action can be increased when the executive branch is less concentrated, i.e., it is forced to be more accountable for its decisions to various political forces in the parliament and in civil society. This paper accepts as analytical references four types of political-institutional decision-making arrangements that combine different types of political and bureaucratic abilities, namely: i) politically legitimating arrangements, but that are bureaucratically debilitating; ii) legitimating and enabling arrangements; iii) debilitating arrangements, with low legitimacy; and, finally, iv) enabling arrangements, but with low legitimacy. Such denominations, referring to the bonds between the state and society, can be clearly associated with others that are already classic in literature, such as: i) populism; ii) embedded autonomy; iii) clientelism; and iv) bureaucratic insulation, respectively (Nunes, 1997; Evans, 1993). When examining the political capacity, we emphasize the relationships established between the bureaucracy that executes the public policies and the other political players situated institutionally in subnational governments and in organized civil society (members of councils or other groups), and also with the bureaucracy of the control area - Public Audit Courts, Public Prosecutor's Office, Office of the Comptroller General, etc. - as monitoring and audits also affect the results of the policies. The general assumption guiding this research is the following: the "Minha Casa, Minha Vida" (MCMV) program is a public policy with a decision-making institutional arrangement of the second type, as defined above. It is legitimating because it took into account the demands from several political stakeholders in the definition of its goals. It is an enabling arrangement because the bureaucracy has enabled itself both politically and operationally, establishing negotiations with the political players and creating new instruments for management and monitoring. This enabling arrangement has resulted in the effectiveness of the program. Its proxy will be taken here as the level of its execution (around 70-80% of the goals within the deadlines set in the governmental schedules).

## **2. RULES, ORGANIZATIONS AND PROCESSES UNDERLYING THE HOUSING SECTOR WHEN MCMV WAS LAUNCHED**

In 2003, when the Lula government began, Brazil's urban and housing policy was in a state of great financial and even institutional fragility, despite the advances made with the enactment of the City Statute during the government of Fernando Henrique Cardoso (FHC). Actually, there was double orientation for this public policy area during both governments of FHC. On one hand, the change in housing policy was consolidated with the introduction of market mechanisms. On the other, rules on urban development were regulated, with the enactment of Law 10.257/2001 (City Statute), in fulfillment of articles 182 and 183 of the Brazilian Constitution, which was an important legislative mark for carrying out the housing policies of the later governments. One of the first measures taken by the Lula government in this area was the creation of the Ministry of Cities, headed by Olívio Dutra, former governor of Rio Grande do Sul and an important leader within the Labor Party ("PT"). The new minister was advised by a team of technicians committed to the proposal of urban reform, and tried to put into place the integration of the housing policy with other broader policies required for urban development, such as sanitation, transportation, and territorial planning policies. This team of technicians was formed around the "Projeto Moradia" (the "Housing Project"), a movement



organized within the Instituto da Cidadania (Citizenship Institute), connected to the Labor Party (PT) in São Paulo and that had been articulating "an answer to the social movements" since the end of the 80s, as well as an alternative to the BNH model. Its proposals defined a fifteen-year period as the horizon for the government to make profound changes to urban structure and city management, ensuring dignified housing for all Brazilian citizens. In addition, the Lula government brought other important institutional innovations to this area, materialized in Law 11.124, of 2005, which created the National Council of Cities, the National System of Social Interest Housing ("SNHIS"), including its financing fund, and establishing the framework for formulation of the National Housing Plan ("PlanHab"), which had great impact on the formatting of the MCMV program. The creation of the Council of Cities represented "the materialization of an important instrument for democratic management of the National Urban Development Policy then under construction", as stated on a website. It also expressed a more general trait of the Lula government, which greatly encouraged the creation and operation of such collegiate bodies as a means of conversing with society and the other federative entities. Moreover, Minister Olívio Dutra himself encouraged the creation of this council, as indicated by an interviewee from the Ministry of Cities (see the interviewee list at the end of the text). PlanHab, in turn, was created by the National Housing Bureau (SNH) – entity that is part of the Ministry of Cities that mobilizes civil society and represents, to this day, the group's vision for urban reform – upon consulting civil society, states, and cities at the National Conference of Cities. This process went on for more than two years, mobilizing several stakeholders from society and government, generating debates between groups from several regions of Brazil, with the direct follow-up of members of the National Council of Cities and the Steering Committee of the National Fund for Social Interest Housing (FNHIS). As indicated by the SNH, the plan represented the resumption of housing planning in Brazil by establishing "long term strategies to tend to the present and future housing needs of the country, making access to dignified housing available to all Brazilian citizens" (National Housing Plan, p. 5). The preparation of PlanHab was, in fact, an important moment for training the SNH team, as they had to perform many studies, diagnosis, and projections of housing demands for low-income population, in addition to examining themes such as product pricing, calculating the need for subsidies, etc. As the interviewees indicated, in addition to defining the goals to fulfill the deficit for subsidized houses (23 million by 2023), the policies proposed in PlanHab seek equally to surpass the tradition of government housing - such as BNH and the Popular Housing Companies (COHABs), and to avoid errors from other experiences, such as Mexico. In the financing realm, the Ministry of Cities, right after it was created, sought to increase the funds available for housing, combining the use of the FGTS (unemployment compensation fund) with subsidies. Law 10.391 was passed in 2004, granting greater legal security to financing and private construction of houses (i.e., according to market logic). In 2005, CMN (National Monetary Council) also approved the resolution that obliges banks to invest in housing financing a percentage of the funds raised through savings. Law 11.124 structured the SNHIS (National System for Social Interest Housing) and also created the FNHIS (National Fund for Social Interest Housing), and was passed by Congress with alterations to the initial bill presented by the Ministry, restricting its scope, which lead to some resistance by the government's economic team. Another important measure was the passing of Resolution Num. 460/2005 by the FGTS Curator Council, which increased the fund's resources available for housing subsidies, increasing funding to the low-income population. This set of measures resulted in the acceleration of housing construction: in 2002, SFH was responsible for the purchase of only 25,000 units (used or new properties), at the sum of BRL 1.4 billion, while in 2008 these numbers went up to 280,000 units, involving BRL 25 billion (Royer, 2009). To place into context this set of institutional changes

within which MVMC was formed, it is important to note that the economic framework that characterized the transition from the first to the second government of Lula led to changes in government apparatus, increasing the decision-making arenas of governmental policies. The Civil Cabinet, under the command of Dilma Rousseff, in addition to its usual attributions of institutional coordination of the different government areas, took on a greater role in the management of economic policies aimed at fighting the 2008 crisis, along with the Ministry of Finance and the Ministry of Planning, Budget, and Management (MPOG), increasing the government's participation in the economy and mobilizing public funds for investments (Loureiro, Santos and Gomide, 2011). The Civil Cabinet also took on a bigger role in the housing area. Even before the official launch of the MCMV program in March of 2009, Dilma Rousseff – who was Chief of Staff at that time – had already met with business people from the construction sector, from companies such as Cyrela, Rossi, MRV, WTorre, Rodobens, and she already spoke of building 1 million homes for people who earn up to ten times the minimum wage per month, including the structuring of the guarantee fund. The financial crisis of 2008 increased the idle capacity of construction companies that, in light of the real estate boom of the previous years, had made huge investments, opened their capital, and increased their stock of lands. So a new housing program, to be given priority by the government, was seen in a very favorable light by the construction industry, which saw in it the opportunity to sell units already under production and insure the return on their investments. Alongside the government, the construction sector played an important role in stimulating the economy and creating jobs. The emergence of MCMV was due not only to economic determinants related to facing the international financial crisis, but also to political-partisan factors, related to the replacement of the Minister of Cities, Olívio Dutra, with Márcio Fortes of the Progressive Party (PP), as a result of negotiations that led to a reform in the ministries, required for the government to reinforce its support basis in Congress. When Minister Dutra left the ministry, several technical advisors left, too. This led to deflation of part of the policies under development, in particular PlanHab, increasing the weight of policies that contemplated the interests of business groups from the construction segment. Among the measures that indicate this change in political orientation is the decrease in FNHIS funds, which went from BRL 1 billion in 2009 to BRL 175 million in 2010. Politically the MCMV program represented the displacement of the priorities that had been established by the Ministry of Cities under the direction of Olívio Dutra and his advisors involved with PlanHab. To this group, housing is just one of the dimensions, amongst many others, of the broader issue of urban reform. Placing housing as a priority was, then, determined not only by the need to quickly respond to the economic crisis, but also by the pressure from the construction industry. At first glance, economic logic overriding social logic seems similar to the process that went on at the time of BNH, as mentioned above. However, if, on one hand, the formulation of the housing policy in the format undertaken by MCMV and its incorporation into PAC led to the subordination of the social objectives to the economic objectives, on the other, this brought significant advantages, by making it a priority in the government's agenda. This can be seen in the statement given by a person from the Ministry of Cities:

*“When the PAC governance was set up, with Minister Dilma and Miriam Belchior ahead of the Secretariat of Articulation and Movement, we effectively became a government priority. Housing policies and programs became part of the government's top tier. We were not anything until then, we didn't know if it was infrastructure or social policy, it was kind of a hybrid ministry, as it involves mobility, sanitation, housing. Urban means all of this, its development but also facing the social challenges, and this was essential to us - a commitment to urban poverty. That was our agenda, together with the social movements.”*

Despite this change of orientation in the general policy of the Ministry of Cities, SNH was still the institution for the group tied to urban reform and to the policy of producing housing of social interest, under the command of Inês Magalhães. And, still, during the crisis, this agency was able to propose to the government alternatives (that had matured while PlanHab was being created) to boost economic activity. This ability of SNH's bureaucracy to offer alternatives to businesses was grounded on the prior experience of its technicians in projects such as Brasil Habitar – created through an agreement made with the Inter-American Development Bank (IDB) – in managing the Program of Subsidies to Social Interest Housing ("PSH"), and even in PAC in the actions related to urbanization of favelas. It is precisely considering the ability of SNH's bureaucracy to offer proposals to the government group involved with dealing with the crisis that an interviewee from the Ministry of Cities itself states:

*“Participation of businesses was important, but that in itself doesn't explain how the Program was set up. Two important factors to the conception of MCMV were: 1) the experience accumulated in programs that were already in progress, such as PAR and 2) the diagnosis made in PlanHab, both in terms of consumer potential and also presenting demand prediction models, pricing, and subsidy calculation. The option to create a program that didn't pass through the FNHIS route was done purposely, due to the diagnosis that the cities were not able to implement the program.”*

Even though it benefitted from the decisive contribution made by SNH's technicians, MCMV emerged, from an institutional point of view, as a program defined by the Civil Cabinet from the proposal designed by SNH. The Ministry of Finance also defined its regulating norms, after negotiations with the businesses, conducted by Executive Secretary Nelson Barbosa. Therefore, MCMV is announced with the goal of building 1 million homes for low-income families by creating mechanisms to encourage the production or purchase and reclassification of existing homes. In other words, MCMV was structured as a subsidy policy granted by the federal government, with the creation of the Home Leasing Fund ("FAR") to finance homes for families with incomes of up to three times the minimum wage. The fund allows for the payments made by the homeowner to be compatible with their income, and, at the same time, insures that the enterprise built by private companies hired by CAIXA is profitable, and CAIXA must deliver the homes fully concluded, inclusively the title of property available.

The FAR funds are distributed among the 27 states of the federation, prorated to the estimated housing deficit in each one. Upon the release of these funds by the federal government, the regional branches of CAIXA selected the projects, taking into account the existence of a counterpart by the subnational governments, the lowest value of the units, and prior existence of infrastructure and social equipment. Each enterprise must have at most 500 units and must abide by minimum architectural criteria. The Guarantee Fund for Popular Housing (FGHab) was set up with the purpose of insuring the monthly payment owed by the borrowers to the financial agents, in case of unemployment and temporary reduction of payment capacity for families with incomes of up to ten times the minimum wage. This fund also covers the loan's outstanding balance in case of death or permanent disability, in addition to recovery expenses related to damages to the property of borrowers within the aforementioned income range. The balance of the program in its first phase (MCMV1), can be considered successful, in accordance with a report by the Federal Audit Court ("TCU"), which indicated that more than 1 million units had been procured up to December 2010, totaling more than BRL 1 billion financed and, therefore, achieving the established goal, as shown in Table 1.

*Table 1: Housing units procured in MCMV (up to Dec. 31, 2010) (TCU, 2011).*

<b>Income (times the minimum wage)</b>	<b>Units Procured</b>	<b>Goal</b>	<b>% achieved over the goal</b>	<b>Financed amount (BRL thousand)</b>
0-3	571,332	400,000	143	23,708,569
3-6	287,165	400,000	72	20,309,665
6-10	145,760	200,000	73	9,009,518
Total	1,004,257	1,000,000	100	53,027,752

During the second phase of MCMV, which began in 2011, subsidized financing was granted to 953,600 housing units. This total represents almost half of the 1.96 million residential units financed through the housing program, according to the data published in the website of the Ministry of Planning, Budget, and Management. The program is expanding, in this second phase, to incorporate rural workers. PNHR has the purpose of subsidizing the construction or renovation of properties of small farmers and rural workers whose gross annual family income is no more than BRL 60,000. To better assess these numbers, it is worth comparing them with the results of the BNH/National Financial System ("SFN") program: Table 2 indicates that at least a third of the loans went to low-income families.

*Table 2: Home Loans by SFH/BNH (July/ 1964-1988) (Azevedo, 1988).*

<b>Low-income population</b>	Traditional Programs (COHAB)	1,234,409	27%
	Alternative Programs	264,397	5.9%
	Total Units	1,499,806	33.6%
<b>Economic Market</b>	Cooperatives	488,659	10.9%
	Other programs	299,471	6.7%
	Total Units	788,130	17.6%
<b>Middle Class Market</b>	SBPE	1,898,975	42%
	Other programs	280,418	6.3%
	Total Units	2,179,393	48.8%
<b>SFH Total</b>		4,467,329	100%

### 3. STAKEHOLDERS AND INTERESTS IN MCMV

As indicated above, the MCMV program was designed by the high bureaucracy of the Civil Cabinet, with the support of the Ministry of Finance, upon negotiations with the business sector, which already had expectations of investments in the area, having acquired stocks of land, performed IPOs, etc. This executive group also incorporated the popular demands brought by the SNH technicians in the Ministry of Cities that had as a priority urban reform and investments subsidized by the so-called "social interest housing". Even if this policy was "shoved aside" by MCMV, which became the priority on the government's agenda, as indicated by some interviewees, the negotiations allowed for the demands from these groups to be partially contemplated by introducing the income range of zero to three minimum wages (that represents more than 80% of the housing deficit in Brazil) and that had not been included in the initial proposal because it was not attractive to the private sector, which is

guided by profit. While the Civil Cabinet was in charge of articulating the demands from the business groups and coordinating the policies to boost economic activity, the Ministry of Finance was in charge of regulating the measures required to launch the program, along with the Ministry of Cities. Although the Federal Executive Branch was the main player in the formulation of MCMV, it must be stated that Congress was also part of it, even if in a supporting role, by presenting proposals to incorporate small cities. The initial design of the policy formulated by the Executive contemplated only large and medium cities, where Brazil's greatest housing deficit lies. However, when the Provisional Decree ("MP") number 459/2009 that created the program was being voted, there was pressure for part of the funds to be reserved for smaller cities. This articulation was headed by Henrique Alves from the Brazilian Democratic Movement Party of Rio Grande do Norte ("PMDB - RN"), party leader and rapporteur of the bill, and involved municipalist entities that managed to insure a reserve of up to BRL 1 billion as an economic subsidy to extend MCMV to cities with populations of up to 50,000 inhabitants (article 19 of Law 11.977), corresponding to 5,037 cities, potentially, or 90.5% of Brazilian cities. In addition to the municipalist entities with influence on PMDB, the party of the rapporteur of the bill, another thing that contributed to the inclusion of small cities in the program was the mobilization of financial institutions that act through PSH, aimed at building housing units in small cities, as indicated by a high-ranking staff at the Ministry of Cities:

*"Just like PAR (Housing Lease Program), MCMV was metropolitan and for medium-sized cities. The PSH group also demanded to participate in it. Second line financial institutions, such as Economisa, organized themselves in Congress together with the mayors (...). Our Federal House of Representatives is extremely pulverized and largely influenced by the small cities. So they managed to get the program to include cities with less than 50,000 inhabitants."*

MCMV became quite attractive to politicians due to the great number of financed units and its comprehensiveness, going from small cities to metropolis, and including urban and rural workers. Regarding the groups organized in society, we can say that construction companies took part in the negotiations around the program's design; however, this did not occur with the popular segments. Right after the program was launched, representatives from social movements in the National Council of Cities complained of the absence of discussion on the measures announced. The FNHIS steering committee made a similar statement, saying that it wasn't heard in the process of formulation of that policy (Ministry of Cities, 2009, and Federation of Agencies of Social and Educational Assistance ("Fase"), 2009). The social movements that participate in those collegiate bodies showed their concern for the problems in the program's design on several Internet websites and forums, declaring that construction of the units must be associated with an urban policy that ensures access to public services such as health, education, and transportation, as they were afraid that the experience of the housing projects from the BNH period would be repeated. Some websites posted interviews and articles criticizing MCMV written by urbanists and professionals from the Brazilian Institute of Architects ("IAB"), commenting on its lack of articulation with urban planning and pointing to the absence of institutional mechanisms and incentives to fund the renovation of under-used homes. As we will show further on, the government tried to answer these critiques during the implementation of the program by meeting the demands, at least in part. MCMV, like other public policies, has no clear separation between its formulation and its implantation, both in terms of participating stakeholders as with regard to the decisions made as it is in progress, i.e., part of the policy's design was redefined upon its execution as an answer by the government and managing bureaucracy to the social demands that had not been contemplated,

to the restrictions imposed by control bodies, and even to critiques from experts and social movements. So the Civil Cabinet continued to have a major role in the implementation of the program, as centralized coordinator. SNH, from the Ministry of Cities, in turn, has participated in the collegiate bodies that monitor the policy and also articulates with CAIXA, which is in charge of the program's financial operations. In addition to establishing the guidelines, rules, and conditions, SNH evaluates the program's performance and defines the income limits of the beneficiaries along with the Ministries of Finance and Planning. CAIXA has also, in a way, influenced the program's design, because in addition to executing the financial operation and monitoring the construction of the units, it establishes the technical criteria for the program's operation and execution. This institution actually has a decisive role in the operational management of MCMV, as it is in charge of granting loans both to the future homeowners and to the construction companies, and of approving the projects from a technical, legal, and economic-financial point of view. In sum, as CAIXA's current management and the team that is ahead of SHN originated from the Urban Reform group that worked at the Ministry of Cities, one can conclude that the MCMV policy contemplates, at least partially, the concerns of that team. Regarding city and state governments, they are part of the implementation of MCMV, along with their respective agencies, by execution of agreements with CAIXA. This agreement has the purpose of ensuring cooperation of those governments with actions that facilitate the projects' execution, such as indicating beneficiary families, areas available or prioritized for implantation, tax exemption, and "technical social" assistance to the beneficiaries of the implanted enterprises. Only after this agreement was signed does CAIXA start receiving proposals for purchase of land and construction or reclassification of enterprises for assessment. As for the construction companies, they take part presenting proposals and executing the projects in accordance with the program's technical norms, and are responsible for the properties for 60 days after they have been concluded and legalized. Regarding control agencies, they are also part of the program's decision-making process. Thus, TCU, through its Decision number 2.988/2011, made a number of determinations with the purpose of ensuring that the program was better executed, such as establishing stricter procedures of verification of the actual income declared by potential beneficiaries, before signing of the contracts, and proof, by the cities, of the hierarchy and selection of demand requirements (established in items 4 and 5 of the Annex to Ordinance 140/2010 of the Ministry of the Cities). TCU's requirements also refer to the publicity of the selection process of the beneficiaries and to procurement of non-profits with FDS funds. Moreover, TCU recommended to the Comptroller General the evaluation of the possibility of including verification of fulfillment of these requirements in the city inspections selected through random drawing. Finally, it ordered CAIXA to make available to SNH all the information required to monitor and assess MCMV regarding transactions made with FAR funds. The inclusion of the income range from zero to three times the minimum wage as beneficiaries of MCMV brought on new requirements regarding the resolution of operational problems arising therefrom, such as the high prices of the land available to build houses with values that are accessible to that population and, thus, the difficulty in placing such enterprises in regions with urban infrastructure. It also required greater control by public agencies to ensure the minimum architectural quality of the homes. This set of problems certainly made achievement of MCMV's goals and deadlines harder and required innovations in terms of decision-making processes and configured, not only for this program, but also for several other PAC projects, new institutionalities in the execution process, with the creation of collegiate bodies to continuously monitor this program. So Decree 6.025 of 2007 instituted the PAC Steering Committee ("CGPAC") composed of the Civil Cabinet, Ministry of Finance, Ministry of Planning, and the PAC Executive Group ("GEPAC"), composed of

secretariats from those ministries, with the purpose of "consolidating actions, establishing goals, and monitoring the results of its implementation and execution" (article 4). Groups called "situation rooms" were also created to manage and deal with the information that support the decisions taken by GEPAC and CGPAC. The situation rooms are coordinated by the Ministry of Planning and are composed of three stakeholders: i) civil servants nominated to monitor the actions of a certain sector; ii) representatives of the three ministries of CGPAC; iii) civil servants from the ministries (the Ministry of Cities, in the case of monitoring of MCMV). The situation rooms are organized by themes (highways, airports, sanitation, housing, etc) and monitor the physical and financial schedules of the work to ensure that deadlines and results are met, managing restrictions that may affect the program's performance, and inducing improvements to public policies. This monitoring system has played an important role in articulating the agencies involved, solving obstacles in the program and, thus, reducing the delivery deadline of the units. Statements given in interviews show several examples of issues solved by these new institutional channels of management, such as legalizing of the land, environmental licensing, and others. Moreover, a recent survey showed that, through these new institutional arrangements, the Federal Government can avoid the negative effects (such as losing control over the public policy) that may occur when government positions are exchanged for political support by the government's ally base in Congress (Macário, 2013). In summary, by prioritizing the program in the government's agenda, this set of monitoring mechanisms helps to explain the relatively successful rate of execution of MCMV. On the other hand, if we consider the institutional arrangement of the implementation from a democratic standpoint or one of greater inclusion of stakeholders and demands, we must point out that it has deficits. Although construction companies' demands were met in the design and implementation of the program, the same cannot be said for other social segments. As mentioned above, representatives from social movements in the National Council of Cities and in the FNHIS Steering Committee have been saying ever since the program was launched that they are not being heard by the agencies ahead of the policy - Ministry of Cities, 2009, and Fase, 2009 - pointing out problems in its design and in its implementation process. There is also much questioning by urbanists and professionals from the Brazilian Institute of Architects (IAB), engineering unions, etc., who stress issues related to how little MCMV is articulated with urban planning and more structural actions to improve the quality of life in the cities. We can cite the meeting held in August of 2012 in São Paulo, organized by the Realtors Union (CRECISP) and with the participation of the unions of engineers and architects, in addition to several popular housing movements, in which these groups criticized the limitation of the institutional mechanisms and incentives to finance renovation of underused homes, demanding that MCMV incorporate "the inclusion and improvement of existing homes". In response to the concerns from the popular movements and criticism from experts, the government has tended to specific issues and taken measures to improve the technical standards of the housing units. For example, given the statement by experts that "the houses are horrible", President Dilma Rousseff invited the author of that statement, architect João Filgueiras Lima, president of the Brazilian Institute of Habitat Technology, to create alternative projects for low-income housing. At that request, the expert presented technological innovations for construction of houses in risky areas, such as the hills on the outskirts of Salvador, using metallic structures with mortar and manually assembled, allowing for reduction of costs and adjusting to the needs of its residents. The agencies responsible for the policy have also tried to change the CAIXA's approval process for large enterprises, which now involve the bank's top management and seek compromise solutions, in cases such as one that involved the negotiation between the Ministry of Planning and the National Electric Energy Agency ("ANEEL") before the main power companies to ensure that

the houses built have such infrastructure ready when they are delivered to the beneficiaries. However, other demands are not being met, in particular regarding the inclusion of existing homes in the program. According to experts, this faces great legal and financial impediments regarding expropriation of properties when these are not willingly sold and that generally are valued much higher than a newly built equivalent.

#### 4. CONCLUSIONS

The data selected showed that the hypothesis was not entirely confirmed. Even though it achieved the established goals, with management and monitoring arrangements aimed at increasing political efficiency, the institutional arrangement did not show itself to be politically legitimating, to the extent that important social stakeholders in this area, such as pro-housing social movements and organized groups of experts in urban themes, and their respective demands, were not contemplated in the decision-making arenas. The MCMV program can be better assessed by comparing it with the BNH housing policy. Both had in common the important participation of construction companies and had double objectives: a social one, which was to reduce the low-income housing deficit, and also an economic one, aimed at boosting the economy. Both programs were also unable to insert the housing policy in a broader framework of urban reform with long term and structural changes. However, there are important differences: the considerable weight of businesses and the prevalence of the economic logic over the social one in the BNH policy certainly were related to the authoritarian and repressive context of that period, and with institutional arrangements in which decisions were made in a restricted circle of players that had privileged positions before the president of the Republic or some more powerful minister. In turn, the inclusion of low-income segments, the concern about complying with legal and environmental restrictions, in addition to the demands for technical and urbanist improvements, as well as the systematic orientation to enable bureaucracy, in particular the city governments in charge of urban infrastructure, all of this is directly related to the democratic framework of new institutional apparatus formed by groups with multiple representations. In other words, creating the Ministry of Cities that has a specific department (CHN) for producing social interest housing, creating funds that increase resources to this area, creating councils that include several social segments, perfecting the rules of execution and control of constructions, etc., represent essential differences from the previous decision-making standard and from the policy's results, far removed from the established purposes. Despite these important differences between the two housing programs and even considering that the housing area of the federal government has presented important institutional advances, the arrangements established have not yet managed to legitimate entirely the interest of the stakeholders, from a standpoint of inclusion. This might explain why MCMV is still guided by a short term economic and business logic and not inserted in an effective policy of urgent reform and structural planning that, even though implying a long-term scenario, is essential to improve the quality of life in the cities and effectively eliminate the enormous housing deficit, as demanded by experts from this area and the social groups involved.

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#### **APPENDIX - LIST OF INTERVIEWES**

- Maria do Carmo Avesani – director of the Housing Production Department of the Ministry of Cities (August 1<sup>st</sup>, 2012). Brasilia - Distrito Federal.
- Junia Santa Rosa – director of Institutional Development and Technical Cooperation of the Ministry of Cities (January 16, 2013). Brasilia - Distrito Federal.
- Marcio Luiz Vale – director of the PAC's Housing Program Department.
- Marcelo Bruto da Costa Correia - director of the Department of Highway and Railway Programs
- Ana Claudia Rossbach – executive founder of the International Community Action Network (Interação) and former consultant of SNH/Ministry of Cities.
- Danielle Klintowitz – assistant of the Technical Coordination of PlanHab.

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## INTERNET COLLECTIVE SERVICES IN RISK SOCIETY

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### **ABSTRACT**

*Combine multiple services into a single service, or even a few sites in the network is a solution gaining more and more popularity. The main argument supporting the development of such collective services is to increase the level of convenience. A good example is social networking sites (eg Facebook, Twitter) and integrated information systems (such as Google - mail, calendar, hard, translator, maps, etc.). However, there is a problem with the unwillingness on the sharing of your personal information due to the empirical cases of identity theft, impersonation of the provided personal data and finally causing personal injury personal image. An even greater lack of confidence takes place against the collective services offering financial services on the Internet. Some sort of exception to this rule are shopping websites (eg Merlin, Amazon, Grupon) transfers paid with PayPal. Interpretive background of the proposed discussion outlines the German sociologist Ulrich Beck, who notes that today are entering a phase, "second modernity", which means the globalization of modern institutions and the liberation of everyday life of tradition and custom. Thus, the traditional industrial society vanishes, and its place is taken, "the risk society", namely the risk of uncertainty. Global order in this regard is primarily a risk control (cf. Giddens 2008, p. 696). Beck adds that today we do not like to risk and prefer to take preventive measures - the same applies to collective services offered on the network. The proposed reflection locates on the border of sociology, philosophy and economics.*

**Keywords:** *collective services in Internet, financial aggregation industry, the risk society.*

### **1. INTRODUCTION**

Manuel Castells in his work *Galaktyka internetu. Refleksje nad internetem, biznesem i społeczeństwem* stated that "worldwide computer networks increasingly affect the organization of economic activities, social, political or cultural. Removal of the network is equal to the digital exclusion" (Castells 2003, p. 13). This thought can become the credo of this article, because it aptly describes the dimension of contemporary social reality, which is devoted to this article.

### **2. CONTEMPORARY INTERNET SERVICES TRANSFORMATION - EMPIRICAL CASES**

The current functioning of Web services not only requires specialized knowledge about how they work, but also does not require the skills to search for additional services. Developers have done the work for you by creating a collective network services. Thanks to them the user with a single click has a whole palette of capabilities that are intuitively organized into groups. Such activities serve to improve the quality of network service by an increase of comfort. Sociological analysis of the popularity of this type of service show that the proposed solutions pass exam, and the number of users willing to use those kind of services increases dynamically. The following analysis refers to selected cases empirical, based on which it will be noted on the form of "closed" and "hermetic" towards "open".

**(1)** The first example is Wikipedia, the online encyclopedia that is created by users and moderated substantially by Wikipedia administrators. The most extensive, and thus also the

most popular, is English-language version of the encyclopedia. According to statistical data of Wikipedia<sup>40</sup> at 05.01.2014 (12:00:02 hours) in the English version of the encyclopedia were 31 908 864 articles. Total members quantity was 20 449 171 of which 117 763 were active. Interestingly, all administered by only 1 417 people. These figures argue that the level of popularity of Wikipedia is huge, and the number of users who use the service continues to increase, thus giving rise to reject the supposition of a certain level of confidence to the online encyclopedia. It should be emphasized that Wikipedia it is not a simple encyclopedia. It is located on the Internet, and the skeleton of the project is based on a number of internal hyperlinks (to other passwords in Wikipedia) and external (to other sites in the network). This gives you the ability to instantly check the posted content, but also creates a platform for expanding their horizons. What is more, you can easily switch between different language versions of Wikipedia, Wikiquote or read the highly rated articles. Wikipedia "remembers" the history and informs the user about important events of the day. The whole articles base is well organized in an intuitive way, so that users can quickly find related topics or linked blocks of information. Collectivization of many services within the Wikipedia complements the fact that it is completely free, and every Internet user can create or edit entries with ease. Wikipedia in this regard agree with motto that "nobody knows everything but everyone knows something" (cf. Danielewicz 2010, p. 139). This approach is the essence of combining network services in one collective project, because it ourselves netizens create a collective knowledge known as Wikipedia.

(2) A similar evolution has undergone electronic mail, which at the beginning of its foundation in 1965, was merely a curiosity for a small group of enthusiasts. Google is one of the companies offering a range of integrated network services, and so not only email, but also a web browser, translator, calendar, space for data storage and other<sup>41</sup> (Figure 1).



Figure 1. Google Apps. Retrieved 05.01.2014 from  
(<http://www.chip.pl/blobimgs/2012/09/full/6d59f9fca40c3d984cb6fa4240611f5e.jpeg>.)

40 List of Wikipedias. Retrieved 05.01.2014 from  
[http://s23.org/wikistats/wikipedias\\_html.php?sort=total\\_desc](http://s23.org/wikistats/wikipedias_html.php?sort=total_desc).

41 Google na swojej witrynie (retrieved 05.01.2014 from <http://www.google.pl/intl/pl/about/products/>)  
grupuje oferowane aplikacje w kilka podgrup.

The combination of a wide variety of services in one place and accessible with one click greatly facilitates the use of these tools. It is worth noting that Google multifaceted platform available to a user for free (like Wikipedia).

(3) Another example is social networking. Many of the most popular expanded its activity to additional opportunities. Facebook beyond offering an account and view new photos of friends, offers a separate application for send messages, chat, file transfer (on mobile platforms it is called „Messenger”). In addition, you can integrate Facebook with a number of external programs - such as Prezi, which allows you to prepare a dynamic presentation offers the opportunity to login via Facebook. Service can also be integrated with an online bank account (eg GetinBank) and through it make transfers, check account status or supervise mobile deposit. Moreover, within this social networking site is offered a whole range of internal applications and games. Similar solutions offer competitive social networking sites. In a sense, social networking phenomena contribute to the escalation of Internet exhibitionism, and thus promote the network more and more aspects of your life. Partly users are responsible for this, who decide themselves what to put on, but often their data get there without their knowledge or consent. I mean the politics of cookies, which often users agree (though not necessarily, and usually do not know what you're doing) to be able to use the service.

(4) It should be noted that the collective services on the Internet does not exist in a vacuum. Cloud Computing is here a solution by which these services may operate remotely. In this model, the entire burden of providing IT services was transferred to the server, which ensures continuous access to data<sup>42</sup>. Security of user data is not dependent on what happens to the client computer and the speed of processes results from the power of the server. Simply log in from any computer with Internet access to get started with Cloud Computing<sup>43</sup>. From a technical point of view, it is a combination of Grid Computing (parallel processing and combining the computing power of computers connected in a cluster) and Utility Computing (virtualization and aggregation of resources available in the pools). As a result, combining these methods, we obtain a container called "cloud" (cf. Ogórek, 2010). The cloud is available interlocking set of services. The first of these is a co-location, which means the lending space in the server room, electricity, air conditioning and Internet connection. Its extension is then Infrastructure as a Service (IaaS), which is an extension to provide collocation of equipment by the supplier. Then there is the Platform as a Service (PaaS), which in addition to supplying equipment also adds the entire application platform. In this variant, the supplier takes care of the operating system, its maintenance, management and updating. Further development is a Software as a Service (SaaS) - in this variant supplier takes care of everything: from the hardware to the final application. You use only a particular application and its functionality, so there is no need to install an application on your computer, because it can use it in the cloud (cf. Kędziorek, 2010).

### 3. ULRICH BECK REFLECTION ON RISK

Risk is in Ulrich Becks' theory basic concept around which he builds his reflections. His "risk society" refers to the era of modern society that abandons the traditional forms of life, and thus has to deal with the side effects of modernization - the uncertainty of life, difficult to

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42 cf. *SmartCloud Enterprise. Moc obliczeniowa na żądanie*. Retrieved 04.01.2014 from <http://www-05.ibm.com/pl/cloud/>.

43 Ibidem.

grasp the threat against which there is no way to protect themselves (Beck 2012, p. 21). These risks include human community and of each individual. What's more you can not accept optics, that "if you do not see danger, it means that it is not exist" (Ibidem). U. Beck stresses that the culture of innovation is accompanied by a double risk - such as predictable and unpredictable - hence, we can conclude that it is lined with risk. Author of *Risikogesellschaft* uses here a clear metaphor for the elevator (progress), which initially all going to the top (economic growth brings benefits to everyone), but not all arrive on the same floor. However, as Beck observes, in the era of globalization, that not all move up, as part starts to turn down (cf. Dobrowolski, 2006, p. 20). Large corporations (such as Microsoft) in response to these problems have developed their own strategies and business models that generate different types of risk (Kwiecień 2007, p. 2). But the thing is, that everything can not be predicted. Hence the fear in society is decisive attitude towards life, and "the economy of fear" is gaining widespread loss of confidence (Beck 2012, p. 22). This raises the number of securities to compensate for impaired sense of security. Techniques of verification include passwords, "cookies" files and the authentication procedure. "Cookies" record all calls made from the computer on which they are automatically placed, and communicate this information to the server, which left them (Castells 2003, p. 194). As a result, it is possible to remember browser passwords, giving you the chance to automatically log on the websites. Paradoxically, this solution can be a "backdoor" for criminal practice hacking of email accounts, or worse, bank accounts and stealing money accumulated there. Among the authentication procedures may be indicated on the digital signatures that are used to verify the user and the result of this verification shall grant or refuse access to the data. Another procedure is to encrypt the data. An example is introduced by Netscape *Secure Socket Layer* (SSL) (Ibidem). Undoubtedly modern society attaches increasing importance to safety (cf. Dobrowolski 2006, p. 27) - not only in the physical dimension (eg guarded housing estates, life insurance), but also a virtual (more advanced encryption technology Internet connections). For this reason, Beck sensitizes the semantics of risk (2012, p. 18) pointing to blurring the boundary between risk and its cultural perception. The author sees the difference between risk, which is understood as potentially possible danger and disaster, which is an actual event (Ibidem, p. 25). Fear, however, winds up the spiral taking place on rational action. In such a situation, preventive actions are taken to prevent any possible risk, although this is not possible.

#### 4. CONCLUSION

In view of the above considerations, it is difficult to provide uniform conclusions. On the one hand, I have to agree with U. Beck on the sense of growth of social risk, which results in an increase in Internet use and security mechanisms for the protection of personal data (encryption parties, the need for authentication, complex passwords, etc.). On the other hand, the increasing popularity of collective network services, which in addition to a number of opportunities, facilities and advantages also carry a large number of hazards and risks, of which Beck wrote. Fact is easier to hack into one account and take control over many aspects of human life than to break several times. The multitude of different services and simplified the operation of the (hidden from the user) is also a good ground for the theft of personal details, or spy on user activity. It seems, therefore, that both Beck was right when he wrote about the current risk society (though probably with exaggeration), but also keep in mind that a lot depends on prudent person using a particular service.

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## STRATEGIC MARKETING PLANNING OF MONTENEGRO TOURISM AND HOSPITALITY

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### ABSTRACT

*The topic of this paper is theoretical and practical approach of strategic marketing planning of Montenegro tourism and hospitality. The most important step in strategic marketing planning in hospitality is market analysis, which give informations about positioning of tourism and hospitality of one country, as well as, reputation, image, brand awareness. The paper will give specific comparation analysis of Montenegro hospitality and hospitality of countries in region. According to this analysis will be given appropriate strategies for improving Montenegro tourism and hospitality, which has wide range of opportunities for diferente target groups. Montenegro is well known as country of beauty, ecology, good hospitality, history, culture and tradition. All this is excellent base for "story telling" strategy, strategy of differentiation, strategy of innovation and total communication strategies about good Montenegro tourism and good hospitality. In past years Montenegro tourism and hospitality gave focus on total communications, throught good services, culture events, historical stories, nature protection, according to ecolocigal standards and green approach. Implementation of these strategies was good, which shows results of strategic marketing control analysis, and also that control analysis gave suggestions for futher development of hospitality strategies. The advantages of Montenegro tourism is offers for variety target groups of consumers, from families, through young people, students, bussines people, to congres tourism and exlusive consumers, which need high class hotels or yachting tourism. The paper will give new strategies opportunities for Montenegro elite hospitality in exlusive port "Porto Montenegro" in Tivat. New approach have to include new media opportunities, like social network communications, blog communications. Also, green approach of Montenegro tourism is advantage that have to be improve and emphasize in communication strategies of Montenegro tourism and hospitality. Also, historical aspects of Montenegro, as well as, cultural treasures have to be emphasize in order to improve Montenegro tourism and hospitality as brand. The most important thing is to realize potential of Montenegro hospitality and to use opportunities of modern communications.*

**Keywords:** *Hospitality, Implementation of strategies, Market orientation strategies, Market analysis, Strategic marketing planning.*

### 1. INTRODUCTION

This paper presents a new approach to strategic marketing planning for the tourism industry. It emphasizes quality, efficiency, and effectiveness in the marketing process. The framework presented shows tourism marketers how to analyze their marketplace and to develop a strategic marketing plan to increase sales in their target customer segments. There are six steps approach to strategic marketing planning for the tourism industry. These steps include needs analysis, research and analysis, creative infusion, strategic positioning, marketing plan

development and training, implementation, evaluation, and adjustment. These steps provide a road map for almost any tourism organization or destination and to help enhance and improve their marketing efforts. It is a strategic marketing system that aims to stretch marketing income through planning, monitoring, and evaluation, but it is also action oriented to benchmark and counter competitors' strategies with built in performance measures and evaluations. This article reports on destination marketing best practices from Montenegro regional destinations. The results advocate an integrative approach to destination marketing that aligns with destination management and development objectives. From this, a framework is developed, within which nine best practice principles are identified as essential to successful and sustainable marketing of regional destinations. The key initiatives used to achieve success are discussed in detail, highlighting the need for destination stakeholders to foster a cooperative and strategic approach and ensure consistent design and delivery of a destination brand and image which is supported by tactical advertising and promotional strategies, effective visitor information services, and events to support the destination brand and image to target appropriate visitor markets.

## **2. RESEARCH AND ANALYSIS OF MONTENEGRO TOURISM**

In strategic marketing planning the most important step is analysis, which gives touristic marketers information about strengths, weaknesses, opportunities and treats of Montenegro tourism, also information about concurrencies, about political, economical, social and other factors that impact on touristic process. Research and analysis are a first and critical step in the development of touristic marketing plan and strategies. The quality and objectivity of analysis directly affect the quality of strategies development and touristic income. It is very important to make a objective assessment of strengths and weaknesses, as well as competitor's strengts and weaknesses. Internal analysis involves an analysis of Montenegro tourism's strengths, weaknesses, opportunities and threats (SWOT). The analysis focuses on internal elements. It involves an analysis of past sales, consumers, and profitability per consumer or per service or attraction and so on. The key strenghts of Montenegro tourism are beautiful nature, nice people, comfortable accomodations, many oportunities for entertainments, sports and cultural events. The key opportunities are attractiveness of Montenegro as touristic destination for many consumers, as well as, cooperations with touristic agencies world wide. This analysis provide an opportunity for developing a marketing plan targeted to the particular consumer segments. This may provide an opportunity to develop a marketing plan targeted to the particular customer segments. Internal analysis also involves analyzing the service life cycle and using various perceptual maps like the Product/Market Opportunity matrix, Boston Consulting Group's Growth Share matrix and General Electric's Strategic Planning Grid. A touristic organizations in Montenegro have to analyze their core competencies and competitive advantages and develop a list of their attractions and consumers' satisfactions with them. A marketing audit is the examination of the marketing function as it currently exists within an touristic organizations. It includes a study of the marketing objectives, current marketing plans, activities, positioning, target markets, sales channels, media utilized, consumers data being collected, and a comparison of the results of the marketing efforts with the budget and marketing goals. A marketing audit should be conducted periodically. The touristic industry analysis and market assessment is an external analysis that examines the situations in the field industry and its trends. It includes sociological, technological, economic, environmental, and political factors (STEEP). Porter's Model of Industry Competitiveness is an excellent tool to utilize. Competitor analysis is an analysis of destination's competitors. It is critical to be honest about admitting the strengths and weaknesses or competitors. The analysis should chart the strengths and weaknesses of



competitors, the attractions they offer, and the features and benefits of their services in comparison to each others. The matrix must include competitors positioning and the identification of competitive advantages for each competitors. Perceptual maps can also be used to chart competitors versus our touristic organization on different variables like positioning, price perceptions, and so on. Consumer's research is a critical piece of the analysis and involves learning the needs, likes and dislikes, perceptions, and satisfaction levels of tourist through qualitative and quantitative research methods. This step involves both primary and secondary research as well as data mining, consumer's segmentation, and target market's identification.

### **3. DEVELOPMENT STRATEGIES OF MONTENEGRO TOURISM**

The research and analysis and creative approach set the stage to develop Montenegro touristic organization's positioning, branding, and image in the marketplace. All the elements of the research and analysis like the identification of current and future consumer's needs, list of the destination's attractions, competitive advantages, competitor's positioning, competitor charting, perceptual maps, and the creative component will help in developing a positioning for Montenegro touristic destinations. Implementation of strategies have to be market oriented, in the way to listen consumer's needs and wishes, as well as, to improve differentiation of touristic services. Third step of strategic marketing planning is control and evaluation through holistic marketing research. Professor Kamel Jedidi from Columbia University in New York wrote this sentences: "The secret of marketing lies in the ability of understanding what drives customers and in translating it into competitively superior products and services, that customers can be not only satisfy, even breathless."<sup>44</sup> Start from this opinion, first step is to find what drives customers, what are there dreams, fantasies, contemplation and how we can understand well these customer's wishes. Second step is to translate these wishes into dreamfull products and services. The goal is that customers become not only satisfy, even breathless. The key strategies in brand building based on customer behaviour is strategy of innovation, which give opportunities for improving products and services in way that customers wish. The good examples for understanding consumer's wishes are touristic offers of Greece and Spain. Greece gives opportunities for elite tourism, yachting tourism, as well as, young tourism. Good hospitality, nature, open people, music, culture and tradition make Greek tourism one of the best in Europe. Montenegro tourism has opportunities to grow in the ways of improving cultural events, historical tour and night life, as well as, festival events, theatre events. Montenegro is full of historical, cultural and art's treasures. According to this, strategies for improving tourism have to be organization of cultural events, such as music festival, theatre festival, gastronomy festivals and some sport festivals. Porto Montenegro gives opportunities for elite tourism and it is way for brand tourism on international level. In nowadays speed hospitality market changes, it is necessary to be communicative with market and audiences in order to have competitive position on market and in order to be in continuing touch with target audiences. New age media, especially social networks give opportunities for direct connection with consumers, as well as, opportunities for listening needs and wishes of consumers, what is good way for improving touristic services and Montenegro tourism in audience. Consumers of touristic services try to find much information about tourism and hospitality by Internet search, so it is very important to be present on Internet in appropriate way, to have pages for cities, to be part of social media and to be part of interactive communications with consumers.

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<sup>44</sup> Kotler Ph., Bowen J., Makens J., (2006): Marketing for Hospitality and Tourism, Pearson Education Inc., New Jersey.

Implementation of strategies in tourism has to be market oriented, according to wishes and needs of consumers. One target audience looking for elite yachting tourism, second looking for culture events, music, festivals, theatre, third looking for amazing landscape, beautiful beaches, clear sea and comfortable hospitality. Young populations mostly look for good night life, sports and music. Montenegro has opportunities for all those services and events. According to analysis of last touristic year, all target groups found that season was great in Montenegro. In the first place, the most important elements of improving in tourism are services, improving hotel hospitality, as well as, private accommodation. Of course, clear beaches are one of the most important things for tourist. Younger tourists look also for entertainment on beach, as parties and music. Some places in Montenegro coast have beach's clubs with music, drink and entertainment. Older tourists look for peaceful places for relaxation. Elite tourists look for add elements in touristic services, such as spa, exercise, yachting, excursion or some adventure sports. Other elements of marketing mix have to be integrated in one, clear message of touristic services, according to vision, mission and goals of Montenegro tourism. Montenegro have the potential of ecotourism, as a country with beautiful nature and could be base for further developing of "story telling" about ecotourism and to achieving fully potential of nature, beauty and wide culture. Also, it is important to improve research eco potential of Montenegro tourism, as base for developing appropriate local, national and regional tourism strategies. Strategic marketing planning includes, also, analysis of negative tourism impacts. Planning include analysis of environmental and socio-cultural elements, government policy in relation to tourism. Analysis is platform for creating and managing tourism as brand. Montenegro is also well known as good destination for mass tourism. New technology, more experienced consumers, global economic restructuring and environmental limits to growth are only some of the challenges facing the industry. Mass tourism, it is argued, is responsible for bringing social, cultural, economic and environmental havoc in its wake, and mass tourism practices must be radically changed to bring in the new. Today's industry is being shaped by new global imperatives and is adopting new organizational and managerial principles including quality, flexibility, customization, innovation, diagonal integration and environmental soundness. A new tourism is emerging, driven by new consumers, new technologies, new production practices, new management techniques, and changes in the industry's frame conditions. It will become a key tool for controlling the process of value creation in the tourism and the implications of the resultant new tourism for tour operators, travel agents and hotels.<sup>45</sup> New strategies of marketing communications help touristic brand managers to build and manage their brands in a dramatically changing marketing communications environment, the consumers based brand model that emphasizes the importance of understanding consumers brand knowledge structures. Marketing communications can create intense, active loyalty relationships and affect brand awareness. According to this, integrating marketing communications involves mixing and matching different communication options to establish the desired awareness and image in the minds of consumers. Social media are increasingly popular. Consequently, marketers more and more recognize social network sites as a platform for commercial campaigns. Social network users forward these campaigns to their online connections. However, our understanding of the persuasiveness of these campaigns is scarce. This study takes on the perspective that social context plays an important role in explaining campaign effects, and investigates whether the social connection between the sender and the receiver of a viral social media campaign predicts its persuasiveness. More specifically, it is tested

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<sup>45</sup> Kotler Ph., Bowen J., Makens J., (2006): *Marketing for Hospitality and Tourism*, Pearson Education Inc., New Jersey.

whether strength of tie between the sender and receiver of a campaign predicts receivers' affective and behavioral responses, and whether perceived persuasive intent is the underlying mechanism. The results of a survey among social media users obtained support for this idea. New media gives opportunities for creative viral marketing campaign for building awareness about companies and brands.<sup>46</sup>

#### **4. STRATEGIC PERSPECTIVE OF MONTENEGRO TOURISM**

Strategic perspective of Montenegro tourism could be view in improving elite, yachting tourism, as well as, improving cultural offers through festival, art's events. It is way to get defferentiation in martket of touristic services. Also, it is important to develop quality of hospitality services, people connection, comfotable pleasuer, belonging feelings. Through feelings of belonging to one place tourist give recommandantion about Montenegro tourism, what is the best way of promotion. It is also important to improve good services, culture events, historical stories, nature protection, according to ecolocigal standards and green approach. The advantages of Montenegro tourism is offers for variety target groups of consumers, from families, through young people, students, bussines people, to congres tourism and exlusive consumers, which need high class hotels or yachting tourism. Also, green approach of Montenegro tourism is advantage that has to be improve and emphasize in communication strategies of Montenegro tourism. Also, historical aspects of Montenegro, as well as, cultural treasures have to be emphasized in order to improve Montenegro tourism as brand. Social networks give opportunities to write consumer's oppinions, experience, thoughts, expressions, adventures and feelings about Montenegro tourism. In interaction with consumers, Montenegro tourists, marketers can create strong brand awareness and to improve belonging feelings. With kindly hospitality, wide range of cultural events and entertainment, Montenegro tourism can get to the list of top destinations. Montenegro is well known as country of beauty, the slogan of Montenegro tourism is "Wild beuaty". Ecology, good hospitality, history, culture and tradition are excellent base for "story telling" strategy, in which all elements of marketing communications have to be in one orchestra. Strategy of differentiation, base on innovation gives opportunities for creating new services, new special events and new signature of Montenegro tourism. Total communication strategies are base for interactive dialogues with consumers what is base for improving brand positioning of Montenegro tourism. New approach have to include new media opportunities, like Internet communications, social network communications, blog communications. The most important thing is to realize potential of Montenegro tourism and to use opportunities of modern communications. New digital media ask for interactive communications with consumers of touristic services. Marketers and public relations managers have challenge to build touristic bran in online environment, through interaction, total communications, blogs, web's information, sending messages of good hospitality, eco tourism, entertainment, cultural events, art's festivals and memories for good time. According to competetive analysis of touristic offers in other countries, Montenegro tourism have to find specific signature of their touristic experience and belog feeling. Many visitors express their experience in Montenegro as amazing nature, kind people and inspiration entertainment. That expressions they post on social media networks and it is good way of recommandation in online environment, as best way of promotion.

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<sup>46</sup> Belch E. G., Belch A. M., (2012): Advertising and Promotion - An Integrated Marketing Communications Perspective, McGraw-Hill, New York.

## 5. TRAINING, IMPLEMENTATION, EVALUATION AND ADJUSTMENT

Sales, services and leadership training are critical to implement marketing plan, and the training should include the various stakeholder organizations that want to reinforce the organization or destination's positioning and image. Such reinforcement helps the tourist experiences a complete picture of the organization or destination in line with the expectations that were defined by the positioning, collateral, advertising, "word-of-mouth" advertising, and publicity. The next step involves the implementation of the plan that may begin by concept testing in the target market and followed by an evaluation and adjustment of the plan based on the success.

## 6. CONSLUSION

The paper emphasiez that the most important step in strategic marketing planning in tourism is market analysis, which give informations about positioning of tourism of one country, as well as, reputation, image, brand awareness. Montenegro is well known as country of beauty, the slogan of Montenegro tourism is "Wild beauty". Ecology, good hospitality, history, culture and tradition are excellent base for "story telling" strategy, in which all elements of marketing communications have to be in one orchestra. Strategy of differentiation, base on innovation gives opportunities for creating new services, new special events and new signature of Montenegro tourism. Total communication strategies are base for interactive dialogues with consumers what is base for improving brand positioning of Montenegro tourism. Implementation of these strategies was good, which shows results of strategic marketing control analysis, and also that control analysis gave suggestions for futher development of tourism strategies. The most important thing is to realize potential of Montenegro tourism and to use opportunities of modern communications.

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## ECO-INNOVATION INFLUENCE ON ECONOMIC DEVELOPMENT

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### ABSTRACT

*It is widely recognized that innovation makes great impact on economic and social development while now this can be especially attributed to eco-innovation. Competitive advantage of economies and companies in the future will not be based only on cost reduction, but, primarily, on product, service and process innovation, and issues associated with them. In recent decades, the expansion of economic activity has been accompanied by growing global environmental concerns, such as climate change, energy security and increasing scarcity of resources, which endorsed the importance of eco-innovation as a key factor that supports the transition towards smart, sustainable and inclusive growth. Innovation and innovativeness play a key role in technology and economy development, although they do not automatically lead to social progress and improvement of environmental quality. Therefore, there is a question on possibility of creating balance between economic growth and environmental improvement. Eco-innovation can be treated as a compromise for potential solution of this problem since it represents the introduction of new or significantly improved product (good or service), process, organizational change or marketing solution that reduces the use of natural resources and decreases the release of harmful substances across the whole life-cycle. In that manner, the paper is dealing with eco-innovation management key elements, having in mind its influence on technological, social and economic development.*

**Keywords:** *Eco-innovation, Economic development, Environment, Innovation*

### 1. INTRODUCTION

Nowadays, the growth of economic activity has been complemented by growing global environmental concerns, such as climate change, lack of energy and resources (OECD, 2007). Having that in mind, the burning issue in science and society is related to connection between business and environment. There is no doubt that the way firms organize their production processes, and the characteristics of the products and services they provide, have a critical impact on the environment. It is generally accepted idea that sustainable development should meet the needs of the present without risk to prevent future generations to meet their own needs (Carrillo-Hermosilla, del Rio González and Könnölä, 2009). Eco-innovation may contribute to the renewal of the whole innovation system, considering social, ecological and economic aspects. The survival of the economic system depends on its aptitude to create and maintain sustainable economic processes (Carrillo-Hermosilla, del Rio González and Könnölä, 2009). The purpose of this paper is to analyse the concept of eco-innovation by identifying the different types of eco-innovations, addressing their impact on economic and environmental improvements, and showing the economic indicators for their measuring. Starting from this point, the paper is organized in three main parts, first related to the innovation and eco-innovation concepts, second related to types of eco-innovation and the last one, related to economic indicators for measuring eco-innovation.

## 2. THE INNOVATION AND ECO-INNOVATION CONCEPTS

The concept of innovation and innovativeness has evolved significantly over the past few decades, along with the exceptional development of innovation management (Stosic, 2013). One of the reasons is the fact that innovation and innovativeness are considered to be the key drivers of competitiveness in modern knowledge-based economy. In that sense, the European Commission (1995) has defined innovation as "enhancing and increasing the range of products and services, and related markets, establishment of new methods of production, supply and distribution, introduction of changes in management, organization and working conditions of employees".

In the third publication of the Oslo Manual document, known as "Guidelines for collecting and interpreting innovation data" (OECD/Eurostat, 2005), innovations are categorized in the following types:

1. Product/service innovation;
2. Process innovation;
3. Organization innovation;
4. Marketing innovation.

The classification mentioned above also can be found in The Law on Innovation of the Republic of Serbia, where it is said that innovation is *successful market implementation of invention, and implementation of new or significantly improved products, processes or services (including significant improvements in technical characteristics, components, materials, embedded software, user orientation or other functional characteristics) or marketing method or a new organizational method in business, organized labour relations or legal entity with the environment* (Official Gazette, 2013).

When it comes to eco-innovations, they are not explicitly listed in the previous classifications, but they represent one of the modern concepts of the innovation theory, which shows a remarkable impact of innovations on the quality of life and environmental protection. It can be said that the concept for the first time seriously appears in a book entitled "Driving eco-innovation; a breakthrough discipline for innovation and sustainability" written by Fussler and James in 1996, where it is defined as the process of developing new products, processes or services that have consumer and business value but significantly decrease impact on the environment. It follows that this type of innovation should be seen as an integral part of innovative activities and projects in all sectors of production and services.

In the following text box is given the eco-innovation definitions proposed by different authors and institutions from field. In general, these definitions highlight their effort to reduce the environmental impact caused by consumption and production activities.

- “Eco-innovation is the process of developing new products, processes or services which provide customer and business value but significantly decrease environmental impact” (Fussler and James, 1996).
- “Eco-innovation is the production, assimilation or exploitation of a product, production process, service or management or business method that is novel to the organisation (developing or adopting it) and which results, throughout its life cycle, in a reduction of environmental risk, pollution and other negative impacts of resources use (including energy use) compared to relevant alternatives” (Kemp and Pearson, 2008).
- “Eco-innovation is any form of innovation aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment or achieving a more efficient and responsible use of natural resources, including energy” (European Commission, 2007).
- “Eco-innovation is the creation of novel and competitively priced goods, processes, systems, services, and procedures designed to satisfy human needs and provide a better quality of life for all, with a life-cycle minimal use of natural resources (materials including energy, and surface area) per unit output, and a minimal release of toxic substances” (Europa INNOVA, 2006).
- Innovation is “the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations” (OECD, 2005).

### 3. TYPES OF ECO-INNOVATION

The development and wide application of eco-innovation have led to a theoretical systematization of the area. A number of classifications can be found in the literature considering various aspects of the environmental side of innovation. When it comes to innovations with environmental benefits, difference can be made between those created with specific environmental purposes - *environmentally motivated innovations*, and those that produce environmental gains as a gratis side-effect - *environmentally beneficial normal innovations* (Kemp and Foxon, 2007).

Kemp and Foxon (2007) introduced one of the possible classifications of eco-innovation as follows:

1. Environmental technologies;
2. Organisational innovation for the environment;
3. Product and service innovation;
4. Green system innovations.

In line with previously stated typology, The Eco-innovation observatory gives the most comprehensible one in their Annual report 2013 named “Paving the way to a green economy through eco-innovation” (Table 1). This typology relies on Oslo Manual (2005) classification. The Eco-Innovation Observatory is initiative financed by the European Commission's Directorate-General for the Environment from the Competitiveness and Innovation framework Programme (CIP). The aim of the Observatory is to develop an integrated information source and a series of analyses on eco-innovation trends and markets, targeting business, innovation service providers, policy makers as well as researchers and analysts (<http://www.eco-innovation.eu>).

*Table 1: Eco-innovation typology (adapted from EIO, 2013)*

Type	Description
Product	product design in a manner that leads to decreased environmental impacts and less resource use (eco-design) services include green financial products, environmental services and less resource intensive services
Process	reduce material use, lower risk and result in cost savings, substitution of harmful inputs, optimisation of production process, reducing the negative impacts of production outputs cleaner production, zero emissions, zero waste and material efficiency
Organisational	introduction of organisational methods and management systems for dealing with environmental issues in production and products socio-economic dimension of process innovation, especially as it is closely linked to learning and education pollution prevention schemes, environmental management, etc.
Marketing	changes in product design or packaging, product placement, product promotion or pricing marketing techniques that can be used to drive people to buy, use or implement eco-innovations labelling is also an aspect of marketing eco-innovation, i.e. eco-labelling
Social	the human element integral to any discussion on resource consumption market-based dimensions of behavioural and lifestyle change and the ensuing demand for green goods and services user-led innovation - the functionality of new goods is developed with stakeholders product sharing, decrease of material use without diminishing the quality
System	a series of connected innovations that improve or create entirely new systems delivering specific functions with a reduced overall environmental impact collection of changes implemented by design

#### 4. ECO-INNOVATIONS AND ECONOMIC DEVELOPMENT

Nowadays, it is clear that for economic development and for the accompanying environmental improvements, innovation become a necessity, especially eco-innovation. Eco-innovation is associated with both economic and environmental development. It means being economically competitive but with respect to environment. Based on that, eco-innovation can be an idea for a new start-up, product, service or making improvements to existing ones. The main effort of eco-innovation is the use of new technologies in creating business models that are both competitive and respect the environment by reducing resource intensity. Eco-innovation has a systematic approach, taking the full life-cycle perspective into account (Figure 1). It does not bind only to inventing new products and delivering new services, but it also encompasses reducing environmental impacts in the way products are designed, produced, used, reused and recycled (EIO & CfSD, 2013).



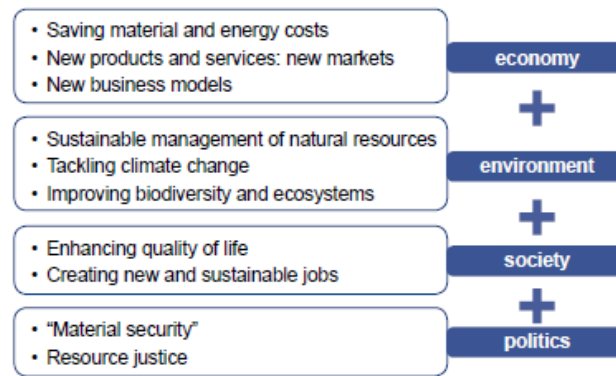


Figure 1: The influence of Eco-innovation (EIO & CfSD, 2013)

When it comes to influence of eco-innovation to economic development it should be useful to have in mind eco-innovation indicators. Literature on innovation and eco-innovation has a long history of trying to identify common set of indicators. However, the results of many studies have not yet led to a generally accepted indicator of innovative and eco-innovative performance or a prevalent set of indicators (Stosic, Vasiljevic & Milutinovic, 2012; Hupples, et al, 2008).

In line with ECO-DRIVE study (2008) and Eco-innovation scoreboard, eco-innovation can be analysed on the three levels (Table 2):

- micro: product or service, process, company;
- meso; sector, supply chain, region, product system/service system and
- macro: economy-wide: nation, economic blocks, global.

Table 2: Eco-innovation indicators

Level	Indicator	Description
Micro	Value Added	- Value of outputs minus value of inputs in a specified time period - Total value added for firm
	Production Output/Sales/Income	- Measured by financial value, weight/volume, or units sold in a specified time period. - Measure total output by firm
	Market share of eco-innovation or eco-innovative firm	
Meso	Gross value added by region	Measure growth for year-on-year indicator
	Gross value added by sector	
	Market share of key sectors	
Macro	GDP	Measure growth for year-on-year indicator
	Eco-innovation Scoreboard indicators	Eco-Innovation Scoreboard (Eco-IS) consists of 16 indicators, grouped into 5 components: Eco-innovation inputs, Eco-innovation activities, Eco-innovation outputs, Environmental outcomes, Socio-economic outcomes

Lately, European Union has been suggesting a lot of programmes which support eco-innovation and proposes a lot of tools for assessing and illustrating eco-innovation performance. Currently, one of the most frequently used tools for assessing eco-innovation performance is Eco-innovation scoreboard. The scoreboard consists of 16 indicators grouped into five thematic areas: eco-innovation inputs, eco-innovation activities, eco-innovation outputs, environmental outcomes and socio-economic outcomes. It illustrates how well individual Member States perform in different dimensions of eco-innovation compared to the EU average and presents their strengths and weaknesses (Figure 2). The Eco-innovation scoreboard promotes a holistic view on economic, environmental and social performance (<http://www.eco-innovation.eu>).

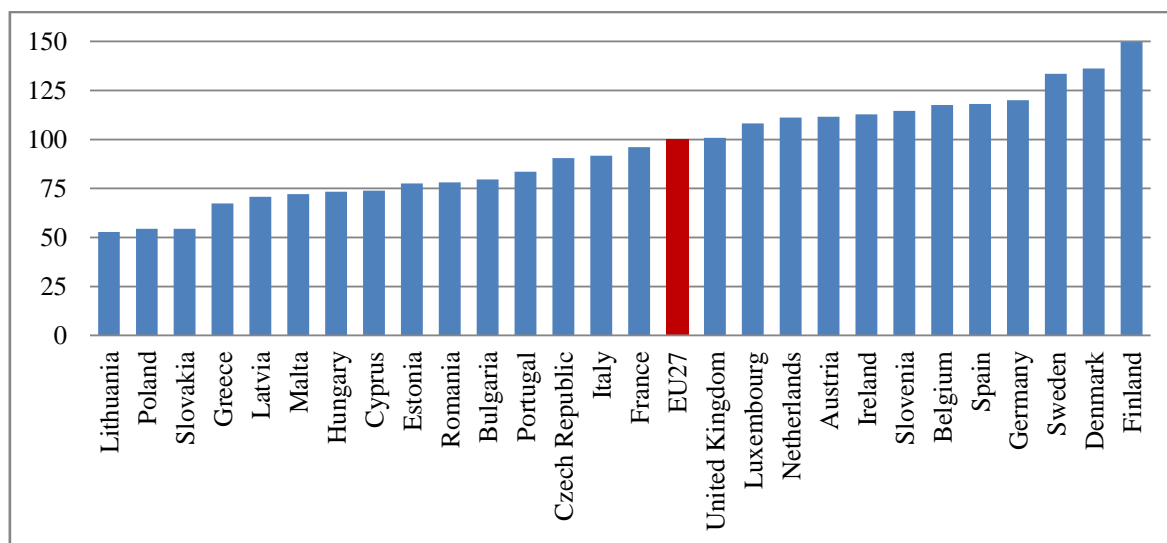


Figure 2: EU-27 Eco-Innovation Scoreboard 2012: composite index

It is important to notice from the Figure 2 that Scandinavian countries in general are global eco-innovation leaders with performance significantly higher than EU27 average.

Considering social and economic development on macro level, socio-economic outcomes as one of five areas in the Eco-Innovation Scoreboard are illustrated in Figure 3. The 2011 index for this area is calculated based on three indicators: Exports of products from eco-industries (% of total exports), employment in eco-industries (% of total workforce) and turnover in eco-industries (<http://www.eco-innovation.eu>).

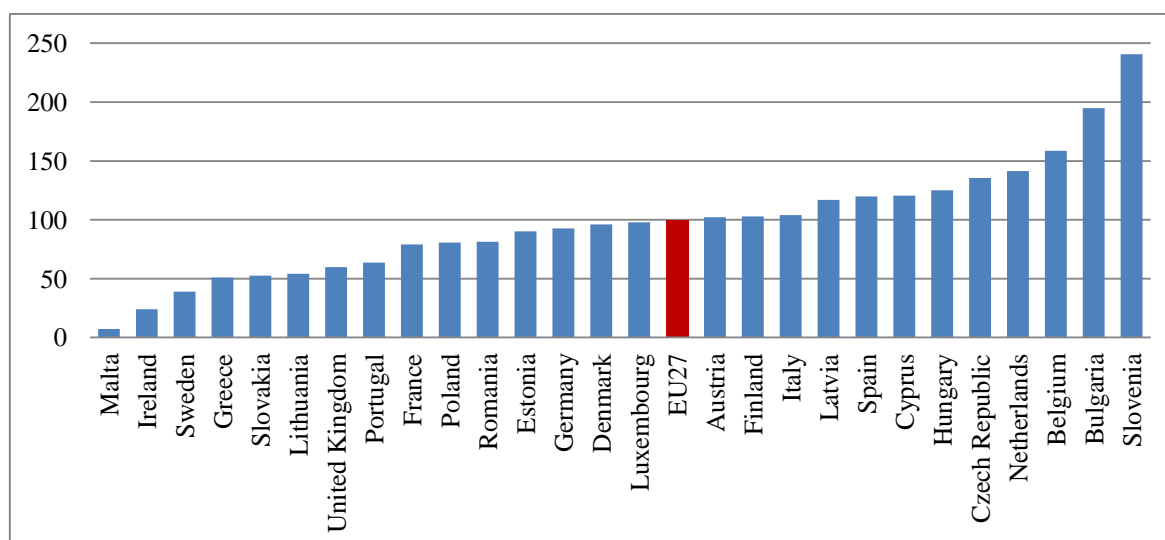


Figure 3: EU-27 Eco-Innovation Scoreboard 2012: socio-economic indicators

Given that, global eco-innovation leader, with respect to socio-economic outcomes, is Slovenia with performance more than twice higher than EU27 average.

## 5. CONCLUSION

Eco-innovation has become burning issue that attracts the attention of decision-makers in today's business world, due to its contribution to economic development, improvement of environmental protection and employment. This category of innovation projects becomes one of the priorities, both in the countries of Europe, and around the world. Today, considerable attention is devoted to protection and improvement of the environment, which brings a higher level of competitiveness to companies and economies that obeyed this rules. For every company and economy is very important to be competitive, and eco-innovation can play a role in creating more competitive businesses, also can be an idea for a new start-up, product or service. It contributes to a reduction in resource use, while at the same time contributing to enhanced knowledge, increased competitiveness and the provision of desirable products and services (EIO, 2013), by using new technologies in creating business models that are both competitive and respect the environment. It can be concluded that eco-innovation have become a relevant strategy for all countries and sectors. It is not limited to producing new green products and delivering new services, but also embodies the processes that may increase economic and social development in less developed countries (EIO, 2011).

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## EU PROJECTS FOR COMMON PEOPLE

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### ABSTRACT

*The present study aims to analyze the projects financed from European funds for agriculture and its subsidiary in Romania from 2007 to present, their number, the average cost and time of preparation, areas of activity, and type of the applicant ownership. Also, this study will present the measures taken at national level for supporting ordinary people to access European funds. Have these measures failed to achieve their goal? The study proposes a discussion on the well-known bureaucrats from Romania. Furthermore, the paper will outline the predictions about the number of eligible projects in the rural area financed by European funds for agriculture in the period 2014-2020 in current conditions, needs and availability.*

*The second part of the study aims to analyze the effects of European funding project preparation using a software application in a much shorter time than the classic preparation, with zero costs for the funds applicant and with a guaranteed eligibility. What are the costs for this application and how much it will influence consulting companies? This application can form the basis of the future food and agricultural stock market on a national level, that will be accessed from anywhere in the European Community. This application aims to solve a common problem on national level. It concerns the small and medium farmers who does not know the supply and demand of a particular agro-food market, thus causing the establishment of plantations whose products have no demand on the market or the offer is very high, both cases resulting in a lower sale price.*

*Chapters:*

- 1. The analysis of EU funded projects for agriculture in Romania*
- 2. The software application description*
- 3. Conclusions*

**Keywords:** *agro-food products, demand and supply, EU project, project applicant, software application.*

### 1. INTRODUCTION

Romania is one of the EU member states starting with January 2007. However, Romania is struggling to cope with the demands of the European Communities on any plan. Romania's general problem is the big corruption from the lowest level to the highest level, the lack of state involvement in the welfare of its citizens and the lack of a strong plan regarding the country development on any level: economical, political and social. To be able to develop the basic idea of this paper, is necessary to present a few istorical facts that have happened in Romania and had a big influence on the present Romanian economy. I'm reffering about the Revolution from December 1989 when the communist regime was removed and the people regained his freedom. The new democratic government started a plan of economical reforms for the country and also it started the transition from a communist regime to a democratic regime, a transition that was very rough for the Romanian people and problaly still is, after 25 years of democracy. In February 1991, the Romanian government from that time issued a controversial law in my opinion, *The Land Law* or the *Law no. 18/1991*. The basic idea of this law was the appropriation of agricultural land in agricultural areas exceeding 10 hectares to

the families who owned land before the collectivization imposed by the communist regime. Therefore, families were given land up to 7.465 thousand hectares from a total agricultural land that Romania had at that time of 9.341,5 thousand hectares (according to the statistic data provided by *National Institute of Statistics – INS*). The good part of the law was that after years of communist regime while the Romanian peasant was forced to work the land that was entirely owned by the state, he had now the satisfaction to work his own land as he thought best. This was done for a while, much of the excitement of owning the land. But in time, not having financial capital and advanced technology to work in agriculture, the Romanian peasant gave up working the land acquired, preferring to give it on lease, and he, as an individual, migrated to areas where the income was much higher for the same amount of work performed. Because of the difficulties encountered in agriculture, Romanian peasants took to the West to countries like Italy, Spain, Germany, etc. The bad part of the law was that the land reform in Romania was made chaotically, without a well-established plan that suppose to develop the agricultural area in Romania. A peasant family may be allotted a maximum of 10 ha, but the arable land was divided into several lots, lots with an average size between 0.5 ha and 2 ha. Since 1950, in Europe, through agrarian policies, went a long process of consolidation of agricultural lots.

*"The transition to agriculture in the former socialist countries to market economies bring into question much disputed issue regarding the superiority of large and small agricultural production. Mercantilists were supporters of small farms, considering it capable of maximum intensity. Physiocrats, a part of British classics and the Marxists claim superiority of large farms, the only ones able to obtain an economic surplus for the existence of society. The economists that follow the middle situation consider that in a healthy state must prevail the medium farms, as for the large farms and very small ones, should only be an exception."*<sup>47</sup>

*Table 1.: Agricultural holdings with agricultural area in Romania  
(to EUROSTAT datas<sup>48</sup>)*

<b>Dimension</b>	<b>number of farms (thousands)</b>		
	<b>2003</b>	<b>2005</b>	<b>2007</b>
<i>under 5ha</i>	4205.08	3870.72	3530.72
<i>5-20 ha</i>	256.29	355.48	370.12
<i>20-50 ha</i>	9.48	16.12	16.11
<i>bover 50 ha</i>	14.05	13.83	14.40

<sup>47</sup> Prof. Dr. Alexandru Tofan, *Dimension economice des exploitations agricoles*, 2005/2006

<sup>48</sup> [http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/farm\\_structure/main\\_tables](http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/farm_structure/main_tables)

*Table 2.: – Comparative situation of agricultural exploitation in EU and Romania, 2003(L’agriculture dans l’Union Européenne – Informations statistiques et économiques 2005)*

<b>Farm Size (ha)</b>	<b>Uniunea Europeana (25)</b>			<b>Romania</b>		
	<b>Number of exploitations</b>	<b>% from the total number</b>	<b>% from total agricultural area</b>	<b>Number of exploitations</b>	<b>% from the total number</b>	<b>% from total agricultural area</b>
0-5	6110,1	61,9	6,2	4205,1	93,8	35,5
5 - 10	1293.7	13,1	5,9	218,9	4,9	10,3
10 - 20	974.4	9,9	8,8	37,4	0,8	3,4
20 - 50	823.1	8,3	16,6	9,5	0,2	2,0
> 50	669.3	6,8	62,5	14,1	0,2	48,8
Total	9870.6	100,0	100,0	4484,9	100,0	100,0
Medium dimension (ha)	15,8			3,1		

## 2. THE ANALYSIS OF EU FUNDED PROJECTS FOR AGRICULTURE IN ROMANIA

Starting with 2007, in Romania were implemented several rural development measures. One of the most important measures applied in the rural area was the 112 Measure for young farmers and 141 Measure for supporting semi-subsistence farms.

*Table 3.: Measure: number of submitted and accepted projects (APIA datas)*

<b>M 112</b>	<b>2009</b>	<b>2010 session 1</b>	<b>2010 session 2</b>	<b>2011 session 1</b>	<b>2011 session 2</b>	<b>2012</b>	<b>TOTAL</b>
The amount allocated per session (euros)	55.000.000	61.426.400		50.000.000		120.886.096	287.312.496
Maximum value of a project (euro)	25.000	25.000	25.000	25.000	40.000	40.000	X
Number of projects submitted	2.702	1.898	1.311	4.083	3.865	7.974	21.833
The number of projects selected	2.290	1.758	1.138	534	182	986	6.888

<i>Public value of the selected projects (euro)</i>	48.793.000	35.483.000	22.194.000	9.339.000	6.840.000	28.844.000	151.493.000
<i>The average value of the project selected (euro)</i>	21.302	20.184	19.502	17.489	37.582	29.253	X

*Table 4.: 141 Measure: number of submitted and accepted projects*

<b>M 141</b>	<b>2008</b>	<b>2009</b>	<b>apr.10</b>	<b>nov.2010</b>	<b>2011</b>	<b>2012</b>	<b>Total</b>
<i>The amount allocated per session (euro)</i>	47.607.740	N/A	75.000.000	150.000.000	N/A	112.739.890	385.347.630
<i>Public value of the submitted projects (euro)</i>	48.315.000	N/A	101.782.500	123.022.500	N/A	191.152.500	464.272.500
<i>Maximum value of a project (euro)</i>	7.500	N/A	7.500	7.500	N/A	7.500	X
<i>Number of projects submitted</i>	6.442	N/A	13.571	16.403	N/A	25.487	61.903
<i>The number of projects selected</i>	6.262	N/A	12.135	16.104	N/A	14.161	48.662
<i>Public value of the selected projects (euro)</i>	46.965.000	N/A	91.012.500	120.780.000	N/A	106.207.500	364.965.000
<i>The average value of the project selected (euro)</i>	7.500	N/A	7.500	7.500	N/A	7.500	X

There is a possibility that between 2014-2020, the Romanian request for accessing EU agricultural funds with 141 Measure to be very high. By analyzing the EUROSTAT datas, in 2007 there were 3.530,72 thousand of farms with the dimension under 5 ha, and only 6.442 submitted projects from wich were chosen 6.262 projects in 2008. According to the datas from the Table 3, the total number of submitted projects for 112 Measure until 2012 is 21.833. For a medium cost of 1000 euro for elaborating a project, amount requested by intermediars, we have a total amount of 22 mil. euro, amount that could be used in developing the Romanian agriculture and not to be given to intermediars. Also, the higher is the amount offered by EU for 112 Measure, the higher is the number of submitted projects. There were 9994 submitted projects between 2009-2011, when the maximum value of the EU fund was 25.000 euro and 11.839 submitted projects for 2011-2012 (session 2 for 2011), when the maximum value of the fund was 40.000 euro. When the maximum value of a project increases with 60 %, we have an increse of 18,46% for the number of submitted projects. For the future, the maximum value o a project could increase to 70.000 euro, according to European Union predictions. This could lead to a number of 14.000 submitted projects, increasing until 2020 up to 35.000 of projects. The "traditionally" way of accessing European funds by the



subsistence or semisubsistence farms and young farmers is done through a intermediary company, in most cases. This intermediate facilitates access to European funds at an average price of 1,000 euros. The period of time for preparing a project is approximately 2-3 months. With all "diligence" of intermediaries, the project acceptance rate is 30,6 % for 112 Measure and 78,61 % for 141 Measure. This acceptance rate is influenced primarily by the lack of experience of intermediaries in development projects, poor aspirants' information, corruption and the difficulty of communication with Romanian territorial administrative institutions.

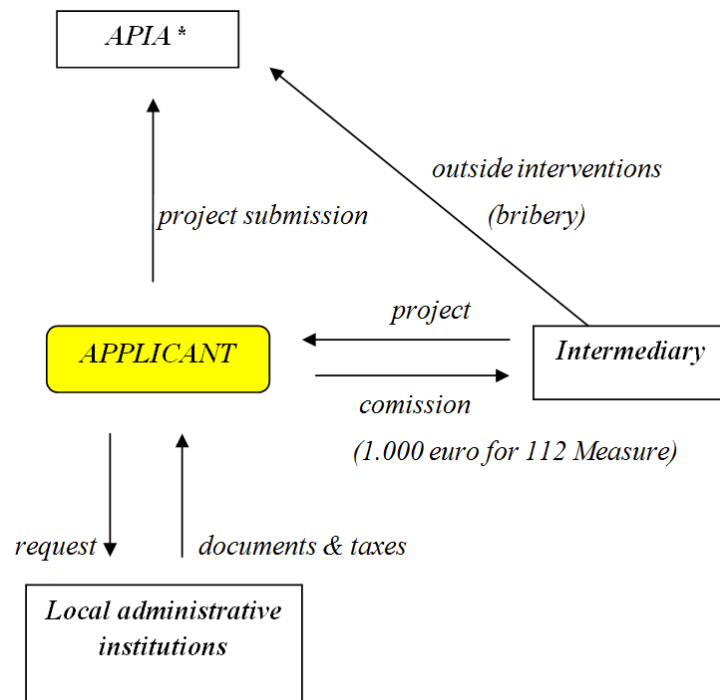


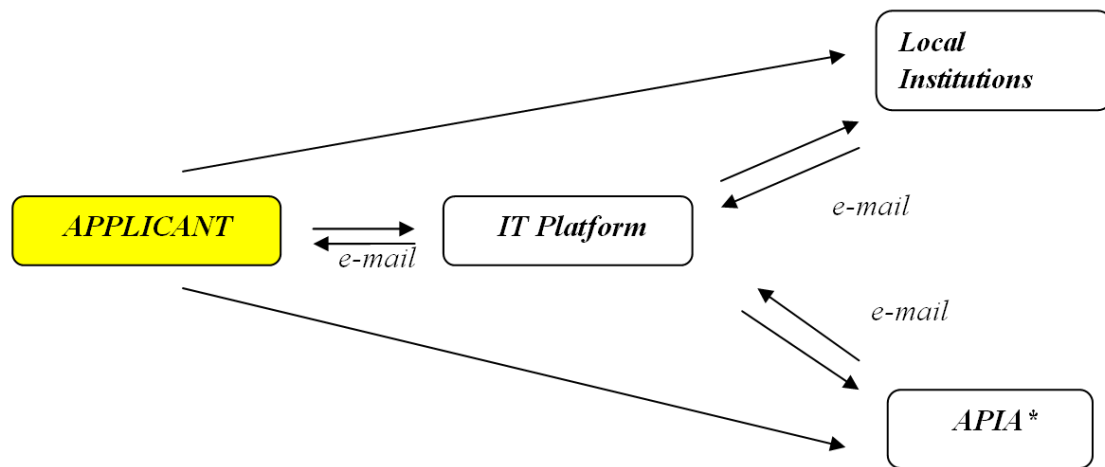
Figure 1.: "Traditionally" way of submitting and acceptance of a project for EU funds for agriculture

### 3. THE SOFTWARE APPLICATION DESCRIPTION

The IT platform created for all the Romanian farmers application in order to help them in accessing more EU agricultural funds will work by the following steps:

1. Accessing the platform.
2. Introducing technical datas regarding the farm in order to find out if the submittant is eligible for accessing EU funds and what kind of Measure is suitable for his farm and what are his choices.
3. Checking the datas introduced by the submittant with APIA datas (official datas).
4. Reccomandation for buying a digital signature for signing in the future documents.
5. Validation of the account and signing the contract with the platform. After validation, the application will automatically send requests to the local administrations to release the necessary documents via e-mail. These documents are necessary for submitting the project.
6. During processing the papers, the submittant is filling a questionnaire regarding his future activity of the farm.
7. After receiving the documents from the local administrations, the platform will elaborate the entire file for the submittant.
8. The IT platform will automatically send the project to APIA.

The purpose of this on-line platform is to eliminate losing time with going to all institutions for bringing together all the necessary documents for submitting the project and will also decreasing the bureaucracy and corruption in Romania. Everything will be ON-LINE, without intermediars.



*\*Payment and Intervention Association for Agriculture*

*Figure 2.: The case of IT platform solution for submitting and acceptance of a project*

#### 4. CONCLUSION

My solution for ending all these problems in accessing European funds in Romania, is to create an IT platform that will be able to help the applicant to elaborate an eligible business project for accessing European funds for agriculture. The nationwide implementing costs for this IT project are around 2 mil. euros and for each initiated project the cost will be around 50 euros.

The platform will:

- Permanently communicate with the applicant, offering all the needed information (reducing the bureaucracy)
- Help the applicant to elaborate an eligible project for accessing the funds
- Easy communication with the local administrations (online communication)

The advantages of such a platform are the following:

- The acceptance rate of the projects will be over 60%
- The business plan will be elaborated in 2 or 3 days
- The communication with the local institutions will take maximum 7 days
- No costs for the project initiator
- 50 euro/project supported by EU instead of 1.000 euro requested by intermediars
- The project analysis and acceptance waiting time will be reduced

Currently there is no such an IT program to help the applicant in business plan development, due to political interests. This will generate, according to demand projects, in three years, a total of 100,000 thousand projects, which corresponds to 100,000 self-employed in rural areas (at least).

The data base used by this platform will be composed by all the data bases offered by Romanian National Institute of Statistics (INS), APIA, EUROSTAT and other institutions and will generate datas regarding:

- Labor force
- Number of farms
- Agricultural area
- Soil fertility
- The type of plants that can be cultivated
- The medium production for ha
- The necessary technology

This IT platform is addressing to young farmers, subsistence farms and semi-subsistence farms, commercial farms enterprises. No matter of the organizational type of the farm, this platform is opened for those who own agricultural areas between 0 - 50 ha.

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## **NANOTECHNOLOGY AND LITHIUM: A WINDOW OF OPPORTUNITY FOR BOLIVIA? ADVANCES AND CHALLENGES**

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### **ABSTRACT**

*The potential of nanotechnology (NT) has surprised the world over the last decade, and its products are now found in all sectors of the economy. Policy makers talk about NT as the next industrial revolution that will reconfigure the global economic map. This optimistic vision, in which all parties will gain international competitiveness through the development of NT, is explicit in programs of research and development (R&D) and in national innovation systems (NIS). However, a less optimistic vision exists, which argues that NT is being developed in a world in which the concentration of capital assures that only the most developed countries, or those developing countries with large GNPs, are able to utilize the advantages of NT to improve their international competitiveness. In this article we call attention to the very particular example of Bolivia. The Bolivian case is unique for two reasons. First, in 2009 Bolivia opened its first NIS, the Bolivian Innovation System (SBI – Sistema Boliviano de Innovación). However, unlike its regional peers, the Bolivian program is not based primarily on the concept of competitiveness, but rather that of “vivir bien” (living well). While this concept may sound romantic, it reflects a political position oriented toward national capacity development in such a way as to serve the interests of the majority of the population. This explicit and direct connection between R&D, innovation, and the needs of the population is distinct from the main current, which assumes an indirect connection between increasing competitiveness and improving quality of life, with the market as an intermediary in the distribution of resources. Second, Bolivia has, supposedly, the largest lithium reserves in the world, although they are not yet in production. Lithium has become a strategic resource over the last 20 years, largely because it has displaced silicon as a battery component, due to its greater efficiency (in weight, size, and durability). With the arrival of electric cars to the consumer market in 2010 the international demand for and price of lithium has shot up, leading some to call Bolivia the next Saudi Arabia. However, lithium battery technology is not fully mature. One of the main problems is the highly flammable nature of lithium. This is where NT comes into play. In the last few years, following massive research efforts, lithium batteries have been developed and brought to market in which the electrodes are coated in NT products, which significantly decrease charging time and increase the lifespan of the batteries. These characteristics leave Bolivia without the R&D capacity to jump on the NT bandwagon, but still able to benefit, indirectly, from the development of NT if the lithium development efforts of the SBI prove effective. This paper seeks to show the relationship between SBI and the potentials of lithium, showing not only the possibilities, but also the intrinsic difficulties.*

**Keywords:** *Nanotechnology, Lithium, Bolivian Innovation System, Bolivia.*

## 1. INTRODUCTION

Nanotechnologies (NT) are revolutionary because materials manipulated at the nanometric scale display different mechanical, chemical, optical, magnetic, and biological properties than the same materials at larger scales. This property allows functions that until now had only been possible with certain materials, to be achieved with other materials. Certain industries could change their primary materials, or use a mix of new materials and traditional materials, thus decreasing the volume of traditional materials that had been used. These changes could implicate a new international division of labor. In the last few years, we have seen a decrease in demand for cotton and wool in the textile industry, as synthetic fibers are used as substitutes. NT is revolutionizing this industry, as it moves from *commodities* to *specialities* (Mantovani and Zappelli, 2009). A Finnish NT center has recently developed a bio-polymer that can replace all the aluminum packaging used in the food and chemical-pharmaceutical industries<sup>49</sup>. These are examples of the revolutionary role that these new technologies can play in the supply and demand of raw materials, and consequently, in the international division of labor. However, because in the majority of cases the new technologies are being developed by large corporations or in the laboratories of developed countries, it is likely that the new raw materials will displace the market for natural raw materials, which in consequence will hurt many developing countries whose principle exports continue to be unprocessed traditional raw materials. A study by Sarma and Chaudhury (2009) analyzes the impact that the substitution of carbon nanotubes in place of copper could have on the Chilean economy. Traditionally, lithium has been used by industries such as ceramics, medicine, and others, but since the 1990s it has begun to be used as an energy storage medium in communication apparatus. The possibility of extending its application to automobile batteries has run into barriers due to the highly flammable nature of the mineral. By the beginning of the 21<sup>st</sup> century, through the application of NT to battery terminals, this barrier appears to have been overcome, increasing the speed at which the batteries can be charged and the efficiency with which they transfer the accumulated energy. Various auto companies estimate that in the next years, there will be electric cars in circulation using lithium batteries modified using NT. This implies a new boom for lithium as a primary material in an industry that supplies essential components to the auto industry as it transitions to electric cars, in a context where global warming reduction measures and “clean” industries are playing a leading role in the reconfiguration of global industry<sup>50</sup>. According to some estimates, Bolivia has nearly 50% of global lithium reserves, which puts it in a strategic position in relation to the boom in demand for the mineral. Unlike more common examples, in which the impact of new technologies further disadvantages developing countries within the international division of labor, the case of lithium in Bolivia constitutes an example to the contrary, where the demand by a growing global industry for a novel material, such as lithium, favors a developing country. Nevertheless, in order to convert natural wealth into capital, the resource must be tapped. Currently, Bolivia does not employ its lithium reserves, although projects have begun toward that end. Another problem is to ensure that the exploitation of natural resources helps in the development of the country. This is no trivial point, judging by the history of plundering mineral resources in Latin American countries, often without any significant

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<sup>49</sup>Source: <http://www.azonano.com/news.asp?newsID=17085>

<sup>50</sup> For example, Nissan of North America began construction in Smyrna, Tennessee a factory to produce lithium ion batteries to power its new zero emission car, the Nissan LEAF, which will begin assembly in 2012. The project has received support from the Loan Program for the Manufacture of Advanced Technology Vehicles, a 25 billion dollar program authorized by the US Congress as part of the Agreement on Security and Energy Independence of 2007. The program is designed to accelerate the development of vehicles and technologies that will increase the energy independence of the United States, create new means of transport, and stimulate the American economy. (Source: <http://www.t21.com.mex/news>)

development benefits for their societies. In this regard, Bolivia is experiencing substantial changes in its political structures, and in its focus on the role of R&D and territoriality on national development. This article aims to integrate the previously mentioned aspects. In the first section we analyze the characteristics of the mineral lithium and its uses in recent decades, highlighting the importance of demand from the battery industry, and the more recent demand from the electric car battery industry. In the second section we examine the current state of world lithium reserves and the strategic position of Bolivia. In addition, we review the market for lithium, highlighting the South American regional monopoly, with production in Chile and Argentina pertaining to the same “lithium triangle” in which Bolivian deposits are located, and the race by other countries to discover additional reserves. In the third section we analyze the characteristics of current political changes in the Bolivian government, highlighting its non-competitive discourse and emphasis on self-sustaining development, examining in particular the first-ever national R&D plan which was introduced by the new government. In our final reflections we seek to identify the principal technical-social difficulties that face Bolivian society in its quest to make lithium into a strategic resource oriented toward self-sustaining development, as the government has explicitly proposed.

## **2. CURRENT IMPORTANCE OF LITHIUM AT THE GLOBAL LEVEL**

In modern times, the discovery of atomic energy opened infinite possibilities for humanity, especially in terms of peaceful uses; however, its potential risks and military uses have been counterbalance factors. If atomic energy is considered as a solution to the “energy crisis,” its use generates highly toxic byproducts that last for centuries and requires high quality technical and environmental control. At present, the only sources of “clean energy” are hydroelectric, solar, and wind, though these have limited ability to satisfy industrial energy demand. For this reason, the search continues for alternative sources of energy like hydrogen, oxygen, liquid air, alcohol, etc., with a current emphasis on vegetation-based biofuels, though the problem with biofuels stems from the need for huge extensions of arable land to produce the required energy. Facing this panorama of an energy crisis and climate change brought on by large quantities of CO<sub>2</sub> emissions into the atmosphere, nature has provided the lightest element of all the metals: Lithium (Li).

### **2.1. What is Lithium and How Is It Used?**

Lithium (Li) is a solid alkaline element, and as such it is the lightest of all solid elements. It is found in a wide variety of minerals, but only a few are economically valuable<sup>51</sup> (Yaksic, 2008). There are two isotopes of lithium, Li<sub>6</sub> (7.5%) and Li<sub>7</sub> (92.5%). Lithium melts at 186° C and boils at 1,336° C. It is widely diffused within the earth’s crust, and accounts for 0.004%, forming compounds such as: silicates (spudomene, petalite), fluosilicates (lepidorita, or lithium mica), fluorphosphates (amblygonite), and phosphates. The most important mineral is spudomene (which is a double-silicate of lithium and aluminum, Li<sub>2</sub>O-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>), with principle deposits in Canada and the United States. It is obtained through flotation, with concentrations of 4 to 6% of Li<sub>2</sub>O. As a brine, the main reserves are in South America, in the salt flats of Argentina, Bolivia, and Chile (Yarsic, 2008; SQM, 2009b). Lithium is used as a primary material in diverse industries. According to the *Sociedad Química Minera*, SQM (2009b), its primary application is in batteries, with 27% of the total demand; lubricants make up 12%, glass and ceramics 8%, and air conditioners 5%, rounding out the main uses. Lithium

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<sup>51</sup> Lithium is found in natural brines, brines associated with petroleum wells, and in geothermal areas. The economically valuable brines are generally found in salt flats and saline lakes. In addition, lithium is found in various clays (with hectorite being the most important) and even in seawater.

6 is used to activate and control thermonuclear fusion, and lithium 7 is used in electric batteries, which can be recharged using solar power. Its use in the auto industry implies substantial change, as it will permit a change in the energy source used in vehicles, from highly polluting liquid or gaseous combustibles to the new era, that of the electric vehicle. The lithium ion battery is an electricity storage device that uses a lithium salt as the electrolyte to supply the ions required for the reversible electrochemical reaction that takes place between the cathode and anode. Among its principle characteristics are 1) the “lightness” of its components, 2) its high energetic capacity and resistance to discharging, and most importantly, 3) its capacity to operate under various recharging cycles (the absence of a “memory” effect<sup>52</sup>). Lithium ion batteries are widely used in devices such as cameras, laptop computers, cellular telephones, and PDAs, among others. In the recent past, lithium batteries offered good energy efficiency, but had the problem of low power, traditionally associated with the sluggishness with which the lithium ions circulated. It is here that the insertion of NT into industrial applications of lithium has been fundamental, starting from studies conducted about lithium ion batteries based on nanoparticles of titanate of lithium and with nanostructured anodes, which show improved function in comparison to the lithium ion batteries with graphite anodes<sup>53</sup> (IDEPA, 2007). that have been sold commercially since the year 2000. Specifically, the former can be used in high power applications, have a longer lifespan, have substantially shorter recharge times, and are safer due to their high thermal stability (IDEPA, 2007, p. 64).

## 2.2. Nanotechnologies Enter the Scene

When they are employed at the nanometric scale, which in practical terms is considered anything smaller than 100 nanometers, materials manifest different physical and chemical properties than those same materials exhibit at larger scales. This allows the use of previously known materials with new effects, and in situations that had been impossible otherwise. What’s more, the smaller the particle of the material, the greater the surface area to weight ratio, which implies a greater reactivity that facilitates physio-chemical processes. Today NT is applied in all productive sectors, and public incentives have grown exponentially since the year 2000, when the United States launched its public incentive program (the National Nanotechnology Initiative). Since the 1990s lithium has been considered the most efficient material for manufacturing various types of batteries. The first lithium batteries were introduced by Sony in 1991, but the quest to make devices smaller while increasing their capacity is never-ending. The current technological challenge is to create a device that is always connected to the internet, and that combines the functions of a cellular telephone, computer, entertainment center, camera, audio-recorder, and much more, all in a small, light device with long battery life and rapid recharge capacity.

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<sup>52</sup> This is a phenomenon that causes a decrease in the battery capacity, which occurs when the battery is repeatedly charged and discharged without having been completely discharged.

<sup>53</sup> Rechargeable lithium ion batteries with graphite anodes represented an advance from nickel-cadmium batteries by being lighter, less polluting, having better energy density, and not exhibiting memory effects in the charging-discharging process. All of this constituted important improvements in the benefits for use in mobile phones and laptop computers. However, looking to their application in new sectors or improvements in the sectors where they are already used, the batteries continue to display certain inconveniences, most importantly safety concerns in temperatures rising above 100°C, limited lifespan of the batteries, slow recharging speed, and limited power.

One of the technical problems of current batteries is their limited use-time before needing to be recharged, and the fact that as batteries age their ability to hold a charge diminishes. In addition, there is the flammability of lithium<sup>54</sup> (Vulcan, 2008). The batteries function by transferring lithium ions between the two electrodes of the battery (positive and negative) through a liquid electrolyte. The more efficiently the ions pass from one electrode to the other, the greater the capacity of the battery. Applying principles of NT to the coatings of the electrodes makes them more homogenous and consistent, allowing the lithium ions to penetrate the poles more easily and quickly. Currently the majority of batteries use graphite negative poles (anodes) and positive poles (cathodes) of different materials, such as magnesium, cobalt, iron phosphate, cobalt oxide, and lithium-iron phosphate.

Experiments with silicon anodes improve on the efficiency of graphite ten-fold, but the batteries are not stable. Nanotechnological compounds of graphite and silicon are being used to cover the anode and make the batteries more stable (Nanowerk, 2010); research is also being done with metallic zinc (Nanowerk, 2008) and other materials. Another alternative being researched is lithium-air in place of lithium ions. The advantage of these batteries is their substitution of air in place of solid compounds, which allows for a much lighter battery. IBM, General Motors, and other corporations are researching possibilities to use lithium-air. However, in this case they are using metallic lithium, which is highly reactive to the slightest contact with water. The revolutionary aspect of the use of lithium to make batteries lies in the possibility of incorporating these batteries in completely electric cars, with rechargeable batteries.

Although there are some experimental and small-scale commercial models in existence, such as the Chinese BYD, it is not certain that electric cars with lithium batteries will become a lower cost alternative to conventional cars that run on fossil fuels. In various forms, companies in numerous parts of the world have plans to introduce hybrid cars or totally electric models, some as early as 2010. Between 2009 and 2010 more than 30 businesses or corporations worldwide began to sell batteries that employ NT for use in communication devices and automobiles, which gives an idea of the growth that is only beginning. What's more, lithium batteries are already part of agendas for clean technology development, which is the buzzword in industrial policy around the world. Another interesting element to consider in relation to the worldwide demand for lithium is that, regarding small devices, the greatest demand comes from the military industry (Nanowerk, 2008), in which most modern military equipment requires batteries of small size and high capacity. This is important because the military sector is a consumer that does not dwell on cost-benefit relations; because of this, more efficient lithium batteries can have a strong market although their price may not be competitive with traditional batteries, thus supporting research and development without the ups-and-downs of market prices.

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<sup>54</sup> In 2006 Sony recalled 9 million batteries in the United States market, and in 2008 another 100,000 computer batteries had to be recalled by the same company.



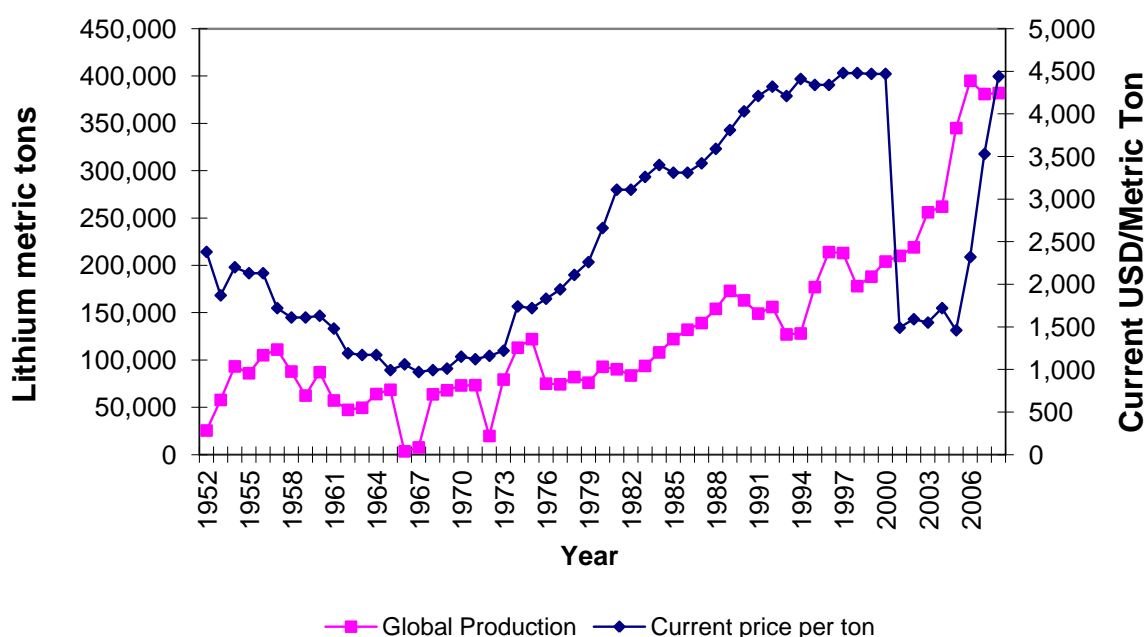


Figure 1: Price and world production of Lithium: (U.S. Geological Survey, Mineral Commodity Summaries. <http://minerals.usgs.gov/ds/2005/140/#lithium>)

If NT is jump-starting the world market for lithium, it is also driving the search for new deposits. The prices for minerals are the motor driving the search for deposits.

Figure 1 gives an idea of the evolution of the price per ton for lithium. After a sharp drop in prices during the first five years of this century, lithium has jumped in price and since 2006 has risen steadily. Production has remained essentially steady in the last four years, which leads one to think that new areas will be researched and developed.

### 2.3. Global Spatial Distribution of Lithium

The most important deposits of lithium-containing brines are found in continental saline lakes and in salt flats<sup>55</sup> (Yaksic, 2008), with the most important brines, in terms of quality and volume, are found in the north of Chile (Salar de Atacama), the west of Bolivia (Salar de Uyuni), the north of Argentina (Salar del Hombre Muerto), in various saline lakes in the United States, in the northeast of China (Qinghai province and Tibet), and in Russia. While the sources of lithium are diverse, only two sources for obtaining the element are economically feasible: from brines and from minerals<sup>56</sup> (Pimentel, 1998; Moscoso, 2003).

In relation to the analysis of future availability, there continues to be debate among the experts who follow the lithium market (Tahil, 2008; Evans, 2008; 2009; Garret, 2004; Zuleta, 2008). According to the United States Geological Survey (USGS), the proven global reserves

<sup>55</sup> Brines from salt flats are rich in lithium and other soluble salts (sodium, potassium, calcium, magnesium, chlorides, borates, and sulfates). The quality of the deposit depends mostly on the concentration levels of the diverse elements contained in the brine. The concentration of lithium in brines generally varies between 200 and 2,000 ppm.

<sup>56</sup> From both sources, the first transformation to obtain lithium forms lithium carbonate ( $\text{Li}_2\text{CO}_3$ ). In the second phase, lithium compounds are formed (lithium hydroxide and lithium chloride). The third phase obtains metallic lithium, butyl lithium, and organic and inorganic derivatives.

of lithium in 2008 amount to 11 million tons, and total resources (including proven and predicted reserves) totaling 13.7 million<sup>57</sup>. Meanwhile, Keith Evans (2008) estimates proven reserves amount to 30 million tons of metallic lithium, of which about 14 million tons (46%) are found in current operations. Using these figures, Evans maintains that preoccupation over the ability to meet future demand is unfounded. William Tahil (2009) critiques Evans estimations, and suggests that proven reserves only amount to 4 million tons of metallic lithium, and that total resources would be on the order of 17.3 million tons<sup>58</sup> (Lagos, 2009).

It is interesting to note that Chile, with the Salar de Atacama, Bolivia, with the Salar de Uyuni, and Argentina, with the Salar del Hombre Muerto, Rincon, and Olaroz, account for about 85% of the reserves of lithium brines, and 50% of total lithium reserves. This “lithium triangle” that is located in the border region between the three countries has led Forbes Magazine to refer to the region as the “Saudi Arabia of Lithium”<sup>59</sup> (Lagos, 2009).

## 2.4. The Global Lithium Market

In 2008 global metallic lithium production reached 27,400 tons (Lagos, 2009), showing an increase of almost 90% from the 13,000 tons produced in the year 2000, or an average annual increase of approximately 8%. Global production of lithium is concentrated fundamentally in four countries: Chile, which leads the market with 44% of production (from brines), followed by Australia with 25% (from spodumene), and China and Argentina accounting for 13% and 12% of global production respectively (from brines).

The high concentration seen in the geographic distribution of lithium mining among nations is mirrored in the concentration of production in just a few companies. Just three businesses account for nearly 77% of the global production of lithium. The largest market share is held by the Chilean company SQM (formerly Soquimich), with 30% of the market, with its production facilities in the Salar de Atacama; the American transnational Chemetall (subsidiary of Rockwood Holdings Inc.) is the second largest company with 28% market share and production facilities in the Salar de Atacama (SCL) and Silver Peak in Nevada, USA; FMC Corporation, with operations in the Salar del Hombre Muerto in Argentina, is the third company in terms of global importance, with 19% of the market. Otherwise, Talison Minerals – the only producer of lithium minerals in Australia – is the global leader in production of lithium concentrates from minerals, which are exported to China for the production of lithium carbonate and its derivatives (Lagos, 2009).

The expectations of future demand for lithium have pushed up prices in recent years<sup>60</sup> (Lagos, 2009). Between 1999 and 2008 the average price of lithium carbonate grew by 222%, which is an average annual growth on the order of 13.9%. After 2006, the price of lithium carbonate has stabilized at over US\$6,000 per ton. The global economic crisis since 2008 does not seem to have affected prices for lithium carbonate. This can be explained by the strong demand for lithium for batteries, and in particular the gamble by the auto industry to overcome its own

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<sup>57</sup> Source: <http://minerals.er.usgs.gov/minerals/pubs/commodity/lithium/mcs-2009-lithi.pdf>.

<sup>58</sup> Tahil's principle critique is the wide spectrum of deposits that Evans includes (in which the concentration of lithium varies from a minimum of 8 ppm up to 3,000 or more, such that many of the included deposits are not economically viable, especially compared to the deposits in South American and Chinese brines).

<sup>59</sup> Source: <http://www.forbes.com/forbes/2008/1124/034.html>.

<sup>60</sup> The prices are reported by “Industrial Materials,” who directly consult the principle providers and consumers of the lithium carbonate industry, since the lithium is traded directly through contracts between providers and consumers, and not through an exchange market.

crisis through the large-scale development of hybrid and electric models (Lagos, 2009; Zuleta, 2010). The global consumption of lithium has grown from 100 tons of lithium carbonate equivalent (LCE) annually<sup>61</sup> in the early 1900s to about 85,000 tons annually a century later (SQM, 2009a). It has been primarily in the last ten years that the lithium industry has experienced a considerable change, doubling the global demand for lithium carbonate (from 45,000 tons in 1990)<sup>62</sup> (SQM, 2009b). For the next 10 years, SQM (2008) projects annual growth of 5% in the demand for lithium. Of this growth, rechargeable batteries play a key role, with annual growth rates of 10%. Through 2018, rechargeable batteries will represent 42% of the demand (in 2008 the statistic was 27%), and those destined for vehicles will represent between 10% and 15%.

### 3. PROSPECTS OF BOLIVIAN LITHIUM

With reserves of 5.4 million metric tons (TM) of lithium, Bolivia has the largest reserves in the world (according to the USGS). The lithium brines of the Salar de Uyuni are the largest source, followed by the Salar de Coipasa and other smaller deposits, such as Salares de Empexa, Chiguana, Challviri, etc. All were designated Fiscal Reserves by Decree 21260 of May 1986. Since May 2008 the government has sponsored the construction of a pilot plant that will produce on the order of 480 TM of lithium carbonate per year. They hope to have the project fully operational in 2011. On the other hand, the government has announced that it will invest \$350 million in an industrial plant that will produce between 20,000 and 30,000 TM of lithium carbonate by 2015 (COMIBOL, 2009; Zuleta, 2009; 2010).

#### 3.1. Bolivia and Self-Sustaining Development

According to the official position, The new Bolivian state, established on January 25, 2010, is conceived as a transformative force for change, a driver and promoter of development. Its essential character is that it expresses a new power, which arises from popular sectors and indigenous communities, from rural communities and the working class of the city and country. It is a new state that represents a diverse society, participatory and fair, with solidarity, cooperation, and reciprocity as its defining features, in which the maximum possible level of collective wellbeing is reached, subordinating individual interests to social interests, and in which the spontaneous action of the market and the conscious foresight of state planning combine and compliment each other (MPDB, 2006, p. 14). The development proposal is based in the concept of “*vivir bien*” (living well), drawn from the indigenous and traditional cultures of Bolivia. Beginning from community elements rooted in indigenous, agrarian, nomadic, and urban societies, of the high and low countries, the proposal puts forward a cosmo-centric vision that goes beyond the traditional ethno-centric bounds of development. As such, “*vivir bien*” should be understood as access to and use of material goods, and effective spiritual and intellectual fulfillment, in harmony with nature and with the community of human beings. It also means “*vivir bien contigo y conmigo*” (living well together), different from the western idea of living *better*, which is individual, apart from others, including at the expense of others and removed from nature (MPDB, 2006, p. 10).

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<sup>61</sup> This refers to the measure of equivalence between metallic lithium and lithium carbonate, with a relation of:

$$\frac{\text{Li}}{\text{Li}_2\text{CO}_3} = 5,28$$

<sup>62</sup> Currently, of the global demand for lithium and its derivatives 46% is for lithium carbonate, 21% for lithium concentrate, 13% for lithium hydroxide, 5% for butyl lithium, 4% for metallic lithium, 3% for lithium chloride, and 8% for other derivatives.

According to the Bolivian Ministry of Planning and Development (MPDB), “*vivir bien*” refers to a standard of development (in place of a primary export standard) and integral, plurinational, and diverse democratization. Defining the standard of development as a fundamental structure that goes beyond economic accumulation and is fundamentally concerned with cultural freedom to decide, with respect to diversity and difference, social heterogeneity, and the way that based on these elements life, society, and the state are organized, it is necessary to incorporate the notion of “democratization.” That is to say, this is a standard in which development and democratization have linked, simultaneous, and parallel importance. Development cannot exist without democratization, without the extension of social participation in actions and decisions about policy, the economy, and culture (MPDB, 2006, p. 12-13). In this context, under the notion of the plurinational state and its institutionalization with the approval and application of the new Bolivian constitution, in the following we present an analysis of the Bolivian Innovation System (SBI) framed by the concept of “*vivir bien*” as the ultimate objective. In particular, we consider the role of lithium as a pillar that could allow the Bolivian state to jump from its current innovative passivity to establish a new standard of integral, diversified development, based on the formation of a new productive matrix with higher added value, supported by industrialization of natural resources, enhancement of human potential, and sectorially and regionally balanced and articulated development.

### **3.2. The Bolivian Innovation System (SBI)**

The capacity and spirit to innovate have always provided benefits in the quest for better quality of life, with more opportunities for human beings. Inventions, discoveries, improvements and designs have been present throughout history, forming part of the accumulation of knowledge and initiatives, which serve as tools in the rational utilization of natural resources. However, not all societies take advantage of these capacities and skills; in consequence, humans have been divided into groups of innovators and users of innovations. This division has affected countries, and therefore their productive, service, economic, and social systems, endowing them with greater or lesser competitive potential (SBI, 2009, p. 6). Currently, innovations come from countries that research, develop, and foster innovative activities, and accordingly are more developed and industrialized. In reality, statistics and indicators show that, with a strong scientific and technological apparatus, these countries are the developers and purveyors of new technologies, which continually they discover, invent, and innovate processes, products, and services in a highly efficient manner, and with a high impact on production in comparison with countries that have not developed these types of activities. In the course of Bolivian history, developing a system of research, technology, and innovation has not been a priority, such that now required goods and technologies across all sectors must be imported from abroad. This explains why until now solutions have not been achieved for the problems in the productive apparatus, showing that past and current solutions imported from abroad are, in most cases, formulated for general situations and not for the specific local situations, time, and circumstances (SBI, 2009, p. 7-10). This situation derives from the fact that Bolivia lacks the mechanisms and agents to facilitate these activities and allow direct interaction between the generators and consumers of innovations, showing the need to generate a structure with the capacity to coordinate and facilitate these interactions. The SBI is supposed to be this structure, conceived within the framework of the historical, geographical, and cultural particularities of the country, through which it will be possible to break the pattern of dependency in technology and knowledge, which for centuries has maintained the colonial model.

Acknowledging that R&D is a fundamental tool to change the pattern away from primary exporter through the processing of natural resources, Bolivia has defined a role for R&D in the solution of local, regional, and national problems in productive and social spheres, and in the generation of a scientific culture across all levels and areas of life. The current situation is characterized by (1) a limited export capacity, with products whose standards of quality and volumes of production are insufficient for external markets, (2) exports concentrated in primary materials with very little value added, (3) high technological dependence, (4) use of technologies that in many cases are obsolete or utilized well under capacity, (5) little coordination or cooperation between research centers, universities, and other institutions dedicated to research, leading to results with little sectorial or regional impact (SBI, 2009, p. 10; MPDB, 2006). The institutional structure that ensures interaction between the scientific-technological sector, the productive sector, and the state will be the SBI, through which it will be possible to break the pattern of dependence in technology and knowledge, which for centuries has maintained the colonial model. The conformation of a strengthened and dynamic scientific-technological sector with a high academic level would have sufficient capacity to give transformative responses to local and regional problems, and to examine social and natural realities through the use of knowledge as a development tool. The valorization and systematization of local knowledge and the establishment of a scientific culture, through universal access to knowledge and techniques, form the main purpose of this development model. As such, it says will contribute to a new standard of development through the generation of knowledge and technology, and its application in productive processes and in the solution of serious national problems: the development of a new national productive matrix through processes of innovation that link the scientific-technological sector with the productive sector; the incorporation of local and indigenous knowledge into the field of scientific knowledge so it can be valorized and applied in development; the development of a scientific culture through the extensive diffusion of science, technology and innovation (CTI – *ciencia, tecnología, y innovación*) to promote the appropriation of knowledge in a framework of inclusion and reciprocity; and finally, to see to it that CTI are cross-cutting themes and, coordinating across sectors, to put into action inter-sectorial programs and projects, specifically within a general plan of CTI (MPDB, 2006, p. 181-182).

The National Development Plan (NDP) sets as strategic objectives the reconfiguration of the productive matrix, reorganization of the exercise of power, independence in the management of the state, and a new relationship between Bolivians within a framework of solidarity, thus creating a productive, democratic, sovereign and dignified Bolivia, by establishing a new bond between women and men, and between human beings and nature, as defined in the idea of *vivir bien*. The NDP states that science and technology form fundamental instruments and tools to change the pattern of primary production and export, both through the development of means to process our natural resources, and the incorporation of new products into the market (SBI, 2009; MPDB, 2006). In the overall vision of R&D and in the functions established in the NDP we can identify three main policies, following the official documents, that can be functionally translated into strategies and programs:

1. CTI in an integrated nation such that productive development promotes sovereignty and social inclusion,
2. inclusive scientific culture to create a knowledge society with its own characteristics,
3. the recuperation, protection, and utilization of local, ancestral, and technical knowledge.

Within these policies, the proposal of the SBI, as a central program of public policy, is based on the need to link the public, knowledge generating, and CTI employing sectors, supporting the capacity of institutions connected to innovation as well as strengthening strategic institutions.

### 3.3. Conceptual Framework of the SBI

In the Bolivian experience of applying the neoliberal model (since the 1980s), the competitive apparatus was geared toward “competitiveness,” particularly looking to the external market. This was achieved partly through reduction in the costs of production. To achieve this effect, businesses resorted to a variety of strategies, among which stand out salary reductions and labor flexibilization (super-exploitation and appropriation of surplus value), tax reductions and evasion, tariff reduction, non-compliance with environmental standards, etc. In very few cases did they seek competitiveness through new or better-quality products or processes, as this would require engaging in a process of innovation, or generation of knowledge for the development and application of technologies. The NDP orients development toward CTI as instruments with the capacity to support a change in the country’s productive matrix toward holistic development in harmony with nature. A change in the productive matrix presupposes the incorporation of added value to primary production, both for the local market and for export. This type of proposal requires innovation in technical processes such as can be achieved through the generation, appropriation, and diffusion of R&D commensurate with an integral vision, improving the interconnection between the suppliers and consumers of technology, and at the same time incorporating local and ancestral knowledge. As such, the SBI is defined as a group of interrelated and complimentary actors who utilize CTI in a coordinated and constructive form in the generation of holistic solutions to productive, social, and environmental problems, with a focus on participatory, equitable, and sustainable development. Following this logic, *innovation* is defined as the incorporation of knowledge into the productive and social systems that generate new or improved products, processes, and uses to solve local, regional and national problems, moving naturally toward the goal of *vivir bien* (SBI, 2009; MPDB, 2006). While “classic” innovation theory (Freeman, 1987; Lundvall, 1992; Nelson and Rosenberg, 1993; Niosi, Saviotti, Bellon and Crow, 1993) argues that innovation is a gradual and accumulative process that is always present in the modern economy’s vast, dynamic system, allowing one to trace the aggregate innovation process through the interconnected institutions that create, maintain, and transfer the knowledge and skills that define new technologies<sup>63</sup> (Niosi, 2002, p. 292); the SBI also makes explicit reference to social learning that leads to a collective construction of knowledge as part of a complimentary process between scientific knowledge and local and ancestral wisdom. In this definition, the SBI recognizes the presence of a productive, social, and institutional triad. The first (productive) is related to the development of sustainable practices in productive processes. The second (social) is directed toward social action in the face of realities of poverty, marginalization, discrimination, and exclusion. Finally, institutional innovation is related to the promotion and employment of the processes of innovation (SBI, 2009, p. 29). In synthesis, the SBI is supposed to form a fundamental pillar that organizes and leads innovation toward the consolidation of a knowledge society, toward a new inclusive and

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<sup>63</sup> Freeman (1987) defines national innovation systems (NIS) as networks of institutions in the public and private sectors whose activities and interactions initiate, import, modify, and diffuse new technologies. Lundvall (1992) understands NISs as elements and relations whose interaction in production, diffusion, and economically viable utilization of knowledge is localized within the boundaries of a nation state. For Nelson and Rosenberg (1993) the NIS is an aggregation of institutions whose interactions determine the innovative performance of national businesses. For Niosi et al (1993) a NIS is a system where public and private (large and small) companies, universities, and government agencies interact with the objective of producing R&D within national boundaries. Patel and Pavitt (1994) understand NISs as national institutions that determine the direction of technical learning (or the volume and composition of change generating activities) in a country. Metcalfe (1995) states that the NIS is a grouping of distinct institutions that contribute collectively or individually to the development and diffusion of new technologies and that provide the structure within which government policy can influence innovative processes.

reciprocal scientific and technological cultural paradigm, as a foundation for *vivir bien*. The SBI should become a system with the ability to convert the results obtained in the knowledge generating sector into technically and economically viable solutions for innovation consumer sectors; toward this end the SBI creates conditions that enable connection and interaction between the public, knowledge generating, and innovation consumer sectors. It links the consumers of innovation products, processes, and services with the generators of knowledge and technology, and designs and implements mechanisms and instruments that facilitate the realization of processes of innovation in a sustainable manner.

#### 4. CONCLUSION

Bolivia is in a potentially advantageous position for the utilization of lithium for two reasons: the global boom in demand, and its potential reserves. Lithium is strategic for Bolivia, as it accounts for over half of worldwide reserves of the mineral. If Bolivia uses this opportunity for the benefit of the nation, it can position itself in the global lithium market, developing in this way the national project according to the guidelines of the new state.

The Bolivian government, through its lithium utilization programs and the SBI, intends to propel the development of the country in a different direction, distinct from the historical exploitative extraction of minerals that did little to improve the quality of life of the population. Toward this end, the SBI and development projects incorporate three novel concepts in terms of the history of mineral extraction in Bolivia: (a) the need for an innovation process that internally generates the capacities for extraction and processing of lithium; (b) the incorporation of traditional knowledge and participation of the workers in the project (When we speak of traditional knowledge, it does not refer to the utilization of lithium, but rather to the forms of collective organization and labor, which facilitates the integration of the workers into the labor process.); and (c) the question of territoriality, which leads to a development of consciousness regarding the exploitation of nature, and its potential results for the population following, or at times in opposition to, the competitive tendencies of the market. However, there are still enormous difficulties. On one side, the extraction of lithium has a high level of monopolization (just a handful of corporations has the “know how”). On the other side, there is the global race to obtain additional reserves and innovate alternative methods for car batteries, which raises the question of the “moment” as a key topic, since the possibility of developing the conditions nationally will take time, perhaps more time than the market will support with sustained demand and high prices for lithium, questions that need to be evaluated. Another issue is the relative lack of qualification in Bolivia in terms of R&D. Foreign businesses and governments, furthermore, have lined up to court the Bolivian government, which has tried to achieve the best possible agreements for the benefit of its people. Among the primary interested parties are two Japanese powers, Mitsubishi and Sumitomo, the second of which already has a stake in the controversial San Cristóbal Mine, known for polluting the same region. The French electric vehicle producer Bolloré is also courting them, along with the governments of South Korea, Brazil, and Iran. The Bolivian government has outlined a general plan for various phases of its ambitious lithium project, but many of the details of how it will be carried out are yet to be defined. To enter into the technical and economic world of metals, it has invested in the construction of a pilot plant in the Salar de Uyuni. Based on information obtained through the experience in this plant, the government is planning construction on a much larger, industrial scale, to be followed by a third phase to produce marketable lithium compounds, which the government is expected to complete in partnership with foreign investors. In practical terms, the Bolivian government is doing some things right, like starting the industrialization program. However, there are other things that could turn out poorly along the road they are following toward

lithium utilization. In the uphill battle to achieve the dreams of Bolivians about lithium, there is, beyond questioning, a first step that must be taken: to recognize and understand the economic, environmental, territorial, social, and capacity challenges that face the country. This allows us to raise the question of whether the present situation does or does not present a window of opportunity for Bolivia, with all that represents.

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## RELATIONSHIP BETWEEN HUMAN CAPITAL AND ECONOMIC GROWTH EMPHASIZING SOCIALIST AND OIL-PRODUCING COUNTRIES

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### **ABSTRACT**

*This paper aims to analyze the effect of human capital on economic growth. Linear regression models with ordinary least squares method have been used for the analysis in which the dependent variable of Gross Domestic Product (GDP) per capita growth is decided according to real price and independent variables for human capital are enrollment rate in different education levels and also literacy rate. For control variables, socialist countries and petroleum exporting countries are fed into the regression as dummy variables. The cross-country data of this research are provided and calculated in a sectional manner according to the information and statistics of the World Bank. The results of this research are demonstrative of the positive and statistically meaningful influence of the variables of enrollment rate in secondary schools and literacy level on GDP growth. Countries with socialist backgrounds and petroleum exporting countries also have a positive and meaningful effect on GDP per capita growth.*

**Keywords:** *human capital, economic growth, socialism*

**JEL Classification:** B24, O40, I20

### **1. INTRODUCTION**

Theoretical and experimental studies have shown that human capital resource is also another main source for countries growth rate apart from their physical capital. Human capital includes different attributes like health, knowledge, skill, and other acquired abilities levels, increasing individual productivity and ending in economic growth at a large scale (Mousavi Jahromi, 2000). Adam Smith, the most renowned classical economist believes that education increases people abilities and, in turn, the ability growth calls not only more incomes for the ability owners but also benefits for the society from investigation in them. In Smith's thought, the developed abilities of work force, in fact as a capitalist means, incur increases in the production productivity level (Emadzadeh, 1995). The concept of human capital was first introduced by Schultz in the early 1960's. He won a Nobel prize for his research on education and human capital, better known as the father of human capital. In his eyes, humans acquired abilities are assumed the most important source for productivity growth and economic development. In his studies between 1929 and 1956, he showed that 20 to 40 percent of the US national income was aimed at educational investments (Schultz, 1961). Romer (1986) also divided production agents into physical capital and human capital (work, thought, idea, and knowledge force). He measured the human capital according to the number of education years and the education according to the number of the inventions registered in a country. The general concept of Romer analysis is that the human capital level, like education and scientific talent, is in solidarity with the growth rate of income per capita. Psacharopoulos (1986) has conducted comprehensive research in respect of the return rate of education investments in developed and developing countries. His findings resulted in a homogenous

pattern of educational returns easily detectable in different places of the world. This pattern is based on that: 1. Developing countries, in comparison to advanced industrial countries, have a relatively higher educational return. 2. The highest rate of the private and social investment return of education is in coincidence with primary education. 3. Men's educational return in primary and higher education is more than women's while women have a higher return in secondary level in comparison. Manikiw, Romer, and Weil (1992) in the article "A Contribution to The Empirics of Economic Growth", first studied the Solo pattern and estimated it for different countries by means of sectional data, then added human capital as one of production agents to the pattern and estimated it for the same countries. In their analysis, work force and capital were used as independent variables. They used the enrollment rate in secondary education as a substitute for human capital and concluded that the human capital variable meaningfully affected the economic growth. Gemmell in his study "Endogenous Growth, The Solow Model and Human Capital", has investigated the relationship between human capital and production per capita growth rate. He estimated the MRW model for OECD countries and less-developed countries by means of cross-sectional data during the period of 1960-1985, using students enrollment rate as the human capital variable. The results were indicative that in most of the cases the influence of the secondary and higher education enrollment rate on the production per capita growth rate was statistically meaningful. Ranis and Stewart (2000) in a study titled, "Dynamic Links Between The Economy and Human Development" look at the mutual relationship between economic growth and human development. It was carried out for 69 developing countries using ordinary least squares method, according to cross-sectional data. They believed that the relationship between economic growth and human development was mutual implying that education could increase economic growth and economic growth paved the path of human development in the society that was demonstrative of a positive and meaningful relationship between economic growth and human development and vice versa. In a word, this study shows that both of these variables could affect each other. Mir Mohammad Sadeghi (1996) in the study, "The Relationship of Education to Economic Growth: A Cross-Country Analysis" estimated the relationship between enrollment rate and Gross National Product (GNP) growth per capita by means of simple linear regression method using sectional data, for 98 countries. In this study, two dummy variables were used for the Organization of the Petroleum Exporting Countries (OPEC) and the East Asian Countries (EAC). The results of this research suggested that the primary and secondary school enrollment rate and GNP growth per capita had a positive and meaningful relationship and the relationship of secondary enrollment rate with economic growth was stronger and its regression better than that of primary enrollment rate. The dummy variable of OPEC changes the intercept of regression downwards in the model and the dummy variable of EAC pulls that upwards. Economic growth and development are among the preliminary and prominent goals of every economic systems, and therefore, the investigation of the factors affecting them is of high importance. The human capital of every country can directly or indirectly affect the economic growth of that country. Economic systems of countries, specially more capitalist or socialist ones, can also have effects on economic growth. Osipian (2007) in his study Relationship Between Human Capital and Economic Growth in the Former Soviet Union analyzed the role of education in the economic development in the former socialist bloc and the meaningful level of human capital effects on the economic growth per capita in Russia and Ukraine. He used the higher education index with 5-year time lags. All of the independent variables coefficients in this estimation were statistically meaningful and positive. Socialism means the publicization of ownership and its entrustment to the government, thereby arranging a comprehensive economic plan and carrying it out even by force, if necessary (Namazi 2006).

## 2. DATA AND ANALYSIS METHOD

### 2.1. Data

In the current study the gross domestic product per capita has been calculated for years 2000-2008 in real price based on the World Bank information and data (2010)<sup>64</sup>. Then, the following method has been used for the calculation of the GDP per capita growth column between the years 2000-2008 (the World Bank, 2010: 396)<sup>65</sup>.

$$(1) \quad \ln Q_i = a + bt$$

Where,  $Q_i$ = GDP per capita in real price for the  $i$ th country,  $t$ = time (i.e. 2000-2008 in this study),  $b$ = GDP per capita growth rate.

The calculated growth per capita has been used as a dependent variable in the regression. Calculations were made for every country in Eviews program. The number of the countries participated in the estimation of regressions was 109 and 76 according to the availability of information and data. The data regarding the primary and secondary school gross enrollment rates was obtained from the information and statistics of the World Bank (2008) for the year 1991 and the data regarding the higher education gross enrollment were obtained from the information and statistics of the World Bank (2010) for 1994. It should be mentioned that enrollment rates have been used with a time lag. The data regarding the literacy rate variable for year 2000 for 76 countries was derived from the information and statistics of the World Bank (2010). Two dummy variables have also been used in this study. One of them is for the countries with socialist backgrounds (21 countries in equation (2) and 16 countries in equation (3)). These countries have experienced socialist systems in their history any way. The other dummy variable is assigned for the petroleum exporting countries including OPEC and non-OPEC countries (34 countries in equation (2) and 23 countries in equation (3)).

### 2.2. Analysis Method

In order to measure the human capital in this study, literacy level and enrollment rate indices have been used in two linear regression models with sectional data and ordinary least squares method that are shown as follows:

$$Q_i = \alpha + \beta_1 E_{1i} + \beta_2 E_{2i} + \beta_3 E_{3i} + \beta_4 D_1 + \beta_5 D_2 + u_i \quad (2)$$

Where,  $Q_i$ = GDP per capita growth in real price for the  $i$ th country,  $E_{1i}$ = primary school gross enrollment rate for the  $i$ th country,  $E_{2i}$ = secondary school gross enrollment rate for the  $i$ th country,  $E_{3i}$ =higher education gross enrollment rate for the  $i$ th country,  $D_1$ = dummy index for countries with socialist background,  $D_2$ = dummy index for petroleum exporting countries.

Apart from equation (2) regression equation (3) is also estimated, which is similar to equation (2) with the difference that it uses the literacy rate instead of the enrollment rate.

$$Q_i = a + b_1 L_{1i} + b_2 D_1 + b_3 D_2 + u_i \quad (3)$$

<sup>64</sup>. <http://www.world-bank.org/data/wdi2010/index.htm>

<sup>65</sup>. World Bank. 2010. Development and Climate Change. World Development Report 2010. Washington, DC: World Bank

Where,  $Q_i$ = GDP per capita growth in real price for the  $i$ th country,  $L_{1i}$ = literacy rate among over 15-year-olds in the  $i$ th country,  $D_1$ = dummy index for countries with socialist experience,  $D_2$ = dummy index for petroleum exporting countries.

Given that in many studies based on cross-country data heteroskedasticity problem occurs, in the current study White test has been used, in Eviews program, in order to identify the occurrence of heteroskedasticity, which is one of the methods for heteroskedasticity identification. This test uses a secondary regression in which, in addition to the model variables, the squares and productions of the independent variables are also used and the F-statistic is also extracted. If F-static probability is smaller than 5%, the hypothesis of the non-existence of heteroskedasticity is disproved. This test was run for both of the models that the hypothesis was proved in equations (2) and (3). In other words, the heteroskedasticity problem was not found in any of the equations. In the current study, in addition to the foregoing test, Wald test was also used for the insertion of limitation on the regressions coefficients. In this test, by replacing zero for the coefficient of each variable its presence or its absence is approved. In equations (2) and (3) given the F-statistics and  $\chi^2$  the Wald test result that is below 5%, the hypothesis of the zero equivalence of all the coefficients is disapproved in both of the equations. In other words, the presence of all of the variables in both of the regression equations is approved.

### 3. RESULTS

The results of this research are represented as two separated descriptive and analytic results in the following.

#### 3.1. Descriptive Results

The descriptive information concerning the under study samples and the coefficients used in equations (2) and (3) have been shown in Table 1.

*Table 1. The descriptive information of the coefficients used in equations (2) and (3)*

Variables	Equation(2)				Equation(3)			
	Max	Min	Average	Standard Deviation	Max	Min	Average	Standard Deviation
GDP per capita growth, 2000-2008	15/7	- 1/3	3/55	2/56	15/7	0/2	4/04	2/53
Primary school gross enrollment rate, 1991	131	27	94/08	21/39				
Secondary school gross enrollment rate, 1991	119/5	5/1	62/79	32/14				
Higher education gross enrollment rate, 1994	90	1	21/78	18/64				
Literacy rate, 2000					100	16	80/61	21/10
Dummy variable of socialist countries	1	0	0/19	0/39	1	0	0/21	0/41
dummy variable of petroleum exporting countries	1	0	0/31	0/46	1	0	0/30	0/46

As the information in table 1 shows the average of socialist countries is 19 percent in equation (2) and 21 percent in equation (3). The average of petroleum exporting countries is also 31 and 30 percent in equations (2) and (3), respectively. The average of enrollment rate in primary, secondary, and higher education is 94.08, 62.79, and 21.78 percent, respectively, in equation (2) and the average of literacy rate in equation (3) equals 80.61 percent. Also, the average of GDP per capita growth rate during the years 2000-2008 has been calculated 3.55 percent in equation (2) and 4.04 percent in equation (3).

### 3.2. Analytic Results

The estimation results of equations (2) and (3) have been shown in table 2.

*Table 2. The estimated results of equations (2) and (3), dependent variable: GDP per capita growth*

Variables	Estimated coefficients of equation (2)	Estimated coefficients of equation (3)
Primary school gross enrolment rate, 1991	a [ - 0/005] b( - 0/456)	
Secondary school gross enrolment rate, 1991	**[0/027] (2/434)	
Higher education gross enrolment rate, 1991	***[ - 0/053] (3/143)	
Literacy rate, 2000		* [0/021] (1/695)
Dummy variable of socialist countries	***[3/185] (5/906)	***[3/095] (4/846)
Dummy variable of petroleum exporting countries	** [1/375] (3/039)	* [0/958] (1/786)
$R^2$	0/371	0/366
Adjusted $R^2$	0/340	0/340
F-Statistic	***12/160	***13/893
D-W	2/095	1/875
n	109	76
Intercept	** [2/440] (2/655)	* [1/393] (1/438)

\*\*\*Meaningfulness probability at 1% level, \*\*meaningfulness probability at 5% level, \*Meaningfulness probability at 10% level

a- The numbers inside brackets represent the  $\beta$  coefficient for each variable

b- The numbers inside parentheses represent the t-statistic for each variable

The estimated results of equation (2) (Table 2) show that the estimated coefficient for the secondary school enrollment rate is positive and statistically meaningful. But, the estimated coefficient for the primary school enrollment rate is not statistically meaningful. In equation (3) (Table 2) the literacy level variable coefficient is positive and statistically meaningful. The dummy variables of the countries with socialist system backgrounds and petroleum exporting countries are also positive and statistically meaningful in both equations (2) and (3). It is mentionable that the negativity of the variable coefficient of the higher education enrollment rate in equation (2) was not expected. The interactions of the independent variables in equations (2) and (3) were also added to the independent variables in other regressions, however, all of their estimated coefficients were statistically nonmeaningful. The results of this study in terms of the effects of human capital on the economic growth rate are coincident with the studies by Manikiw, Romer, and Weil (1992), Jamal (1995), and Rise and Stewart (2000), in terms of the meaningfulness of the model coefficients. These results also show consistency with MirMohammad Sadeghi's researches (1996) except for about the primary school enrollment rate variable. The coefficient of this variable was statistically meaningful in MirMohammad Sadeghi's research (1996) while it is not meaningful in the present study. Also, the results of the present study are not consistent with Osipian's studies (2007) in terms of the positivity of the higher education enrollment coefficient.

#### 4. CONCLUSION

Based on the results of this study it could be concluded that the effect of the secondary school enrollment rate and literacy level variables on GDP growth is positive and statistically meaningful. The estimated coefficient for higher education has also become meaningful with minus mark. The estimated coefficient for the primary school enrollment rate is not statistically meaningful. Also, the countries with socialist system backgrounds and the petroleum exporting countries have a positive and meaningful influence on the GDP per capita growth. However, the dummy variable of the countries with socialist background increases the intercept of the estimated regressions more than the dummy variable of the petroleum exporting countries.

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## KAZAKHSTAN'S ACCESSION TO THE WTO AS THE NEXT STEP TOWARDS GLOBALIZATION: PROS AND CONS

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### **ABSTRACT**

*Kazakhstan's Accession to the WTO – is an additional instrument of economic modernization and strengthening of Kazakhstan's competitiveness in international markets, which will open many opportunities for our country. When we are making important decisions about joining the WTO we need to be assessed all of the positive and negative consequences that may have an impact on the economic development of Kazakhstan. One of the main questions is feasible contradictions between the aims of Custom Union and WTO. Will accession to the WTO develop our economy or consolidate our position in world market as the raw material country, finally reducing the industrial and agricultural sector of our country?*

*The results of research were formulated as the required direction for economic development of Kazakhstan, which should be accepted before accession to the WTO for the painless step toward globalization. At the present stage of Kazakhstan's accession to the WTO, the next direction for Economic Development of Kazakhstan should be relevant: improving the investment policy; the development of competition and encouragement of entrepreneurship; the development of agriculture industries; the formation of clusters; a regional policy; the implementation in the enterprises of the Republic of technical quality standards that meet the requirements of the WTO. It is necessary take effective measures to speed up modernization and diversification of the economy.*

*During the research were also analyzed the influence of pluses and minuses of Kazakhstan's Accession to the WTO to the position of Custom Union's countries.*

**Keywords:** *Custom Union, globalization, Kazakhstan, World Trade Organization*

### **1. INTRODUCTION**

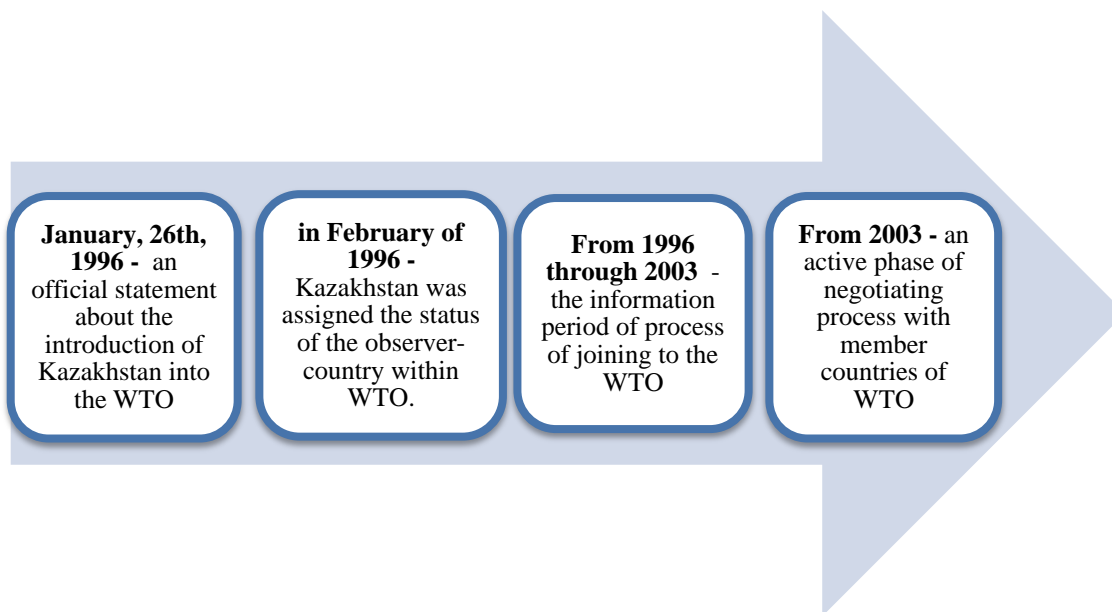
Kazakhstan increasingly drawn into the orbit of globalization - we are building an open democratic society, forming a liberal economic system, establishing extensive contacts with many countries around the world. We can confidently say that at the present time, globalization already has the "economic body", and his blood, life-support vessels is international trade. Often, the economies of some countries are like monsters that have some "organs" – are hypertrophy, and others - are underdeveloped or nonexistent. Selected industries are evolving suppress all other sectors of the economy, which naturally does not lead to anything good for the country and the whole global economy. International trade is now impossible to imagine without such global organizations as WORLD TRADE ORGANIZATION (WTO). Today, the WTO – is the only comprehensive international economic organization, which is able to effectively discuss questions and solve problems of regulation of international trade. Kazakhstan's Accession to the WTO – is an additional

instrument of economic modernization and strengthening of Kazakhstan's competitiveness in international markets, which will open many opportunities for our country. More predictable and based on international law, the WTO's conditions will allow Kazakhstan to demonstrate their competitiveness in the competition with its trading partners, through the using of the profitable internal opportunities.

## **2. ANALYSIS OF THE PRECONDITIONS IN KAZAKHSTAN'S ACCESSION TO THE WTO**

### **2.1. The stages of Kazakhstan's accession to the WTO and the current situation**

The process of Kazakhstan's accession (Figure 1.) to the WTO began in January 26, 1996 with the submission of official statement to the WTO's Secretariat. In February of that year the country was given the status of an observer in the WTO. At the same time, there was established the Working Group on Kazakhstan's accession to the WTO, which currently consists of countries - major trade partners of the RK (U.S., EU, Canada, Japan, Australia, Switzerland, China, Korea, etc.). From 1996 meetings of the Working Party on Kazakhstan's accession to the WTO were held regular (Krugman, Obstfeld and Melitz, 2012). From 1996 through 2003 great volume of information materials and obligatory documents had been directed to WTO Secretary according to accession to WTO conditions. In 2003 Kazakhstan had finished the information period of process of joining to the WTO and has entered an active phase of negotiating process with member countries of the Working group by definition of conditions of a WTO membership. It is necessary to notice that in Kazakhstan, as well as in many countries of the world the markets of financial, telecommunication and transport services are strategic sectors of economy and are subject to strict regulation, as consequence, negotiations on access on the given markets of services are the most difficult. Now Kazakhstan has finished bilateral negotiations on access on a commodity market and services with 29 member countries of Working group of Kazakhstan on an accession to WTO: Kyrgyzstan, Georgia, Pakistan, Turkey, China, Republic Korea, Sultanat Oman, Japan, Cuba, Mexico, Norway, Honduras, Dominican republic, Bulgaria, Switzerland and the Arabian Republic Egypt and others. For today are signed the Report on end of bilateral negotiations on access on the Kazakhstan commodity markets and services within the limits of the introduction of Kazakhstan into the WTO with 26 member countries of the WTO (*Press releases of the International Centre for Trade and Sustainable Development*).



*Figure 1: The Basic stages of Kazakhstan's Accession to the WTO (<http://www.wto.kz>)*

Following the results of the work which was carried out on Kazakhstan's accession to the WTO, there has been a real shift in the negotiating process towards a detailed discussion of the parameters of the country's future membership in the WTO, and was defined a common position states - participants of the WTO in relation to the integration of our republic to this international organization.

## **2.2. Analysis of the dynamics in Kazakhstan's export-import operations**

Kazakhstan as a member of the international community is still at the stage of entry into the world trade market. Since the founding of the Republic Kazakhstan we can see the trend of sustainable growth in foreign trade with countries as distant as well as from neighboring countries and the expansion of the geography of foreign trade. So, if in 1993 Kazakhstan carried out the export-import operations with 62 countries around the world, and in 1999 – already with more than 100 countries, by 2004 Kazakhstan had nearly 175 partner countries. Now the number of trading partners is closer to 207. The main trade partners of Kazakhstan are the EU countries, especially Italy, countries of CIS, Russian Federation, the countries of Southeast Asia and China. On dynamics of exports and imports of the Republic of Kazakhstan in the 1995-2012 (Figure 2.), we can see exports had a steady growth. Overall, from 1995 to 2011, together with an increase in exports was a gradual increase in imports, which in 2012 reached the amount of 46358,4 million U.S. dollars.

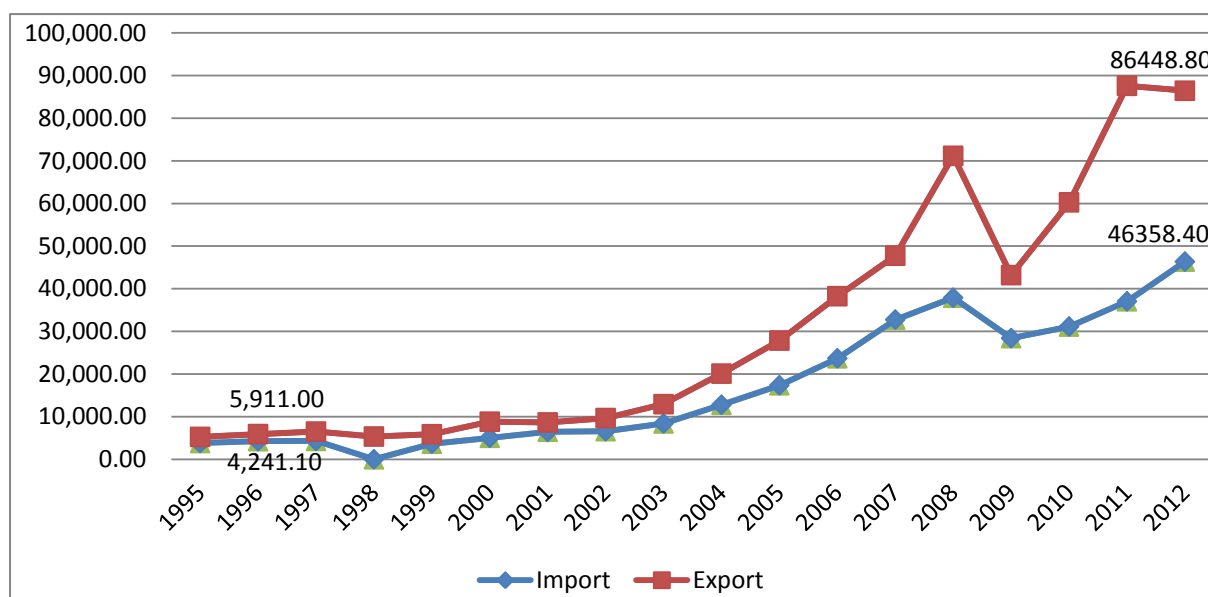


Figure 2: Dynamics of foreign trade of Kazakhstan, in millions of dollars USA (Source: Agency of the Republic of Kazakhstan on Statistics, [www.stat.kz](http://www.stat.kz) )

In 2009 the decrease in exports was characterized by a general deterioration of the situation on world markets of raw materials, internal imbalances in the economy and the impact of the global economic crisis. As we can see below there was a sharp jump in the direction of increasing exports in 2010, and in 2012 it exceeded pre-crisis mark and amounted to 86 448,80 million U.S. dollars.

In Figure 2 are presented the export and import of Kazakhstan and CIS countries, given that you can draw the following conclusion: the volume of trade as a percentage of those countries are reduced each year, but the fall is not the real volume of trade, on the contrary, they are growing every year, because it reduces the volume of trade increases the percentage of foreign countries. However, these countries still remain the main our partners especially the Russian Federation, the share of which in 2013 accounted for 8,5% of exports and 42,8% of imports.

The data in Fig. 3 show the growth of Kazakhstan's foreign trade with foreign countries. If the CIS countries in 1995 accounted for almost 52,3% of exports and 69.7% of total imports, whereas in 2013 these percentages were 13,1% and 46,4%, respectively. The flows of exports each year increases in the direction of the rest of the world, an increase in trading volumes. Increasing trade with them is quite fast.

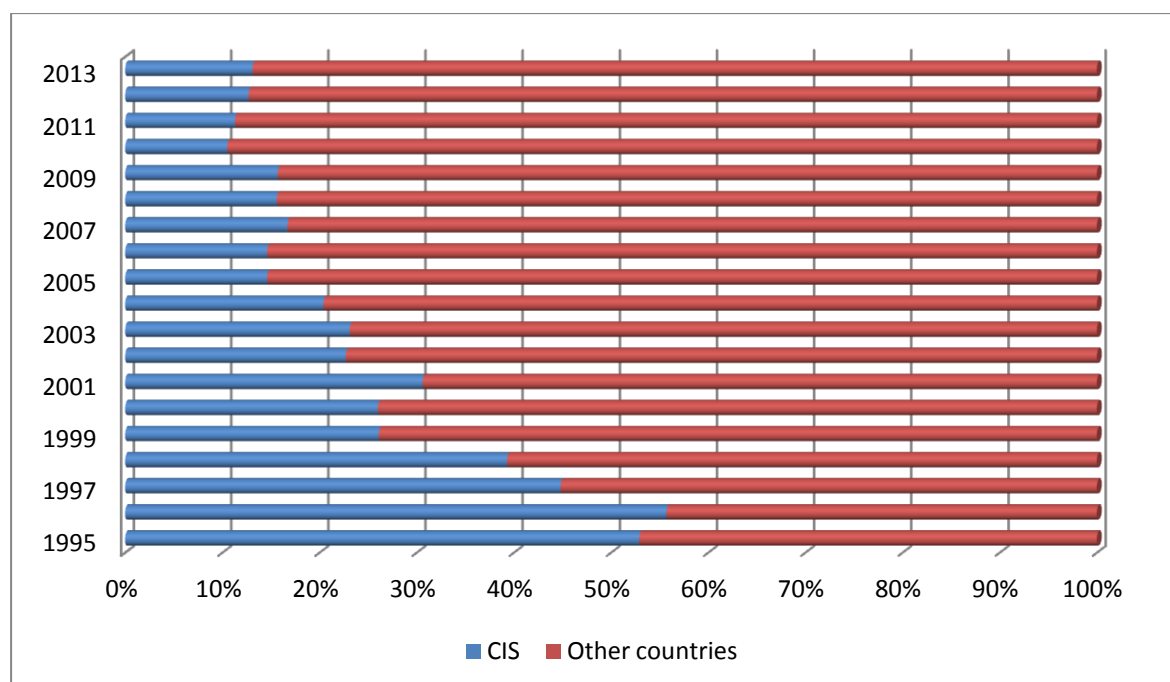


Figure 3. Dynamics of export of Kazakhstan with the CIS countries and rest of world, % of export (Source: Agency of the Republic of Kazakhstan on Statistic <http://www.stat.kz/>)

Overall, Kazakhstan's trade policy has tended to the narrowing of the external economic relations with CIS countries and the expansion of trade with the rest of the world.

### 3 THE CONSEQUENCES AND PROSPECTS OF KAZAKHSTAN'S ACCESSION TO THE WTO

#### 3.1. The positive aspects and negative impacts of Kazakhstan's accession to the WTO

Today many economist of our country think that Kazakhstan's accession to the WTO may have not a good results: the Kazakhstan's market will open fully, it will be filled by the imported goods, many factories will be shut down, because they can't compete with the countries of the WTO, tens of thousands people will remain out of work, there will be a real threat of subordination of the major trading nations' interests. But it's only concerns, and the previous graphics can show, that with accessing to the WTO the increasing of the percentage of exports to foreign countries will continue, which undoubtedly is a priority for our country.

Of course, when we are making important decisions about joining the WTO we need to be assessed all of the positive and negative consequences that may have an impact on the economic development of Kazakhstan.

It must be remembered that, integrating into the international system based on equal relations with other states, it is almost impossible to get the benefits without loss. Question is just to gain as much higher than losses, and that the last one does not infringe upon national interests and does not have a negative impact on the national security of the country.

In general, trade policy of Kazakhstan until now has tended to the narrowing of the external economic relations with CIS countries and the expansion of trade with the rest of the world. The Customs Union gives a new impulse to the development of foreign economic relations

with CIS countries. And his further entry into the WTO will increase the volume of foreign trade.

The main positive aspects of Kazakhstan's accession to the WTO will be in the following:

First of all, the prospects of the investment environment in connection with the entry of Kazakhstan into WTO are expected to be positive: we can expect an influx of foreign investments in the country - due to such factors as the general improvement of the country's image, the openness of the economy of Kazakhstan, improvement of legal framework, increasing the transparency of investment procedures, facilitating access to the internal market for foreign financial institutions, the development of the stock market.

Secondly, Accession to the WTO will give Kazakhstan a number of advantages in the field of export licensing, standards, antidumping and countervailing duties, in general it will promote the activity of foreign state.

Thirdly, from the expansion due to more effective competition in the market range and quality of goods and services, reducing their prices customers Kazakhstan will win. Lower prices will apply not only ready to import goods and services, and internal, which are used in the manufacture of imported components. However, there will be corresponding changes in the size and structure of consumption, which will become closer to the standards of developed countries. Increasing consumer demand will positively affect the growth of production, indicative of the socio-economic status of the population.

Fourth, the establishment of civilized conditions of competition and transparent legal environment will help bring national legislation (in particular in the area of taxation, customs regulation, standardization and certification, management services, competition policy, intellectual property) in accordance with the rules and regulations of the WTO .

In addition, given the geopolitical location at the crossroads of Asia and Europe, economic and military-political interests, as well as the existing capacity of the republic, we can assume that the activation of Kazakhstan in international economic relations will further strengthen its position in the system of international relations as the middle of a regional power, plays a key role in Central Asia.

The main negative impacts of Kazakhstan's accession to the WTO for the country:

1. In the current structure of Kazakhstan's export flows dominate oil, ferrous and nonferrous metals and other raw materials. Currently, Kazakhstan mainly serves the needs of successful economies' commodities in exchange for the products of deep processing industries with high added value. Problems are expected in the manufacturing sector. Main of them - is the low competitiveness of the most of industries and enterprises in Kazakhstan.
2. 2. WTO's obligations create limitations in the state to stimulate the development of national production and local businesses, including the methods which are currently being implemented now. Thus, government subsidies will lose many of agricultural programs and small business support programs.
3. Negative consequences for the environment in Kazakhstan, which may be caused by trade liberalization with WTO membership. For example: the depletion of natural resources over-exploitation of local species, the growth of technological pollution and accumulation

of large amounts of industrial waste, economic restructuring in favor of resource extraction industries.

Negative trends in the WTO, in the end, are a manifestation of conflicts of economic globalization. Despite the potential defeats and losses from the introduction of the republic into the WTO in the present, it is necessary to rely on the benefits that Kazakhstan can get in the long run, as the expansion and changes in the structure of its exports towards increasing the share of goods with high added value.

### **3.2. The necessary directions for economic development of Kazakhstan for painless accession to the WTO**

The analysis of trends in economic growth in Kazakhstan allows to conclude at the present time continuing commodity orientation of the economy and the low level of competitiveness of its manufacturing sector. In this context the important meaning for the republic has the implementation of structural reforms aimed at developing the production of high value added and deep processing. Otherwise, the accession of Kazakhstan to the WTO will only consolidate the status of a country with raw materials economy. Consequently, so at the present stage of Kazakhstan's accession to the WTO, in my opinion, the next directions for Economic Development of Kazakhstan should be relevant:

Improving the investment policy. It is necessary to develop a set of measures which will help to bring transnational and large foreign companies in the non-primary sectors of the economy. We also need to increase the participation of internal investors in the development of small and medium-sized businesses in our country.

As part of these areas we have to improve investment legislation, to strengthen public support for investment, to protect private property and the rights of investors.

The development of competition and encouragement of entrepreneurship. An important factor in ensuring sustainable economic growth is the presence of a healthy competitive environment, which, in turn, depends on the formation of strong antitrust systems.

The development of agriculture industries. The industrialization of agriculture is important measure, which is realized by means of technical modernization of agricultural industries, increasing the share of highly profitable crops in the crop pattern, the transfer of livestock on an industrial basis, strengthening scientific support and implementation of innovation.

The formation of clusters. Overall, the cluster mechanism of development of the Kazakhstan's economy will be an important factor in the efficient allocation of investment resources in industries, enterprises implementing innovative technologies.

A regional policy. A regional policy should be aimed at building competitive regional specialization. The formation of specialized regions will contribute to the concentration of production and labor resources, infrastructure development in the areas of coherence between the emergences of clusters, which will be an important step in enhancing the competitiveness of the processing sector of the economy.

The implementation in the enterprises of the Republic of technical quality standards that meet the requirements of the WTO. Accession of the republic into the WTO requires the harmonization of technical regulations Kazakhstan model with international requirements. In this regard, the current legislation of the republic should be amended accordingly.

#### 4. CONSLUSION

No doubt all of the Customs Union countries realize the need to entry into the WTO, but as the enter a unified organization to WTO for each of the parties will be difficult, the countries participating in the Customs Union decided to join individually. So they can join the WTO and to keep the Customs Union. Russia has already completed negotiations in the December last year and is now a full member of WTO since 2012. Kazakhstan, in turn, has intensified talks and plans to complete them in 2012, and in the first half of 2014 followed by Russia and will try to join the WTO. Accession of Belarus will take a little longer.

The process of accession to the WTO - is irreversible. However, in order to pros to join this international organization was greater than the cons, it is necessary first of all, take effective measures to speed up modernization and diversification of the economy, improve its competitiveness, the development of manufacturing industry, which will be an important factor in the successful integration of our country the world community.

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## **TERRITORIAL MEGAPROJECTS AS A RELEVANT TOOL OF THE STRATEGIC TERRITORIAL MANAGEMENT: COMPARATIVE ANALYSIS OF RUSSIAN AND AMERICAN EXPERIENCE**

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### **ABSTRACT**

*In the modern Russia the reconstruction of the historic territorial megaprojects and the realization of new ones as a relevant tool of the strategic territorial management is becoming the manifestation of contemporary institutional, organizational and informational transformations of the economic space of the global economic system. In contrast to financial investments, megaprojects are oriented on a real material result, having a considerable prolonged impact on the changes in the economic space. The article compares the American and Russian experience in the realization of the territorial megaprojects within the strategic territorial development. Authors assume that the study of the American experience of the realization of territorial megaprojects has an important role for the modernization of the Russian strategic territorial management. Russia has accumulated a considerable historic experience of the realization of megaprojects as a positive one (Transsib) as well as a negative one (BAM). On the basis of these two historic megaprojects the reasons for their successfulness and unsuccessfulness are examined as well as an expert estimation of possible prospects of their modernization in the economic space of modern Russia is given. Besides the reasons for the rebranding of the megaproject "Ural Industrial – Ural Polar" are revealed, the risks are studied and the postproject prospects of the Olympic megaproject "Sochi 2014" are disclosed.*

**Keywords:** *Appalachian Regional Commission, BAM, Olympic megaproject Sochi 2014, strategic management, rebranding, risks, Tennessee River Administration, territorial development, territorial megaprojects, Transsib, Ural Industrial – Ural Polar.*

### **1. INTRODUCTION**

Under the conditions of the efficiency increase of the territorial management Russia may profit from the analysis of the existing experience of the territories' development connected by a common goal of the economic expansion. Territorial megaprojects are typical either of large countries (USA, Russia) or territories, united by the processes of the economic or political integration (European Union). Megaprojects are presented by large investment projects of especially large scale (more than 1 billion dollars) and global character (regardless of the spacial level of the realization). In contrast to financial investments, megaprojects are focused on a specific material result giving a sufficient prolonged effect on the radical changes of the economic space. (Митрофанова, Жуков, 2010, pp. 5–14). The realization of the megaprojects is becoming the manifestation of the contemporary institutional, organizational and informational transformations of the economic space of the global economic system (Волошина, 2010, pp. 15–20). In spite of the fact that the territorial character in general is

typical of all the strategic initiatives and, in first turn, to the targeted programs of the development of the regions of the federation, included in them investment projects and this fact does not exclude the necessity of the isolation of the properly territorial megaprojects having some specific characteristic features. First, goals, targets and the sphere of the megaprojects effect is spread on a considerable in scale territory (country, district, group of regions and so on). Second, the target focusing of the megaproject is connected with the solution of the integrated programs of a systematic character directed on the provision of the optimal parameters of a stable, competitive, safe and a balanced development of the social and natural system form of this or that hierarchy level (Митрофанова and Жуков, 2012, pp. 2–10). This fact is connected with the fact that the process of the economic zoning when the economic progress is marking out from the territory or an administrative region a separate part that is touched by it. As a result either the administrative zoning is changed or the organs allowing to coordinate the activity in the given territory appear. Real economic processes are taking place around city agglomerations (Moscow, Paris and so on) or transport mains (Transsib), or large geographic objects, rivers for instance. (Щедровицкий, П., 2013). Similar examples of the territorial development united by a river or some other geographic objects exist in the world and in particular – regions of the Tennessee river and the region of the Appalachian mountains. For Russia the study of the foreign experience can be useful as it is a practical knowledge of the targeted improvement of the economic situation in a territory, related by common problems.

## **2. CHAPTER**

Tennessee River Authority (TVA) is a federal corporation or a public corporation and the largest public electricity supplier of the nation. Corporation works in order to achieve its main goal of the development encouragement in the region that is covered by the river Tennessee. Tennessee River Authority was established by the Congress of the USA in 1933 mainly for the lowering the damage from the floods, improvement of the navigation on the Tennessee river, electricity production as well as the support of the agricultural and industrial development in the region. The development of different spheres of the economy includes: attraction of large industrial manufacturers into the region; encouragement of the location and the expansion of the companies providing jobs; help to local communities in the development of their own enterprises and the attraction of new companies; support by the enterprises in the opening of their new business. Due to a close cooperation with the local authorities of the states, communes, distributors of the energy and the consumers that are served directly, department of the economic development of the TVA is striving to improve the life of those who live and work in the regions of the river. In particular the support of the activity in the Tennessee River is ensured in the following spheres: maintaining low prices on the electricity in the region that allows to attract new enterprises; cooperation with people of the region within the local communities for starting new business; provision of services and financial resources including the investments into new and developing enterprises, assistance in the site selection for the business, technical support as well as a special support of the agricultural and small business; provision of yearly allocations equal to the taxes paid for the development of the education, road construction and other infrastructural objects to local authorities and states from the region of the river; grant allocating for the Regional Committee of Appalachia in order to contribute to the development of this region. In general the policy in the economic assistance is focused on three main aspects: attraction of new enterprises; conservation and retaining of the existing companies in the region; training and assistance when opening a new business. During seven latest years according to the expert opinion of the Site Selection Journal TVA is one of the best organization for the economic development. By means of the

Investment Initiative of the TVA, the Administration has allowed its partners in the economic development to create and retain more than 48 000 jobs and to attract more than 5,9 billion dollars of the capital investments in the whole Tennessee river region (*Tennessee Valley Authority. Key Topic - 2011 Performance*, 2013). In spite of the small electricity sales and profit of 2012, related with a relatively mild winter and the recession in the economy, TVA improved its financial situation and lowered the operation expenses and the maintenance expenditures. The net income was 60 million dollars for the reinvestments from 11,2 billion dollars of income. (*Tennessee Valley Authority. Key Topic - 2011 Performance*, 2013). Tennessee river authority has the experience in the improvement of the quality of life and economic well being of people and enterprises in the area of its activity. During a number of years following the changes in the economic situation, the Corporation was changing with the time, specifying the tools of work and the comprehension of the situation in order to realize better its strategic goals: affordable electricity, industrial and agricultural development, environmental protection, integrated management of the river system, technological innovations. (*Tennessee Valley Authority. About TVA. TVA's Mission and Vision*, 2013). Meanwhile the strategic goal of the Corporation was remaining the same, the business environment where the corporation worked changed. Taking into the consideration new economic conditions, more rigid standards of the environmental protection, the necessity to upgrade its production facilities in connection with the changing needs of clients made the Corporation precise its strategic view of the future. (*Tennessee Valley Authority. About TVA. TVA's Mission and Vision*, 2013). In August 2010 the Board of directors of TVA adopted a new variant of its mission that is supposed to help the Corporation and the nation to move to a secure and ecologically clean energy future relying on the nuclear power and not on coal. Within the renewed strategy, the Corporation is planning to become the national leader by 2020 in the following areas: quality air improvement; nuclear energy production; energy efficiency. For the nearest future, TVA has distinguished six priorities on which the efforts will be focused: clean air, energy efficiency, nuclear production, cheap electricity, high stability of energy, responsibility of business. (*Tennessee Valley Authority. About TVA. TVA's Mission and Vision*, 2013). The document determining the goals of the corporation was adopted in 1983 and provides the assessment of the profitability and the defective character of the investment projects concerning four aspects: development of the national economy, environment improvement, regional development encouragement, solution of social problems. Depending on the targets different relations "costs–benefits" can be allowed. Thus, the corporation realizes not only usual commercial functions but also governmental functions of the income distribution for the achievement of national goals. (Митрофанова and Батманова, 2012, p. 114). Thus, the conclusion can be drawn that the corporation is a flexible, easily adaptable for the situation structure that responds to the challenges of the time and having definite development goals. On the basis of the experience of the Tennessee river Authority, Russia can use the practice of setting precise goals; the orientation on perspective technologies (energy saving); the support of the enterprises in the region of the functioning due to the increase of their social responsibility.

### 3. CHAPTER

The Appalachian Regional Commission is a regional economic development agency that presents the association of the federal authorities, representatives of state governments and local administrations. Its main goal is to be the strategic partner and the defender of the sustainable development and the economic expansion in the region of the Appalachia. (*Appalachian Regional Commission. About ARC. ARC Members, Partners and Staff*, 2013). This organization was founded in 1965 on the basis of the act of Congress and consists of the

governments of 13 states making part of the territory of the Appalachian mountains and the federal cochair (coordinator) presenting the federal authorities. Every governor appoints the deputy who controls the programs of the region and helps those who are seeking assistance within its frames. The interests of the states in the commission are realized by means of the representatives in Washington appointed by the government of these states. (Appalachian Regional Commission. About ARC. ARC Members, Partners and Staff, 2013). By the mid 1960 Congress passed laws that were supposed to solve the problem of poverty and the rising economic gap between the states in the Appalachian region. (Appalachian Regional Commission. About ARC. ARC History, 2013). By that time about 30% of the population lived in poverty and the income per capita was 23% lower than in average in the USA, high unemployment and harsh living conditions made more than 2 million people leave the region looking for work. (Appalachian Regional Commission. About ARC. ARC History, 2013). But despite the progress, the Appalachian region still cannot be considered as a successful territory as other zones of the country. (Appalachian Regional Commission. Appalachian Region, 2013). The characteristic feature of the activity is the availability of the strategic plan concerning the development of the given territory and an integrated approach to the solution of the problems the crucial ones among them are: improvement of the situation with the unemployment and the incomes per capita for the achievement of the level that is average in the country; the competitive ability of the population; development and improvement of the regional infrastructure, development of the road system of the territory for the decrease of the geographic isolation of the given territory. (Appalachian Regional Commission. About ARC. ARC Projects, 2013). Every year the Appalachian Regional Commission provides financing for several hundreds of projects in the region of the Appalachian mountains in the following areas: promotion of the business, education and training, telecommunications, infrastructure, house construction and transportation systems, infrastructure development, export and trade promotion and so on. These projects contribute to the creation of new working places, help to improve local water supply and sewage systems, expand the access to the system of the healthcare, help local territorial communities in the strategic planning as well as help in technical and managerial aspect to new enterprises. Special funds are planned for the regions that have a poor economic situation. Regional commission develops the economy of the region by means of the Initiative of the Regional development of the Appalachia that presents the partnership between the Commission and ten federal agencies that aim at the cooperation with local communities and authorities in order to facilitate the access to federal programs. Appalachian Regional Commission gives grants and offers contracts using funds that are yearly allocated by the Commission of Congress. Grants are given to local authorities and local agencies as well as to public entities (like organizations of the economic development), and also non profit organizations (like schools and organizations that are constructing cheap housing). Contracts are immediately given for the research in the topics that directly influence the economic development in the Appalachian region. (Appalachian Regional Commission. Grants and Funding, 2013). During the work of the program "Appalachia" the well being of the population of the region considerably grew that responds to its main goal. Not all the experts relate this result directly with the realization of the program assessment that the most important role belongs to favourable circumstances. Undoubtedly however that especially within the program a mass construction of car roads, environment improvement (water sources, forests, grounds) and the condition of the social sphere (health care, education and so on) took place. The national conference on the problems of the regional economic development gave a positive assessment of the activity of the Appalachian Regional Commission and the recommended to spread its experience of the interstate problems solution on other problematic territories. The experience of the Appalachian Regional Commission is

interesting due to the fact that in its framework social goals are set: poverty elimination, creation of new jobs, population training. At the same time a constituent part of projects financed at its expense is the infrastructure and diversification of the available economic specialization. An inseparable part of the planning is the economic assessment not only of the region but also smaller territorial units. The given model can be used for the distressed and problematic regions, for example, North Caucasus or the Far East of Russia.

#### 4. CHAPTER

*Plans of the modernization of the epoch meaningful infrastructural megaprojects in Russia.* In the beginning – second part of the XX century Russia has realized several large scale territorial projects among which two of them can be especially distinguished. They are the construction of the Transsiberian main (Transsib) and the development of the economic zone of the Baikal and Amur Main (BAM). Mechanisms of the realization of these two projects differentiated in the principles of working but remained stable to fluctuations and the state guaranteed the resource provision of the projects and the negative consequences were reimbursed from the budget funds. The decision concerning the Transsiberian main was connected with the geostrategic interests of the tsarist Russia. But as a result this megaproject became the means for the solution not only military and political problems but also the tasks of the economic mastery and development of vast, rich in resources territories of the Western Siberia. In accordance with the achieved understanding the priorities of the project targets changed flexibly: when the transit traffic in Transsib remained less than expected (excluding the period of war with Japan), the emphasis was moved to the development of the "region of Transsib". This movement provoked a violent growth of the productive forces of Siberia that entailed insufficient freight capacity of the main, eliminated by two reconstructions during the construction already in 1889 and 1903. By 1908 the project of Transsib became profitable. The construction of BAM was the first stage of the large scale program of the economic development of the Eastern Siberia and the Far East and as a result a new industrial region of Russia was supposed to be created in the zone of BAM, new cities and settlements to be erected. In 1970 the economic mastering of the BAM territories was positioned as a crucial task of the spatial development of the country, connected with the creation of a new industrial belt in the Near North, interacting with the first belt built along the Transsib. Nevertheless the largest part consider the BAM project as an unsuccessful one. But this megaproject is only one from four large scale projects of the program of the Siberian development including Ural and Kuznetsky, Angaro and Yenisey projects as well as the program of the creation of the Western and Siberian oil and gas complex and the megaprojects of the economic development of the zone of the Baikal and Amur main. In 1953–1974 the construction works concerning the main did not start. Only in 1974 after that when the BAM construction was included into the plan of the XX five year plan, the megaproject was revived although the design and development works were activated some time earlier. It was connected with the sharpening of Soviet and Chinese relations in the second half of 1960s that determined the priority character of the military goal of BAM creation as a lateral railroad. Another goal of BAM was transit and strategic and it had the role of the oil transporting road into the countries of the Asian and Pacific region. The mechanism of the realization of BAM megaproject despite all its drawbacks was a kind of an organizational hierarchy of a mobilization type and the first person in this hierarchy was not only given the right to dispose of the state resources in the framework of the established limits but also the right to attract the necessary additional resources into the project from the first person of the state without the bureaucratic distributional system (similar to Transsib megaproject) (Mitrofanova, Batmanova and Zhukov, 2012, pp. 142–152).

Thus the historic experience shows that the factors of the successfulness of the realization of the epochal infrastructural projects in Russia were: a high level of the competence of the specialists, vast scientific researches, deep and large scale preproject research and forecasts, isolated as an independent stage; the combination of the plan and market principles; the efficiency of the institute of development in the form of the state and private partnership, high transparency, active public participation, supervision of the process of the realization on all the stages of the life cycle of the project in the person of the "main stakeholder", a single fund owner that allowed avoiding possible bureaucratic barriers and the to make all necessary corrections quickly. (Митрофанова and Жуков, 2013, pp. 85–96.). During the last three years the interest to the plans of Transsib and BAM modernization grew. At the construction of Transsib 2.0 demographic and city constructing aspects will be the most important ones that will lead to the necessity to adopt the corridor of the development as a central category of the transport and railroad development of the country. According to the strategic idea Transsib will be transformed into a high speed international transport corridor. Strategic development of the regions of the Far East and Zabaikaliye, the solution of the important federal and regional tasks in the use of the resource, industrial and transit potential of the East of the country in many aspects is connected today with the realization of an integrated infrastructural project of BAM reconstruction. The problem of the precise estimation of the reserves of mineral in the area keeps its acuteness. Without this it would be extremely difficult to plan the development of the capillary infrastructure adjoining BAM. As a result of the modernization on the basis of BAM regions it will be possible to create a new industrial region, based on the extraction and reprocessing of the mineral raw materials and the development of the energy production. Here it is the question not only of the BAM reconstruction but about the development of BAM zone with all the corresponding infrastructure. For contemporary infrastructural megaprojects it is crucial to use such a tool like "contracts of the life cycle". The contract of the life cycle is a contract according to which the subcontractor takes all the complex of works on the created and then serviced object. Within the use of the model of life cycle contracts the subcontractor is interested in the use at the construction the advanced technologies and to work with a high quality that will allow him later to save money at the maintenance and the repairing of the object. In this case the subcontractor of the project calculates himself all the normalized costs and manages them. That's why even at the stage of the design the contractor starts choosing the variants taking into consideration the maintenance costs and not the cost of the purchase. According to the model of the contracts of life cycle the final characteristics of the objects are written into contracts and not the materials that will be used for the construction. The foreign experience shows that the life cycle contracts allows to reduce the costs for the construction and the following maintenance of objects built within infrastructural projects up to 30%.

## 5. CHAPTER

*Reasons for rebranding of the Russian megaproject "Ural industrial – Ural Polar".* Today in Russia there are about 15 megaprojects of the federal level that are being realized and financed from the Investment fund of the Russian Federation that is not enough for getting the systematic effect in the economy. The structured Russian territorial megaprojects approved by the federal authorities planned for the realization within the state and private partnership exist in the country at the amount for more than 150 billion US dollars. These projects of the large scale mastering of new territories, whose social and economic development is below Russian average indices. Megaprojects "Ural industrial – Ural polar", "Belkomur", "Integrated development of the Lower Pryangarye", "Integrated development of the South Yakutia" and so on according to the idea of the designers are directed to the creation in the problematic

Russian regions and districts of a new economic skeleton, creation of the prerequisites of the dynamic development of Siberia and the Far East. So in the "Strategy of social and economic development of the Ural federal district for the period till 2020" the megaproject "Ural Industrial – Ural Polar" was declared as the main direction of its realization. This program (Ural Industrial – Ural Polar) includes a number of the interrelated measures concerning the creation of three main blocks: transport, energy, natural and resource ones. The nucleus of the transport infrastructure should become the railroad main along the eastern slope of the Ural – Polunochnoye – Obskaya, that in the whole with the lines that are being constructed could connect on the shortest track the industrial Ural with the mineral reserves of the Polar Ural, the zone of the oil extraction, by means of giving the outlet to the Northern Sea Route, to Norilsk. It was planned that the development of the deposits of natural resources of the Polar and Nearpolar Ural will allow replacing completely the whole volume of chromic ores delivered to Russia by the manganese, iron and phosphorites. As a result of the project realization more than 50 new enterprises, 66 thousands additional jobs in the mining industry, transport, 3 thousand in the timber industry, 3500 in the oil and gas industry. (Митрофанова and Жуков, 2012, pp. 128-154). The realization of the megaproject "Ural Industrial – Ural Polar" was supposed to create in the Arctic and in the Polar Ural a large territorial and industrial complex. The Ural megaproject was presented as a leader in the realization of the innovative projects on the regional level, capable of the introduction of the newest technical and technological achievements into the transport, oil and gas and energy industry. That's why in 2006–2010 the megaproject "Ural Industrial–Ural Polar" was introduced into the main strategic documents of the country: a long term program of the subsoil research and the reproduction of the raw material base, general scheme of the placement of the energy power objects, the strategy of the rail road transport development and also a long term conception of the social and economic development of the Russian Federation. (Митрофанова and Жуков, 2013, pp. 13-21). In 2006–2011 the structure of the managing company of the Ural megaproject was based on the principles of the state and private partnership. The region of the Ural Federal district were included into the number of the shareholders. The corporation "Ural Industrial–Ural Polar" has existed since 2006 but the real objects appeared only in 2011. In 2006–2009 the managing corporation was busy only with the projects documentation. More than ten subsidiary firms were created that were constantly generating losses. Since 2010 all local projects realized within the general conception, were isolated into separate parts: transport, mining and energy. In February 2012 the decision about the reorganization of the Public Company "Corporation Ural Industrial – Ural Polar" into the Public Company "Corporation of Development" was taken. transport and mining parts of the megaprojects initially were closely related. The base of the Ural megaproject was developed by the West Siberian scientific and research geology and oil institute. But the deposits on whose geological development 8 billion rubles were spent turned out to be "fairy tales by Bazhov". The picture of many reserves connected by railroad branches with industrial enterprises, new settlements for workers and power objects, pictured by the management of the "Corporation Ural Industrial–Ural Polar" remained on paper. As a result of the costly geological and developing works concerning the examination of the forecasted reserves of the mining raw material it became obvious that the forecasts were not competent and considerably exaggerated. By 2010 the economic calculations gave the load base for the first main in the volume only of 5 mln. tons instead of the necessary 25 mln. tons for its full loading. That's why the decision was made to cancel the construction of the broadly advertized principal main of the megaproject – railroad along the Eastern slopes of the Ural edge between the stations Polunochnaya – Obskaya. Today the corporation of the development focused its efforts on the construction of the road Obskaya–Korotchaev (Northern latitudinal route). This

is a part of the unfinished road of the soviet period – Transarctic main. The budget funds will not be spent on this main (North latitudinal route). Today this road will allow transporting up to 3-4 million tons of loads but after the end of construction the volume is expected to be 30 mln. tons. The rebranding of the public company "Corporation Ural Industrial – Ural Polar" was connected not only with the expansion of the directions of its activity but also with the deviation from the basic content of the megaproject "Ural Industrial – Ural Polar" that lead to rebranding. Its successor public company "Corporation of Development" was transformed into a servicing company of the oil and gas complex of the Western Siberia, construction of the infrastructural objects – transport, energy and social ones (housing, kindergartens, car roads etc). The Ural megaproject concerning the developing of natural deposits of the Polar Ural during six years of its realizations turned into a conglomerate of local investment projects of different types: from optical fiber communication up to the reprocessing of chicken eggs. Strategically important Ural megaproject was transformed into a number of local investments that are not connected by a common conception that is weakening its integrated effect from its realization.

In 2006 the megaproject "Ural Industrial – Ural Polar was declared as a party project during the meeting of the party "United Russia" but in 2011 the government of the Russian Federation excluded it from the number of the priority projects. (Митрофанова and Жуков, 2013, pp. 2-13).

## 6. CHAPTER

*Problems of the realization of the Olympic megaproject in Sochi, Russia.* The decision about the organization of the XXII Olympic winter games in Sochi was taken on July, 4th 2007 in Guatemala during the session of the International Olympic Committee. The State Corporation on the construction of the Olympic objects and development of city of Sochi as a skiing resort was established that started realizing the managerial functions as well as to coordinate the design and the construction of the Olympic objects, the manage the service of the objects, to organize open competitions, to keep track of the construction of the Olympic objects and the realization of the measures connected with it. There is no doubt that the conducting of the XXII and XI Paralympic Winter Games will leave the heritage in Sochi, Krasnodarsky kray, South federal district as well as on the national scale. Positive effects of the Olympic megaproject for Russia as a whole are seen as follows: a larger openness to the world community, the growth of the integration level of Russia into the international sports movement on a qualitatively new level: changes of the attitude to disabled people (in many cities of Russia the project "barrier free sphere" is taking place), the development of the volunteer movement, for which the legal base and 26 volunteer centers across the country are created; the use in the construction of the environmentally friendly (green) standards. Olympiad 2014 for Russia is the largest international investment and construction project, long term, resource consuming target program, requiring billions of investments for the design and the creation of the infrastructure, construction, exploitation of sport objects and the safety provision. However many risks and the specificity of the realization of the megaproject of this level even at a preproject stage were not assessed at all or underappreciated the fact that even in process of the realization lead to a multiple growth of project costs in comparison with the planned ones. The increase of the project costs are related by the experts with a low quality of the design, multiple revision of the project decisions in the process of the realization of construction works as well as the corruption when distributing the orders. So the employees directly of the state company "Olympstroy" created the conditions for the rise in the cost of construction by 15,5 billion rubles (0,5 billion dollars).



Preparation and the realization of the Olympic projects is a priori connected with the unpredictable circumstances, connected with real threats of the economic safety. The knowledge and the analysis of the peculiarities of megaprojects of this type allows the strategic managers to get an idea about the observation of the necessary requirements.

*Table 1: Sources of funding of the Olympic megaproject "Sochi-2014", billion rubles  
(data collected by the authors)*

Type of objects	Budget funds	Off budget sources	Total
Infrastructure of the region, including roads and housing	430	900	1330
Sports objects	100	114	214
Total	530	1014	1544

But in majority the recipients of budgetary money are not connected with the developers within the existing legislation. A number of companies is working at the Olympic building site following the similar scheme: final recipients of the funds assigned for the construction of the Olympic objects make everything possible to include into the project only the affiliated companies. Very often such organizations make part of the group as the borrower itself. Because of the facts of the baseless overstating construction costs of the Olympic objects several legal proceedings have been instituted. And the legal suits using the facts of the presentation of the project costs with the rise by 30% of the project expenses can become a legal precedent in the Russian construction industry. Prices on the construction materials for the Olympic objects have risen by times and the volume of "refluxes" and untargeted use of the budgetary money varied from 25 till 50%. One of the largest creditors of the Olympic construction is the state corporation Vnesheconombank (VEB) that opened to the developers the credit line up to 107 billion rubles. In the whole the Vnesheconombank offered Olympic loans for the amount 241 billion rubles and 165 billion from them was guaranteed by the state corporation "Olympstroy". Besides the guarantee fund of the "Olympstroy" is limited by 30 billion rubles. At the same time it is impossible to find the persons responsible for the use of the funds as the final beneficiaries – recipients of the money are situated in offshores and legally are not connected with the developers working within the Russian legislation. Vnesheconombank has already offered his future estimate as 92 billion rubles. By the beginning 2013 it became obvious that Olympic investors will not be able to return the loan to Vnesheconombank without the restructuring and tax remissions. The situation is aggravated by the unclear prospects of the giant infrastructure after the realization of the Olympic games when the importance of the objects will sharply fall but the necessity to reimburse the principal amount on loans and interests to Vnesheconombank will remain. As a result all the risks connected with the return of the budgetary funds allocated for the Olympic objects are in fact transferred to the state as the defaults of investors are intolerable. The efficiency of the Olympic objects will not be fast and will be dragged by 6 or 10 years.

## 7. CONCLUSION

Thus the Russian and international experience prove that: 1. megaprojects are called to become key points, points of bifurcation of the territorial development giving the opportunity of the alternative choice under the condition of the timely revelation of possible risks; 2. megaprojects in contrast to financial investments have a proactive potential, are targeted to a concrete material result that should make a considerable prolonged effect on the changes of the economic space (Mitrofanova and Mitrofanova, 2013, pp. 167–177). The processes

themselves of the development and the realization of territorial megaprojects imply large scale preplan research, competence of the designers and developers, efficiency of new development institutions and the activity of traditional ones, convergence of state and private interests, publicity, openness, transparency, active use of crowdsourcing technologies, considerable social and integral effect.

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## **PRIVATE BENEFITS OF CONTROL IN RUSSIAN DUAL-STOCK COMPANIES: A RELATIONSHIP WITH THE OWNERSHIP STRUCTURE**

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### **ABSTRACT**

*The paper aims to investigate whether and how various corporate ownership patterns are related to the magnitude of private benefits available to the party controlling the firm. Previous studies have mostly focused on the effect of these characteristics on firm performance, typically measured by Tobin's Q and accounting ratios, which only imperfectly reflect "shirking" and "stealing" actions that the party in control of the firm can take. Instead, a better grasp of the scope of corporate governance conflicts within firms (and the ability of corporate constituencies to control it) can be obtained by focusing on private benefits of control, a centerpiece of the recent corporate finance literature. In this study, we measure such private benefits using the voting premium approach, namely, as the difference between the price of voting shares and the price of non-voting shares divided by the price of non-voting shares. We use a sample of dual-class stock firms (those issuing common and preferred shares) traded in the Russian stock market, which provides us with an unbalanced panel of some 1000 observations (over 200 firms observed during 13 years, 1997-2009). The data come from the RTS, SKRIN and SPARK databases. We find nonlinear relationships between the CEO ownership, ownership share of the supervisory board chairman and the voting premium. The relationship between the state ownership and the voting premium is also found to be nonlinear.*

**Keywords:** *private benefits of control, supervisory boards, ownership structure, common and preferred shares*

### **1. INTRODUCTION**

The corporate finance literature has recently seen a growing interest in the link between corporate governance and performance on the one hand and various characteristics of CEOs, executive and supervisory boards, as well as corporate ownership patterns, on the other hand. The ultimate goal of most of such studies is to find out what corporate governance mechanisms and arrangements are better able to mitigate the corporate governance conflict between suppliers and users of capital, a key issue in the functioning of the modern corporation (Shleifer and Vishny, 1997). For example, Hermalin and Weisbach (2003)

provide a comprehensive review of the role of corporate boards, and a recent paper by Adams and Ferreira (2009) focuses on hitherto rarely investigated issue of gender composition of boards. There has also been some research, albeit very little, on the role of directors' human capital, in particular the element that comes from experience rather than from formal education (Brick et al. 2006). Several studies have used the number of additional directorships held as a proxy for directors' quality, for example, Klein (1998), Carpenter and Westphal (2001), Weir et al. (2002), and Ferris et al. (2005). Studies of various corporate ownership patterns also remain of high relevance despite the long history of such analysis, which dates back to the seminal contributions by Berle and Means (1934) as well as by Jensen and Meckling (1976). All these issues remain considerable interest not only from the research perspective, but are also highly relevant from the practitioner's viewpoint as well as from the policy angle. A better understanding of how various corporate governance arrangements work may, for example, help to shape corporate law (as well as regulations adopted by stock exchanges) which typically contain provisions concerning the composition of corporate boards (e.g., their size, the presence of independent directors, and the ban on a CEO holding the position of the supervisory board chairman in the case of two-tier corporate boards) as well as concerning accounting and disclosure standards. Recent reforms in corporate law throughout the globe (such as the 2001 changes in Russia's corporate law, the 2002 Sarbanes-Oxley Act in the US, and the 2008 Law on Joint Stock Companies in Ukraine) confirm that view. Most of the existing empirical studies that focus on the link between various characteristics of corporate constituencies and corporate governance/performance rely heavily on traditional performance measures, most notably on Tobin's Q and on various financial ratios based on accounting data (e.g., Bhagat and Black, 2002; Karamanou and Verfas, 2005; Adjaoud et al. 2007, as well as Chhaochharia and Grinstein, 2007). The key assumption here is that, whenever a corporate governance conflict arises, it will eventually be reflected in corporate performance. For example, managerial opportunism (regardless of whether it comes from "shirking" or "stealing") will damage long-term performance of firms, and will be reflected in their lower capitalizations once investors learn about the problem. A fundamental issue, however, is that these traditional performance measures are subject to various external influences such as exogenous firm-specific and industry-specific shocks that can hardly be properly controlled for in empirical analysis. This may explain, at least in part, why researchers often come to different and inconsistent conclusions concerning, for example, the effect of independent directors, audit and compensation committees, and other boards characteristics on company performance (e.g., Bhagat and Black, 2002; Dulewicz and Herbert, 2004; as well as Van et al. 2008). To have a better picture of how various corporate governance mechanisms and arrangements work, a better measure less subject to such noisy influences, is desirable. Interestingly, previous research has already developed a concept that could be useful for such a task. The measure is called "private benefits of control" and is, according to Dyck and Zingales (2004) one of the centerpieces in the recent corporate finance literature. In essence, private benefits of control capture pecuniary and non-pecuniary benefits that a party in control over the firm can extract without sharing them with other shareholders. They may involve high wages, transfer pricing, and payments in kind or simply psychological benefits from being in control over the firm.<sup>66</sup> If private benefits of control could be measured in a reliable way, they would provide a better idea of the magnitude of corporate governance

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<sup>66</sup> Importantly, these benefits are often extracted to the detriment of minority shareholders, implying expropriation of the latter. Minority shareholders, however, cannot do much about such expropriation due to non-verifiable nature of the control benefits. If these private benefits could be evaluated they would immediately lose their "privacy" and minority shareholders could bring in a lawsuit against the corporation or the controlling owner.

conflicts within firms. This research adds to a literature on determinants of private benefits of control. We contribute to studies on a magnitude of corporate governance conflicts in Russian companies, providing empirical evidence on the link between corporate governance characteristics and the size of private benefits of control. We first examine the relationship between the state ownership and a voting premium in dual-class stock companies in Russia.

## **2. OWNERSHIP CHARACTERISTICS AND THE PRIVATE BENEFITS OF CONTROL**

Private benefits from control consist in unobservable consumption and investment opportunities deriving from discretionary power to allocate company resources. Jensen and Meckling (1976) describe an owner-manager's private benefits he derives from pecuniary returns but also the utility generated by various non-pecuniary aspects of his entrepreneurial activities. So private benefits derive from the controlling ownership of assets and are to a large extent of a non-pecuniary nature. Demsetz and Lehn (1985) call the latter "amenity potential" benefits. Grossmann and Hart (1988) focus on pecuniary gains in takeover bids, assuming a well-functioning market for corporate control. Bebchuk and Kahan (1990) provide a definition of private benefits as "any value captured by those controlling the company after the contest (and not shared among shareholders at large)". Ehrhardt and Nowak (2001) concluded on German data, that the following private benefits are virtually substantial: excessive management compensation (*self-dealing*), enjoyment through association with luxury goods (*amenities*), and all the amusements and social benefits derived from being the King of a small town (*reputation*). The ways private benefits of control are applied can be different as well. Their most extensive taxonomy is provided by Dyck and Zingales (2004), who describe a whole range of ways in which corporate resources can be used to the sole or main advantage of the controlling party. They vary from outright theft by controlling shareholders, which is generally rare, to more moderate and at the same time more pervasive versions. Who derives private benefits of control? As it is suggested by Zingales (1995) some corporate benefits are enjoyed exclusively by management because they are not to be measured precisely and could not be claimed by minority shareholders. If a manager is a controlling shareholder he could pay himself a higher salary. The board of directors retains a good deal of discretion in deciding the salary, and if the manager is a part of the board, it is even more possible for him to exercise control over the company. Thus benefits of control could be extracted by any party in the control over firm, and the relationships between managers, owners, boards of directors are very important to analyze in order to perceive the extent and the magnitude of the private benefits and therefore a size of corporate conflicts within firms. Development of the concept of private benefits of control was largely induced by the agency theory stating that, given the opportunity, managers will maximize their own utilities at the expense of shareholders (Jensen and Meckling 1976). The theory generally suggests that shareholder objectives will be met once managerial opportunism is under control (Zahra and Pearce 1989). Should the concentrated ownership destroy company's value through exploiting private benefits of control? Concentrated ownership as a well-known corporate governance mechanism is a way to alleviate the agency problem, dissipating the free-rider problem. There are studies indicating that concentrated ownership has a positive effect on a company's performance and value. Kang and Shivdasani (1995) report such positive effects for Japan, Gorton and Schmid (2000) – for Germany. From the other hand large shareholders are in a position to extract private benefits from the firm, it is an agency cost that increases when the voting rights far outweigh the cash flow rights (Bebchuk, Kraakman and Triantis 2000; Shleifer and Vishny 1997). Many studies show that in countries with weaker investor protection and higher ownership concentration the level of private

benefits of control is higher. In this respect Australia is among exceptions. Although Australia has strong legal shareholder protection (La Porta, Lopez-de-Silanes and Shleifer 1999), the Australian market is characterized by larger private benefits of control (Nenova 2003) and a higher concentration of ownership (La Porta et al. 1999) compared to other strong law country markets. Zingales (1995) states that voting rights are less valuable in the United States because the private benefits of control are smaller, but it is not because ownership is less concentrated. The literature suggests that combining ownership and control allows concentrated shareholders to exchange profits for private rents. Shleifer and Vishny (1997) and La Porta et al. (2000) suggest that minority shareholder expropriation relates to insiders using the firm's profits to their benefit rather than returning them to other shareholders. The ownership effect could be also analyzed from the following viewpoint: as a voting premium defines the probability of the control contest, the ownership concentration impacts the likelihood of the takeover. The ownership structure has an impact on the vote value via its effects on the probability of a contested acquisition. As a result, unexpected changes in the ownership structure can have a major impact on the value of votes (Zingales 1995). In their study of the takeover premium for Canadian dual-class shares companies Smith and Amoako-Adu (1995) found that on a certain period (1981-1986) the insiders ownership was negatively related to the premium. This is consistent with the findings of Song and Walkling (1993), Mikkelsen and Partch (1989) and Stulz (1988) that a higher ownership of votes reduces the likelihood of acquisition. Evidently, when there is only one large shareholder who owns a majority of votes, then we can expect this probability to be low, but not zero. By contrast, we expect this probability to be high when there are multiple large shareholders with similar stakes. In the presence of a finite number of players, the probability of being pivotal is nothing but the Shapley value of the votes held by small shareholders (Zingales 1995). Thus the ownership concentration is embedded in determinants of the voting premium though the Shapley value is used in modeling. A special case of the ownership concentration is an effect of managerial equity holdings. Lang, Lins and Miller (2004) draw on research suggesting that greater managerial ownership can lead to greater agency problems due to an entrenchment effect. In particular, managers with sufficient ownership (control) can commit the firm to self-serving transactions and thereby expropriate wealth from outside shareholders. According to other studies there can be a nonlinear relationship between managerial ownership share and company's performance and value. As managerial ownership increases, firm value may initially increase, since the interest of managers and outside shareholders are aligned. But if the managers' shareholding exceeds some certain point, the value of the firm may decline as managers become more entrenched. With the larger equity share managers may resist takeover bids more and extract larger private benefits of control at the expense of outside investors. But if the shareholding continues to rise, the alignment effect may dominate again. Large shareholders will probably not rob themselves. So there could be an "interim range" of managerial ownership share over which the entrenchment effect is dominant. Morck, Schleifer and Vishny (1988) found that the entrenchment effect is dominant between 5% and 25%, and the alignment effect is dominant for the ownership less than 5% and more than 25%. Short and Keasey (1999) report on the UK data, that the starting point of the entrenchment period is 12%, that is much higher, than for US. We propose that there is a turning point, starting with that the increase in managerial shareholding will lead to increase in private benefits of control because of the managerial entrenchment.

*Hypothesis 1. If the managerial equity share exceeds a certain inflection point, the value of the voting premium increases.*

Most of Continental Europe, Asia and Latin America are characterized by greater ownership concentration in the hands of individuals, families, governments or industrial groups, than it is evidenced in USA and UK. The same ownership patterns are particular for Russia. Canada is characterized by concentrated ownership through mechanisms that separate voting rights and cash flow rights using dual class shares or pyramidal structures (Ben-Amar and Andre 2006; Amoako-Adu and Smith 2001; and Morek et al. 2000). The vast majority of these companies are family controlled. Saito and Silveira (2010) found evidence suggesting that family control is positively associated with dual-class premium level in Brazil. Their results indicate that regulations regarding shareholders' rights and the identity of controlling shareholders are the two relevant corporate governance variables for the level of the voting premium in environments characterized by concentrated ownership structures. The presence of families as controlling shareholders tends to increase the premium, probably due to larger private benefits of control taking place. Authors hypothesized but did not support the proposition that state owned firms having a smaller probability of being acquired, have a smaller voting premium (Saito and Silveira 2010). King and Santor (1996) report that family owned firms in Canada that use dual-class shares have valuations that are lower by 17% on average, relative to widely held firms. Ownership structure of Russian public companies is not characterized by family ownership mainly because of the specifics of Russian privatization that actually produced the majority of companies in our sample. The relevant issue with regard to the owner's identity study is to analyze how the state ownership could affect the magnitude of corporate governance conflicts, given that a state is an owner in many companies. Muravyev (2002) studied the impact of federal state shareholdings on the performance of Russian companies, showing that generally state-owned companies perform worse than the average firm in terms of labor productivity and profitability. But there are different results among companies with different types of state shareholdings. These differences in performance are explained by different degrees of control the federal state has over enterprises with various types of shareholdings – greater control is associated with better performance. Residual blocks of shares (usually small), that the state intended to sell, but still retained, were de facto neglected by the state so the state did not use them to participate in corporate governance. Dewenter and Malatesta (2001) show that state-owned firms are more highly leveraged and perform more poorly than comparable private firms. Dewenter and Malatesta (2001) and Khwaja and Mian (2005) document that while state ownership enhances firms' access to debt, it has adverse effects on managerial incentives and firm performance. Li et al. (2009) show that state-owned firms' easy access to long-term debt is positively associated with long-term investment and negatively associated with firm performance. We propose that when the state shareholding is small (residual) the state monitors the company less effectively, and managers have more opportunities for exercising their control benefits.

*Hypothesis 2. When the state share reaches a certain inflection point, the size of private benefits of control starts to decrease.*

### **3. METHODOLOGY**

In order to investigate how corporate ownership patterns are related to the magnitude of private benefits of control (and thus, to the scope of the corporate governance conflict) in Russian firms, we use various methods of regression analysis applicable to panel data. Our econometric specification draws on that used in Zingales (1994, 1995) to which we add several control variables and a list of variables of primary interest that characterize corporate ownership structures. The baseline regression model that we use can be written in the following way:



$$VP_{it} = \beta_0 + \beta_1\Phi_{it} + \beta_21/\pi + \beta_3Liq\_Csh_{it} + \beta_4Liq\_Psh_{it} + W_{it}\gamma + X_{it}\theta + Y_{it}\phi + Z_{it}\psi + \delta_t + \lambda_i + u_i + \varepsilon_{it}. \quad (1)$$

**The dependent variable,  $VP$ , is conventionally defined as the difference between the price of common shares ( $P_{CSh}$ ) and the price of preferred shares ( $P_{PSh}$ ) divided by the price of preferred shares:**

$$VP = \frac{P_{CSh} - P_{PSh}}{P_{PSh}}. \quad (2)$$

We proxy  $\Phi$ , the probability of control fight, using the Shapley value. This is a conventional measure in the literature. In equation (1), variable  $liq\_Csh_{it}$  measures liquidity of common stocks, and variable  $liq\_Psh_{it}$ —measures liquidity of preferred stocks.

Vector of variables  $W$  includes additional characteristics that may differ across the two classes of stock and across firms. Examples are the issue of American Depositary Receipts (ADRs), the presence of the vetoing power of preferred shareholders against class rights changes, temporary enfranchisement of preferred shares, and convertibility of preferred shares. See Muravyev (2009a) for a detailed discussion of these and other specific features of the Russian dual class stock firms.

Vector  $X$  includes essential characteristics of CEOs ownership, Vector  $Y$  includes characteristics of the firm's supervisory board ownership. Vector  $Z$  includes variables measuring the firm's ownership structure (largest shareholders shares, state share, state holdings share). Thus, the coefficients on the variables comprising vectors  $Y$ , and  $Z$  are of prime interest in our study. In model (1),  $\delta_t$  denote time effects common to all firms,  $\lambda_i$  denote industry effects,  $u_i$  is a time-invariant firm-specific effect (which enters the equation if the fixed effects or random effects estimators are used and does not enter if pooled OLS is used instead), and  $\varepsilon_{it}$  stands for the random disturbance. In equation (1),  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  are unknown scalar parameters to be estimated and  $\gamma$ ,  $\theta$ ,  $\phi$ , and  $\psi$  are vectors of unknown parameters, which are of primary interest in our study.

#### 4. DATA AND SAMPLE

Our analysis is based on a novel hand-collected dataset of publicly traded Russian companies that have had dual class equity structure. Specifically, the sample embraces all companies whose common and preferred shares were traded in the RTS Stock Exchange between 1997 and 2009.<sup>67</sup> The choice of RTS (and not MICEX or any other stock exchange) is motivated by the wider coverage of RTS, with more than 100 dual class stock companies listed there as early as the late 1990s.<sup>68</sup> The RTS data on share trade, which are downloadable from the RTS web-site (<http://www.rts.ru>), are supplemented with information on ownership, characteristics of shares from companies' quarterly reports to the Federal Financial Market Service (FFMS, previously Federal Commission on Securities Market). The authors of the research project

<sup>67</sup> For example, there were about 150 companies with dual class shares listed in RTS in 2001. However, in any quarter of 2001, the number of companies with reported transactions involving both types of stock was less than half of that. In the emerging stock market of Russia, "being listed" was not always synonymous to "being traded".

<sup>68</sup> The choice of a particular exchange has major implications for the measurement of liquidity, an important control variable in our analysis, especially when the latter is based on trade volumes data. The implications for the measurement of stock prices are less important as cross-market differences in prices are being consistently eliminated by arbitrageurs.

have access (via the Graduate School of Management of St. Petersburg State University) to the SKRIN, SPARK and RUSLANA databases ([www.skrin.ru](http://www.skrin.ru), <http://spark.interfax.ru>, <http://eps.bvdep.com/en/RUSLANA>) that collect and process original reports submitted by Russian joint-stock companies to FFMS. These sources provide a large array of variables characterizing various aspects of firms' operations. In particular, there is information on the distribution of ownership among large shareholders (the reporting threshold in Russia is 5%), ownership stakes of persons affiliated with the firm (including its CEO and other directors, regardless of the size of their stakes). In addition, they provide information about industry affiliation, number of employees, and key financial variables of the firms. Using these various sources, we have compiled a new and unique database that is an unbalanced annual panel of over 200 firms during 13 years (1997-2009) with some 1100 observations. The description of the key variables, which we use in this paper, is provided in Table 1 below. Table 2 shows the descriptive statistics for these variables.

*Table 1. Definitions of variables used in empirical analysis.*

Variable	Description
VP	Voting premium (calculated based on the average ask and bid prices over May-August for each year )
shapely	Shapley value; characterizes the extent to which a small atomistic shareholder can be pivotal in a control fight over the firm
pi	Share of common stocks in equity
div10	Dummy for the presence of the 10% dividend rule on preferred shares.(does the corporate charter requires the firm to pay 10% of net profit as dividend on pref. shares? 0=No, 1=Yes)
adr	Dummy for the issue of ADR (has the firm issued any ADR? 0=No, 1=Yes)
vote	Dummy for enfranchisement of preferred shares in the current year, occurs when the company did not pay dividends on pref. shares in the previous year (are the preferred shares of the firm voting in the current year? 0=No, 1=Yes)
veto	Dummy for the existence of the veto power for preferred shareholders.(equals 1, if the corporate charter includes the veto power, 0 – otherwise.)
liq_Csh	The variable measures the liquidity of common stocks ( calculated as average_bid/average_ask over May-August for each year. The closer this variable to 1, the more liquid the stock is. When it is close to 0, the stock is illiquid)
liq_Psh	The variable measures the liquidity of preferred stocks (calculated as average_bid/average_ask over May-August for each year. The closer this variable to 1, the more liquid the stock is. When it's close to 0, the stock is illiquid).
owner1	Share of the largest shareholder in the voting stock (% of common shares)
owner2	Share of the second largest shareholder in the voting stock (% of common shares)
state_share	State share in the voting stock (% of common shares)
st_hold_sh	Share of state-controlled holding companies in the voting stock , percent
ceo_share	Share of the Chief Executive Officer in the firm's equity, percent
psd_share	Ownership share of the Supervisory Board Chairman, percent
bd_t_share	Share of each director in the firm's equity, percent
bd_a_share	Average share of board members in the firm's equity, percent
lnempl	Firm size – logarithm of the number of employees
power, fuels, chemic, machin, telecm, wsales, other	Industry variables: power stands for power utilities, fuels stands for oil&gas companies, chemic denotes chemistry, machin is a dummy for machine building, telecm stands for transport and communications (mostly telecoms), wsales stands for sales (mostly electricity distribution companies), and other include all remaining industries.

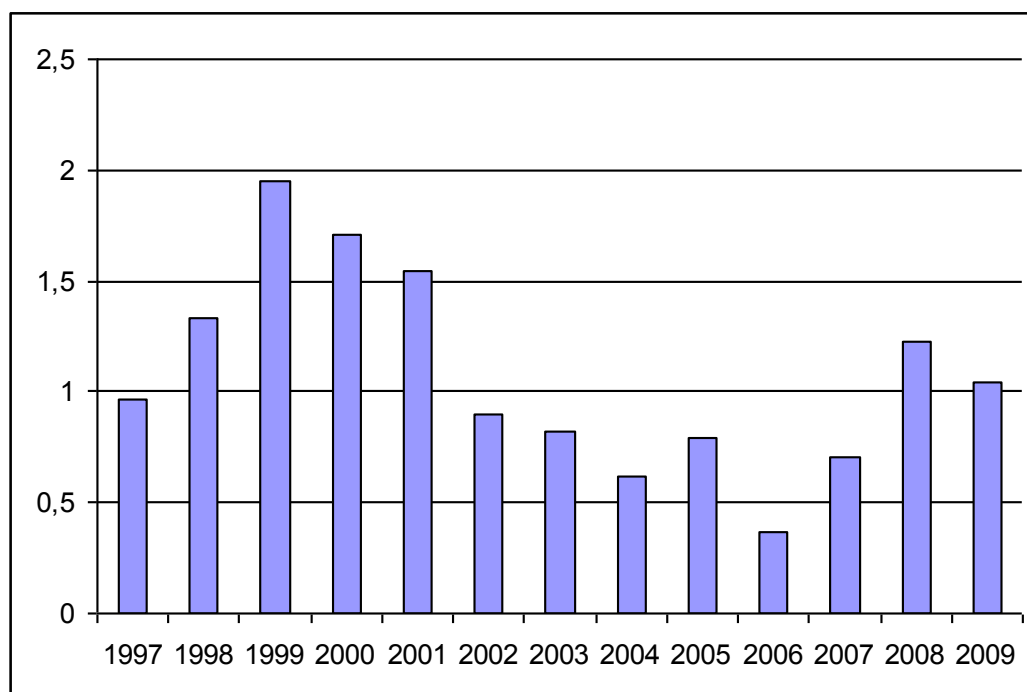
*Table 2. Descriptive statistics of variables used in empirical analysis.*

<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
VP	1.109	0.941	-0.124	5.116
shapely	0.034	0.114	0.000	0.844
pi	0.789	0.058	0.750	0.995
div10	0.902	0.297	0	1
adr	0.190	0.393	0	1
vote	0.124	0.330	0	1
veto	0.687	0.464	0	1
liq_Csh	0.649	0.274	0.013	0.994
liq_Psh	0.553	0.303	0.011	0.988
owner1	54.802	13.613	7.170	99.488
owner2	14.792	8.071	0	41.910
state_share	3.400	10.905	0	99.59
st_hold_sh	42.815	25.940	0	96.76
ceo_share	0.418	1.142	0	13.680
psd_share	0.198	2.155	0	38
bd_a_share	0.095	0.625	0	10.656
bd_t_share	0.543	3.289	0	53.280
lnempl	8.485	1.348	-0.223	11.807
power	0.313	0.464	0	1
fuels	0.143	0.350	0	1
chemic	0.024	0.152	0	1
machin	0.043	0.204	0	1
telecm	0.365	0.482	0	1
wsales	0.036	0.187	0	1
other	0.076	0,265	0	1

As follows from Table 2, the average voting premium for the whole period of observation is 1.109. Table 3 and Chart 1 below shows the dynamics of the mean and median of the voting premium over 1997-2009. It also shows the number of companies for which we have the voting premium data. Appendix 3 contains the full list of companies with the dual-class shares. A closer look at the number of companies with dual class stock listed in the RTS as well as at the trading activity involving dual class stock companies suggest a gradual decrease in both indicators. Dual class stock companies in Russia is a declining phenomenon. The same trend is observed, however, in other stock markets. For example, Pajuste (2005) suggests that unification of different classes of shares as a general trend in developed stock markets. It is therefore important to take advantage of the large number of dual class stock companies in Russia before they disappear from the scene in order to study interesting economic phenomena, such as factors affecting the magnitude of private benefits of control.

*Table 3. Dynamics of the average voting premium (1997-2009).*

<b>Year</b>	<b>mean(VP)</b>	<b>median(VP)</b>	<b>No obs. (VP)</b>
1997	0.986	0.91	62
1998	1.332	1.135	113
1999	2.06	1.715	74
2000	1.741	1.623	113
2001	1.565	1.411	122
2002	0.898	0.918	121
2003	0.818	0.76	65
2004	0.621	0.509	63
2005	0.795	0.552	60
2006	0.362	0.292	110
2007	0.715	0.473	99
2008	1.267	0.948	60
2009	1.042	0.616	48



*Chart 1: Dynamics of the average voting premium (1997-2009).*

Concerning the distribution of the voting premium, it is largely confined to the interval between 0 and 5. Only 1% of the observations of the voting premium exceed the threshold of 5 (500%), and only in 2% of cases we see negative values of the premium.<sup>69</sup>

Interestingly, the premium is considerably higher in the crisis periods as compared with other years. This may be explained as follows. In crisis periods, the cash flow rights attached to both preferred and common stocks are shrinking (because the company performance worsens), but the value of control rights with respect to future cash flows are not necessarily shrinking or shrinking to the same extent. In fact, the value of control rights may even increase reflecting investors' expectations of future benefits following economic recovery. We now turn to the ownership variables, which are of particular interest in our study. Distribution of the share of voting stocks belonging to two largest shareholders shows high ownership concentration in the sampled firms. The largest shareholder possesses, on average, 55% of the voting stock and the second largest shareholder has, on average, 15% of the voting stock. The state owns 3.40% of the voting stock on average, and 42.81% of the voting stock belongs to the state through state holding companies. CEO ownership amounts to just 0.41% in the sampled companies on average. Chairmen of supervisory boards own about 0.2% of the firms' stock, and the average share of an ordinary board member is just 0.095% of equity. The majority of dual-class shares companies belong to power utilities, oil&gas and telecommunication industries – not a big surprise given the specifics of privatization of these sectors of the Russian economy in the 1990s.

## 5. ESTIMATION RESULTS

Our approach to testing the main research hypotheses is the following. We start with the most parsimonious baseline model of the voting premium (1) and then sequentially add our key variables of interest. The fact that our data are a panel allow us to use three estimation methods, namely, the pooled OLS, random-effects and fixed effects estimators. Specification tests, however, unambiguously reject the pooled OLS and RE estimators in favor of the FE estimator. Therefore, in what follows we present the FE results. Table 5 shows the estimation results for the baseline model (Column 1), baseline model augmented with a measure of firm size and industry dummies (Column 2), model augmented with key characteristics of CEOs ownership (Column 3), and, finally, model with quadratic in the characteristics of CEOs ownership (Column 4).

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<sup>69</sup> Negative values of the voting premium (which, generally speaking, contradict the finance theory) are occasionally found in other stock markets, e.g., in Denmark and Norway. Odegaard (2007) attributes the long existence of negative voting premia in Norway to regulatory restrictions on foreign ownership. Once those restrictions were lifted the premium became positive. Neumann (2003) suggests that negative voting premium in Denmark stems from a liquidity discount. The number of outstanding shares with superior voting rights is much lower in Denmark than the number of stocks with inferior control rights, implying a lower free float of (superior) voting shares.

*Table 5. Estimation results 1: the baseline model and the baseline model with CEO characteristics.*

	(1)	(2)	(3)	(4)
shapley	0.30584 (0.36884)	0.41095 (0.38658)	0.27916 (0.40138)	0.37412 (0.40102)
1/pi	0.34034 (1.60529)	0.42025 (1.57104)	0.68060 (2.02423)	0.41470 (1.96576)
div10	0.29978** (0.12855)	0.31483** (0.13811)	0.40071** (0.20102)	0.36611* (0.20906)
adr	-0.07317 (0.11983)	-0.01347 (0.11138)	0.02865 (0.13787)	-0.04953 (0.13536)
vote	0.20135* (0.11203)	0.17775 (0.11201)	0.19220* (0.11568)	0.16994 (0.11267)
veto	0.05208 (0.14366)	0.08555 (0.14487)	0.05848 (0.15112)	0.07061 (0.15012)
liq_Csh	1.28013*** (0.29064)	1.28521*** (0.28652)	1.26153*** (0.30079)	1.29890*** (0.29661)
liq_Psh	-1.42801*** (0.27427)	-1.38908*** (0.27164)	-1.47173*** (0.27916)	-1.46651*** (0.27457)
lnempl		-0.11883** (0.05497)	-0.12187** (0.05331)	-0.10656* (0.05503)
ceo_share			0.00913 (0.03007)	-0.11467 (0.12914)
				(0.00151)
ceo_share^2				0.01413 (0.01406)
Industry	NO	YES	YES	YES
Year dummies	YES	YES	YES	YES
_cons	0.88625 (2.04456)	1.77373 (2.10482)	1.75550 (2.45324)	5.32522** (2.62169)
R <sup>2</sup>	.34	.34	.35	.36
p	5.66e-35	6.67e-37	3.83e-37	2.47e-44
N	1053	1051	989	989

Note: The dependent variable is the voting premium, VP. Cluster-robust standard errors are reported in parentheses. Asterisks \*\*\*, \*\*, \* denote significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

All four regressions in Columns 1-4 of Table 5 are statistically significant. Variables measuring CEO ownership are not significant in all the models considered.

Next, we expand the list of regressors in our model by adding, in a sequential manner, ownership characteristics of supervisory board chairmen and boards of directors. The results of our econometric analysis are shown in Table 6. All models are statistically significant.

Table 6. Estimation results 2: characteristics of chairmen and boards.

	(1)	(2)	(3)	(4)
shapley	0.37125	0.43554	0.37845	0.15513
	(0.40481)	(0.40149)	(0.39081)	(0.39920)
one_pi	0.35099	0.26410	0.03014	-0.56691
	(2.16571)	(2.13862)	(2.25427)	(2.29620)
div10	0.36802*	0.35862*	0.32135	0.38419
	(0.20457)	(0.20398)	(0.24813)	(0.24274)
adr	-0.05523	-0.03776	-0.03962	-0.01898
	(0.14126)	(0.14014)	(0.13241)	(0.12817)
vote	0.15359	0.16500	0.13285	0.14273
	(0.10986)	(0.11120)	(0.11372)	(0.11377)
veto	0.06094	0.05529	0.14403	0.15187
	(0.15030)	(0.14923)	(0.15486)	(0.15628)
liq_Csh	1.27178***	1.25779***	1.20258***	1.17415***
	(0.30171)	(0.30641)	(0.30208)	(0.30147)
liq_Psh	-1.45600***	-1.44255***	-1.40297***	-1.40529***
	(0.27758)	(0.27740)	(0.28187)	(0.28463)
lnempl	-0.08407	-0.08678	-0.08655	-0.06480
	(0.05952)	(0.05985)	(0.06965)	(0.07069)
ceo_share	-0.14121	-0.19070	-0.18173	-0.19922*
	(0.12887)	(0.11743)	(0.11649)	(0.11931)
ceo_share^2	0.01746	0.02366*	0.02346*	0.02522*
	(0.01412)	(0.01283)	(0.01262)	(0.01294)
psd_share	-0.00056	0.10018*	0.10704*	0.01443
	(0.01233)	(0.05190)	(0.05441)	(0.09182)
psd_share^2		-0.00290**	-0.00388**	0.00857
		(0.00140)	(0.00169)	(0.01042)
bd_no_dir			0.01330	-0.32446***
			(0.03570)	(0.12166)
			(0.00712)	(0.05580)
bd_a_share			-0.15071	-0.70471
			(0.13177)	(0.53335)
bd_no_dir^2				0.01804***
				(0.00649)
bd_a_share^2				0.17953
				(0.15071)
Industry	YES	YES	YES	YES
Year dummies	YES	YES	YES	YES
_cons	5.18943*	4.87460	5.64523*	6.04313*
	(2.83750)	(3.02301)	(3.14071)	(3.25443)
R <sup>2</sup>	.36	.36	.36	.37
p	1.71e-46	3.06e-46	9.17e-50	5.04e-54
N	970	970	953	953

Note: The dependent variable is the voting premium, VP. Cluster-robust standard errors are reported in parentheses. Asterisks \*\*\*, \*\*, \* denote significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

In the regression reported in Column 2 we add quadratics in Chairman ownership. The estimation results now suggest a non-linear relationship between Chairman ownership stake and the voting premium. Specifically, *psd\_share* is positive and significant at the 10% level while *psd\_share*<sup>2</sup> is negative and significant at the 5% level. The voting premium increases when the Chairman's equity stake grows between 0 and 16% and decreases thereafter. Interestingly, in the regression reported in Column 2 we see a statistically significant (at the 5% level) coefficient on variable *ceo\_share*<sup>2</sup>.

The coefficients on variables *psd\_share* (measuring the Chairman's share in equity), and *psd\_share*<sup>2</sup> lose statistical significance and also substantially decrease in absolute value. Our previous results related to Chairmen of corporate boards are thus not robust. However, in this last specification we get a better picture of the role of CEO ownership. The coefficients on variables *ceo\_share* and *ceo\_share*<sup>2</sup> become statistically significant (at the 10% level) and suggest a quadratic relationship with the minimum at around 4%. It is worth noting that CEO ownership exceeds this threshold in many companies. The 99<sup>th</sup> percentile of the distribution is at 5.68%. Therefore, we can interpret both branches of the parabola: between 0% and 4% and above 4%.<sup>70</sup>

Next, we turn to the analysis of the role of state ownership. With this purpose, we consistently add variables measuring the ownership stake of the state and state-controlled holding companies to the baseline model. For convenience reasons, we scaled the variables measuring state ownership dividing them by the factor of 100. Table 7 shows the estimation results for the regression models that are identical to those reported in Table 6, except for that they add the new ownership variables. In appendix 2 we also show the results for regressions identical to those in Table 5, but augmented with the new ownership variables.

All the regressions are statistically significant. Our main results reported in Table 6 stay virtually unchanged. With regard to the state share, the variable measuring the indirect state shareholding through state holding companies is always significant, regardless of whether we consider linear or quadratic functions of it. The variable measuring direct state ownership is, however, significant at the 5% level in the regressions reported in Columns 2 and 4 and the quadratic term is significant at the 1% level. The extremum (maximum) of the quadratic function is around 28% state ownership. Thus, increases of the state share in the interval from 0 to 28% are associated with rises in the voting premium. Once the share of the state exceeds the 28% threshold, any further increases in state ownership lead to reductions in the voting premium.

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<sup>70</sup> In contrast, as reported in Columns 2 and 3, the maximum in the quadratic function in the Chairman's ownership stake is well above the 99<sup>th</sup> percentile of the distribution of the respective variable (14-16% relative to 1.85%).



Table 7. Estimation results 3: ownership by state and state-controlled holdings.

	(1)	(2)	(3)	(4)
Shapley	0.159	0.101	0.137	0.073
	(0.408)	(0.433)	(0.419)	(0.446)
one_pi	-0.069	0.046	-0.111	-0.127
	(2.355)	(2.384)	(2.322)	(2.434)
div10	0.379	0.376	0.334	0.306
	(0.242)	(0.242)	(0.250)	(0.248)
Adr	-0.015	-0.018	-0.024	-0.016
	(0.129)	(0.130)	(0.128)	(0.133)
Vote	0.139	0.154	0.133	0.149
	(0.114)	(0.109)	(0.114)	(0.109)
Veto	0.153	0.131	0.152	0.118
	(0.159)	(0.157)	(0.159)	(0.159)
liq_Csh	1.159***	1.161***	1.145***	1.150***
	(0.301)	(0.300)	(0.301)	(0.300)
liq_Psh	-1.395***	-1.398***	-1.391***	-1.401***
	(0.285)	(0.285)	(0.286)	(0.287)
Lnempl	-0.066	-0.056	-0.065	-0.053
	(0.072)	(0.072)	(0.071)	(0.071)
ceo_share	-0.199*	-0.205*	-0.199*	-0.209*
	(0.115)	(0.112)	(0.115)	(0.113)
ceo_share2	0.025**	0.025**	0.025**	0.026**
	(0.013)	(0.012)	(0.013)	(0.012)
	(0.000)	(0.000)	(0.000)	(0.000)
psd_share	0.016	0.035	0.023	0.045
	(0.092)	(0.090)	(0.092)	(0.090)
psd_share2	0.008	0.006	0.007	0.005
	(0.010)	(0.010)	(0.011)	(0.010)
bd_no_dir	-0.330***	-0.340***	-0.335***	-0.348***
	(0.122)	(0.126)	(0.121)	(0.124)
bd_no_dir2	0.018***	0.019***	0.019***	0.019***
	(0.007)	(0.007)	(0.006)	(0.007)
bd_a_share	-0.695	-0.572	-0.654	-0.528
	(0.535)	(0.521)	(0.543)	(0.535)
bd_a_sha~2	0.176	0.143	0.162	0.128
	(0.151)	(0.148)	(0.154)	(0.152)
State_sh~e/100	-0.011	1.272**	-0.081	1.227**
	(0.486)	(0.567)	(0.512)	(0.597)
State_sh/100^2		-2.301***		-2.325***
		(0.673)		(0.658)
st_hold_sh/100			-0.207	-0.694
			(0.271)	(0.735)
st_hold_/100^2				0.699
Industry	YES	YES	YES	YES
Year dummies	YES	YES	YES	YES
_cons	5.730*	5.629	6.020*	6.122*
	(3.452)	(3.484)	(3.390)	(3.531)
R <sup>2</sup>	.37	.37	.37	.38
P	3.07e-54	6.73e-57	2.41e-55	4.08e-57
N	951	951	951	951

Note: The dependent variable is the voting premium, VP. Cluster-robust standard errors are reported in parentheses. Asterisks \*\*\*, \*\*, \* denote significance at the 1 percent, 5 percent, and 10 percent levels, respectively.

## 6. DISCUSSION AND FURTHER RESEARCH

The results of our preliminary analysis allow us to draw several interesting and important conclusions, many of which add to the existing corporate governance literature. Our analysis of the link between ownership and the voting premium highlights the following preliminary results. Increases in CEO ownership share from 0 to 4% lead to declines in the voting premium, and increases above the 4% threshold lead to increases in VP (although there seem to be few observations in our sample to properly justify the right branch of the parabola). It is consistent with the hypothesis that *if the managerial equity share exceeds a certain inflection point, the value of the voting premium increases*. Similar results were obtained in previous studies suggesting that it could be an “interim range” of managerial ownership share over which the entrenchment effect is dominant. Morck, Schleifer and Vishny (1988) found that the entrenchment effect is dominant between 5% and 25%, and the alignment effect is dominant for the ownership less than 5% and more than 25%. Short and Keasey (1999) report, based on the UK data, that the starting point of the entrenchment effect is 12%, which is much higher, than for US. We did not advance any hypotheses regarding ownership by supervisory board members, focusing instead on managerial shareholding. As it was explained in section 4, we relied upon the proposition, that managers and boards have different motives and boards act in shareholders’ interests monitoring managers. The supervisory board ownership is not significant in our models. But consistent with our priors, the estimation results provide some evidence that increases in the ownership stake held by supervisory board chairmen lead to increases in the voting premium. This result is in sharp contrast to the one related to managerial ownership. We are still looking for a proper interpretation of these results. The state is a shareholder of many companies with dual class shares. Therefore, it is important to assess the relationship between state shareholding and the price differential between the two classes of shares. We assumed that there is a nonlinear relationship. Thus, our hypothesis was that *when the state share reaches a certain inflection point, the size of private benefits of control starts to decrease*. Our analysis shows that, indeed, an increase in the state share from 0 to 28% results in an increase in the voting premium. When the share of the state exceeds 28%, any further rise in state ownership results in a decrease in the premium. This is in line with the study of state ownership in Russian companies by Muravyev (2002). He concludes that when the state has a residual (small) block of shares, typically “leftovers” from the mass privatization process, it is not actively involved in the corporate governance of companies. This promotes opportunism on the part of the management and expands its opportunity for extracting private benefits of control. Some of the results need proper interpretation (for example, why the effects of CEO ownership is so different from the effect of board chairman ownership). Ownership characteristics are well to be analyzed in more details with regard to the magnitude of corporate governance conflicts, including further identification of the owners’ type in dual-class stock companies.

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## **EU STRUCTURAL FUNDING – WAY OF REDUCING REGIONAL DISPARITIES IN SLOVAKIA?**

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### **ABSTRACT**

*Slovakia was one of the worst performer in the EU-28 in getting finance from structural funds in the programming period 2007 - 2013. The „success ratio“ was only 49,63 % (end of November 2013, Ministry of Finance) from all possible financing within the EU structural funds. We were trying to figure out what are the main reasons, consequences and possible solutions how Slovakia can reduce its big internal problem – regional disparities and how it can boost its success in EU funds. Slovakia is currently struggling with huge regional differences, mainly in the East of the country. What is more, Slovakia is one of the most corrupted country in the EU. The bureaucracy creates space for unequal and non-transparent decision-making. The main aim of EU regional policy is to reduce regional differences. As a consequence of non-effective funding, Slovakia has an aggravating situation in the poorest regions. We can observe a polarized growth West-East and North-South (the Western part generates more than 50 % GDP). Another concerning regional issue is a high percentage of unemployment being 13,66 % in the end of October 2013 and the highest percentage in the long term unemployment among all EU countries. What are possible solutions how to improve the current situation? Slovakia needs to develop a more strategic and integrated approach to territorial development with stricter monitoring and evaluation.*

**Keywords:** Cohesion. Disparities. Euro Funds. Regional differences. Slovakia.

### **1. INTRODUCTION**

This paper should present what are the main regional problems and challenges in Slovakia and how Slovakia makes use of the funds of the EU cohesion policy. It should give tentative answers whether the Cohesion policy contributes to economic growth of the country (to the catching-up-process vis-à-vis the EU average in per capita income). The article should also try to show the affects of this policy on regional disparities within Slovak regions.

### **2. SLOVAKIA AND ITS REGIONAL CHALLENGES**

The Slovak Republic (short form: Slovakia) is a state in Central Europe. It has a population of over five million and an area of about 49,000 square kilometres (19,000 sq mi). Slovakia is a bordered by the Czech Republic, Austria, Poland, Ukraine and Hungary. The largest city is the capital, Bratislava, and the second largest is Košice. Slovakia is a member state of the European Union, NATO, United Nations, OECD and WTO among others. The official language is Slovak, a member of the Slavic language family. Slovakia is a high-income advanced economy with one of the fastest growth rates in the European Union and the OECD. The country joined the European Union in 2004 and the Eurozone on 1 January 2009. Slovakia together with Slovenia and Estonia are the only former Communist nations to be part of the European Union, Eurozone, Schengen Area and NATO simultaneously. Since 1949,

Slovakia has been divided into a number of kraje (usually translated as „regions“). Their number, borders and functions have been changed several times. There are currently eight regions in Slovakia and they correspond to the EU's NUTS 3 level of local administrative units. Each Region consists of „okresy“ (counties). There are currently 79 districts. (Bucek 2009).



Figure 1: Slovak regions (Cisarik, 2010)

Their status and importance is different, but it is necessary to take into consideration there are two completely different structures, which are hard to compare – the Bratislava region and other regions of Slovakia. The specific status of the Bratislava region is caused by fact that 84,1% of its inhabitants reside in towns, and 71,5% in the capital – Bratislava (Klamar, 2003, p. 2).

## 2.1. Regional Disparities

Regional disparities in socio-economic development remain extremely important in Slovakia, showing a significant West-East and North-South division, with economic activity being concentrated in the capital city region. Europe 2020 indicators at a regional level show a similar pattern. Around 88% of the population of Slovakia lives in the 7 "convergence" regions that are classified as predominantly rural and intermediate regions. EU fund support for regions and urban development in 2007-2013 were highly fragmented and the linkages between sectoral policies and regional policy were insufficient (OECD, 2012).

Slovakia's GDP per head for the country as a whole is approximately 73% of the EU-27 average. However, this masks striking regional differences between the capital region of Bratislava on the one hand (with GDP per head of 178% of the EU average) and, for example, Eastern region (Presov region) on the other (GDP per head 42% of the EU average). The majority of GDP input is created by the Western region (Commission, 2013).

Another critical issue is the labour market which remains extremely weak. Slovakia's employment rates are below the EU, OECD and V4 (Slovakia, Czech republic, Hungary, Poland) averages for both genders and for all age categories. Unemployment stood at 13.66% in October 2013 with very high levels of youth unemployment (33.6% in June 2013) and one

of the highest rate of long-term unemployment in the EU (67.8% of unemployed without work more than 1 year in 2012) (Statistics.sk, 2013).

## 2.2. Roma issue

In Slovakia, there are strong development disparities between the urban centres and rural areas (Eastern part), characterised by small, dispersed communities. Poverty and social exclusion affect in particular the marginalized Roma communities mostly living in segregated rural areas, often in inadequate housing conditions. Roma communities face a higher risk of poverty and significant barriers to integration in the labour market, to the mainstream education system and to adequate health care. (Council, 2013)

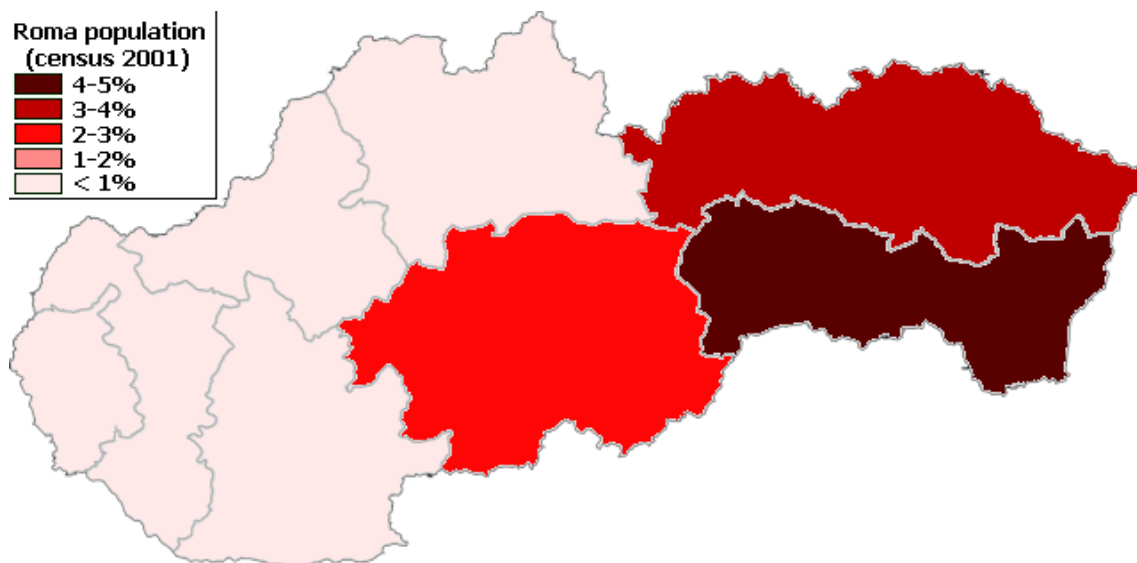


Figure 2: Roma population in Slovakia (Vasecka et al., 2003)

Several facts related to the Roma contribute to their marginalized position on the labour market:

- low education and level of qualifications,
- latent discrimination against the Roma on the part of the majority population or employers (e.g. their reputation for being unreliable, lacking work ethics, discipline),
- poor housing, living conditions, and health,
- high rate of (long term) unemployment and the related devastation of Roma human capital and the loss of work habits.

These handicaps are accumulating in many Roma, and when combined with the fact they may live in a marginalized region and a socially and geographically isolated settlement, neither individuals nor communities can be expected to emancipate themselves from their marginalized position. Roma who live in such locations generally lack job opportunities, due especially to their limited social contacts outside the settlement, contacts that might help the inhabitants of the settlement find a job. Social networks and links are very strong in segregated communities, but the fact they are locally homogenous limits the information they can provide (Vasecka et al., 2003).

In some Roma communities, unemployment is virtually 100%. These are Slovakia's "valleys of hunger", territories with "visible isles of poverty" (Vasecka and Dzambazovic, 2000).

As Radičová (2001) wrote, the basis for achieving social security is social contacts, which are the only possible way of being incorporated into the social order. However, the segregated Roma are not capable of ensuring their participation in informal social networks outside their communities. Their inability to participate in informal networks to a large extent limits their access to basic resources. It makes them dependent, reliant on society. This dependency is of a material nature in the first place, as their survival depends on welfare benefits and other institutions. However, there is an equal threat of social dependence – dependence on others.

Poverty and social exclusion are becoming a Europe-wide problem, as can be seen in the fact that the struggle against poverty and social exclusion has lately formed the main part of EU program documents. Strategic goals have gradually been laid down that accept the key role of social policy. The role of social policy is to alleviate economic and social inequalities, support social cohesion, and connect the economic and social spheres. The strategic aim of addressing poverty and social exclusion is intended to support the process of social inclusion through the EU projects of social protection, employment, health care, housing, and education.

### **3. SLOVAKIA AND EU COHESION POLICY**

Slovakia became eligible for Structural Funds support when it entered the EU in mid-2004. The main objective of the development strategy was to tackle the major sources of regional disparities which were identified in the areas of infrastructure, human resources, industry and services and agriculture and rural development.

The majority of funding went to financing the reconstruction and electrification of selected railway lines and the integration of regional railway networks. For the roads, the priority was to reconstruct existing roads and to build new highways. Since 2004, Cohesion Policy in Slovakia has contributed to the modernisation and development.

In the field of human resources the main aim was to provide assistance to municipalities, individuals and organisations to tackle the most pressing problems relating to labour market development. Concerning the local infrastructure, the policy helped to reconstruct schools, hospitals, social care facilities, cultural facilities and tourism development projects. (European Commission, 2009).

#### **3.1. The programming period 2007 – 2013**

For the 2007 – 2013 period, Slovakia has been allocated €11.7 billion in total: €10.9 billion under the Convergence objective (this objective covers regions whose GDP per capita is below 75 % of the EU average and aims at accelerating their economic development), € 0.5 billion under the Regional Competitiveness and Employment Objective (this objective covers all regions of the EU territory, except those already covered by the Convergence objective), and € 0.2 billion under the European Territorial Cooperation Objective (European Territorial Cooperation is an objective of the European Union's Cohesion Policy for the period 2007–2013, serving its ultimate goal to strengthen the economic and social cohesion of the Union). The regions of Western Slovakia, Central Slovakia and Eastern Slovakia fall under the Convergence Objective, while the Bratislava region is the only region to fall under the Regional Competitiveness and Employment Objective. (European Commission, 2009).

Slovakia's strategic planning for the 2007–13 period was being implemented through 11 programmes. In the Western Slovakia, Central Slovakia and Eastern Slovakia regions, six sectoral programmes (including Information Society, Environment, Transport, Health,



Competitiveness & Economic Growth, Research & Development) and one regional programme were being implemented. A specific regional programme is being implemented in the Bratislava region. Additionally, one 'multi-objective' programme is covering the whole of the Slovakian territory. Two programmes are co-financed with the European Social Fund (Education and Employment & Social Inclusion) (Bucek, 2010).

### **3.2. Current situation & near future – evaluation and impacts**

Slovakia is currently one of the member states representing a challenging example of „Cohesion policy effectiveness“. Slovakia has only 49,63 % of funds allocated two months before the end of the current programming period 2007 – 2013. It is only Romania and a new member Croatia having worst results (European Commission, DG for Regional Policy, 2013).

Under regional development, Slovakia in 2007 – 2013 allocated very limited funding for improving the basic services and quality of life in rural areas and did not clearly prioritise investments contributing to the economic development of these areas. Slovakia should critically evaluate the experience and lessons learnt from the 2007-2013 programming period, including the architecture of the implementation system, the concept of growth poles, and the impact of the approach taken in relation to decreasing territorial disparities, both in sectoral, regional and rural development programmes.

Slovakia's approach in the programming period 2007 - 2013 did not delivered real progress on the ground as a result of lack of coordination and weak implementation (Commission, 2013).

#### **3.2.1 New programming period 2014 – 2020 and possible solutions**

The challenging part for the upcoming programming period 2014 – 2020 remains the same as for the current period – to allocate more finance (having higher success ratio) and to have clearer focus on the strategy.

In the long run, Slovakia should strategically focus on the following topics (Commission, 2012):

- Analyse the reasons for the disparities between and within certain regions, in particular along the West-East and North-South axis, and identify strengths and weaknesses in regional economies.
- Develop a more strategic and integrated approach to territorial development taking account of the broader regional contexts,
- Ensure a balanced sustainable territorial development that will reduce the development gaps between and within regions, and between urban centres and rural regions, developing in particular a more effective concept of growth poles.
- Set out in the programmes the contribution to be made to an integrated approach for territorial development, including, where appropriate, a planned integrated approach to sustainable urban development. (EU Recommendations)
- Set stricter monitoring and evaluation. According to Eurobarometer, Slovakia has the highest awareness of EU regional aid from all EU Member States (71%) and the vast majority of Slovaks (84%) has an impression that EU projects are generally positive. The problem is then mainly in the public sector.
- Ensure EU funds and EU projects to be implemented in University education to have more quality overview of EU Project Management.

#### 4. CONCLUSION

The European Union faces the daunting challenge of emerging from the crisis and putting economies back on a sustainable growth path. The exit strategy entails restoring sound public finances, growth-enhancing structural reforms and targeted investments for growth and jobs. EU Cohesion policy can make an important contribution to sustainable growth, employment and competitiveness and increase the convergence of less developed Member States and regions with the rest of the Union. To ensure that these funds are delivered effectively with long-lasting economic and social impacts, Slovakia and its regions should exploit to the maximum potential synergies between the local regional policy and EU funding in 2014 - 2020 in a more strategic and integrated approach.

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## **ANALYSIS OF EDUCATION SYSTEM AS A FACTOR OF TOURISM DEVELOPMENT IN CROATIA**

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### **ABSTRACT**

*Efficiency of work in tourism, regarded as a labour-intensive economic activity, is the basic factor of labour efficiency and competitiveness, and consequently of economic effects in tourism. A specific characteristic of tourism is that it evaluates, on an economic basis and through labour and capital, natural and sociocultural resources, thus producing added value. Starting from the fact that the employment function is one of the most important economic functions of tourism, this paper investigates and presents the role of formal education system in education of experts who would prospectively work in tourism in the Republic of Croatia. The aim of this paper was to identify the efficiency of the secondary and tertiary education in Croatian tourism. From this aim the research hypothesis was derived that in order to increase the quality and competitiveness of Croatian tourism it is necessary to increase the number of highly educated experts in all business organizations in tourism. General scientific deduction and analysis methods were used to interpret the secondary data sources. The secondary data were collected from statistical reports, scientific and professional articles, and some Internet web sites. Additionally, the primary research was also conducted; to evaluate the efficiency of each education level the Delphi method of surveying the personnel working in tourism was used.*

**Key words:** *education system, efficiency of the human factor in tourism, tourism in Croatia*

### **1. INTRODUCTION AND METHODOLOGY USED**

Education is the fundamental resource of increasing the quality of work, and consequently it is the key component of tourism development (Bartoluci, 2013:350). To meet the employment requirements in tourism in the Republic of Croatia, education of prospective employees is realized at three schooling levels: the secondary and tertiary education within the system of formal education on the one hand, and as informal education on the other. Such lifelong education implies expert improvement after regular education and is most frequently realized according to the work-and-study scheme. This type of scheme implies education through special courses and is not frequently pursued, which does not decrease its importance in tourism. By critically analysing the formal education system in Croatian tourism, the goal of this paper was to point to its characteristics and to stress its shortcomings that directly affect

the qualification structure and the quality of those employed within tourism in the Republic of Croatia. Since the quality of education is not the same at all levels, this directly results in inadequate qualifications of people employed in tourism in Croatia (Opačić, Bogdan, 2010:1). Tourism is globally known for its capability to absorb large numbers of unqualified workers, as well as workers with lower qualifications (Cooper, Hall, 2008:298), and this is particularly expressed in Croatia. This statement can be corroborated by the official statistical data for the year 2011. Highly educated workers (polytechnic and university education) amount to only 11% of the people employed in accommodation and food services. Only every fifth employee (19%) is qualified for such jobs, and most workers have secondary education (53%), which points to the importance of secondary vocational tourism schools. As much as 17% of workers employed in Croatian tourism are unskilled, unqualified and semi-qualified workers (CBS, 2012:139). Unfavourable qualification structure of employees is frequently said to be one of the biggest problems of Croatian tourism (Bartoluci, 2013:42). Such a finding should be complemented by the information regarding the quality of their work, regardless of the obtained qualifications for certain jobs, this quality being directly affected by the education system focusing on the requirements of tourism that is consequently in the focus of investigation in this paper.

General scientific deduction and analysis methods were used to interpret the secondary data sources. The secondary data were collected from statistical reports, scientific and professional articles, and some Internet web sites. Additionally, the primary research was also conducted; to evaluate the efficiency of each education level, the Delphi method of surveying the personnel working in tourism was used. The research was carried out from 3<sup>rd</sup> to 15<sup>th</sup> December 2013 through electronic mail with 52 tourism experts, with a representative 67% (35 questionnaires) response. The results were processed in such a way that the identity of respondents remained anonymous. Fifty-seven percent of the subjects in this research were tourism experts from scientific and education institutions, 14% of tourism experts were from public administration (Ministry of Tourism, government administration and similar institutions), 23% of the subjects were from business (tourist agencies, hotels, etc.) and 6% of the subjects were from the tourism boards, thus covering all areas relevant for tourism. The structured questionnaire consisted of six main questions, five of which were close-ended with answers offered. The subjects were asked to evaluate certain elements on a five-point scale, ranging from one (very bad) to five (very good). The open-ended question served to collect useful suggestions of the subjects regarding the Croatian education system aimed at educating the personnel necessary within tourism. A portion of the yielded results from this primary research regarding the quality of formal education for tourism and the quality of people employed in tourism of the Republic of Croatia are analysed in this paper. Another, very short, primary research was done on the graduate fifth-year students of *Tourism* at the Faculty of Economics & Business from Zagreb in the academic year 2013/2014 with the aim to determine the reasons for choosing to study tourism. The data were collected by using an anonymous questionnaire that contained four close-ended questions. Sixty-six questionnaires were collected.

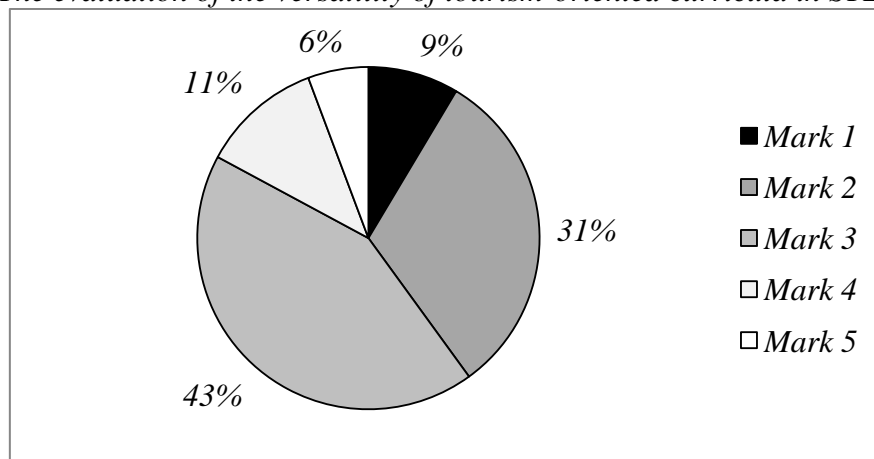
## **2. ANALYSIS OF SECONDARY TOURISM EDUCATION (STE) IN CROATIA**

STE in the Republic of Croatia is realized at 18 specialized vocational schools—most of them are public (16) and two are private. These schools have different names, e.g. catering-tourism, hotel-tourism or economics-trade and catering school, etc. and offer programmes of different duration (from three to four years) and contents, depending on the profile of occupations for which the students are educated. The only available piece of information pointing to the quality of secondary schooling in Croatia is the *Decision Regarding per Curriculum and per*

*School Quotas for the Enrolment into the First Form of Secondary Schools in the Academic Year 2013/2014*, published by the Ministry of Science, Education and Sports of the Republic of Croatia (MSESRC, 2013). The granted enrolment quota of 2,829 students into 18 vocation tourism schools amounts to 5% of the total planned quota of students enrolled in secondary schools in Croatia for the academic year 2013/2014. The planned enrolment per school was between 140 and 252 students. Besides these schools whose orientation is completely on tourism, tourism-oriented curricula are realized in 86 other secondary schools, mostly in comprehensive schools or secondary schools of economics, for which the intake quota for 3,188 students was planned; however, classes with a smaller number of students are planned in these schools. The intake quota totalling 6,017 students was planned for vocational schools in tourism at 104 secondary schools, which represents 10.8% of the enrolment quota of all secondary schools in Croatia in this academic year. At this education level there are five basic occupations for which the students are most frequently educated – cook (34% of the enrolment quota), waiter (24%), hospitality-tourism technician (16%), tourism-hospitality commercialist (10%) and pastry cook (7%). The analysis of tourism-focused curricula has shown that they are mostly meant to incorporate the study of a single foreign language, while the study of other foreign languages has been planned only for the programmes for hospitality-commercialists and hospitality-technicians, which is confusing if one takes into account the fact that about 90% of the total tourism overnight stays in Croatia are realized by foreign tourists (CBS, 2013). These personnel are frequently going to be in direct contact with the guests, among which foreign guests dominate. Further, some other special skills (e.g. necessary for the personnel working in wellness, the personnel rendering services connected with adventurism or a special diet, etc.) and contemporary knowledge (especially the knowledge of information technologies) are not planned in these curricula. This shows that such curricula do not follow market trends in which diversification occurs on a daily basis due to the diversification of tourism offer in other competitive tourism countries, which ultimately leads to strong polarization of tourism interests and needs. For example, research on personnel having this education level in the European Union (EU) shows that employers increasingly more frequently seek the knowledge of information technologies and multifunctional expertise, i.e. the so-called “multitasking” skills (maids and cooks, and similar combinations), which is a direct consequence of the dominance of small and medium entrepreneurs in the HORECA sector within the EU (CEDEFOP, 2005). Also, they simultaneously demand a significantly wider spectrum of professional training than the one to be found in the Republic of Croatia (Bartoluci, Hendija, Budimski, 2012:3). According to the latest forecasts of renowned tourism experts from all over the world in the year 2030 new knowledge and new skills will be sought from those employed in tourism for jobs that are nowadays not yet known and not yet recognized in a tourism market (Sheldon, Prebežac, Fesenmaier, 2014:1).

The primary research done with the domestic tourism experts regarding the versatility of tourism-oriented curricula at STE level in Croatia showed that these curricula received a low average mark of 2.7. Assuming that such an evenly limited structure of curricula also points to their quality and poor adaptation to market needs, as much as 40% of the experts regarded these curricula as unsatisfactory and gave them very low marks (1 and 2), which is presented in Figure 1.

Figure 1. The evaluation of the versatility of tourism-oriented curricula in STE in Croatia

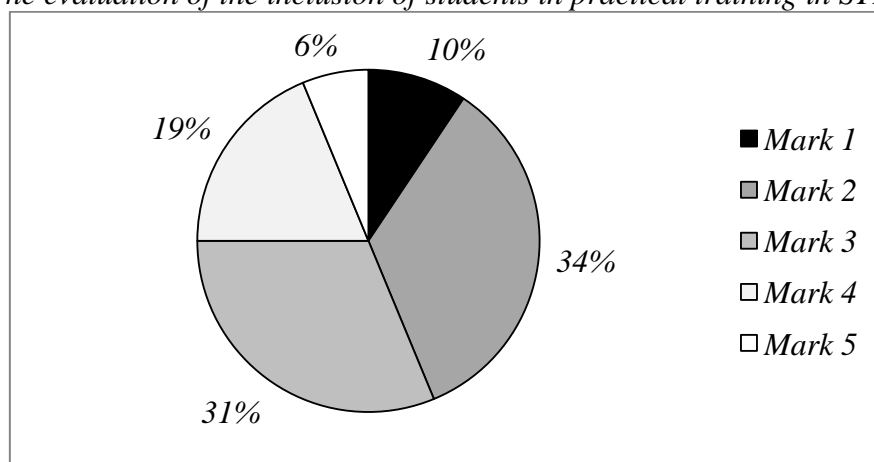


Source: authors, 2013, Zagreb.

The suggestions provided by the subjects and regarding the improvement of the STE system were, for example: *It is necessary to adapt occupations and vocational education to labour market needs; It is necessary to harmonize the education system and the needs of the sector; Greater flexibility of curricula is necessary; The curricula should be based on quality and creativity, more attention should be paid to communication or organizational skills and new technologies; Additional specific curricula for many areas in tourism are necessary which are not covered with the existing curricula; It is necessary to modernize the curricula for vocational education on the basis of the existing and future market needs, etc.*

A very important element in vocational education of the personnel needed in tourism are practice classes, the existing ones being evaluated by the subjects in this research with a very low mark (2.8), as presented in Figure 2. As for the analysis of the structure of marks, the share of low marks was high (43% of the experts evaluated the existing practice classes with marks 1 and 2), which points to the fact that the existing organization and quality of practical training does not meet the market needs.

Figure 2. The evaluation of the inclusion of students in practical training in STE in Croatia



Source: authors, 2013, Zagreb.

Practical training was most often commented in answers to the open-ended question in the questionnaire. Some of the responses were: *Connection with practical situations is necessary; A quality practical training is necessary; A stronger connection with business is necessary as*

*is the inclusion of people working in practice into the teaching process; It is necessary for the students to have practical training to make them aware, at least to a certain extent, of the seriousness and the demanding nature of work in tourism industry; More practical training is necessary; A better and a more intensive cooperation with the sector is necessary; It is necessary to create the conditions that will help achieve a better/quality realization of practical training; The inclusion of employers into education processes is necessary because of the intentions regarding vocational education in the EU to educate people at their jobs; Practical training should be done in real conditions; A quality system of practice and mentorship should be negotiated with employers; Institutions of education should be connected with the business; In secondary schools practical training should comprise 50% of a curriculum, etc.* The dissatisfactory quality of the secondary-school-educated personnel working in tourism and the range of practical training included in curricula realized in secondary tourism-oriented schools resulted in dissatisfaction of employers with the quality of the personnel. The most frequent comments of employers at the recently held 16<sup>th</sup> Congress of hotel managers in Zagreb (December 2013) related to the fact that the people they employed, e.g. cooks, waiters and maids, i.e. the occupations most frequently represented in vocational schools curricula, were insufficiently educated (Plješa, 2013:16).

Technical support in secondary schools received a below-average mark of 2.8. Although the teachers who realize the classes in vocational schools received a somewhat higher average mark of 3.4 by the experts, i.e. the subjects in this research, this mark should still be regarded as low, because the teachers are the fundamental carriers of vocational education for occupations that dominate in Croatian tourism.

The comparison of the obtained results of the primary research with the earlier evaluation of STE in the Republic of Croatia by Mičić points to the chronic shortcomings of this system, and these shortcomings come down to the following: the lack of qualified teachers conducting classes and professional training in tourism; inadequate technical support in schools (which influences the quality of classes and realization of the planned programmes); limitation of the connection between the public and private sector in general, significant lack, due to the unfavourable general economic situation in the country, of scholarships, granted by private entrepreneurs, for students in vocational occupations in tourism (Mičić, 2006). Acquiring theoretical knowledge is still the dominant teaching practice, and there are not enough practical training classes. The basic problem of vocational education in tourism in the Republic of Croatia results precisely from the poor connection between education system and practice and *vice versa*. Internal vocational training is also neglected as a permanent quality enhancement programme, as well as the lifelong education programmes. The result of this is the low mark of the quality of experts and qualified workers in tourism (secondary school education, skilled worker qualifications, etc.) presented in Table 1.

*Table 1. Quality and a sufficient number of skilled workers in tourism in Croatia (in %)*

	Mark 5	Mark 4	Mark 3	Mark 2	Mark 1	Total
<i>Quality of skilled workers in tourism in the Republic of Croatia</i>		25.7	54.3	20.0		100.0
<i>A sufficient number of skilled workers in tourism in the Republic of Croatia</i>		17.6	44.2	35.3	2.9	100.0

*Source: authors, 2013, Zagreb.*

Due to the relatively low marks given for the quality of curricula in secondary schools, the low mark received by the expert personnel (secondary school qualifications, skilled worker qualifications, etc.) employed in tourism for their quality was also expected. According to the results of our primary research, tourism experts, i.e. the subjects in primary research, gave them the average mark of 3.1. For every fifth subject, their quality of work does not deserve a higher mark than the modest 2, and 54% of the subjects were of the opinion that the quality of this personnel deserved the mark of 3. The number of these workers proved not to be satisfactory either, since the experts noticed the lack of such personnel in tourism (the mark of 1 was given by 3% of the experts and the mark of 2 by the additional 35%). At the already mentioned 16<sup>th</sup> Congress of hotel managers the lack of personnel in catering and hotel management (72% in the food and drinks sector, 50% of workers who work at reception desks) was particularly emphasized (Plješa, 2013:16).

The last five years saw the weakening of interest of young people for vocational education in tourism since the share of students attending tourism-oriented pupils in the total number of all secondary school students decreased from 9 (in the academic year 2006/2007) to 8.7% (in the academic year 2009/2010) (CBS, 2012:474). The main shortcoming of STE is the poor interest of young people for such occupations (Bartoluci, Hendija, Budimski, 2012:12). It should be emphasized that Croatian government has depicted in time the problem of this poorer interest, and subsequently the Ministry of Tourism of the Republic of Croatia invested, in the period between 2008 and 2011, approximately 4.1 million euros into programmes aimed at encouraging STE, into technical support of secondary schools that educate such personnel and into granting the scholarships for students who wish to pursue their future careers in tourism (Ministry of Tourism of the Republic of Croatia, 2009). Additionally, in December 2011 the *Strategy of the Development of Croatian Tourism until the Year 2020* was completed, and in it special emphasis was put on human resources, i.e. on increasing the quality of personnel working in tourism (Ministry of Tourism of the Republic of Croatia, 2011). Since the existing system of formal education in Croatia is not fully adapted to the current needs of tourism sector, the previously mentioned *Strategy* anticipates the formation of two to three reference centres of excellence which would be in charge of the implementation of practical training and of the acquisition of contemporary knowledge and skills adapted to the needs of tourism. In October 2013 the *Suggestions for the Improvement of STE*, issued by the Institute for Tourism in Zagreb, were presented (Čorak, Tomljenović, 2012), as well as the suggestions for founding the reference centres of excellence within the system of vocational education in tourism and catering, the so-called CapTure (Ministry of Tourism of the Republic of Croatia, 2013). Although some measures for the improvement of STE system in the Republic of Croatia saw the light of day, the warning, however, should be stressed that the changes in education system are not yet evident, so that a relatively long time is necessary from its reformation to the moment when the results become visible in economy.

### **3. HIGHER TOURISM EDUCATION (HTE) IN CROATIA**

As most European countries, Croatia has joined the Bologna process in 2001 by implementing it into higher education system in 2005. All study programmes were coordinated according to the requests brought by this process, and all students who graduate from Bologna studies receive ECTS credits and are entitled to the diploma supplement that is valid within the EU, which gained more importance since 1<sup>st</sup> July 2013 when Croatia became the member of the European Union. The Bologna system consists of three studying cycles – undergraduate, graduate and postgraduate studies, which determines the duration of studying (3-8 years), and the tourism studies in Croatia are organized accordingly.



Before conducting the analysis of HTE system in Croatia, it is necessary to emphasize the specifics of tourism studies. Globally, higher education system in the field of tourism is a relatively young discipline whose origins can be traced to the 1960s (Fidgeon, Cooper, Sheperd, Westlake, 1996). Similar studies were also organized in Croatia, i.e. in Opatija and Zagreb (Avelini-Holjevac, 1991:118; Čavlek, Bartoluci, Prebežac, Kesar, 2011:4). In the world, at first, tourism was integrated into economics and geography studies, but later it was connected to some other scientific disciplines, such as sociology, anthropology and other social sciences. In Croatia, in its early starts, tourism study was mostly connected to the economics studies – it is usually taught within the economic faculties' programmes. However, since tourism is not yet regarded as a separate scientific field, the data concerning the tourism study is still quite scarce. The only available information is related to education programmes within the field of tourism, as well as to the institutions that conduct these programmes in the Republic of Croatia, whereas there is no information about the number of students that graduate from these institutions.

Why do students decide to study tourism? Most of them enrol in this study programme for all the wrong reasons, mostly because of adventurism and glamour (Cooper, Sheperd; Westlake, 1996:5), because they perceive tourism through the prism of tourism journeys, of sunny beaches with the strong 'jet set' image. Many of them, completely unrealistically, expect to become top managers immediately upon graduation. However, the reality is completely different, since employment in tourism often has quite the opposite reality, not connected to the illusions the students have when enrolling the faculties (Fidgeon, 2010:706). The other extreme is represented by the individuals that have no desire to search for employment within tourism industry, since they realize, immediately upon graduation, that these occupations have many disadvantages (seasonal and/or underpaid jobs, unstable working conditions, etc.). They decide to seek for safer and better paid jobs within some other services (CEDEFOP, 2005:128). Some students are aware that tourism has positive impacts on economic growth, the increase in employment rate and environmental protection (Cooper, Sheperd; Westlake, 1996:99). In order to collect the information concerning students' motivation to study tourism in the Republic of Croatia, in the academic year 2013/2014 the authors conducted a short research among the graduate students of tourism. The results showed that most of the students decided to study tourism because it is a large, growing, global economic activity (46% of students), because it contributes to Croatian economic growth (27%), because it offers the possibility to find a job during the time of global economic crisis and recession (16%) and because it enables the protection of Croatian natural resources (10%) alongside other less important reasons. These results give a clear picture of how young people in Croatia perceive their employment opportunities within tourism industry. Even though finding jobs in tourism is not easy, students still decide to study it and try to improve their opportunities to be competitive in the job market. This research confirmed the results of an earlier research (conducted in the academic year 2011/2012 when the questionnaire was circulated among 112 students of this study level) (Bartoluci, Hendija, Budimski, 2012:5), which points to the actual interest of Croatian tertiary-level students for tourism studies and their wish to find a job in tourism upon graduation.

Nowadays, out of the total number of 122 colleges in Croatia, tourism is taught at 15 higher education institutions (8 faculties and 7 polytechnics) (AZZVO, 2010:8). Of these 15 institutions of higher education most are public institutions (11), and four are private. Contemporary HTE in Croatia is very complex and provides various possibilities of education and training. It is conducted at three levels of education – universities, polytechnics and colleges. The aforementioned 15 institutions are running 39 different tourism programmes, which represents the modest 3% of all study programmes that were approved by the Croatian

Ministry of Science, Education and Sports in 2011 (Ministry of Tourism of the Republic of Croatia, 2012:11). Even though one could argue that there are many such study programmes in Croatia, it is only after the comparison with a country like United Kingdom that the actual situation becomes visible. There were 1,160 study programmes in the field of tourism in that country in 2008 (Fidgeon, 2010:706), which were mostly interdisciplinary (economics, geography, communicology, event management, adventurism, sustainable development tourism, tourism journalism, tourism within public sector, food and tourism, tourism and pop music, Japanese and tourism, etc.), which makes it possible for British students to have better employment opportunities in tourism, which results in the better quality of services provided at all levels of tourism offer in United Kingdom (Bartoluci, Hendija, Budimski, 2012:5). The personnel with better tourism education enable all service providers to choose students with higher levels of educations, and experience shows that such employees are simultaneously more productive (Fidgeon, 2010:707). This is also one of the main reasons because of which one should strive to increase the number of workers with higher education in Croatian tourism.

Of the previously mentioned tourism programmes, most or almost half (19 programmes) are realized at the low levels of tertiary education – 12 of them as professional studies and 7 programmes as undergraduate professional studies. The number of tourism programmes is inversely proportionate to the level of studying as are the variations in the number of students. The number of students declines with the increase of the level of education. Graduate study implies 13 programmes that are mostly realized (11 of them) as university studies, whereas postgraduate tourism studies imply seven programmes, all of which are taught exclusively at universities (Bartoluci, Hendija, Budimski, 2012:5). Only a small number of students decide to study at postgraduate studies (partially because of the personal financial reasons). As for the programme contents, most programmes (11 of 39) are in the field of management (management in tourism, tourism management, sustainable development management, rural tourism management, etc.). Such programmes are mostly realized at all community colleges, mostly at lower study levels (professional ones). HTE in the Republic of Croatia is mostly directed towards education of various profiles of managers, but also of other highly educated experts for the areas like finances, book-keeping, public procurement, planning and analysis, auditing, controlling, marketing, etc. This is the reason why graduate students can find a job in other areas as well. The second most represented study programme is business economics with the major in tourism (8 programmes), which predominates at all universities. There are 7 programmes that are related to culture in tourism. Besides that, tourism study in the Republic of Croatia is connected with health, sport, agriculture, ecology, small and medium entrepreneurship, etc. When comparing the study programmes of various higher education institutions that educate students for work in tourism industry in the Republic of Croatia, it is possible to conclude that education at all levels (college, undergraduate and graduate study) is provided mostly by faculties of economics. Further diversification of these programmes will make it possible to produce experts who will be able to meet the requirements of the very demanding tourism market (Ministry of Tourism of the Republic of Croatia, 2011:20).

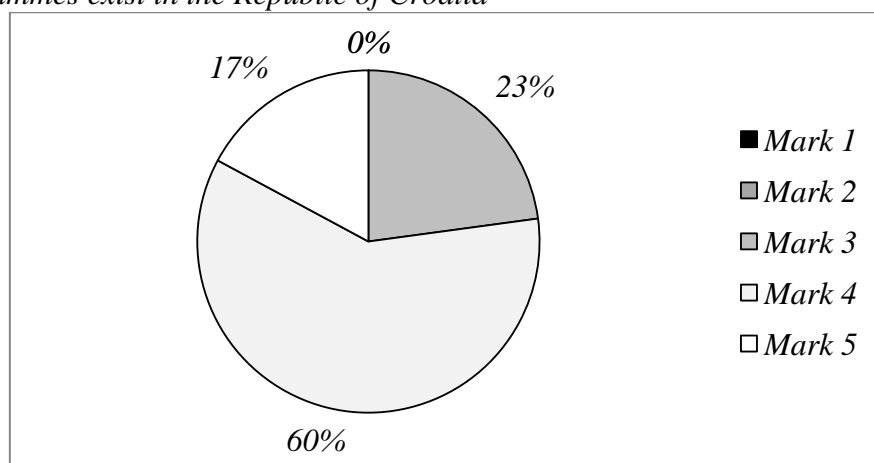
Upon implementing the Bologna process in Croatian higher education system, the mobility of students became possible, i.e. it became possible for the students to complete their undergraduate studies at one faculty and then continue their graduate study at some other faculty either in Croatia or abroad (the ERASMUS project at the Faculty of Economics & Business in Zagreb). The Department for Tourism at the Faculty of Economics & Business in Zagreb has the TedQual certificate of the UN World Tourism Organization (UNWTO) for excellence in education of experts in tourism (Čavlek, 2011:4). Within the doctoral study at the Faculty of Economics & Business in Zagreb the students can go abroad to other

universities through the student exchange, and the foreign students included in the Erasmus Mundus programme attend the doctoral study in tourism at the Faculty of Economics & Business in Zagreb (Bartoluci, Hendija, Budimski, 2012:6).

In contrast to STE in the Republic of Croatia, the quality of HTE is better, as is its organization, because of a wide range of education opportunities at various levels of higher education. However, the shortcoming in this matter is that HTE programmes are not enrolled by many students. If the number of such students were greater, this would provide the improvement of personnel structure of those employed in Croatian tourism. Teaching staff at this education level, as the basis of this education system, was assessed to be better than the teachers working at STE level, which could partially be attributed to stricter legal conditions that exist for professors and other lecturers at higher education institutions.

The conducted primary research regarding the quality of the tourism-oriented classes at various faculties showed the satisfaction of domestic experts, the subjects in this research, as regards: the number of faculties, which received a high average mark of 4.0, the quality of teaching staff that also received a high average mark of 3.9, as well as the quality of curricula that received the average mark of 3.8. Polytechnics fall behind universities in these indicators, one reason perhaps being the fact that they offer lower-level higher tourism-oriented education. It is interesting to analyse the structure of the marks for the quality of the teaching staff at faculties – unlike the teachers at secondary schools, the teaching staff at faculties received above-average marks (77% of the teaching staff received the marks of 5 and 4), which is presented in Figure 3. This has confirmed the basic research hypothesis that in order to increase the quality and competitiveness of Croatian tourism, it is necessary to increase the share of highly educated experts in tourism.

Figure 3. The evaluation of the quality of the teaching staff at the faculties at which tourism study programmes exist in the Republic of Croatia



Source; authors, 2013, Zagreb

As was the case with secondary school teachers, practical training seems to be the main shortcoming of higher tourism education, which was confirmed by the outstandingly low average mark given to it by the experts (2.3). Their main criticism regarding this level of education related to the students' practical training in tourism. Here are some suggestions: *Compulsory students' tours should be introduced; Connection with practical situations should be addressed; Students need more practical training; Students should participate in all jobs in tourism, as well as in catering and hotel management from the first year of study to be able to gain insight into the importance of the quality of services rendered; Students should participate more in project designs aimed at meeting the requirements of industry; More*

*practical training is necessary; Practical experience of students should be provided during the tourist season when there are no classes at faculties; Business and faculties should be better connected; A stronger connection between business and HTE is necessary; Conditions should be created for better and more quality realization of practical training; Both the students and the teaching staff should have more contact with practice in tourism; Practice abroad should be compulsory; More practical training is necessary, particularly abroad; More concrete case analyses during practical training are necessary; A better and more intense practical training, etc.*

Although the results of this analysis of HTE system for tourism purposes in the Republic of Croatia makes it possible to say that there are relevant institutions and quality personnel that participate in this education process, when employment be taken into account, then the lack of highly educated experts (university and polytechnic level) becomes evident for tourism purposes in practice. The quality of experts working in top-management positions in tourism is also unsatisfactory. Every third expert in this research stressed that Croatian tourism lacks educated managers (31%), which is presented in Table 2. Almost two thirds of the surveyed experts were of the opinion this structure was average (the mark of 3 was given by 54% experts), below average (the mark of 2 was given by 9% of the experts), although it should be noted that these personnel received somewhat better marks than those with a lower education level.

*Table 2. The quality of the personnel at management positions in tourism and a sufficient number of managers in tourism in Croatia (in %)*

	Mark 5	Mark 4	Mark 3	Mark 2	Mark 1	Total
<i>The quality of the personnel at management positions in tourism in the Republic of Croatia</i>	2.9	34.3	54.3	8.5		100.0
<i>A sufficient number of managers in tourism in the Republic of Croatia</i>	2.9	14.3	51.4	20.0	11.4	100.0

*Source: authors, 2013, Zagreb.*

Croatia's accession to the European Union provided prerequisites for the improvement of HTE for tourism purposes: greater mobility of students and teachers was made possible, better scholarship opportunities were created, participation in international projects and the application for funding and encouragement programmes of the EU are now possible, scientific publications are encouraged, as well as professional symposia, research in tourism, etc.

Higher education has a special role in the development of a society because it creates personnel which are, by being more educated, more ready to encounter all development challenges of contemporary society – from using new technologies, the Internet, information, etc. Croatia follows the trend of developed countries in the world by increasing education opportunities for tourism purposes at the highest education level, and the diversification of such curricula enables the development of human resources that will be able to meet the requirements of the diversified tourism market.

#### **4. CONCLUSION**

On the basis of the analysis of secondary data and the results of primary research it becomes evident that the chronic problem of Croatian tourism is connected with secondary education for tourism purposes, the more so because most of the people employed in Croatian tourism

have secondary education. The quality of higher education for tourism purposes is significantly better; however, the number of such experts is not satisfactory and it should be increased, since they are the carriers of tourism development.

Still, how much attention is paid in Croatia to the improvement of the quality of human resources in tourism which are the key renderers of tourism services? There is no awareness that the competitiveness of Croatian tourism highly depends on people directly participating in tourism, however, it especially depends on people, who are indirectly connected with this economic activity, and their work quality. The primary research confirmed the hypothesis of this paper that to increase the quality and competitiveness of Croatian tourism it is necessary to increase the share of highly educated experts working in tourism. To be able to implement this recommendation, it is necessary to:

- change the image of tourism, increase the reputation of employment in tourism by pointing in media to the constant growth of demand for such experts, as well as to point to the advantages of employment in tourism for women, for the young people and for those with a lower education level, as well as to point to the opportunities to achieve additional income during high tourist season,
- improve all levels of education (from secondary school to higher education),
- provide possibilities of lifelong learning, as well as of the improvement and promotion of employees,
- provide international certificates for employees,
- observe the changes on the demand market (what guests want and expect), and constantly adjust the offer to market changes (follow the competition) – it is not enough to settle the current needs for workers, but it is crucial to bear in mind the future.

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## Section 2

# **Enterprise in Turbulent Environment**

## UNDERPRICING OF CORPORATE BONDS: EVIDENCE FROM THE CEE MARKETS

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### **ABSTRACT**

*The aim of this paper is to investigate the underpricing phenomenon of newly issued corporate bonds in the CEE markets and its determinants. The study is composed of three parts. First, I review the existing literature on the bond underpricing, focusing both on theoretical explanations and empirical research. Second, I present datasets and research methods employed. Finally, I describe the empirical analysis and its results. The computations are based on a filtered sample of 142 corporate bonds issued between March 2010 and August 2013 and listed on regulated CEE markets. The paper ends with conclusions and suggestions for further research. The study makes two crucial contributions to the relatively modest literature on initial bond offering mispricing: it attempts to verify whether the IBO mispricing is present also in the emerging markets and it tries to identify which factors influence the size of the mispricing. The performed analysis allows to confirm the existence of the underpricing effect of newly issued bonds in the CEE markets. However, it was not possible to indicate any specific factors which particularly impacted the size of the underpricing.*

**Keywords:** corporate bonds, underpricing anomaly, new issues, CEE, emerging markets.

### **1. INTRODUCTION**

IPO anomalies on the stock market are extensively documented in the literature. Researchers all over the world investigated both short term mispricing and long term underperformance phenomena. Papers offer plenty of hypotheses explain these patterns and their origins. Taking that into account it may seem astonishing, that very few studies concern similar phenomena in the bond market (Ritter, 1998; Jenkinson and Ljungqvist, 2001). Up to now, there are several papers including observations from the United States and foreign markets, mostly Japan. What is more, it seems that no paper investigated bond IPOs in emerging markets. The aim of this paper is to investigate, whether the initial underpricing of the bond IPOs could be observed in the emerging markets and to find out which factors contribute to the underpricing. The study is composed of 3 parts. The reminder of the article is organised as follows. First, I review the existing literature in the field, focusing both on theoretical explanations and empirical research. Second, I present datasets and research methods employed. Finally, I present the empirical research and its results. I concentrate on CEE markets as a proxy for the emerging markets in general. My computations are based on a preselected sample of 142 corporate bonds issued between March 2010 and August 2013 which were listed Catalyst, the only regulated market in CEE dedicated to corporate debt. The paper ends with conclusion and suggestions for further research. The paper makes two crucial contributions to the relatively modest literature on initial bond offering (IBO) mispricing. Firstly, it attempts to verify whether the IBO mispricing is present also in the emerging markets. Secondly, it tries to identify which factors influence a size of the mispricing, by amplifying it or minimising. The results of analysis are important for both “sides” of financial markets. From the point of companies seeking financing, they allows to better estimate a cost of capital and its components, and thus helps to decrease and optimise it. On the other hand, the research



results helps investors to better forecast the expected rate of returns in the corporate bond market.

## **2. BOND UNDERPRICING AND ITS EXPLANATIONS – RESEARCH SURVEY**

There are many hypotheses explaining initial underpricing at stock IPOs, but not many of them could be applied to the bond market. In practice, two standard explanation are offered: asymmetric information between investors and excessive competition between underwriters. The first prominent explanation is presence of asymmetry in access to information among various market participants. The hypotheses may come in a few forms which may slightly differ from each other. Rock (1986) emphasise the winner's curse problem, which emerges when well informed investors request allocation only of low and fair value IPOs. Thus, the allocation of overpriced and frequently unprofitable IPOs is left to uninformed investors. The problem is solved through underpricing. It offers profit to uninformed investors, which would otherwise not participate in the IPOs. The Rock's model is extended by Benveniste, Busaba and Wilhelm (2002), and also by Sherman and Titman (2002). Those authors regard underpricing as a sort of payment to IPO participants for revealing information about their opinions and valuations of the bonds offered. Another extension of information-based theories focuses on differences in access to information of investors and managers. These hypotheses involves signalling models (Allen and Faulhaber, 1989; Welch, 1989; Grinblatt and Hwang, 1989) and is related to a lemons problem. If investors cannot tell the difference between "good" and "bad" companies, they value all of them the same. This is the reason why managers of good companies want to differentiate themselves from the bad ones and take advantage of underpricing mechanism "to receive their true, high worth" (Cai, Helwege and Warga, 2007). Some authors suggest that the underpricing problem may be reduced thanks to a good reputation of an underwriter (Chemmanur and Paeglis, 2005; Chemmanur and Fulghieri, 1994; Hughes and Thakor, 1992; Diamond, 1989; Diamond, 1991; Gorton, 1996; Fenn, 2000; Carty, 1996). Datta, Iskandar-Datta and Patel (1997) suggest that underpricing could be also a result of excessive competition among underwriters. According to their explanation, underwrites compete rather for high credit quality issues than low quality ones (junk bonds or not rated bonds). As a consequence, they drive up prices of investment grade bonds and push down prices of junk bonds. Due to that, the first group may be overpriced, and the other underpriced. The competition hypothesis appears to have two weak points. Firstly, it is difficult to justify why some investors actually buy overpriced bonds. Secondly, there is an issue of other dimensions over which underwrites compete: commissions, size of an issue, etc. The competition hypothesis seems to be confirmed for instance by Datta, Iskandar-Datta and Patel (1997), who observed that positive abnormal rates of return on the IPO day are characteristic for low rating bonds, while investment grade debt often perform poorly during IPO. These studies appear to be confirmed by Cai, Helwege and Warga (2007), but it is worth noting that McKenzie and Takaoka (2008) come to an opposite conclusion. Some extensions of the competition model may be found also in the paper of Takaoka and McKenzie (2006). Besides the theories described above, some attempts were taken to explain the underpricing phenomenon with liquidity issues. However, this field of research resulted in mixed conclusions. Ellul and Pagano (2006) think that bond underpricing may be regarded as a form of compensation for low liquidity right after the IPOs, which they partly confirm with their empirical research. On the other hand, Booth and Chua (1996) conclude, that initial underpricing induce higher investors' activity right after the bond IPOs. Finally, the study of McKenzie and Takaoka (2008) is also worth mentioning. The authors connect the IPO underpricing effect with a level of market and interest rates volatility. Empirical research over abnormal IBO returns take usually two forms: either analysis of bond YTM's or price patterns.

Early studies (Ederington, 1974; Lindvall, 1977; Sorensen, 1982) examined mostly YTM's and indicated, that these of newly issued bonds before the first listing are usually higher than already listed bonds with a matching maturity and credit quality. However, because of difficulties in proper YTM calculation in case of bonds with built-in options, Weinstein (1978) decided to use benchmark-corrected prices instead of YTM's. He based his computations on a sample of 179 initial bond offerings and 412 seasoned bond offerings from years 1962-74. Most of the bonds were investment grade. Weinstein observed 0,366% average abnormal return in the first month of listing. On the other hand, Fung and Rudd (1986) did not manage to confirm existence of IBO underpricing and Wasserfallena and Wydler (1988) found proofs of this phenomena in the Swiss market. Older studies did not distinguish between initial and secondary bond offerings. In contrast, Datta, Iskandar-Datta and Patel (1997) investigated exclusively IBOs. The authors used listings from NYSE and found positive abnormal returns averaging 1,85% for junk bonds and negative abnormal returns for investment grades. A similar methodology was employed by Helwege and Kleiman (1988), who used also dealer quotations. The regarded such approach as more appropriate due dealer-dominated character of the bond market. These researchers found statistically significant underpricing of speculative bonds, but only of 39 basis points. Among the newer IBO research, it is necessary to point out papers of Kozhanov and Ogden (2012), as well as Cai, Helwege and Warga (2007), which both generally confirm underpricing phenomenon. In contrast, McKenzie and Takaoka (2008), find out that corporate bonds in the Japanese market were rather overpriced than underpriced. Finally, interesting remarks could be found in a paper of Kohanov, Ogden and Vaghefi (2011). These authors indicate, that corporate bonds usually right after the IPO deliver abnormal rates of return, which last up to 6 months. However, later the bonds usually underperform effectively erasing initial superior returns.

### 3. DATA SAMPLE AND RESEARCH METHODOLOGY

I based my computations on all corporate bonds listed on the Catalyst market, which were issued between March 2010 and August 2013. I eliminated from the sample zero-coupon bonds (because of different price behaviour), government guaranteed bonds (because there are more similar to government bonds than corporate bonds), and bonds with no single trade during the first 100 days from IPO (in order to eliminate the distortions implied by lack of liquidity). After these operations, the final sample consisted of 142 corporate bond offerings. Data involving prices, dates, and benchmarks come from Bloomberg. The analysis of behaviour of corporate bonds after an offering was performed according to a following procedure. First, I began with the popular average cumulative abnormal returns (ACAR) approach. It is a fairly popular method, although ACAR is not the most reliable basis for statistical inferences in case of long term event-studies (Fama, 1998). Next, using previously calculated ACARs, I performed regression analysis with dummy variables.

I begin by calculating abnormal returns (ARs) for each day within the 180-days period after the first listing. The daily AR was calculated as:

$$AR_{it} = R_{it} - R_{E(i,t)}, \quad (1)$$

where  $R_{it}$  denotes bond  $i$  return<sup>71</sup> on day  $t$ , and  $R_{E(i,t)}$  is bond's  $i$  expected return on day  $t$ . The econometric literature offers a wide range of expected return models, which additionally in

<sup>71</sup> I used logarithmic rates of return in all the computations.

recent years significantly gained on sophistication. Interesting reviews could be found for instance in Campbell, Lo and MacKinlay (1996), MacKinlay (1997) or Kothari and Warner (1997; 2006). In this paper I employ benchmark-corrected rates of return, which is similar to the methodologies employed in the studies of Datta, Iskandar-Datta, Patel (1997) and Cai, Helwege, Warga (2007). From the formal point of view, it is a variation of a *market model*, as presented by MacKinlay (1996).

$$\begin{aligned} R_{it} &= \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \\ E(\varepsilon_{it0}) &= 0, \quad \text{var}(\varepsilon_{it0}) = \sigma_\varepsilon^2. \end{aligned} \quad (2)$$

where  $R_{it}$  and  $R_{mt}$  are the period- $t$  returns on security and the market portfolio,  $\varepsilon_{it}$  is the zero mean disturbance term and  $\alpha_i$ ,  $\beta_i$  and  $\sigma_\varepsilon^2$  are the parameters of the market model. The actual model I used was a *market-adjusted return model* (MacKinlay, 1996). The market adjusted model is a restricted market model with  $\alpha_i$  constrained to be 0 and  $\beta_i$  constrained to be 1.

Finally, the model's specifications is as follows:

$$R_{it} = R_{mt}. \quad (3)$$

I used maturity-matched Bloomberg/EFFAS Bond Price Indices as benchmark portfolios. It would be more appropriate to use a corporate bond index, which would factor not only variation in interest rates, but also changes in credit spreads, but there are no such indices available in CEE markets.

It is also necessary to point out, that the first  $AR_{it}$  was computed against the issuing price, and that it related to the benchmark behaviour in the period between the offering and the first transaction day.

After computing daily ARs based on expected return models, I proceeded with time-series aggregation, so as to obtain cumulative abnormal returns (CARs):

$$CAR_i = \sum_{t=1}^T AR_{it}, \quad (4)$$

and then I averaged CARs cross-sectionally for all the bonds in the sample, in order to obtain average cumulative abnormal returns (ACARs):

$$ACAR = \sum_{i=1}^N CAR_i. \quad (5)$$

When I calculated ACARs, I divided the full sample additionally into subsamples, based on various bond characteristics, which could potentially influence the scale of abnormal returns: maturity, collateral, public status at the time of issue, its size and its character (initial or secondary).

The zero hypothesis that ACARs are not significantly different from zero was confronted with an alternative hypothesis that ACARs actually differ from zero. I verified this hypothesis with parametric (t-statistic and t-Student distribution) and non-parametric tests (z-statistic from a bootstrap procedure).

Next, using the CARs based on the closing price at the first session with any transactions, I regressed CARs against some dummy variables. The aim of the regression was to investigate which factors contribute to the variation in abnormal returns and was based on the same variables, which were used earlier to divide the sample into the subsamples:

1. IPO – the first offering on the bond market,
2. private status – issuer's stocks were not listed in any regulated market at the day of offering,
3. lack of collateral – bonds were not secured with any collateral,
4. small issue – a total size of an issue did not exceed 10 mio. PLN,
5. long term bond – bond's maturity was longer than 3 years.

The regression analysis was performed in 8 separate dummy variable configurations. The regression parameters were estimated employing OLS.

#### 4. RESULTS AND INTERPRETATION

Figure 1. presents the cumulated ACAR rates during 180 days after the first transaction.

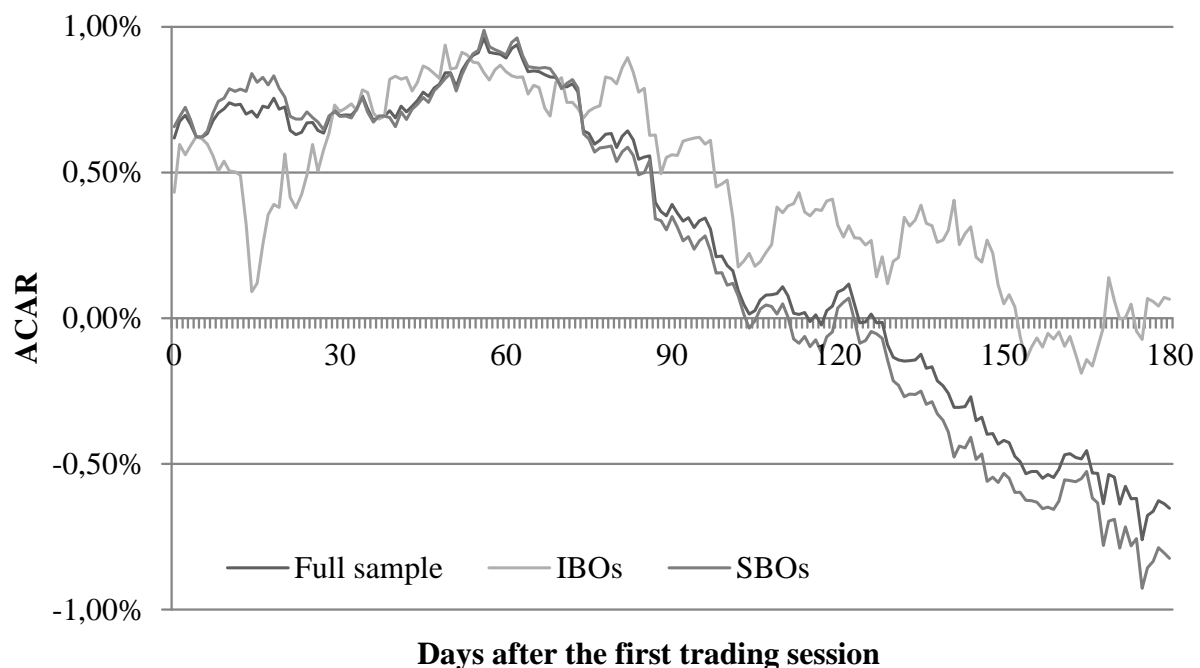


Figure 1: ACARs during 180 days following the first trading session (own computations.)

The price behaviour generally follow the patterns observed in the US market in the subinvestment grade bonds segment. During the first 2 months of listings the bonds delivered almost 1% abnormal returns. Next, the superior performance successively weakened, and finally between the 4<sup>th</sup> and the 6<sup>th</sup> month the positive abnormal returns were erased to 0 or even became negative. Nonetheless, as it is depicted in Table 1, although the initial positive returns were statistically different from 0, the later negative ACARs lacked statistical significance.

*Table 1: ACARs among IBOs and SBOs (own computations)*

Day number	Full sample			IBOs			SBOs		
	ACAR [%]	<i>t-stat</i>	Number of observations	ACAR [%]	<i>t-stat</i>	Number of observations	ACAR [%]	<i>t-stat</i>	Number of observations
1	0,619***	3,783***	142	0,432**	2,005**	24	0,656***	3,414***	118
2	0,675***	4,139***	142	0,597***	2,767***	24	0,691***	3,601***	118
3	0,696***	4,198***	142	0,561***	2,588***	24	0,723***	3,707***	118
10	0,718***	3,969***	141	0,538	1,583	24	0,755***	3,638***	117
30	0,713***	3,909***	136	0,732**	1,986**	24	0,709***	3,404***	112
60	0,906***	3,57***	130	0,869*	1,907*	23	0,914***	3,108***	107
90	0,351	1,531	118	0,551	1,250	23	0,303	1,138	95
150	-0,432	-1,313	103	0,114	0,275	20	-0,563	-1,421	83
180	-0,636	-1,461	98	0,071	0,159	19	-0,806	-1,522	79

\*Statistically different from 0 at 10% level.

\*\*Statistically different from 0 at 5% level.

\*\*\*Statistically different from 0 at 1% level.

What is interesting, the IBOs' returns were not higher, but actually lower, than these of SBOs. It stays in vivid contrast to what is observed in developed markets.

Table 2. depicts ACARs during the first trading session in the subsamples.

*Table 2: ACARs in the subsamples (own computations)*

	ACAR [%]	Number of observations	Percent of the sample [%]	<i>t-stat</i>
Panel 1: private/public status				
Privat companies	0,308	54	38,03	1,075
Public companies	0,809***	88	61,97	4,117***
Panel 2: maturity				
Short-term bonds (up to 3 years)	0,677***	92	64,79	4,725***
Long-term bonds (more than 3 years)	0,510	50	35,21	1,317
Panel 3: size of an issue				
Small issues (up to 10 mio. PLN)	0,396**	64	45,07	2,055**
Big issues (over 10 mio. PLN)	0,801***	78	54,93	3,171***
Panel 4: collateral				
Lack of collateral	0,634***	128	90,14	3,539***
Collateral	0,475	14	9,86	1,700
Panel 5: IPO/SPO status				
Initial bond offerings	0,432**	24	16,90	2,005**
Seasoned bond offerings	0,656***	118	83,10	3,414***

\*Statistically different from 0 at 10% level.

\*\*Statistically different from 0 at 5% level.

\*\*\*Statistically different from 0 at 1% level.

Analysing the Table 2, it is difficult to indicate which factors determine the size of underpricing. In fact, none of the factors, which were analysed in previous research, does not seem to contribute to forming the abnormal returns. These observations are confirmed by regression analysis shown in Table 3. Own computations.

Although the intercept in most cases is significantly different from 0, but it was not possible to extract the factors that determine the size of underpricing.

*Table 3: Dummy variable regression (own computations).*

Parameters	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept [%]	0,656***	0,806***	0,475	0,801***	0,677***	0,831***	0,652	0,787
	<b>3,663***</b>	<b>3,930***</b>	<b>0,912</b>	<b>3,650***</b>	<b>3,337***</b>	<b>3,861***</b>	<b>1,228</b>	<b>1,405</b>
IPO [%]	-0,224					-0,174		-0,243
	<b>-0,514</b>					<b>-0,399</b>		<b>-0,524</b>
Private company status [%]		-0,501				-0,490		-0,359
		<b>-1,493</b>				<b>-1,452</b>		<b>-0,998</b>
Lack of collateral [%]			0,159				0,371	0,358
			<b>0,291</b>				<b>0,654</b>	<b>0,626</b>
Small issue [%]				-0,405			-0,529	-0,431
				<b>-1,239</b>			<b>-1,524</b>	<b>-1,188</b>
Long-term bond [%]					-0,167		-0,368	-0,345
					<b>-0,489</b>		<b>-1,004</b>	<b>-0,883</b>
R <sup>2</sup> [%]	0,19	1,57	0,06	1,08	0,17	1,68	1,93	2,97
Adjusted R <sup>2</sup> [%]	-0,53	0,86	-0,65	0,38	-0,54	0,27	-0,20	-0,60

\*Statistically different from 0 at 10% level.

\*\*Statistically different from 0 at 5% level.

\*\*\*Statistically different from 0 at 1% level.

## 5. CONCLUSIONS AND AREAS OF FURTHER RESEARCH

In comparison with stock IPOs, anomalies connected with bond issues are relatively weakly investigated in the economic literature. Few studies concentrated mostly on US market suggested underpricing phenomenon among newly issued corporate bonds. This paper was probably the first attempt to find out whether the similar phenomenon may be observed in emerging markets, and to answer the question which factors contribute to its creation.

The performed analysis allowed to confirm the existence of underpricing of newly issued bonds in the CEE corporate bond markets. However, it was not possible to indicate any specific factors which particularly impacted the size of underpricing. What is more, I was unable to confirm observations from the US market, that the abnormal returns are characteristic particularly for initial public offerings. In CEE in years 2010-13 the abnormal returns were generally similar, without regard for issue size, maturity, collateral, public or private status of an issuer, or the issue character: IBO or SBO.

Further research should concentrate on a few areas. Firstly, the sample should be expanded in both the time dimension (emissions which took place after publication of this paper) and the geographic dimension (emerging markets other than CEE). Moreover, it would be highly valuable to expand the sample into OTC market, for instance based on dealer quotations.

Secondly, it would be very useful to design some credit risk index for CEE corporate bond markets. It would allow more precise estimations of the underpricing. Thirdly, it would be valuable to assess the impact of a credit quality on the size of the underpricing and the price patterns following offerings. Nonetheless, the main obstacle is that most bonds in CEE are not rated. Finally, increasing the number of dummy variables (for example with liquidity) could shed some light on the determinants of abnormal returns.

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## THE REALIZATION PROGRAM OF SOCIAL SUPPORT IN EDUCATIONAL INSTITUTIONS

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### ABSTRACT

*In the article describes the main approaches and issues related to the formation of corporate social responsibility, which is one of the key factors in creating a positive image of an institution of higher education (IHE). The authors consider the social function of IHE as a function acquires a special status in the modern development of society, the implementation of which requires the consideration of the needs of stakeholders. Show the need to improve corporate social responsibility to improve the competitiveness of educational institutions in the modern world. In the article describes the main features and principles of socially responsible activities of the institution of higher education on the basis of the developed and implemented programs of social support workers and students, as well as analysis of the main mechanisms for the implementation of social programs.*

**Keywords:** *social support, employees and students of educational institutions.*

### 1. INTRODUCTION

Today, the institution of higher education (IHE) provides not only the acquisition of knowledge, but also have a special social responsibility for the economic, social and cultural development of society as a whole. This process is characterized by a significant increase in their social activity, awareness of the need to implement a system of socially responsible activities. A socially responsible of the University contributes to accelerating the development of regional presence, reduce political and social risks, and strengthening international economic relations in the region and the country with the partner countries, strengthen the reputation of the university, increase the value of its brand attractiveness. The University social responsibility of useful for long-term success of the university and society as a whole should therefore be an integral part of its strategy and long-term policy. The social responsibility is implemented in two directions: internationalization and regionalization. Regionalization is shown in close cooperation with the business (Perfileva, 2011, pp. 134 - 143; Martinova, 2004, pp. 101 - 105). Internationalization of the University is to train foreign nationals attracting foreign teachers, foreign internships, student exchanges, international studies, conferences, grants and English website of the university. Functioning of institutions of higher education as a social institution is manifested in the "organizational behavior" - at three levels: the individual behavior of employees and students, the collective behavior of different groups within the institutions of higher education, behavioral strategies institutions in society. Institution of higher education is an organization in which social issues should be implemented among staff and students, as well as being focused on the interaction with the external environment. One of the mechanisms of this interaction can become a social partnership between educators, employers, governments and other stakeholders. Behavioral strategy higher education institutions in accordance with its purpose as a social institution

must wear a socially responsible nature. Social responsibility - the foundation of the welfare state and society as a system of social institutions that recognize their responsibility to meet the basic needs of citizens and to take appropriate practical for this effort. Social responsibility IHE expressed in its contribution to the development of society and involves the voluntary separation from the state responsibility for social and economic development of the region's presence, for the most urgent and pressing social problems, for the satisfaction of vital social needs of the population (Perfileva, 2011, pp. 134 - 143; Martinova, 2004, pp. 101 - 105). This approach aims to integrate and harmonize the entire range of different and sometimes conflicting interests, needs and values characteristic of various groups related to high school and interested in the results of its activities.

## 2. CHAPTER

To understand the role of IHE as a socially responsible institution must consider the functions that it performs in force occupied the position in society:

- 1) the reproduction of social intelligence - provide public educational services aimed directly at the service of human freedom and development;
- 2) the training of qualified personnel as one of the decisive factors in the development of the education system as a whole, as well as providing scientific, technical and socio-economic progress of the country;
- 3) the formation of the labor market - created in an institution of higher education new knowledge has a direct impact on the labor market , forcing overestimate the importance of certain skills , changing the quantitative and qualitative requirements for Workforce;
- 4) the development of culture and ethics (code of conduct, logo and corporate identity, the collective agreement, the position of wages , fees and bonuses), the availability and the observance of which largely determines the psychological climate in the IHE and its market capitalization;
- 5) the stabilization of social relations - an institution of higher education has been an active participant in social interactions with stakeholders and representatives of a variety of social media presence in the region. This is done through the preparation of analytical information for legislators, develop proposals for amendment or adoption of laws, social programs (especially on a voluntary basis), to inform the public about their successes and challenges (social accountability) (Romanova, 2001, pp. 23-36; Malzeva, 2009, pp. 12 -16).

Thus, the institution of higher education as a socially responsible institution has both shared with other social institutions, as well as special, peculiar only to him the role in social development - the very nature of its existence laid social character, which manifests itself in the level of education of the population and the development of personality. In implementing programs based on elements of corporate social responsibility are principles such as continuity, accessibility, targeting, efficiency, transparency, integrated approach, system activity, justice, cooperation and strategic and economic feasibility, consistent with the strategic priorities of the University, considered in the context of increasing its competitiveness and provided financial performance of the University. In our view, the problem of implementation of corporate social responsibility is relevant today. In today's competitive environment is a clear realization of the elements of corporate social responsibility, allow to occupy a leading position in the market and be successful in the future. Competition between institutions every year increases, and will increase in connection with what to the fore the competitive advantages of companies among which the public

support. Community involvement in the organization of corporate governance means that you can take into account in the company's social interests and the interests of certain social groups, which in turn contributes to greater social stability and cohesion. Implementation of the principles of corporate social responsibility of the university through the development program, including the issues of social support both staff and students, and directed to the external environment is an important task for its long-term success in the same way as for society as a whole. It thus comes to the development of the organization's strategy, capable not only to adapt to changing conditions and often contradictory internal and external environment, but also taking into account their needs and forming (Malzeva, 2009, p. 413).

#### **4. CHAPTER**

The Grodno State University of Yanka Kupala is the largest regional university in Belarus, provides training on a wide range of specialties and is focused on winning a leading position in the mass market of educational services in the global market, geopolitical and innovative development of the region. To date, the university has about 20 thousand students and employs more than two thousand people. Our university aims to provide quality education, research, and modern technology for the benefit of individuals, society and the state. Realization of this goal will ensure stable self-developing system, effective interaction with the environment, to become an organization that is open to the changes that occur in the modern world continuously. Issues of social support workers and students have always been the subject of attention at the university. During the years of the implementation of various social events much experience, formed by certain principles and rules in this area. Issues of social support are presented in the Collective Agreement of the University and its Annexes, the Agreement between the university and the primary trade union organization of students, as well as several other local regulations. However, at this stage, taking into account multilateral and multi-level nature of the interaction of the structural units in the University, and the University with the environment there is a need to improve the mechanisms of social support for employees and students, introducing them to new items that meet the requirements of time, as well as organizing and structuring of university departments in the area of social issues. To solve the problems has developed a program of social support staff and students, which is the foundation of corporate social policy at the University from 2012 to 2015 and expresses support for the strategic line of students and staff, as one of the main factors in the development of the university. The program aims to provide a coherent and coordinated actions of the administration, departments, trade union organizations of students and staff to improve the social well-being, social development, and improving the quality of the university environment as a whole. In the framework of a program of social support staff and students are included as state mechanisms for the implementation of fixed social, legal and economic guarantees employees and students, as well as various corporate social programs. The program aims to create conditions for sustainable improvement of the quality of life of employees and students at the university, increasing the material and social status of employees and students at the university, the creation of favorable conditions of work and learning, providing regular training in order to significantly improve the quality of education, the creation of conditions for permanent scientific and innovative growth, securing young staff, improvement of housing conditions, providing full treatment, rehabilitation and recreation staff and students at the university, social support for veterans, charity and sponsorship activities.

Among the objectives of the programs that are implemented in the program are the following:

- The development of a comprehensive system of social support and protection of workers and students;
- The formation of the University of the social package, adequate financial condition of the University, taking into account seniority and employee contribution to the development of the university student and the quality of work (study);
- The creation of a safe and comfortable working conditions and training for staff and students in all university buildings, including accommodation in a hostel;
- Development and improvement of prevention, diagnosis, treatment and rehabilitation - health measures;
- Optimization of leisure programs staff and students, the introduction of new technologies and techniques, recreation;
- Providing assistance and support to improve the living conditions of workers of the university;
- Social support for veterans of the University;
- Support of university traditions, high status research and teaching activities, respect and goodwill in the relationship of workers and students;
- Ensuring transparency and social justice in matters affecting the interests of the collective.

The events program provides a comprehensive solution for the following areas:

- Intra directions - aimed, as the development of social capital by strengthening ties, including informal, between employees and / or trainees , as well as between the university management, employees and / or trainees , and to increase human capital (health, education, and housing, food, recreation) staff and students;
- Direction of the external environment require the implementation of social support members of the veterans organization University (participation of members of the veterans' organization in the university holidays and celebrations conducted by the University to provide moral and psychological support), and activities in the field of charity and sponsorship aimed at establishing effective mechanisms for charity projects, encouraging philanthropy and sponsorship, charity programs.

The program is assumed through the arrangements and formed social packages for different categories of workers, students and members of the veterans' organization of the university. Of particular note are the development of social packages for different categories of workers and students. Experience to date domestic and private management experience shows that the provision of a particular set of social benefits, the so-called social package , enhances interest in the results of labor, reduces employee turnover, improve the social climate in the workforce and ultimately contributes to the competitiveness of the organization. Social package developed program is a series of guaranteed and non-guaranteed forms of material and non-material assistance. To evaluate the effectiveness of the program has developed criteria - indicators by which to judge the achievement of results or impact of the program.

Execution of the program, in our opinion, will:

- Form a clear system of social support for staff and students;
- Increase the level of social protection for workers and students at the university;
- To generate a favorable climate in the team, promotes quality teamwork;
- To improve conditions and increase safety and training;

- To create conditions conducive to treatment and rehabilitation of workers and students;
- Involve staff and students in physical education and sport;
- Improve the quality of life of members of the veterans' organization of the university;
- Improve the quality and enhance the ability of housing and communal, educational, sports and recreational infrastructure of the university;
- Improve the quality and expand the power supply network of the university;
- Create a positive image of the university as a socially responsible organization in the external environment;
- To improve the economic and social efficiency of the University.

## 5. CONCLUSION

Implementation of a comprehensive and systematic approach that takes into account the specificity of the objectives and tasks of the university in the field of social policy, the introduction of new organizational technologies as an ordered set of methods and procedures, development and implementation of social programs, the introduction of social innovation should be an integral part of corporate social responsibility IHE. It also allows the continued existence of the university by minimizing the negative and maximizes positive impacts on society and the environment through proactive interaction and exchange of information with stakeholders in all spheres of influence higher education institutions.

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## LEADERS OF INDUSTRIAL MARKETS IN RUSSIA: MARKET POWER AND REGIONAL DIFFERENCES

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### ABSTRACT

*Large companies, influencing main tendencies of economic development, traditionally play important role Russian economy. Such actors could be found at most industrial markets; usually they have dominant positions and determine markets' structure and all economic indicators. In most cases these companies act in the form of corporations. They have large investing potential, could present models of innovative behavior. Market leaders have been in the center of attention of many researchers during recent years. Their performance is monitored and analyzed in the number of papers. This research is aimed to the estimation of main features of the position of large leading corporations. Characteristics and changes in their leading positions are supposed to be found. Processes and tendencies that take place at the level of national economy are compared with similar processes in regions. Research idea deals with the results of analysis of large corporations' positions. An approach based on the leadership stability and sustainability indicators is suggested. Company's leading position could be considered sustainable if it is based on several criteria. Another characteristic – leadership stability – reflects leadership in long term period. We suggest special calculable indicator – sustainability (stability) coefficient (CS) which can vary from 0 to 1. Open data provided by rating agency Expert were used under research. Positions of leading corporations in Russia, Kazakhstan and several Russian regions including Siberia, Urals, South and North-West were analyzed. Leading companies were determined according to several criteria including sales volume, profitability, capitalization, and sales growth. It is possible to conclude basing on research results that leadership sustainability is rather high under stable and growing economy. At the same time it was found that large corporations couldn't keep leading positions on various criteria under unstable economy. Their market power inevitably decreases during crisis years. Situation in regions is heterogeneous, examples of more or less stable leadership could be found. With stable and sustainable leadership it is possible to expect that current tendencies of economic development and market distribution would continue. North-west region of Russian is an example of such regions. Other cases are characterized by high level of uncertainty.*

**Keywords:** market leaders, regional differentiation, leadership sustainability

**JEL codes:** G20, L10

### 1. INTRODUCTION

Large companies traditionally have great influence on the development of Russian economy. Such firms could be found at many markets, they act as well determined leaders, they obtain dominant positions, and their decisions provide benchmarks for other actors. In most cases these companies operate in the form of corporations (Russian corporation, 2009). Large corporations play crucial role in the economy of all developed countries. They have extended investment potential; have favorable perspectives for innovative activities (HSE, 2010). Their role is especially important in Russia because of historical background from one side, and

currently observed integration processes, from another (Golikova, Gonchar and Kuznetsov, 2012). According to our estimations total sales of 20 leading corporations in 2007 was equal to 37% of GDP in Russia, similar number for 10 leaders was about 28%. During post crisis period these figures increased and reached –38% and 30% accordingly.<sup>72</sup> Our estimations show that large companies are very different. The set of 400 leading corporations was analyzed. In 2011, first 20 companies among them formed about 50% of all sales. We observe definite leaders operating in most industrial markets. It should be mentioned that shares of 5, 20 and 50 leaders in total sales decreased during 2000-2011. The share of the first leader and three largest companies increased, but their values are influenced by many non-market reasons which include strong state support of selected companies. Large companies have great market power; they use rather monopoly than competitive models under decision making. Market leaders always attract attention; their behavior is monitored and analyzed by many researchers, experts and politicians. List of the largest companies is not stable; it is changed due to external and internal factors. This conclusion has both theoretical and empirical verification. According to basic economic theory this aspect should be taken into account under market structure analysis (Scherer and Ross, 1991). Stability of American leading corporations was studied by many researchers. The most recognized paper was published by Collins and Preston (Collins, 1961). They'd showed that list of leading corporations is changeable; these changes could be explained by various factors with demand characteristics playing the most important role. Nature of leading positions of large corporations, the level of dominance, and type of market power also are subject to changes; market structure and behavior of individual firms are in turn influenced by these processes. **The main aim of this research** is to analyze the positions of Russian largest corporations, to determine the character of their leadership and market power. Positions and market power of leading companies were examined during period from 2007 till 2011; national and regional markets were compared. Characteristics of leadership and market power provide important information for competition analysis; they could be used for further forecasts concerning markets' perspectives.

## 2. RESEACH METHODOLOGY

An approach to the analysis of company's leading position is suggested in the paper. Under this approach we analyze "sustainability" and "stability" of leading position and therefore, market power on the industrial market. The sets of leading firms could be created on the basis of different criteria. It is possible to form a group of top (10, 20, etc.), firms – leaders according to the level of sales, profit, cost of assets, value added etc. On each market, many groups of leaders can be defined. These sets may include the same or different firms. According to our definition, "sustainability" of leading position of the company means that this company is included into the sets of leaders more than one time, i.e. is included in more than one group. If leading position is sustainable, it is derived from various criteria. If leadership is unsustainable, groups of leaders are very different. "Stability" of firm's leading position in our approach means, that it remains in the group of tops during several (more than one) years (it reflects long term leadership). Summing up definitions described above we could formulate, that leading position of the firm is sustainable and stable, if this position is based on various criteria in long term period. If such firms could be found at the definite market, leadership at this market is sustainable (or stable) and it would be possible to make forecasts on market's further development and main tendencies. We suggest special calculable indicator – sustainability (stability) coefficient (CS).

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<sup>72</sup> Calculations are based on data provided by Federal Statistics Service and ExpertRa agency



$$CS = 1 - \frac{N_{fact} - N_{min}}{N_{max} - N_{min}}$$

where:

- $N_{fact}$  – real number of leading firms included in all sets;
- $N_{min}$  – minimal possible number of leading firms included in all sets;
- $N_{max}$  – maximum possible number of leading firms included in all sets;

These coefficients vary from 0 to 1. If coefficient is equal to 0, it means that leadership is unsustainable (unstable). If it is equal to 1, it means that leadership is absolutely sustainable (or stable). It should be noted that coefficient characterizes market situation in general and it is relevant to the whole market. Regional comparison was done basing on groups of 10 leaders. It should be mentioned that results depend greatly on the choice of performance indicators; type of indicators taken into account under analysis influences greatly conclusions and interpretations. So then it is suggested to study leadership and market power basing on leadership stability and sustainability. Such information is not absolutely comprehensive but nevertheless it could be used for current state and perspectives analysis of industrial markets.

### 3. GENERAL CHARACTERISTICS OF EMPIRICAL DATA

Open data on annual ratings provided by agency ExpertRA and its regional departments were used as empirical research basis. Russia as a whole country, Kazakhstan, and several Russian regions including Siberia, Urals, South, and North-West were chosen. Situation in 2007, 2008, 2009, 2010 and years 2011 was studied. Time period under analysis includes year of economic recovery as well as years of unstable economic environment. Groups of market leaders were formed and compared for each year with the suggested coefficients being calculated at the next step. Table 1 shows general characteristics of empirical data. Criteria of leadership were chosen according to their importance and availability of information for calculations. Dynamics of sales shows changes in companies' sales in selected year comparing with the previous year. Different indicators were used for estimation of companies' performance. Final coefficients being in forms of ratios we consider such comparisons possible and reasonable.

Resuming the description of empirical information we would like to show general homogeneity of the set of companies.

Homogeneous Indicator – HI – levels are presented on the figure 1. It was calculated using following formula:

$$HI = \sum_{i=1}^N Si^2, \text{ where:}$$

$Si$  – share of firm  $i$  in total sales of all  $N$  companies ( $N= 400, 100$  Or  $250$  accordingly) included in rating. In fact this indicator is similar to Herfindahl-Hirschman index. It is used for the estimation of homogeneity of leaders set. Following equation is true:

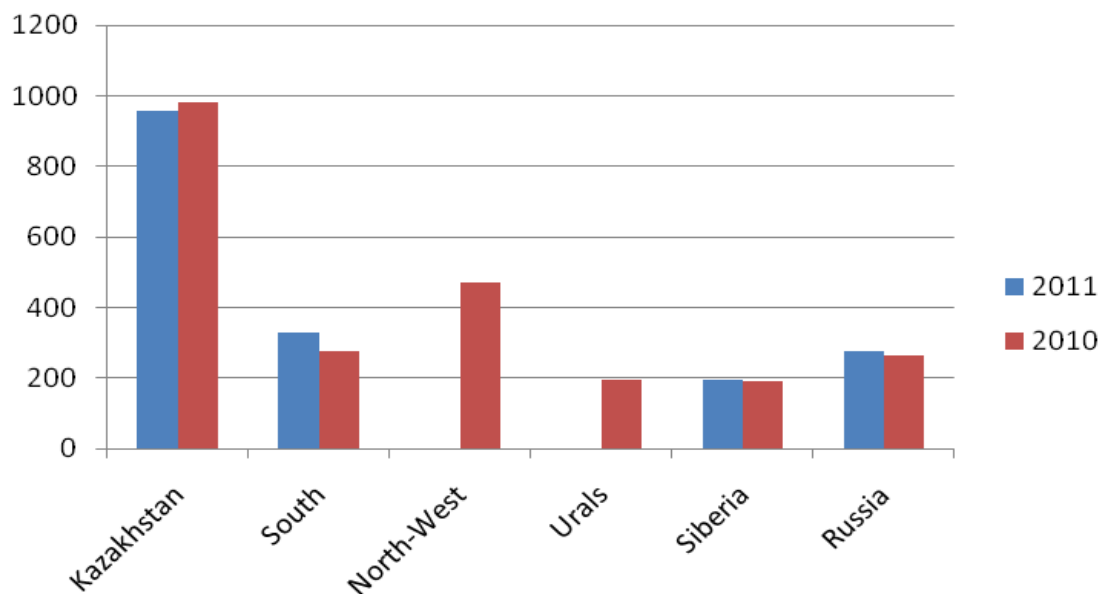
$$HI = \frac{1}{N} + \delta^2,$$

where  $N$  is general number of firms (400, 100 or 250),  $\delta$  -expected mean square of their shares. This indicator shows how much do the companies included in rating differ from each other according to sales volumes. If meaning of this indicator high (according to antitrust regulation 1800 or more) significant differences between firms take place. In such cases market leaders could be well distinguished.

*Table 1: Characteristics of empirical data*

Regions (countries)	Kazakhstan	Regions of Russia				Russia
		South	North -West	Urals	Siberia	
<b>Total number of firms included in ratings</b>	100	250	250	400	400	400
<b>Time period under analysis</b>	2008-2011	2007-2011	2007-2011	2008-2010	2007-2011	2007-2011
<b>Criteria used leadership determination</b>	Sales, net profit, dynamics of sales			Sales, profitability, dynamics of sales	Sales, net profit, dynamics of sales, profitability	Sales, net profit, pre-tax profit, profitability, dynamics of sales, capitalization
<b>Number of firms in leading group</b>	10					5, 10, 20

In general sets of leading companies are rather homogeneous, indexes levels are far below 1000. It should be noted that in Kazakhstan heterogeneity is higher. Among Russian regions it is possible to define relatively more homogeneous Urals and Siberia and relatively less homogeneous South and North-West. Influence of these characteristics on the nature of leadership is described below.



*Figure 1: Homogeneity of analyzed sets (HI)  
(Source: Author's calculations)*

#### 4. STABILITY AND SUSTAINABILITY OF LEADING CORPORATIONS' POSITIONS

Results of regional comparison as well as situation in Kazakhstan are presented at figures 2 and 3. As it was mentioned earlier in table 1 several groups of 10 leading companies were analyzed under this part of the research. Data reflected on Fig. 2 didn't include dynamics; this means that calculations of the coefficient were based only on sales and profitability indicators. Figure 3 shows dynamics of sales also. It is reasonable to suggest that more dynamic companies usually are not very big and profitable. Results show that leadership sustainability differs from region to region. In Kazakhstan in 2008 sustainability was higher than in Russia taken as a whole country and in all regions. In 2009, 2010 and 2011 it was possible to select regions (particularly Siberia and Urals) with unsustainable leadership. Leadership at national level was also unsustainable. In some cases even zero coefficients were observed. Other group included regions with more sustainable leadership. South and North-West were among them. According to Figure 1 these regions were characterized with relatively higher heterogeneity of leaders' sets. It is possible to suggest that well defined sustainable leaders with high market power operate in these regions. In 2007 which was rather favorable year for Russian economy sustainability of leadership in Russia in general was rather high (0,8). Relatively high (comparing with previous period) it was in Urals in Siberia. In 2008 due to crisis's influence situation in these regions had changed dramatically, coefficients had decreased greatly. At national level this decline revealed a year later. This delay could be explained by additional reserves possessed by national leaders. It is interesting to note that opposite changes occurred in the South. Leadership sustainability had increased greatly in 2008 under crisis, this could be explained by the behavior of leading firms as well as by regional policy.

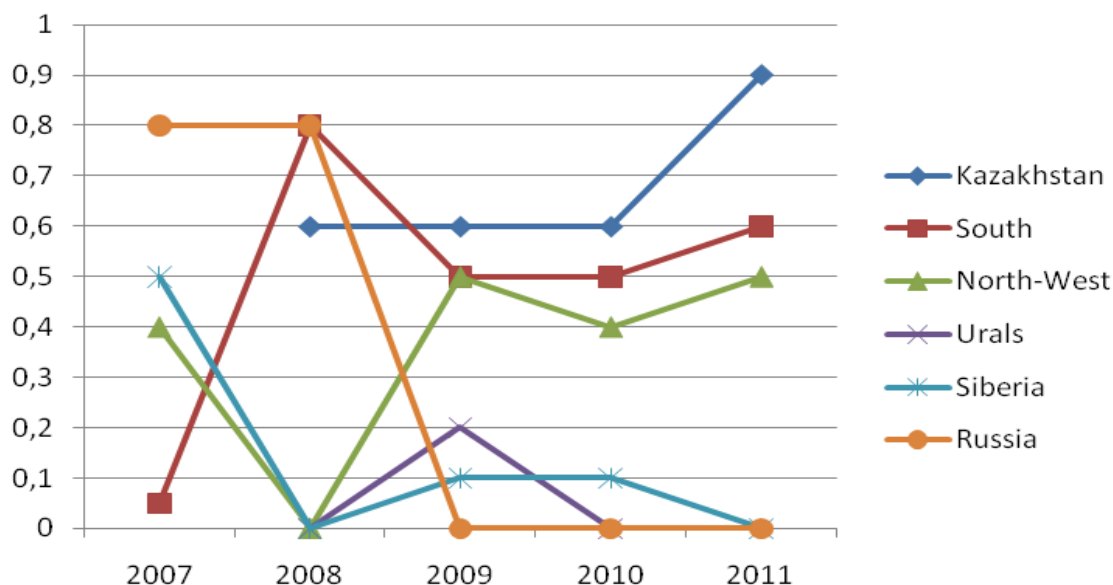


Figure 2: Sustainability of leadership in regions determined basing on sales and profitability  
( $CS_{sales, profitability}$ )  
(Source: Author's calculations)

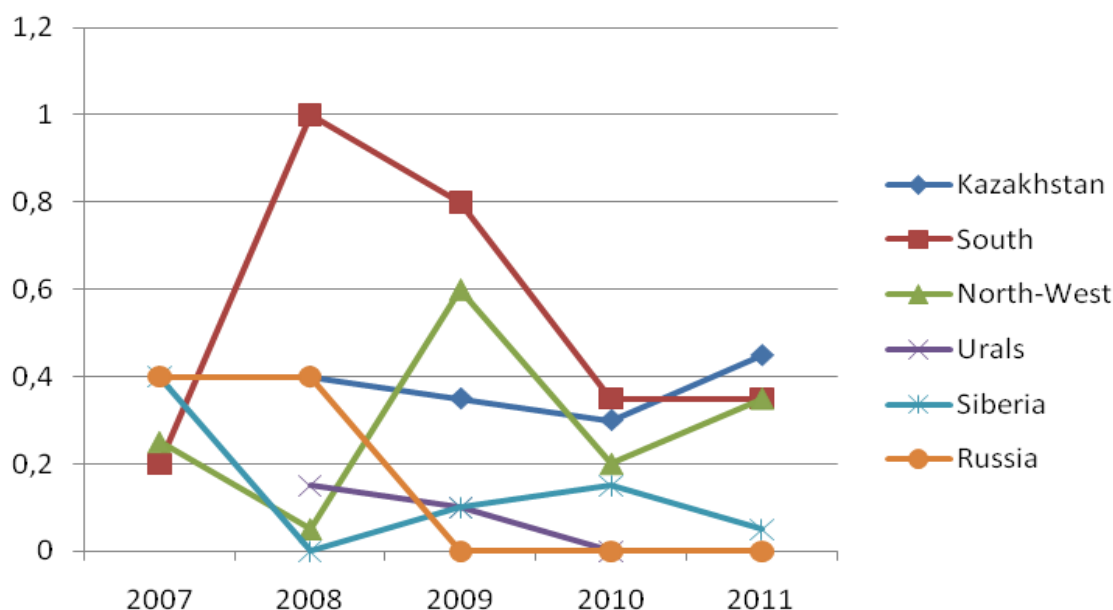
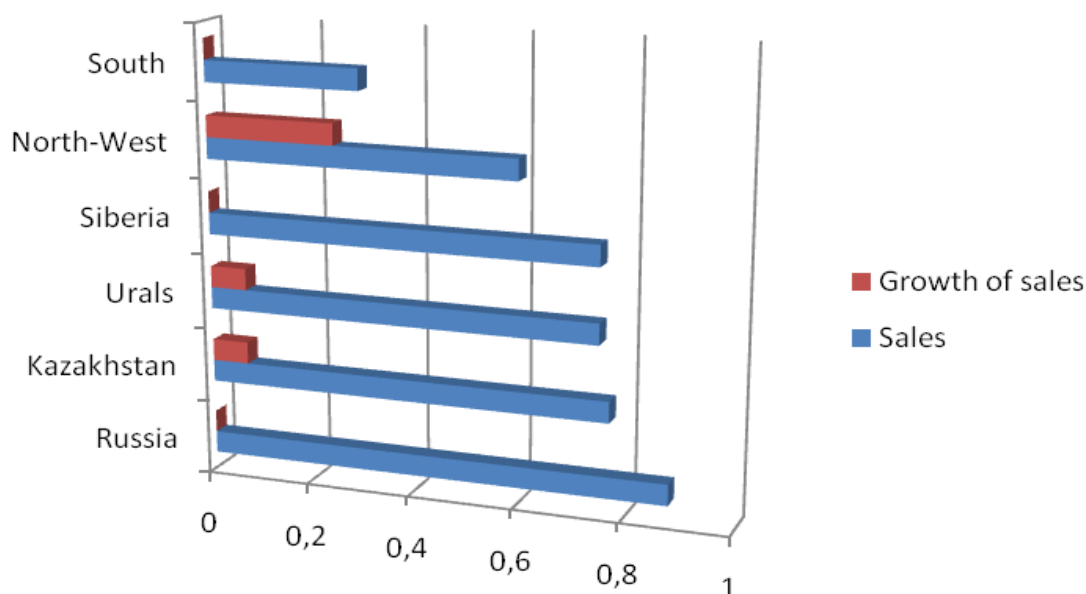


Figure 3: Sustainability of leadership in regions determined basing on sales, profitability and dynamics of sales ( $CS_{sales, profitability, dynamics}$ )  
(Source: Author's calculations)

It should be noted that if capitalization is included in performance indicators sustainability increases. Corporations with high level of sales usually have high capitalization however at the same time they don't have to be highly profitable. These results were described in details in our paper (Yusupova, 2013).

Dynamics of sales was taken into account in calculations presented at figure 3. Classification of regions here is similar to that created basing on previous figure. Less sustainable Siberia, Urals and Russia as a whole could be defined, as well as more sustainable South, North-West and Kazakhstan. It was suggested that sustainability which includes dynamics (Figure 3) should be less than sustainability presented on Figure 2. This hypothesis was confirmed for most regions, but not for all. Thus for South correlation was different. Sustainability coefficients calculated for indicators including dynamics (Figure 3) and without it (Figure 2) were very similar for Siberia and North-West for some years.

Figure 4 shows leadership stability coefficients calculated for time period from 2007 till 2011. These coefficients were defined basing on two indicators: sales volume and dynamics of sales. It turned out that leadership on dynamics is much less stable than on sales. This is quite understandable as same companies could hardly show the highest sales growth during several years. Leadership on sales at country level turned to be the most stable. Regions which demonstrated more sustainable leadership (South and North-West) were characterized by lower stability coefficients. Changes in market power distribution could be expected in these regions.



*Figure 4: Stability of leadership during 2007 – 2011 years  
(Source: Author's calculations)*

Leadership stability is rather significant in Kazakhstan. With sustainability being high in these regions it possible to expect that leading groups will remain unchanged. During short term period same companies will keep leading positions and determine main tendencies of market development.

Figure 4 shows that leadership stability based on dynamics is equal to 0 for Russia, Siberia and South. It means that each year different companies could be called most dynamic.

The highest stability coefficient was obtained for North-West (though its value was only 0,25). Companies which have leading positions in this region are both growing and profitable (indicators of sustainability here are rather high), this reflects general favorable economic environment in this region. Certainly it is impossible to formulate final conclusions basing only on these coefficients; they don't provide full and comprehensive information on the development of leading companies. Many other factors and indicators should be taken into account under analysis. Industry affiliation of the leading companies has great influence on their performance.

Our data show that most leaders are affiliated with so called strategic industries, first of all oil and gas sectors. Oil and gas companies are found among leading groups in all regions and at country level also. Sector structure of ten leading companies turned out to be more diversified in Siberia, less diversified in Kazakhstan.

The existence of clearly defined leaders is an important characteristic of any market. Positions of leading corporations, their role and market power are significant factors of the market structure. Our research is based on data of Russian rating agency. We've found that most national and regional leaders in Russia operate in high concentrated markets, with low level of competition.

There are several other ratings of leading companies. It is necessary to mention Global 2000 rating, which is based on Thomson Reuters Fundamentals Worldscope data and is constructed with the help of FactSet Research system (<http://www.forbes.com/global2000/>). This rating takes into account same indicators: turnover, gross profit and capitalization, with only information on public companies trading on stock market being used. 26 Russian corporations were included into the set of 2000 world biggest firms in 2011, while in 2012 this number increased and was 28. All these corporations were included in the analysis presented in this paper also as current research is based on the similar criteria.

## 5. CONCLUSION

Analysis of large corporations' positions was done at national and regional levels. Coefficients of sustainability and stability of leadership were suggested and used as main indicators of market power. Results show that under stable and growing economy leadership sustainability is rather high. During crisis large corporations could not keep extended leading positions. They couldn't lead on several criteria simultaneously, level of their market power shows tendency to decline. Situation in regions is different, cases of more or less sustainable leadership could be found. When leadership is both stable and sustainable it is possible to suggest that current tendencies and market distribution will remain at existing level. North-West could be the example of such regions. Situation in other cases is less predictable.

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## **"TAX HAVENS" TOWARDS ACHIEVING GOOD CORPORATE GOVERNANCE PRACTICES**

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### **ABSTRACT**

*The Organization for Economic Cooperation and Development (OCDE) started a comprehensive demarche in integrating the ``tax havens`` across Europe in the required trend of transparency, disclosure and good corporate governance practices. The aim of this research is to analyze the corporate governance codes and practices of two ``tax havens`` across Europe, namely Malta and Cyprus. By comparing these codes and their implementation level with the OECD's principles of corporate governance, we present a critical approach of the comparison between ``tax havens``'s corporate governance framework and the recommendations of OECD. The practical value of this descriptive research consists in tackling the issue of ``tax havens`` from the corporate governance perspective, in terms of elaborating and implementing the codes of corporate governance in Malta and Cyprus.*

**Keywords:** *Corporate governance, Cyprus, Malta, OECD, ``Tax haven``, Transparency.*

### **1. INTRODUCTION**

The process of globalization has created numerous opportunities to economies, businesses and individuals due to the technological development, intensive competition, the search for innovative solutions or new markets entry. Since taxation is an important criterion in the investment decisions, globalization has given *tax havens* increasing importance especially for multinationals that can shift profits to low tax jurisdictions (Krautheim and Schmidt-Eisenlohr, 2011). Due to the very favorable fiscal environment, *tax havens* had known important growing rates in the last 25 years (Hines, 2005). According to Dharmapala and Hines (2009), *tax havens* present the following characteristics: Small countries, predominantly islands, with a population below 1 million; Good communication infrastructure; Few natural resources; British legal origins with English as an official language; Parliamentary systems; Proximity to the large capital-exporter countries; More affluent than other countries as they attract significant foreign investment due to the low tax rates and opportunities for tax avoidance; and High-quality governance institutions that can be translated in political stability, government effectiveness, rule of law and control of corruption. All these features present credibility which assure the potential investors of a safe environment where they can direct capital and investment. On the other hand, globalization has intensified tax competition between countries since capital is directed towards the jurisdictions that offer the lowest rates in terms of taxation. Slemrod (2004) present this

situation as a *race to the bottom*. Since *tax havens* present a significantly lower level of taxation than that of other countries concerns had been raised regarding the potential threat posed by these systems in terms of erosion of the other countries' tax bases. The Organization for Economic Cooperation and Development (OECD) and the European Union (EU) were the most fervent opponents to these systems that were lacking an appropriate level of transparency and exchange of information mechanisms in tax matters. Their initiatives and actions in this area have brought important changes in the way *tax havens* function today under a new and more regulated framework that is aligned to the international standards. The financial crisis highlighted a series of corporate governance mechanisms' drawbacks which might be considered to be blameable for the weaknesses of countries' financial institutions worldwide. In 2008, the Organization for Economic Cooperation and Development (OECD) launched a striving plan to widen a set of recommendations for improvements in precedents areas, such as Board practices, Risk Management, remuneration process and the exercise of shareholder rights. OECD strived to establish a new balance between governments and markets as a consequence of the lessons given by the financial crisis, namely, the Organization started its demarche in developing a framework in which these events would not occur again, working for a ``fairer, cleaner and stronger world economy``(OECD, 2009). Although many factors are to be blamed for the *financial thunderstruck*, the core of these drivers can be attributed to the weak implementation of the *corporate governance* principles across countries. In the last years, we could witness a wide area of policy action focused on improving transparency and empowering shareholders to enforce/improve their role as principals, all together, following the guidelines of the Principles (OECD, 2009b). The reminder of this paper is organized as it follows: Section 2 presents *tax havens*' major changes in the last 15 years, while Section 3 introduces the fiscal infrastructure of Cyprus and Malta, emphasizing their statuses across the *fiscal-friendly block*. Section 4 provides a description of the Corporate Governance Codes of the two islands, highlighting the particularities of these two literally-called *tax havens*. After integrating these aspects, the conclusion and further considerations are being gathered in Section 5.

## 2. TAX HAVENS TODAY

Following the pressure posed by The Organization for Economic Cooperation and Development (OECD) on *tax havens* in order to persuade them to become more tax transparent and to adopt the mechanisms for the exchange of information on tax matters, the latest OECD progress report from the 5<sup>th</sup> of December 2012 (OECD, 2012) revealed the fact that there were only two states left, namely, Nauru and Niue, to meet the *tax haven* criteria. All the other well known *tax havens* had implemented the international agreed tax standards, resulting in their name being erased from the black list.

The criteria for establishing whether a state was a *tax haven* or not was first set by the OECD in 1998 (OECD, 1998). The key factors in identifying a *tax haven* were:

- No or only nominal tax rates;
- Lack of effective exchange of information;
- Lack of transparency; and
- No substantial activities.

Therefore, a country was considered a *tax haven* as long as all the four criteria were met.

The fact that a country had in place a fiscal policy that was promoting a 0% or a reduced tax rate on different sources of revenue was not by itself the main factor in nominating a state as



being a tax haven. The two major concerns posed by the organization were related to the lack of transparency and exchange of information in the following areas: bank transactions, ownership identity and accounting policies. The forth criteria was posing the question of whether the countries were attracting investment or only activities that were purely tax driven. In 2000 The OECD under the Global Forum on tax matters published a report of the world's *tax havens*. The nominated states were urged to take immediate action in respect of implementing the international tax standards in order to avoid sanctions. Six countries made advanced commitments to adhere to the principles and they were not included on the back list: Bermuda, Cayman Islands, Cyprus, Malta, Mauritius and San Marino (OECD, 2000). The other nominated *tax havens* started to submit commitment letters in which they declared adherence to the principles after the report was published. The principles consisted of the following actions: the implementation of a mechanism for the exchange of information for tax purposes between countries upon request; the strict confidentiality of the information exchanged; the availability and access of the state to reliable bank, ownership identity and accounting information and the power to exchange such information upon request (OECD, 2009c). In order to be erased from the *tax haven headline* and to prove that they adopted the international agreed tax principles, the countries had to conclude at least 12 tax treaties with OECD countries. The progress report from the 15th of December 2011 was meant to make public the number of tax treaties concluded by the countries under concern. It was the first report to present the list of *tax havens* composed of only to states: Nauru and Niue, as all the other countries were considered to have implemented the standards (OECD, 2011). The action initiated by The OECD can be considered the most significant step forward in promoting the principles of tax transparency and exchange of information on tax matters between countries. At the same time numerous amendments to the fiscal legislations had been made in order to eliminate harmful tax measures and create a level playing field. The OECD under The Global Forum for tax purposes conducted *Peer Review reports* on the *tax haven* countries in order to identify the degree of implementation of the tax standards and the areas where improvement was necessary. The European Union also initiated action in order to prevent the erosion of its Member States' tax basis in the presence of some fiscal systems that presented significantly lower tax rates and offshore structures. The Code of Conduct for business taxation established in 1997 set the criteria for identifying tax measures that were considered to be harmful and which could create distortions in the single market. These measures included a significantly lower level of taxation, including zero taxation, than those which generally applied in the Member States. The tax systems of both Member States and future Member States came under a review process in order to establish whether they present characteristics that were considered harmful or not (Code of conduct for business taxation, 1997).

### **3. FISCAL INFRASTRUCTURE IN CYPRUS AND MALTA**

In Europe, Cyprus and Malta were the first to make advanced commitments to implement the internationally agreed tax standards and this was the reason why in 2000 they had not been included on the black list of *tax havens*.

#### **3.1. Cyprus**

The alignment of Cyprus to both the conditions imposed by the EU at the time of its accession in 2004 together with the implementation of the internationally agreed tax standards of The OECD placed the country under the white listed jurisdictions. In terms of taxation, the current fiscal system in Cyprus is based on the radical reforms which were adopted in 2003, one year before its accession to the EU. The aim of these reforms was for their tax system to comply with the EU's Code of Conduct for Business Taxation and EU harmonization rules. At the

same time Cyprus made a commitment to the OECD to adopt the internationally agreed tax standards which was also a key point of its accession. These tax reforms resulted in the offshore sector being eliminated and a residence-based tax regime being introduced (OECD Cyprus, 2013). A company is resident in Cyprus as long as it is managed and controlled in Cyprus. Resident companies are taxed on their worldwide income while nonresident companies are taxed only on the income derived from Cyprus (Deloitte-Cyprus, 2013). Relevant juridical structures offered by Cyprus are: companies, partnerships, trusts and cooperative societies. Following the latest income tax law amendment from April 2013, the corporate tax rate in Cyprus was increased from 10% to 12,5%. Despite these amendments, a number of benefits make Cyprus an attractive destination for investment and capital flows:

- Dividends received by a Cypriot resident company either from a company located in Cyprus or from abroad are exempted from taxation; (Deloitte-Cyprus, 2013)
- Profits realized from the sale of shares and other financial instruments are tax exempt;
- There is no withholding tax on payment of dividends, interest and royalties from Cyprus to non-residents (company and individual); (Kinanis, 2013)
- The existence of an extensive Double Tax Treaty Network: 47 Double Tax Conventions covering 49 jurisdictions; (OECD Cyprus, 2013)

Despite the problems registered by the Cypriot banking sector in 2013, the country maintains its competitive advantage due to the attractive fiscal packages and juridical structures that allow for effective tax planning strategies.

### **3.2. Malta**

Malta became a member of the European Union in 2004 and just like Cyprus its legislation suffered numerous amendments. Its fiscal system was reconstructed taking into account the EU's guidelines and the OECD's internationally agreed tax standards.

In terms of taxation, a residence-based tax regime is applied. A company incorporated in Malta is considered to be a resident of the country and it is therefore subject to tax on a worldwide basis. A company incorporated outside Malta is considered a resident only if the management and control is exercised in Malta. Despite the fact that in Malta the corporate income tax is 35%, the existence of a full imputation system of taxation reduces the level of tax to around 5%. After the payment of the corporate income tax, the shareholders are entitled to a credit of 6/7 of tax paid, resulting in a net payment of corporate tax of 5% (OECD Malta, 2013).

Among the other benefits presented by the Maltese fiscal system we can mention the following:

- The tax paid on passive income is refundable in the limit of 5/7 of tax paid;
- There is no withholding tax on dividends, interest and royalties paid to non-residents. Yet, a company in receipt of dividend income is subject to tax unless the income is derived from a participating holding in foreign companies (Deloitte-Malta, 2013);
- There is no tax on capital gains realized by a non-resident;
- Royalties derived from patents and copyrights are exempt from tax in Malta;
- 63 Double Tax Conventions in force (OECD Malta, 2013).

The tax advantages offered by the Maltese fiscal system make the country one of the top destinations for the investors that do business within and through Malta.

### 3.3. The degree of implementation of the internationally agreed tax standards

*Table 1: Degree of Implementation of the Internationally Agreed Tax Standards  
(Source: OECD Cyprus, 2013; OECD Malta, 2013)*

Objectives	Cyprus	Malta
Jurisdictions should ensure that ownership and identity information for all relevant entities and arrangements is available to their competent authorities.	Partially Compliant	Largely compliant
Jurisdictions should ensure that reliable accounting records are kept for all relevant entities and arrangements.	Non-Compliant	Largely compliant
Banking information should be available for all account-holders.	Compliant	Compliant
Competent authorities should have the power to obtain and provide information that is the subject of a request under an exchange of information arrangement from any person within their territorial jurisdiction who is in possession or control of such information	Non-Compliant	Compliant
The rights and safeguards that apply to persons in the requested jurisdiction should be compatible with effective exchange of information	Compliant	Compliant
Exchange of information mechanisms should allow for effective exchange of information	Compliant	Compliant
The jurisdictions' network of information exchange mechanisms should cover all relevant partners	Largely compliant	Compliant
The jurisdictions' mechanisms for exchange of information should have adequate provisions to ensure the confidentiality of information received	Compliant	Compliant
The exchange of information mechanisms should respect the rights and safeguards of taxpayers and third parties	Compliant	Compliant
The jurisdiction should provide information under its network of agreements in a timely manner.	Partially Compliant	Compliant

In their attempt to increase the level of transparency and comply with the generally accepted principles of transparency and exchange of information in tax matters, Cyprus and Malta made numerous amendments to its commercial legislation and administrative practices. According to the last Peer Review report of The OECD's Global Forum, from November 2013, Cyprus and Malta have in place the legal and regulatory framework for the implementation of the standards yet, in practice the degree of applicability differs. The analysis provided within the reports is meant to summarize the areas that need improvement and recommendations are made in order to draw attention upon the right course of action to be taken. Comparing the level of implementation of the tax standards between the two countries, Malta proved compliance in more areas than Cyprus.

### 4. CORPORATE GOVERNANCE CODES IN CYPRUS AND MALTA

Prior to presenting and analyzing the specific Corporate Governance Codes in the selected two generically-called *tax havens*, a brief list of Codes' implementation advantages has to be named. According to Weil et al. (2002), the code movement is a positive development, both for companies and for investors, particularly throughout its prominence on disclosure, improved board practices and shareholder protection. In the same report, several beneficial

aspects of implementing the Code of Corporate Governance are being presented as it follows (Weil, Gotshal and Manges, 2002):

- Codes stimulate discussion of corporate governance issues;
- Codes encourage companies to adopt widely-accepted governance standards;
- Codes help explain both governance-related legal requirements and common corporate governance practices to investors;
- Codes can be used to benchmark supervisory and management bodies; and
- Codes may help prepare the ground for changes in securities regulation and company law, where such changes are deemed necessary.

Starting from the OECD Corporate Governance Principles (see Figure 1), both Malta and Cyprus have developed their own Corporate Governance Code as a healthy measure of integrating their practices in line with international requirements.



*Figure 1: OECD Principles of Corporate Governance*

#### **4.1. Corporate Governance in Cyprus**

According to the Cyprus Stock Exchange - Annual Report on Corporate Governance (2012), the proposed regulations aim to strengthen the monitoring role of the Board of Directors across listed companies, to protect small shareholders, to provide timely information and to achieve a greater level of transparency. All of these relevant aspects provide the core for moving towards a stronger, safer corporate governance infrastructure.

The same Report (p. 25) states that the proposed recommendations of best practice may become enriched by developments both in current Cypriot business practice as well as international practice. This fact highlights the importance that corporate governance gains in the block of *restless tax havens* which became aligned to the international standards of good practices.

The Cyprus Code of Corporate Governance proposes the establishment of three Committees supporting the Board of Directors, namely the Nomination Committee, the Remuneration Committee and the Audit Committee. Thus, as stated in the Code, ``when the Board of Directors of each company, given the particularities thereof, considers it expedient to establish more committees, it may proceed therewith``.

The activities of each Committee of the Board of Directors should be included in the Annual Report on Corporate Governance; moreover, listed companies have a binding obligation to include in their Annual Report the Board of Directors' Report on Corporate Governance. In the first part of the Report, the listed entity should report whether it complies with the Code and the extent to which it implements its principles and in the second part of the Report, the Company should confirm that it has complied with the Code provisions and if not applicable, it should give adequate explanations (Cyprus Stock Exchange, 2012, p. 26).

The Cyprus' Code of Corporate Governance compiles thirteen principles, divided as it follows: five principles dedicated to the Board of Directors area, three principles for Directors' remuneration, three as well for accountability and audit, and last, two principle concerning the relationship with company's shareholders.

The investors protection mechanism has a vivid importance in companies' process of raising capital in order to develop, diversify, innovate and last, but not least, to compete in a continuously expanding competing environment. When minority shareholders are not protected by the laws, investors might be reluctant to the infusion of their capital into a company through the purchase of shares, unless they become the controlling shareholders. According to the perfect framework, effective regulations provide the following mandatory aspects:

- Promote efficient and clear disclosure requirements;
- Precisely define related-party transactions;
- Set comprehensive standards of responsibility for insiders; and
- Involve shareholder participation in major decisions of the entity.

Doing Business measures the strength of minority shareholder protections against directors' use of corporate assets for personal gain—or self-dealing. According to Doing Business Methodology, the indicators distinguish 3 dimensions of investor protections: transparency of related-party transactions (extent of disclosure index), liability for self-dealing (extent of director liability index) and minority shareholders' access to evidence before and during trial (ease of shareholder suits index).

According to Doing Business 2014 Economy Profile: Cyprus (p. 58), Cyprus has a score of 6.3 on the strength of investor protection index, with a higher score indicating stronger protections. Moreover, by sectioning the global indicator into its three components, the output is summarized in Table 2 presented below.

*Table 2: Summary of Scoring for the Protecting Investors Indicators in Cyprus*  
(Source: Doing Business, 2014, p. 64)

<b>Indicator</b>	<b>Cyprus</b>	<b>Europe and Central Asia Average</b>	<b>OECD high income average</b>
<b>Extent of disclosure index (0-10)</b>	8	6	7
<b>Extent of director liability (0-10)</b>	4	5	5
<b>Extent of shareholder suits index (0-10)</b>	7	6	7
<b>Strength of investor protection index (0-10)</b>	6.3	5.7	6.2

As recoded by Doing Business, in 2012, Cyprus strengthened investor protections by requiring greater corporate disclosure to the board of directors, to the public and in the annual report.

#### **4.2. Corporate Governance in Malta**

Preliminary to the traditional paradigm which focused on the shareholders and investors as the main actors of the corporate governance mosaic, the more recent academicians and institutional activists have enlarged this conventional concept into the constituency model, model which extends the responsibility of directors to a wider area of interested parties, namely stakeholders as a whole. This approach raises a series of disconnections between jurisdictions due to the cultural, historical and financial systems particularities.

Taking this prior mentioned aspect into account, Malta can be viewed as a unique combination. As stated in the Report of the Working Group on Corporate Governance set up by the Malta Stock Exchange (2004), Malta is a jurisdiction characterized by a financial system dominated by the bank system, thus, it has a corporate law system and culture that places directors' duties/responsibilities in the centre of companies and its shareholders.

According to the Report of the Working Group on Corporate Governance set up by the Malta Stock Exchange (2004), the Code is a "compendium of principles designed not only to reiterate and explain fundamental concepts of company law but to go beyond the bare minimum requirements of statute and to encourage the adoption of Principles designed to attain best practice with respect to the governance of companies based on transparency, accountability and fairness". These Principles are designed to hearten listed companies to:

- provide a framework of governance where there can be proper accountability to shareholders;
- ensure proper transparency and disclosure of all dealings or transactions involving the Board, any Director, Senior Managers or Officers in a position of trust or other related party; and
- protect shareholders from the potential abuse of those entrusted with the direction and management of the company (Report of the Working Group on Corporate Governance set up by the Malta Stock Exchange, 2004).

Under these punctual objectives of Malta's Code of Corporate Governance, the requirement for listed companies to disclose the level and extent of compliance with these Principles is considered a significant disclosure, as it is stated in the above-mentioned Report of the Working Group. In accordance, the set up principles aim to providing the market with the basic knowledge about the governance structures of public companies and their adoption of codes of best practice, all these aspects being considered vital in adopting a specific investment decision.

The Malta's Code of Corporate Governance compiles thirteen principles, grouped in three main areas, as it can be seen in Figure 3. Namely, seven principles are dedicated to the Board and the Directors, three principles focuses on the remuneration process, while the last three ones gather aspects concerning the relations with shareholders and with the market, in general.

According to Doing Business 2013 Economy Profile: Malta, the economy has a score of 5.7 on the strength of investor protection index, lower with approximately 1 point in comparison with Cyprus, taking into account the fact that a higher value indicates a stronger level of

investors' protection index, as measured by Doing Business. Globally, Malta stands at 70 in the ranking of 185 economies on the strength of investor protection index (Doing Business, 2013, p. 61).

Table 3 provides a summary of Malta's scoring for the Protecting Investors Index developed by Doing Business, analyzed in comparison with Middle East and North Africa average, on the one hand, and with OECD high income average, on the other hand. As it can be noticed, Malta ranks the highest score- 8 points- for the extent of shareholder suits index, fact that highlights the openness to providing access to internal corporate documents (directly or through a government inspector).

*Table 3: Summary of Scoring for the Protecting Investors Indicators in Malta*  
(Source: Doing Business, 2013, p. 67)

Indicator	Malta	Middle East and North Africa Average	OECD high income average
<b>Extent of disclosure index (0-10)</b>	3	6	6
<b>Extent of director liability (0-10)</b>	6	5	5
<b>Extent of shareholder suits index (0-10)</b>	8	4	7
<b>Strength of investor protection index (0-10)</b>	5.7	5.0	6.1

From 2008 until 2013, as measured by Doing Business Annual Report, Malta did not strengthen its investor protection corporate section, neither through new or amended company laws, nor civil procedure rules.

## 5. CONCLUSIONS AND FURTHER RESEARCH

The accession of Cyprus and Malta to the European Union came with significant amendments to both their commercial and tax legislation and it meant the elimination of the offshore sector. Also, the alignment to the internationally agreed tax standards of transparency and exchange of information stand as a proof that the two European countries no longer meet the *tax haven* criteria enunciated by the OECD and this statement is backed by the Organization's last progress report which qualifies them as white listed jurisdictions.

In terms of implementation of the corporate governance principles, it can be concluded that both Cyprus and Malta reached the OECD's objectives in terms of *good corporate governance* practices. Thus, only Cyprus has strengthened investors' protection by requiring greater corporate disclosure, while Malta, in the last years, did not start any demarche in this direction.

The *tax havens'* corporate governance attributes can be properly perceived through a deeper investigation in this area, additionally, for further research, a stronger analysis can be conducted across a wider number of *tax havens* worldwide, not only from investor protections' point of view, but also from the corporate governance mosaic perspective.

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## AUDIT QUALITY AND CORPORATE GOVERNANCE: EVIDENCE FROM THE BUCHAREST STOCK EXCHANGE

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### ABSTRACT

*Corporate governance attributes represent a resort for achieving the quality of the audit process, being a driving force of the entity's corporate governance mosaic. The aim of this research is to investigate the association between audit quality and corporate governance attributes in the case of Romanian's listed entities. In order to achieve this goal, a multiple regression was constituted with the following variables: audit quality as a dependent variable, and a series of corporate governance elements as independent variables, while firm size, firm age and industry being designed as controls. The full sample consists of the entities listed on the Bucharest Stock Exchange in the period 2008-2012, compiling both tier I, II and III companies. This research contributes to the existing literature in the area of emerging economies by being the first article that addresses the issue of audit quality and corporate governance attributes at the level of listed companies in Romania, one of the European Union's emerging economies.*

**Keywords:** *Audit, Corporate governance, Emerging economies, Quality.*

### 1. INTRODUCTION

Corporate governance is perceived as being a key-element in the capital market's development. According to World Bank Report – Improving Corporate Governance in Emerging Markets (2011), good corporate governance reduces the emerging markets' vulnerability associated to financial crisis, reduces the capital and transactions cost and, moreover, conducts to the development of capital markets, due to the fact that the capital markets represent a transparency conductor.

Corporate governance has been perceived as a vital tool in assessing the company's health, especially under conditions of financial distress, such as the financial crisis. According to Adeyemi and Temitope (2010), the weakness of corporate governance is perhaps the most important factor blamed for the corporate failure, reason why the issue of *good corporate governance practices* gains a vivid importance, especially after the economic and financial crisis.

The company's decision of adopting a specific corporate governance mechanism is influenced by a series of endogenous factors, such as the fundamental characteristics of that entity, managerial attributes and other corporative variables. Still, one of the most important functions that the corporate governance can fulfil is the one of assuring the quality of financial reporting (Cohen, Wright and Krishnamoorthy, 2004). In order to achieve its goal, out of the corporate governance mosaic, the audit committee plays a critical role by its main attribute of overseeing the financial reporting process under its major duty of certifying the integrity and credibility of financial reports.

This research aims to investigate the association between audit quality and corporate governance attributes in the case of Romanian's listed entities. In Romania, one of the European Union's emerging economies, the Bucharest Stock Exchange has proven its interest in the importance of corporate governance area by implementing a Code of Corporate Governance and specific Guidelines applicable to the listed companies since 2008.

The Bucharest Stock Exchange Code of Corporate Governance addresses a series of specific aspects related to corporate governance, such as corporate governance structures, shareholders' rights, the Board composition, transparency, financial reporting, internal control and risk management. Although the Code embraces a wide area of corporate governance aspects, its adoption by the listed companies is made on a voluntary basis, fact that leads to the assertion that the corporate governance rules elaborated by the Bucharest Stock Exchange are neither legally binding, nor mandatory.

Taking the previous aspects into consideration, it can be stated that the Romanian's Code of Corporate Governance role is to promote a transparent and responsible managerial behaviour in accordance with international best practices, without enforcing these rules applicable for the listed companies. Based on this aspect, it is very difficult to capture the way the external auditors interact with the corporate governance practices adopted on a voluntary basis by the client.

The reminder of this paper is organized as it follows: Section 2 provides the relevant literature review, being centred on the researches conducted in the area of corporate governance and external auditor, Section 3 is dedicated to the research design and the methodology used in order to test the regression, while the last part of this article concerns the interpretations of the research's results. Finally, Section 5 presents the limitations of this research and Section 6 reveals the main conclusions arising from the findings of this study.

## **2. LITERATURE REVIEW**

According to Deloitte (2013), the audit committee is seen as a ``key fulcrum of any company``, thus the responsibility for assessing effectiveness of the audit committee is assuming more and more importance.

The Chief Executive Officer duality signals the separation between decision control and decision management (Fama and Jensen, 1983; Finkelstein and D'Aveni, 1994), fact that leads to a concentration of power that reduces board monitoring effectiveness (Finkelstein and D'Aveni, 1994) which resides into lack of transparency and high information asymmetry. Taking these findings into account, it can be stated that companies with Chief Executive Officer duality are more likely to be associated with a lower level of disclosure (Gul and Leung, 2004).

Another relevant study was conducted by Abdullah (2006) in an emerging economy and his findings indicate that the separation between the Board Chairman and the Chief Executive Officer, a higher proportion of non-executive directors on the Board, lower level of gearing and more profitable firms are more likely to reduce the length of the audit process. In the same area of researches, Afify (2009) investigated corporate governance variables in the Egyptian context revealed that Board independence and the separation between the Board Chairman and Chief Executive Officer decreased on a significant manner the length of audit.

The prior literature provides findings in supporting the assumption that Big 4 auditors conduct higher quality audits compared to non-Big 4 auditors. For example, Lawrence et al. (2011) provide suggestive evidence that results in prior literature need to be reconsidered, namely because these previous results could be explained by client-specific characteristics, such as firm size, that lead to a selection bias in the analyses. They conclude that these arguments may be leading to an erroneous inference that Big 4 auditors conduct higher quality audits.

The external auditor plays a crucial role in promoting the quality of financial reporting. The researches done in this area suggest that strong corporate governance mechanisms are associated with selecting auditors of a higher quality (such as Big 4). At a consensus level, the studies conducted in prior literature emphasise the positive association between audit committee's independence and expertise and the external audit function's efficacy (Cohen, Wright and Krishnamoorthy, 2004).

Due to the fact that the major observable outcome of an audit process is represented by the audit report, in the literature various proxies have been used in order to assess audit quality. Francis et al. (1999) suggest that Big 4 auditors are able to constrain opportunistic and aggressive reporting because their clients have higher total accruals, but lower discretionary accruals. This approach is focused on earnings management, on managerial behaviour which interfere with the financial reporting process. According to Lawrence et al. (2011), an extensive stream of literature focuses on the client's financial statements, in which discretionary accruals are often used as a proxy for audit quality as they reflect the auditor's constraint over management's reporting decisions.

### **3. METHODOLOGY AND RESEARCH DESIGN**

#### **3.1. Sample Selection**

In order to assess the association between audit quality and corporate governance attributes at the level of Romanian listed companies, the following restrictions are being used:

- The financial institutions were eliminated due to homogeneity considerations;
- The analyzed period is of five years, between 2008 and 2012;
- The entities must be present on the Bucharest Stock Exchange in all of these five years;
- The sample compiles entities listed on the Bucharest Stock Exchange Tier I, II and III.

After applying these restrictions, the final sample consists of 61 entities, analyzed through a period of five years.

#### **3.2. Research Hypotheses Development**

The research's hypotheses were developed in order to assess the aim of this study, namely to investigate the association between audit quality and specific corporate governance attributes. In accordance, six hypotheses were formulated as it follows:

- *Hypothesis 1: There is a significant association between audit quality and board independence.*
- *Hypothesis 2: There is a strong correlation between audit quality and Chief Executive Officer Duality.*
- *Hypothesis 3: There is a significant association between audit quality and institutional ownership.*
- *Hypothesis 4: There is a strong relation between audit quality and managerial ownership.*

- *Hypothesis 5: There is a significant association between audit quality and audit committee existence.*
- *Hypothesis 6: There is a strong relation between audit quality and firm size, business complexity and financial leverage.*

### 3.3. Empirical Model

In order to test the research hypothesis, the modified Soliman and Elsalam (2012) logistic regression was used:

$$AQ = \beta_0 + \beta_1 BI + \beta_2 CD + \beta_3 IO + \beta_4 MO + \beta_5 AC + \beta_6 CONTROLS + \varepsilon$$

Where:

*AQ: audit quality; BI: board independence; CD: CEO duality; IO: institutional investors; MO: managerial ownership; AC: audit committee existence; CONTROLS: control variables composed of three independent variable, namely SZ: firm's size; CM: business complexity and LE: financial leverage.*

This multiple regression was implemented for determining the association between the audit quality which represents the dependent variable and specific corporate governance attributes, which constitute the independent variable.

#### 3.3.1. Variables` Definition

The dependent variable of the regression is represented by the Audit quality, while Board independence, CEO duality, Institutional ownership, Managerial ownership and Audit committee existence are defined as independent variables. Firm size, Business complexity and Financial leverage are control variables.

- Audit quality (AQ) was dichotomous in nature and the size of audit firm (Big four or non-Big four) was used as a proxy for audit quality. Further, this variable equals 1 if the external auditor is Big four and 0 otherwise;
- Board independence (BI) was measured in terms of percentage of non-executive members in the board of directors;
- CEO duality(CD) was dichotomous and operated as 1 if the position of Chairman and Chief Executive Officer was occupied by the same person and 0 otherwise;
- Institutional investors (IO) was measured through the percentage of shares owned by institutions in relation to the company`s issued capital;
- Managerial ownership (MO) was computed as the number of shares owned by managers in relation to the company`s issued capital;
- Audit committee existence (AC) was defined as a dummy variable: it equals 1 if the company has an audit committee, otherwise it equals 0;
- CONTROLS: Control variables composed of firm size, business complexity and firm`s financial leverage, variables described below as it can be noticed:
  1. Firm size (SZ) was measured using the natural logarithm of total company assets;
  2. Business complexity (CM) was defined by dividing the sum of total accounts receivable and inventories to total assets;
  3. Firm`s financial leverage (LE) was measured as the ratio of debt to total assets.

## 4. RESULTS AND DISCUSSIONS

### 4.1. Descriptive Statistics

The Descriptive Statistics section is devoted to presenting and interpreting the results of the data collected in order to test the research's hypothesis. The demarche was conducted using Microsoft Excel Data Analysis Tool, and the output of this statistical approach is being analyzed as it follows.

*Table 1: Descriptive Statistics*

Variables	Min	Max	Mean	Std.Dev.	Range
<b>Audit Quality</b>	0	1	0.2786	0.4490	1
<b>Board Independence</b>	0	0.85	0.6323	0.1522	0.85
<b>CEO Duality</b>	0	1	0.4688	0.4998	1
<b>Institutional Ownership</b>	0	0.98	0.5623	0.2830	0.98
<b>Managerial Ownership</b>	0	0.78	0.1310	0.2285	0.78
<b>Audit Committee</b>	0	1	0.2983	0.4582	1
<b>Firm Size</b>	16.51	24.36	19.0042	1.4223	7.85
<b>Business Complexity</b>	0.006	1.9	0.3434	0.2398	1.894
<b>Financial Leverage</b>	0.005	1.45	0.2878	0.2559	1.445

The results presented in Table 1 indicate that 28% (more precisely 27.86%) of the Romanian listed companies are audited by a Big 4 audit firm. In which concerns the independence of the Board, 63% (63.23%) of the members are classified as independent, reaching a minimum of 0 independent members and a maximum of 85% non-executive members. When analyzing the CEO duality, the results show that 47% (46.88%) of the Romanian companies listed on the Bucharest Stock Exchange in the period from 2008 until 2012 are characterised by the fact that the position of Chairman and the one of Chief Executive Officer is being held by the same person, duality which supports this pattern in terms of emerging economies corporate governance characteristics. Overall, the Romanian entities Boards seem to be dominated by a single person.

Moving forward with the analysis of descriptive statistics, the results indicate, through the percentage of institutional ownership, namely 56.23%, that the average shares owned by institutions related to the companies' issued capital reach a percentage of approximately 56. As far as the control variables are concerned, Table 1 provides evidence of these three controls: firm size, business complexity and financial leverage.

### 4.2. Regression Output Analysis

In order to test the proposed hypotheses for this research, the analysis of logistic regression is being conducted. Table 2 presents the Matrix Correlation Analysis, namely the demarche of testing the multicollinearity issue that could affect the variables.

As it can be noticed in the following table, none of the variables is being affected by multicollinearity, due to the fact that the Pearson's *R Coefficient* between each pair is situated in normal parameters of acceptance.

*Table 2: Matrix Correlation Analysis*

	<i>AQ</i>	<i>BI</i>	<i>CD</i>	<i>IO</i>	<i>MO</i>	<i>AC</i>	<i>SZ</i>	<i>CM</i>	<i>LE</i>
AQ	1								
BI	-0.33027	1							
CD	-0.17368	-0.05457	1						
IO	-0.00397	0.09822	-0.15934	1					
MO	-0.05224	0.0277	0.09639	-0.66153	1				
AC	0.28193	-0.11071	-0.16751	0.26738	-0.20829	1			
SZ	0.50593	-0.12625	-0.08303	0.22351	-0.17908	0.35515	1		
CM	-0.14893	0.08502	0.02101	-0.19402	0.13442	-0.02926	-0.29175	1	
LE	0.05077	-0.03707	-0.03637	-0.07018	0.07111	-0.04437	-0.00312	0.53253	1

Table 3. presented below, illustrates the covariance analysis between the research`s variables.

*Table 3: Covariance Analysis*

	<i>AQ</i>	<i>BI</i>	<i>CD</i>	<i>IO</i>	<i>MO</i>	<i>AC</i>	<i>SZ</i>	<i>CM</i>	<i>LE</i>
AQ	0.20102								
BI	-0.0225	0.02309							
CD	-0.03886	-0.00414	0.24903						
IO	-0.0005	0.00422	-0.02247	0.07983					
MO	-0.00535	0.00096	0.01098	-0.04265	0.05208				
AC	0.05783	-0.0077	-0.03825	0.03456	-0.02175	0.20934			
SZ	0.3221	-0.02724	-0.05884	0.08967	-0.05803	0.23074	2.01633		
CM	-0.01599	0.00309	0.00251	-0.01313	0.00735	-0.00321	-0.0992	0.05734	
LE	0.00582	-0.00144	-0.00464	-0.00507	0.00415	-0.00519	-0.00113	0.03259	0.06532

*Table 4 Regression Output*

Regression Statistics	
Multiple R	0.596663332
R Square	0.356007132
Adjusted R Square	0.343040833
Standard Error	0.36400159
Observations	305

ANOVA					
	df	SS	MS	F	Significance F
Regression	6	21.82732252	3.63789	27.4563	4.90576E-26
Residual	298	39.48415289	0.1325		
Total	304	61.31147541			

In the table 4, the results of the regression output are being presented as a basis for testing the initial hypothesis developed for this study. The R Square and Adjusted R Square describe the explanatory power of the regression model. Still, the Adjusted R Square for this regression is 34%, value which does not promote an acceptable explanatory power for the model.

As far as the corporate governance attributes are concerned, the following table (Table 5) indicate that there is no association between audit quality and board independence, namely the first Hypothesis is not being validated. When analyzing the p-value for the CEO Duality variable, the significance of this value indicates a negative association between the audit quality and the CEO duality, fact which supports Hypothesis 2. Under this result, it can be stated that the more the audit quality increases, the less importance gains the single person that cumulates the two functions: CEO and Chairman.

*Table 5: Regression Variables`Results*

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-1.744183475	0.330966386	-5.26997	2.6E-07
BI	-0.772994661	0.141192035	-5.47478	9.3E-08
CD	-0.135020272	0.042769369	-3.15694	0.00176
IO	-0.203645854	0.102283585	-1.99099	0.04739
MO	-0.061022651	0.122799909	-0.49693	0.61961
AC	0.10625943	0.050441943	2.10657	0.03599
Controls	0.135765818	0.015838014	8.57215	5.6E-16

The regression variables` results show that there is a negative association between audit quality and institutional ownership in the case of Romanian`s listed entities, finding which supports Hypothesis 3. Still, when taking into account the managerial ownership, the results indicate no association between this corporate governance attribute and the audit quality (p-value of 0.62), fact that does not validate the research`s Hypothesis 4.

*Table 6: Regression Variables` Results- Controls*

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-1.698505255	0.343609815	-4.94312	1.3E-06
BI	-0.731467585	0.141134328	-5.18278	4.1E-07
CD	-0.135760853	0.042389376	-3.20271	0.00151
IO	-0.249767697	0.102678162	-2.43253	0.01559
MO	-0.060570279	0.12166906	-0.49783	0.61897
AC	0.108577735	0.050767561	2.13872	0.03328
SZ	0.137992989	0.016781603	8.22287	6.3E-15
CM	-0.099767493	0.111455428	-0.89513	0.37144
LE	0.108573607	0.098486038	1.10243	0.27117

Empirical results indicate a strong positive association between audit quality and the existence of an audit committee at the companies` level, supporting Hypothesis 5. This finding suggests that the audit committee is responsible for the appointment of a Big 4 audit firm, recommending, in accordance, the nomination of the external auditor. When analyzing the controls, the results indicate a positive association between audit quality and firm size, partially supporting Hypothesis 6, as Table 6 presents. Still, the results do not indicate an association between audit quality and business complexity, on the one hand, and audit quality and financial leverage, on the other hand.



## 5. LIMITATIONS OF THIS RESEARCH

This research has several drawbacks. First of all, the sample consists of 61 entities analyzed through a period of five years, fact that leads to a sample small in size and, as a consequence, to a sceptical approach in evaluating the results. Still, the sample remains the same throughout the analyzed period of time, leading to a relevant output, from this point of view. Second of all, the R Square and Adjusted R Square- which show the explanatory power of the model- are far below 80%, conducting to a regression which has a small explanatory power for the selected entities.

## 6. CONCLUSIONS AND FURTHER RESEARCH

The aim of this research is to examine the association between the audit quality and specific corporate governance attributes in the case of Romanian`s listed entities. This study reveals that there is a negative association between the audit quality and the CEO duality, on the one hand, and institutional ownership, on the other hand. Moreover, the empirical results indicate a strong positive association between audit quality and the existence of an audit committee at the companies` level.

Still, in the case of Romania, the results indicate that there is no association between audit quality and board independence, as well as managerial ownership. Thus, all the other variables that were found not to have a significant impact on the audit quality had, however, a punctual correlation with the quality of audit, at certain levels.

The above-mentioned findings emphasise the influence of corporate governance attributes on the quality of financial reporting process, especially in an emerging economy, characterized by a less-developed financial infrastructure and a real need for transparency and stronger corporate governance mechanism, all of these necessary into achieving a market-economy status.

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***Appendix Sample - Companies listed on the Bucharest Stock Exchange from 2008 until 2012***

Nr crt	Company Name
1	Aerostar
2	Alro
3	Altur
4	Alumil Rom Industry
5	Amonil
6	Antibiotice
7	Armatura
8	Artego
9	Bermas
10	Biofarm
11	Boromir Prod
12	C.N.T.E.E Transelectrica
13	Calipso
14	Carbochim
15	Casa de Bucovina - Club de munte
16	Cemacon
17	COMCM
18	Comelf
19	Compa
20	Compania Energopetrol
21	Concefa
22	Condmag
23	Conpet
24	Contor Group
25	Dafora
26	Electroapartaj
27	Electroarges
28	Electromagnetica

29	Electroputere
30	Farmaceutica Remedia
31	Grupul Industrial Electrocontact
32	Impact Developer&Contractor
33	Mecanica Ceahlau
34	Mefin
35	MJ Maillis Romania
36	Oil Terminal
37	Oltchim
38	OMV Petrom
39	Petrolexportimport
40	Prefab
41	Prodplast
42	Retrasib
43	Romcarbon
44	Rompetrol Rafinare
45	Ropharma
46	S.N.T.G.N Transgaz
47	Santierul Naval Orsova
48	Transilvania Constructii
49	Sinteza
50	Siretul Pascani
51	Socep
52	Stirom
53	Teraplast
54	TMK- Artrom
55	Turbomecanica
56	Turism Felix
57	Turism, Hoteluri, Restaurante Marea Neagra
58	VES
59	voestalpine VAE Aparom
60	Vrancart
61	Zentiva

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## HUMAN CAPITAL IN FINANCIAL INSTITUTIONS

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### ABSTRACT

*Human resources are an important factor in the overall efficiency of financial institutions which is one of the most competitive and turbulent industry. Investment in human resources at the individual and organisational level is a key component of business process management in financial institutions, mainly due to the continuous development of new products, strong competition, dynamic changes and challenges in finance, the emergence of new risks, intense regulatory changes, etc. The aim of this paper is to explore the level of human resource management development and human resource investments, needs for such investment and its cost-effectiveness in the case of financial institutions in the Republic of Croatia. Banks will play a central role in the analysis, as they are dominant financial institutions in the financial sector holding about 80% of the total financial sector assets. Furthermore, the paper will delineate the terminology referring to human resource management and clarify the terminology differences between human resources and human capital through the theoretical framework. Based on that study, the paper will analyse the hypotheses of the importance of investment in human resources as well as critically evaluate forms of human resource development. The purpose of this paper is to identify and provide guidelines that can help the bank and financial institutions management to make decisions about the appropriate form and level of investment in human capital based on the theoretical knowledge and practical aspects.*

**Keywords:** *banks, financial institutions, human capital, human resources*

### 1. INTRODUCTION

The concept of economic growth was expanded by including components that are not purely economic in character surpassing thereby the specified component and becoming part of economic growth in which attention is placed on the welfare of society as a whole. High levels of human capital are usually associated not only with economic growth, but also with the promotion of economic development. Financial institutions human resources and intellectual capital measurement and evaluation represent very important but not very researched field of science and practice. The starting point in human resources management in financial institutions is the organisation structure designed in such manner that ensures strategy and mission of the bank (structure will define needs for employees, levels and number of people as well as necessary qualification and knowledge). Structure has to satisfy goals of banking business – efficiency and profitability but in the same time employees' satisfactory. Organisation problems that banks are faced with in their business are: insufficient focus towards some market segments and clients, undeveloped function of planning, credit policy and supervision, undeveloped information management and marketing, weakness in credit analysis, inefficient work structure in branches, bureaucratic management oriented towards procedures and data safety, instead of profitability and clients; undeveloped

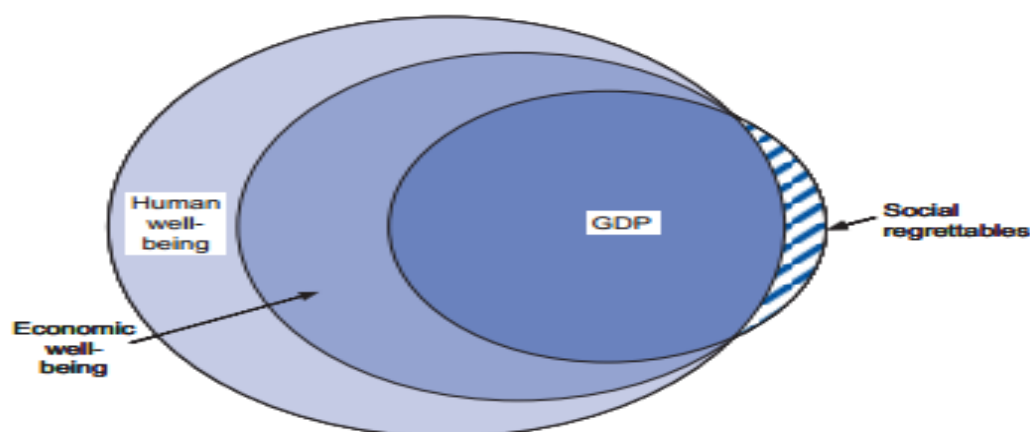
manager processes in strategic planning, business control, achieving goals, managers control and communication; inappropriate information management and so on. The aim of the paper is the productive discussion and problem solving methods about all mentioned barriers and circumstances connected with human resources activities.

## **2. HUMAN CAPITAL AS A SOCIAL AND ECONOMY DEVELOPMENT PREREQUISITE: THEORETICAL BACKGROUND**

Contemporary views of development and performance of the economy have shifted from exclusively numerical indicators (e.g., the actual realised value of the gross domestic product) to values embodied in intangible assets in which we classify and whose major representative is human capital. This fact is confirmed by scientists who have laid foundations for scientific research in the field of human capital (Becker, 1975) as well as a number of recent worldwide surveys on the importance of enhancing human capital (e.g., Mansur, Kogid and Madais, 2010; Ogunade, 2011; Vadim 2011). In addition to the global level, this trend may be and should be distinguished within the national territory (e.g., Šošić, 2003; Barković and Mujić, 2005; Sundać and Fatur Krmpotić, 2009; Marušnik, 2012)<sup>73</sup>. Shares of intangible asset in the total market value of the world's leading corporations were in 1975 16.8%, 1985 32.4%, 1995 68.4% and at the end of 2005 almost 80% (79.7%) (Sundać and Švast, 2009). Data clearly shows an increase in the share of the total market value of intangible assets in relation to tangible assets during the given period, i.e. 1975 - 2005. Since a long period is taken into consideration, it is assumed that the trend also continued in the period that followed. Furthermore, there are several concepts whose meanings are often used interchangeably, although they are not synonyms. Marušnik (2012) differentiates between the meaning and the scope of the concepts human resources, human potential and human capital. The author points out that human resources include human potential and human capital stressing that human potential implies human knowledge that is transformed and that becomes human capital at a time when this knowledge becomes usable knowledge resulting in the newly created value. Therefore, human capital implies skills and the ability to apply existing and acquired knowledge at the individual and the organisational level managed by the management to create people with high-level competencies and motivation. Expanding the concept of more significant influence of noneconomic factors on economic growth is illustrated very well in the OECD report (2001:10), in which well-being is the broadest category, comprising further human well-being, economic well-being and the GDP indicator as the narrowest scope of indicators in relation to the remaining components. Social regrettable are presented as a segment of the structure of GDP with respect to how they cover the inevitable costs and expenses that have no direct impact on well-being, but they are inevitable and necessary for the implementation (Figure 1).

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<sup>73</sup> In national terms, the activity of the Centre for knowledge, education and human capital studies at the Institute of social science *Ivo Pilar* and the Human resource development centre of the Croatian chamber of commerce is emphasised.



*Figure 1.: The relationship between human well-being, economic well-being and GDP (OECD, 2001, p. 10)*

Records of human capital achieved, at both the individual and the organisational level, are the result of efficient human potential management. Although there may exist significant differences in the methodological sense when measuring human capital, their number indicates the great interest in the field of measuring human capital (OECD, 2001; Oxley, Le and Gibson, 2008; OECD, 2009; Folloni and Vittadini, 2010). There are several approaches to measuring human capital, which is according to Oxley, Le & Gibson (2008) founded on an approach based on actual costs, earned income or educational background. As the focus of this paper is based on a review of actual rates of investment in human capital within financial institutions, a supplementing approach that should prevail is the investment approach - but the perception of investment measures human capital more frequently according to the principle of actual costs, and the mere view of certain institutions of the costs incurred during investment in people is retained on their perception of the incurred cost instead of the form of investment that has just been realised. Apart from the need and study of the concept of human capital in academic circles, specific information from the business sector also talk about positive effects of investment in human capital. Specific data are given e.g. in research results of the iQ Institute for Quality and Human Resource Development,<sup>74</sup> under which it was established that the same percentage of investment in employee education increases productivity more than capital investments themselves. Investment in education and training at a personal level as well as directed to its own employees creates competitive advantages. Investments in human capital vary depending on the institution in relation to which the amount of investment is observed. In accordance with the purpose of the paper, which focuses on banks as representatives of financial institutions, it is necessary to determine how investment in human capital as investment in the form of intangible assets is recognised as the growth driver. Justification for investment in human capital is very simply represented by Marušnik (2012:173) and the following statement: "Given the fact that each person is an individual with his/her own specificities, human resources represent the only irreplaceable resource of any organisation. Their training and development of their knowledge, skills and competencies also increase the organisational ability to create a new value that is confirmed by the market and that ensures long-term competitiveness".

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<sup>74</sup> The research is based on data of the study carried out by the US national centre on the educational quality of the workforce.

It is very unusual to see that even economies recording an increase in the number of unemployed within financial institutions cannot find staff on the market that meets the need for activity within financial institutions. According to the same source, PricewaterhouseCoopers LLP (2013), future demand within the financial sector will be focused on attracting, developing and retaining talents adjusted to and coordinated with the flexible and varying skills. Changes of necessary skills and their adaptation can be seen in Table 1. An interesting point of view has been presented by Havens (2013), in which the author points out that the focus of financial institutions, that, although their ultimate goal is to achieve high rates of financial capital, should be based on proactive involvement in stabilising relations in the organisation, connection and interaction. Therefore, it can be said that the future of the banking sector recognises the need for humanising banking within which the central mechanism is maintenance of good relations and human connection supported by technology. Although the operation and the main activity of the financial sector is management of financial capital, as emphasised by Cuganesan, Carlin and Finch (2009, p. 2, according to Fitz-enz, 2000, p.1), “people, not cash, buildings or equipment, are the critical differentiators of a business enterprise”.

*Table 1: Required and necessary competencies in development and selection of future employees (PricewaterhouseCoopers LLP, 2013)*

Competency	Description	Driver
Adaptability	Works effectively with a variety of people across diverse backgrounds and geographies.	Organizations will need to become increasingly more open to new cultures and ways of working.
Technology agility	Navigates and embraces technology as a business driver and productivity enhancer.	As technology develops to a new level, organizations will need to be able to leverage technology capabilities to keep pace with competitors.
Innovation	Uses creative thinking and challenges current ways of working.	Organizations must be able to continuously innovate in order to keep pace with competitors and technological changes.
Communication skills	Effectively uses multiple modes of communication (in person, virtual) to connect, persuade, and mobilize audience. Expresses ideas clearly and adapts style and content of communication appropriately for the audience.	As the business environment becomes more global and virtual, it will be critical to communicate clearly and effectively, adapting to the audience as appropriate.
Network building	Goes beyond building relationships to develop strong networks and acts as a facilitator or hub to connect groups of people.	Developing and maintaining a strong network will become more important as technology reduces face-to-face interactions.
Global mind-set	Understands and respects cultural differences. Adopts a global perspective by staying current on issues outside the local geography. Leverages relationships across cultures and countries.	Understanding and adapting to cultural differences is now a requirement as more organizations compete on a global level.

### 3. HUMAN RESOURCES RESPONSIBILITIES AND SCOPE IN BANKS' ORGANIZATIONAL STRUCTURE

The banking industry was relatively stable in the past, changes were slow and bank's employees and the working culture were non dynamic. So called human resource functions were strictly orientated on the administration jobs. The contemporary changes in finance (new products, technologies, client's demands, regulations, competition) and the development of banking emerged a different approach in human resource management. Many countries are

facing the discrepancy problem among educational system and human resources necessary in banks. Therefore in the contemporary banking arises the necessity of producing separate, development oriented parts such as: human resources planning, human resources policy, training and development, development of working culture and others. The tasks of management in activities related to human resources are: developing of the organisation structure, defining responsibilities, jobs systematisation, optimisation of current levels and knowledge mix, estimation of future human resources needs, analysis of capabilities and skills, individual assessments and development plans, specialization on working place, working culture development, selection of new employees, internal and external transfers, achieving goals and action planning, measuring of success and business supervision, careers, active management, etc.

Every bank must find balance between middle and top management and human resources management. Too much power and responsibility on either side could be harmful. Human resource management in banks is responsibility of all managers – line managers on every bank level and human resource manager. Line managers have key role and are in charge of forming organisation units and resources necessary for their normal functioning. The number of employees needed to fulfil the described tasks determines the hierarchical level and a distinction are made between three different hierarchical levels with the usually following minimum rules: team must have at least two employees; department consists of at least two teams and has a minimum of ten employees and division consists of at least two departments. The basic sub-functions of human resource management are: strategic management of human resources, planning of necessary number and employees structure, analysing and shaping of jobs and working places, acquiring, selection, introduction and employees placement, monitoring and assessment of performance, motivation and rewording, education and employees development, creating of appropriate organisation climate and culture, social and health security, working relations, different benefits for employees. Many banks in developed countries meet the problem of optimal number of employees.

Too many employees have a negative effect on working culture and costs of business. Often banks hire people that are only partially competent for the job (e.g. “dead wood – middle aged people who have no interest in improving”). Insufficient employment is more common problem and is characteristic of technology functions (for example for supporting new applications and system planning), marketing, strategic planning etc. Problems with qualification of employees are significant and represent bank's weakness. Banks apply different ways to assess the needs for employees in banks, from very subjective to quantitative. Banks have at their disposal different data (for example number of clients, transaction, accounts, auditor's reports, and other reports) on which they can base their decision about number of employees. Quantitative techniques that are commonly used are relationship analysis (for example number of retail loans and officers for same loans) and modelling (characteristic from banks with large number of branches). Sometimes subjective methods of estimation are also applied (usually on more responsible and demanding jobs). During estimation of needs for employees, managers are using sources such as: strategic plan, business plan, history trends etc. (Pavković, 2004).

The content of internal education in banks can be: educational skills (planning, definition of goals, surveillance and control, productivity management, cost management, problem definitions, analysis, quality control, changes management); functional skills (ALM, loan analysis, loans tracking, management of non-performing loans, revision, computer



technology, business analysis, human resources management, managing accounting); attitude development (pro goals orientation, orientation on “fixing”, active management with participating in problem solving, development of human resources, problems analysis, high standards, readiness for changes, orientation on profit, orientation on clients, open communication, constructive criticism, initiative, responsibility). Descriptions of the functions and responsibilities of the banks’ organisational units are defined by the organisational structure in Box 1.

*Box 1: The sample of universal bank’ organizational structure (Pavković, 2004)*

**Credit management** analyses the credit risk, uniformes the rating system, standardises tools and methods and harmonises the approval and monitoring processes as well as the analyses and measurements for the portfolio management. Credit granting is the most important bank activity and the core business of universal banks and is estimated on 60-70% of banks’ balance sheet asset. According to clients type credit can be granted to households or retail sector, corporate sector, small and medium enterprises, financial institutions, public sector. Credit products include standard loans, overdraft facilities, mortgage loans and loans covered by government or other financial institutions. **Investment banking unit** is responsible for corporate finance activities and the sales and trading of equities and equity-related products. Portfolio management monitors and manages the bank’s investment portfolio and builds an appropriate investment strategy as to protect the bank’s net interest income. Mentioned activity in wider sense is a part mainly of contemporary investment banks. **Risk management** provides an overview of all types of risks (market, credit and operational risks) which objective is to implement instruments, methods, parameters and standards to measure, monitor and manage risks to avoid threatening situations and to improve risk/return ratio within risk limits. **Consumer business unit** is responsible for sales strategy and product development and management for the target segment of consumers. The objectives of this unit are the maximisation of profit through creation and management of a competitive and profitable product portfolio and provision of strategic long term direction for products. **Accounting** is responsible for the accurate accounting of funds received and invested, the maintenance and reconciliation of the books of accounts and the preparation of the bank’s balance sheets. **Internal auditing** is an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations. Tax related topics are covered by accounting unit. Audit and financial controlling are complementary functions. **Legal unit** provides legal advice and support for the whole bank. The compliance unit ensures the observance of applicable legislation in force and of internal regulations of the bank. **Human resources unit** manages all aspects related to the employees of the bank. Human resources management specialists recruit and interview employees, give advice on hiring decisions in accordance with policies and requirements that have been established in conjunction with management, provide training to enhance employee skills, and develop compensation plans and incentive programs to motivate employees. **Marketing activities** can be described as the process of researching, promoting, selling and distributing a product or service. Relations work includes on-going activities to ensure the company has a strong public image. **Cash management or payments units** is responsible for product management, development and product sales for all cash management and payment products. This includes cash pooling products, local and cross-border, electronic banking services, all kinds of disbursement and collection products including funds transfers, direct debits, cheques and other payment instruments. Main responsibility of **treasury unit** is the

handling of risks referring to financials, liquidity, success and market price. The following products are covered by treasury unit: derivatives, foreign exchange products, money market products. **Structured and project finance unit** is responsible for product management, development and product sales for all non-standard credit and project finance products. **Trade finance unit** is responsible for product management, development and product sales for all trade-related products. This includes commodity driven finance, guarantees, letters of credit, documentary collections and bills of exchange. **Asset syndications unit** is responsible for the management of the syndication process which may cover the following products: standard loans, overdraft facilities, loans covered by government or other financial institutions, commodity driven finance, guarantees, letters of credit, bills of exchange, project loans, and cross-border leasing, fiduciary loans.

#### **4. KNOWLEDGE AND HUMAN CAPITAL MANAGEMENT IN CRISIS' FINANCIAL SERVICES INDUSTRY**

There are numerous reasons for extremely low rates of investment in human capital. Popov (2013) concluded that investment in human capital is insufficient in companies in transition economies - Croatia is also placed in that category - due to credit constraints. The banking sector, just like most other business sectors, has positively responded to the recorded investment in human capital. As highlighted by Harangus (2009), the fundamental driver of profit at banks is the result of human resources, and Bailey-Findley (2013) gives a draft of fundamental guidelines for achieving long-term success in the banking business. The most often used human capital efficiency indicators are: the share of salaries in total costs, the share of education costs in total costs, years of experience, the share of new staff, staff perception and satisfaction, head hunting reputation, staff value added, unit staff costs added value, unit costs management value added etc. The Figure 2 represents absolute number of employees in financial services industry and connected services in European countries at the end 2010 and 2011. The most significant country according to level of employees in financial sector is Luxembourg, Cyprus, Great Britain, Malta, Ireland, Italy, Austria, Greece etc. Mentioned indicates that some of them are very developed financial centers but most of mentioned countries are tax aliens zones and off shore centers. Categories assets per banking employee and population per banking employee are the result of cutting the number of employees as part of cut costs reduction banks' strategies especially in countries with crisis government assistance programs.

*Table 2: Financial services staff and banks' staff efficiency indicators in EU, (ECB, Banking Structures Report, 2013, p 11. and TheCityUK, 2011, 2014, Key facts about EU financial and professional services, pp. 1-20.)*

Country	Financial industry staff (2011)	% of total employees (2011)	Population per bank employee (2012)	Asset per bank employee (000 euro, 2012)	Population density (2012)
Belgium	253200	5.5	185	18,143	334
Denmark	-	-	124	12470	229
Estonia	18600	3.1	241	3536	30
Ireland	117500	6.6	144	27436	65
Greece	227700	5.7	198	7743	86
Spain	810000	4.5	197	15255	91
France	1427300	5.5	157	18505	119
Italy	1389000	6.0	197	13604	202
Cyprus	33200	9.0	68	9969	94
Luxembourg	35900	16.2	20	27800	206
Malta	12000	6.8	105	13320	1308
Netherlands	-	-	162	24080	410
Austria	243900	5.8	109	12592	100
Portugal	193900	4.0	185	9692	115
Slovenia	48200	5.3	179	4417	102
Slovakia	93700	4.0	290	3201	110
Finland	94500	3.9	240	26524	16
Euro area	-	-	158	15076	127

Note: 9809400 employees in financial and professional services in 2011 in EU (4.6% of total employment in EU). For example in Great Britain at the of 2012 was employed 1.06 million in financial services industry (in banks 436400 employees, 315200 employees in insurance, 65200 in securities dealers, 32900 in fund management, and 214500 in other financial services). Financial professional of 1.02 million employees refer to management consultancy (380600), legal services (315900) and accounting services (326900). Population density is expressed as inhabitants per square kilometer.

If the bank wish to retain market share or raise it, it is necessary to invest in education or bank compensation schemes. Banks have different bonuses schemes like: pension, health or life insurance policies, free time and additional or sponsored holidays, professional education, better credit terms, cars and IT equipment, legal services, saving schemes as material benefits or some forms of bonuses, additional or larger salaries, additional skills and trainings. From January 2014 banks' management are subject of EU bonus cap which fix management salaries with the aim to strongly limit their responsibilities. Regulation is a part of Capital directive requirements IV or Basel III standards in Europe which is based on EU Parliament approval from April 2013. European banking authority is responsible for technical standards for definition management earning limit amounts and it is expected to start 2015. In Croatian financial sector this norms are adopted through Regulation (EU) European Parliament and Council from June 2013 about prudential requirements for investments companies and credit institutions (EU 575/2013 and 648/2012), Credit institutions law (Official gazette 117/08, 153/09, 153/13) and Financial market law (Official gazette 88/08, 74/09153/13).

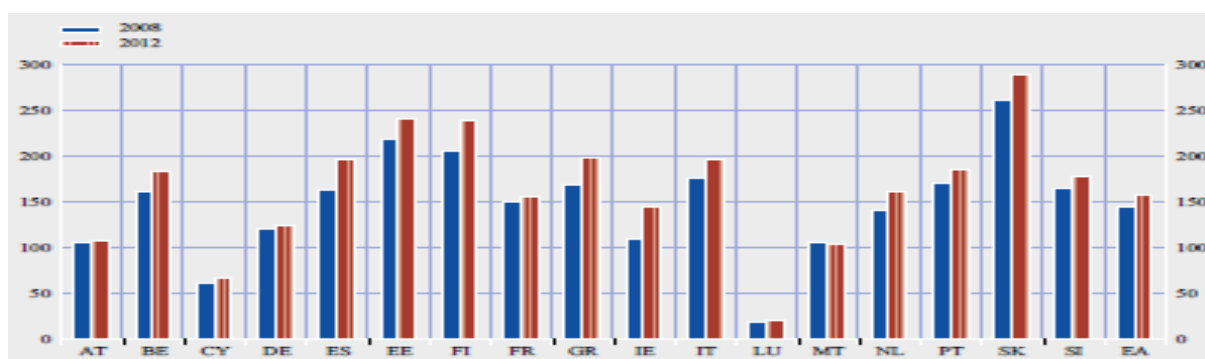


Figure 2.: Comparison of population per banking employee in euro area countries, 2008 and 2012 (ECB Banking Structures Report, 2013, p 11.)

In Figure 2. can be seen that there is raising trend in covered population per banking employee in almost all European counties. Operating costs, as share of total banks assets, declined slightly between 2008 and 2012. Staff costs, which are main part of total costs, remain stable, which implicate conclusion that banking sector as whole did not made significant saving from lay-offs and decline in compensation and they amounted 0.9% 2008, 0.8% 2009, 2010, 2011 and 0.75% ate the end of 2012 (ECB Banking structures report, 2013, p 25).

At the end of 2009 the number of employees in Croatian banks was 21730, 21770 employees 2010, 21865 employees 2011and 21639 employees at the end 2012 (1% decrease on annual level). Relative most intensive decrease is in small banks peer group (7.9% decreases in 2012 refer to 2011). Six largest banks represent 73.5% of total banking sector employees in Croatia at the end of 2012. Trend is correlative with the decrease of the number of bank branches and implicate that there is no economy restoring yet in Croatia and more intensive use of alternative distribution channels like internet banking, mobile banking, etc. Banks in Croatia cut their costs as crisis strategy (average decline is 4.2%) mainly as result of staff costs reduction (staff costs represent about a half of total costs in cost structure). Besides mentioned cost income ratio rise about 2% and its amount was more than 50% at the end of 2013. The asset per employee had amounted about 18.5 million kuna on average level but it is more bigger in large banks (according to Croatian National Bank, Bank bulletin no 26, 2013, pp. 6,7, 23, 24).

## 5. CONCLUDING REMARKS

Due to the achieved levels of human capital, each economy can create its own policies of human capital development. Improvement and rapid economic development should be clearly indicated in development plans by linking skills, productivity and employment. In todays very competitive and turbulent circumstances intellectual capital management becomes the tool for value added, presenting continuous management improvement and innovative business and the necessary factor for new values adding and contemporary banks' culture. According to research below are defined basic concluding remarks about the future more efficient human resources management, investment in human capital and direct and indirect goals of adopted measures for development of financial services industry, banks basically and economy at all in wider sense. Financial institutions human resources policy suggestions are:

- Developing countries could definitely significantly improve their own development if they took into account available human capital measured by the achieved and adopted level of knowledge and skills.

- b) Banks' management, as crisis' consequence in recent years, cut their costs and mainly it refers to all variable influence cost income ratio. Especially it's resulted in decrease in employment salaries and funds available for education. Future actions have to be targeted to better compensation schemes measured relative to staff sales or other efficiency results.
- c) Regulators adopted measures about bonus caps with the primary goal to decrease management moral hazard in avoiding risks in recent years and rose in different nova date risk exposures through speculative instruments, avoiding regulation, structured products, cosmetically accounting and regulatory arbitrage. Mentioned will positively influence on more moral and safely banks in the future as public good.
- d) In future it is necessary to raise investment in human resources with the aim of better banks efficiency and economy at all through internal education programs (academies) and external education models like: workshops, seminars, conferences, postgraduate studies, doctoral programs, etc.

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## **ASSETS' MANAGEMENT AND SHARE PRICES FOR ELECTRIC UTILITIES: EMPIRICAL RESULTS FOR WORLD ELECTRIC UTILITIES**

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### **ABSTRACT**

*Electricity market in Russia is still being formed, so electric utilities try to adapt to new conditions. One of the main tasks for Russian electric utilities is determining the factors influenced on companies share prices and making an ability to influence them. It is important because selling shares is one of the most appropriate ways to accumulate necessary amount of money for sustainable development in the future.*

*Firstly, it was interesting to find out whether it is possible for companies to influence on share prices with high quality of management. Speaking about management we assume assets' management (return on assets, rate of fixed and current assets, return on equity and etc.) in electric utilities. In article we analyzed the world experience in this field and compared it with Russian one.*

*Then, we tried to define the dependence between share prices and assets' management with the help of econometrical methods analysis. We regarded some objects for the years since 2000 and investigated them with the help of panel data analysis. We used STATA for finding out significant factors for share prices of electric power companies. We made the analysis for some countries, such as USA, China, Russia, UK and others; and then compared the results. Finally we are going to define some general regularities for electric utilities all over the world and to find out some features for them for different countries.*

**Keywords:** *share price, assets' structure, electric utilities.*

### **1. INTRODUCTION**

Restructurization of Russian electricity sector aimed to attract necessary amount of investment into generation and distribution sectors. Substantial investment was required to replace ageing plants and meet increasing electricity demand. However the amount of investment required was not the primary challenge. Russian power industry still needs investments. There is no reason to doubt that the funds will be available, but the main points are risks of investment in electricity projects and investors' willing to participate in assets' management.

So, it's necessary to ensure that the rewards in the electricity industry can attract the necessary funds, and the new trend is the management of uncertainty and risk, where uncertainty is closely connected with environment policy. In Russia environment in electricity sector have been changed drastically since 2003. Electricity market liberalization led to significant redistribution between all shareholders.

For investors it's rather difficult to manage uncertainty as they couldn't predict some important regulators' decisions on a competitive electricity market. At the same time investors have a chance to manage the risk by participation in company's life. Buying companies' shares allows investors to take part in decision making process. So, share price reflects investors' expectation about return on investments (Vause, 2005). Despite on companies don't get incomes due to selling shares after IPO their trend becomes the sign of investor's opinion. Moreover growth rate of share price reflects risk on electricity market.

In Russia restructuring process has finished recently and in many countries competitive electricity market has already created. Usually, company's performance influences investor's expectations. Company's performance contains a lot of factors that could influence investors' decision making process – indicators of leverage, financial stability and liquidity ratios. All of them testify the quality of assets' management. In different countries electricity market has different level of liberalization and deregulation; electricity utilities are private or state-owned companies. So, if we find the aspects of companies' performance influenced investors' expectation we will be able to conclude whether the level of liberalization matters.

For this purpose we have considered countries with different level of electricity market liberalization. Using econometric analysis we have found significant factors for the major market players in the countries under consideration.

Analysis given in this paper differs from existing ones by regarding several financial indicators of companies' performance (and assets' management either) with cross-country analysis.

Finally we will be able to make conclusion about distinguish features of electric utilities' assets management and its influence on share prices and consequently on market risk. If investors have an ability to take part in assets' management, does it mean that they have an ability to control market risk?

## 2. ELECTRIC UTILITY'S PERFORMANCE AND INVESTOR'S EXPECTATION

As market risk depends on assets' management, different aspects of the later should be analyzed. Investors take into consideration the amount of debt, ability to meet obligations, etc. To define what factors are the most important and which ones don't matter at all we have considered different aspects of assets' management. Table 1 contains indicators of assets' management.

*Table 1: Factors of assets' management used as repressors (Stanyer, 2006, p. 114-125)*

Group of factors	Indicators	Why it's important to consider this indicator
Turnover ratios	Return on equity	Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.
	Return on sales	A ratio widely used to evaluate a company's operational efficiency. ROS is also known as a firm's "operating profit margin". This measure is helpful to management, providing insight into how much profit is being produced per dollar of sales.



	Return on invested capital	A calculation used to assess a company's efficiency at allocating the capital under its control to profitable investments. The return on invested capital measure gives a sense of how well a company is using its money to generate returns.
	Invested capital turnover	A measurement comparing the depletion of working capital to the generation of sales over a given period. This provides some useful information as to how effectively a company is using its working capital to generate sales.
	Capital gearing	A general term describing a financial ratio that compares some form of owner's equity (or capital) to borrowed funds. Gearing is a measure of financial leverage, demonstrating the degree to which a firm's activities are funded by owner's funds versus creditor's funds.
	Goodwill rate	A ratio that measures how much goodwill a company is recording compared to the total level of its assets. The goodwill to assets ratio is useful for monitoring a company's use of goodwill. Although many companies record some form of goodwill, excessive use can lead to problems.
Leverage analysis	Leverage differential	This ratio presents the difference between return on invested capital and average interest rate. The last one reflects the ratio of interest payments to interest-bearing liabilities.
Transformation ratios	Inventory turnover	A ratio showing how many times a company's inventory is sold and replaced over a period. The days in the period can then be divided by the inventory turnover formula to calculate the days it takes to sell the inventory on hand or "inventory turnover days."
	Net receivable turnover	An accounting measure used to quantify a firm's effectiveness in extending credit as well as collecting debts. The receivables turnover ratio is an activity ratio, measuring how efficiently a firm uses its assets.
	Net payable turnover	A short-term liquidity measure used to quantify the rate at which a company pays off its suppliers. Accounts payable turnover ratio is calculated by taking the total purchases made from suppliers and dividing it by the average accounts payable amount during the same period.
	Operations turnover	The amount of sales generated for every dollar's worth of assets. It is calculated by dividing sales in dollars by assets in dollars.

Liquidity ratios	Current ratio	A liquidity ratio that measures a company's ability to pay short-term obligations.
	Quick ratio	An indicator of a company's short-term liquidity. The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets.
Financial stability ratios	Net working capital	A measure of both a company's efficiency and its short-term financial health.
	Fixed assets to current assets	A measure of fixed assets' share in current assets that reflect the financial stability of electric utility.
	Assets turnover	The amount of sales generated for every dollar's worth of assets
Production analysis ratios	Variable costs to sales revenue	A measure of companies' sales profitability and define whether there is an opportunity to decline costs and increasing of revenue.
	Break-event point	Share of variable costs that indicates profitability of sales

For measuring market risk we have used share prices. So further in the analysis it will be used as an explained variable. Turnover ratios present the part of Dupont analysis, the method of company's performance evaluation via regarding the effectiveness of companies' assets, sales, and equity management. The more dollars company get from an additional unit of assets or equity the more attractive they could be for potential investors. So we have calculated value of indicators in six groups presented above in Table 1. Leverage ratios may play significant role in investor's decision making process. Electric utilities are supposed to be capital intensive so usually they have a great amount of debt. The more debt company has the more risky its business is. Any leverage ratio used to measure companies' ability to meet financial obligations. Financial stability ratios reflect the company's ability to remain stable in turbulent environment. For example, the more company has its working capital the more financial stable it is supposed to be in investors' mind. Liquidity ratios allow us to determine company's ability to pay off its short-term debt and obligation. The higher the value of these ratios is the larger the margin of safety that the company possesses to cover short-term debt. Transformation ratios testify the quality of companies' management – the higher the value of ratio the less risky company is supposed to be. And the last one but not the least, production analysis ratios were calculated. Investors take into account the companies' ability to product electricity and to sell it with profits. No doubt there are plenty of factors that could influence investors' expectation and weren't included in our research. However we have tried to focus on key aspects of companies' stability and profitability and based on it we have chosen factors to our research. As an indicator of investors' expectation we have used the rate of share prices. It was used as explanatory variable to find out which indicators have significant influence on it. We have made analysis for companies in six different countries and then compare the results for making conclusion. As we have investigated several companies for different periods we used panel data analysis for defining significant factors for investor's expectation.

### 3. CROSS-COUNTRY ANALYSIS OF INVESTORS' EXPECTATION ON ELECTRICITY MARKET

We have decided to investigate some power generation utilities in the following countries: China, Germany, France, Italy, Russian Federation, and United States. These countries have different types of national economies' development. Four of them are economically developed countries, and China and Russia have the economies with emerging markets. Key characteristics of the energy sectors are in Table 2. Their energy productions depend on the followings: available primary energy sources, types and development intensity of industry sectors, and economy potentialities. For instance, China is the leader in energy production, but its electricity consumption per capita is the least among the six countries. Total primary energy supply per GDP units is the greatest in Russian Federation, then in China. This fact might be connected with type of economic development, energy sources, and severe climate.

*Table 2: Some characteristics of countries' energy sectors in 2011 (source: www. iea.org)*

Country	GDP PPP (billion 2005 USD)	Energy production (Mtoe)	Net imports (Mtoe)	TPES*/ population (toe/ capita)	TPES/ GDP (toe/ thousand 2005 USD)	Electricity consumption / population (MWh/ capita)
China	9970.01	2432.50	378.62	2.03	0.65	3.30
France	1958.74	136.07	126.40	3.88	0.11	7.32
Germany	2827.99	124.19	199.04	3.81	0.10	7.08
Italy	1642.74	31.56	141.12	2.76	0.09	5.39
Russian Federation	2103.54	1314.88	- 571.81	5.15	0.77	6.53
United States	13225.90	1784.77	457.82	7.02	0.17	13.23

\*- TPES – Total Primary Energy Supply

All the countries under consideration have specific features of their power system. Primary energy sources are different as well as the structure of final electricity consumption (Table 3). These indicators influence electricity prices for national industry sectors and households. The national policy for electricity prices depends on economic, social, and political factors. For instance, France uses nuclear energy source, has developed economic system, and maintains social programs actively. All these points stipulate preservation relatively low electricity prices for both types of consumers, industry and households. The highest prices are electricity prices for households in Germany, the lowest – for industry in Russia. These prices don't take into consideration PPP-factor.

*Table 3: Production and consumption of electricity in 2011  
(Key World Energy Statistics, 2013, p. 42-43)*

	<b>China</b>	<b>France</b>	<b>Germany</b>	<b>Italy</b>	<b>Russian Federation</b>	<b>United States</b>
<b>Total production (GWh)</b>	<b>4716716</b>	<b>561960</b>	<b>608565</b>	<b>302581</b>	<b>1054765</b>	<b>4349571</b>
<i>Production from:</i>						
coal and peat	3723244	17310	271865	50139	164348	1875413
oil	7857	3439	6608	19885	27362	39524
gas	84022	26755	83630	144548	519202	1045254
biofuels	31500	2941	32849	8625	35	53703
waste	10770	4420	11156	4513	2742	23789
nuclear	86350	442383	107971	0	172941	821405
hydro	698945	49893	23514	47757	167608	344679
geothermal	153	0	19	5654	522	17892
solar PV	2532	2050	19340	10796	0	5260
solar thermal	1	0	0	0	0	893
wind	70331	12235	48883	9856	5	120854
tide	11	534	0	0	0	0
other sources	0	0	2830	806	0	905
<b>Final consumption (GWh)</b>	<b>3862496</b>	<b>419717</b>	<b>521517</b>	<b>301828</b>	<b>728824</b>	<b>3789876</b>
Industry	2654345	117891	230655	128076	332818	898592
Transport	46340	12398	16600	10793	90355	7672
Residential	562006	148610	136600	70140	130889	1422801
Commercial and public services	220525	132648	128662	86912	159631	1328057
Agriculture / forestry	101290	3220	9000	5839	14851	0
Fishing	0	124	0	68	280	0
Other non-specified	277990	4626	0	0	0	132754
<b>Retail prices (USD/MWh)</b>						
Electricity for industry	100.20*	116.33	148.71	291.79	47.10*	66.98
Electricity for households	81.60*	174.77	338.75	288.40	65.00*	118.83

\*- Цены на электроэнергию в России и в мире//Институт проблем естественных монополий (source: [http://ipem.ru/images/stories/Files/energy/tnk\\_bp\\_tceny.pdf](http://ipem.ru/images/stories/Files/energy/tnk_bp_tceny.pdf))

The countries have their history of energy reforms, policy of deregulation and liberalization electricity sector, and way of creation their electricity markets (Table 4). Nowadays there are two main approaches for organization electricity sector in modern economies. They are

monopoly and a competitive market. In practice, each country uses its own providing electricity model. For instance, Russia has restructured its vertically integrated companies into a great number of electric utilities; it has wholesale and retail electricity markets, but less than a half of private capital in generation assets. Germany has private vertically integrated companies as a combination of monopoly and market. France has state-owned electric company and some small private enterprises; EdF is one of the major players in the European electricity market.

*Table 4: Energy reforms and competition in the selected countries' electricity industry (Von Danwitz T., 2006, p. 423-431; Russian Electric Power Sector Regulation, p. 2-3; Cooke, Antonyuk and Murray, 2012, p. 3-8)*

<b>Country</b>	<b>Key features</b>
<b>China</b>	There are five state-owned enterprises of the power generation sector which are dominating in the market. More than a half of installed capacity belongs to 10 companies. Many other companies of a much smaller size are the companies with local government ownership.
<b>Germany</b>	The transmission system operators (TSOs) are vertically integrated companies. They operate the largest part of facilities for the generation sector. There are four main companies (TSO): EnBW, E.ON, RWE, and Vattenfall Europe, which are mixed-owned or mainly private ones.
<b>France</b>	The electricity industry enterprises were nationalized in 1946. Nowadays, EdF, a single French state-owned power company operates generation and transmission electricity sectors. It seems to be the French opposition to the liberalization process in European electricity market.
<b>Italy</b>	The electricity market was created in 2007. This year the electricity industry reform which had been going on for 15 years ended. The key role in a modern energy system is played by public companies. In 2007 about 70% of electricity were produced by the following five major players in the market: Gruppo Enel, Gruppo Edison, Gruppo Eni, Endesa Italia, Edipower.
<b>Russian Federation</b>	From 2003 Russian power sector has been restructured drastically. Nowadays, there are wholesale market of electric power and capacity and retail market for electric power. Only about 20% of electric power is traded at regulated prices, but 80% - at market prices. Government-owned electricity companies own or control over 60% of total generation assets.
<b>United States</b>	Power generation sector has mixed public-private energy companies. A degree of liberalization and regulation is different for the states. An active stage of deregulation in the US power sector takes place in less than a half of the states. A well-known liberalization experience of Californian energy market caused the electricity crisis in 2000 and 2001. The PJM states are successful in creation a regional electricity market.

The monopoly in the electricity industry has some drawbacks such as weak incentives to reduce costs, improve its services, introduce innovations, and invest effectively. A

competitive market model allows investors to assess profitability of their investments using market pricing and other instruments.

Table 5 contains information about some electric utilities in the countries under consideration. The number of them was determined by accessibility of statistics. The most important characteristic is a type of ownership. It differs for the countries and the companies.

It is important that all American electric companies considered in the investigation are private and located in the electricity industry liberalized states.

Reforms in electricity sector were not carried out in China.

*Table 5: List of power generation utilities used for the analysis: (Key World Energy Statistics, 2013)*

<b>Country</b>	<b>Main generation enterprises</b>	<b>Type of ownership</b>	<b>Year of foundation</b>
<b>United States</b>	Southern Co Exelon	private	1945
	Nextra Energy	private	1985
	Duke Energy	private	1917
	Dominion Resources	private	1983
	American electric	private	1985
	FirstEnergy	private	1996
	PPL	private	1920
	PG&E	private	1905
	Consolidated Edison	private	1823
	Public Service Enterprise	private	1985
	Entergy	private	1913
	Xcel Energy	private	1909
	Edison International	private	1886
	AES	private	1981
	Emerson Electric	private	1890
<b>Germany</b>	RWE Group	private	1898
	E.ON	private	1929
<b>Italy</b>	Enel	mixed	1962
	Edison	mixed	1960
<b>Russian Federation</b>	RusHydro	mixed	2004
<b>China</b>	Huaneng	state	1994
<b>France</b>	GDF Suez	private	1946
	EDF	state	1946
	Schneider Electric	private	1846

#### 4. EMPIRICAL RESULTS: ANALYSIS OF SIGNIFICANT FACTORS FOR SHARE PRICE

As a result of panel data analysis made for companies of every country we have found significant factors for company's share price (Table 6). We used annual data: for the USA, German and French electric utilities – 23 years data were regarded (since 1990 till 2012), for Italian companies – 17 years (since 1996 till 2012), for Chinese companies – 11 years (since 2002 till 2012), and for Russian ones – 9 years (since 2004 till 2012). As we had different number of electric utilities in the countries and some periods at the same time, panel data analysis was used as the most appropriate method of analysis. It allows us to research several objects with time dynamic component. So we have used Stata analysis for every country and factors are supposed to be significant if calculated t-Value is bigger than tabular one.

*Table 6: Factors had significant influence on share prices of the electric utilities*

significant factors	United States		Germany		France	
	Factor	Coeff./t-Value	Factor	Coeff./t-Value	Factor	Coeff./t-Value
	Return on equity	3,05/3,65	Return on invested capital	1,46/3,85	Return on invested capital	9,27/2,45
	Goodwill rate	15,03/4,96	Capital gearing	-2,76/2,04	Return on sales	2,17/1,92
	Capital gearing	-1,04/5,71	Return on fixed assets	12,19/2,74	Goodwill rate	18,29/6,05
	Leverage differential	112,71/6,05	Return on assets	5,86/2,65	Break-event point	0,005/0,00
	Net working capital	-14,2/1,93	Break-event point	0,0001/3,17		
	Return on assets	10,2/2,76				
	Current ratio	7,72/2,64				
	Net receivables turnover	0,13/2,09				
	Inventory turnover	0,079/6,82				
	Break-event point	0,001/3,04				
	Italy		China		Russia	
	Factor	Coeff./t-Value	No factors		No factors	
	Return on equity	3,217/4,17				
	Capital gearing	-7,21/3,11				
	Leverage differential	21,71/2,87				
	Return on assets	7,18/2,88				
	Break-event point	0,0003/5,01				

So, electric utilities in the USA have the majority of significant factors of assets' management that could influence on market share price – ten indicators demonstrated their importance. Results for the electric utilities in Germany and Italy show five significant factors. For French electric utilities four indicators of assets' management appear to influence market share price. Russian and Chinese electric utilities don't have an ability to influence market share price via assets' management decision.

## 5. CONCLUSION

Based on received results we have made conclusion that the more state participation in different ways take place in electricity sector the less ability to influence market share price managers have. We have obtained the majority of significant factors for the USA electric utility companies that could be account for investigating private companies operated on liberalized electricity markets in some US states. In Germany and Italy private capital plays significant but not such important role as in the USA that brings less number of significant factors for market share price. In France private capital presents on the market but government plays the most important role as closely connected with high rate of nuclear generation in country. In China all electric utilities deal with state capital that could explain the absence of significant factors for Chinese companies. In Russia generation sector was divided into two parts – one where private capital was allowed to participate and another one where state capital continue to play the significant role. RusHydro electric company belongs to the last one. It explains the reason we couldn't find the dependence of market share price and indicators of assets' management in the company. So investors as potential managers have more power to influence market share price when government electricity market regulation and state investments in electric utilities assets are observed.

Based on empirical results we have found that despite on different level of electricity market liberalization some indicators demonstrate their significance for different countries at the same time. The figures in Table 6 allow us to mark out the following indicators: return, leverage and breakeven ratios that play important role for the USA, Germany, France and Italy. So, despite on liberalization level on electricity market in these countries the effective management of return ratio, controlling the value and quality of company's debt and planning company's profitability on electricity market help to influence market share price.

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## STRATEGIC DECISION MAKING WITHIN THE CLUSTER IN THE CONTEXT OF ORGANISATIONAL ENTREPRENEURSHIP

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### ABSTRACT

*The article characterises the essence of strategic management within a cluster, treated as a more or less formalised organisation created as a result of mutual interactions of various partners from the sector of business, science, and public administration to implement certain goals. It was emphasised that this type of management constitutes the information and decision-making process, whose aim is to solve the key problems in the activity of a cluster, its survival and development with particular regard to strategic potential and impact of external environment. The need for professional gaining and processing information was indicated so as the knowledge resources have become the basis for accurate (good) decisions making. Regarding the complex nature of the decision making process, the study indicates the need for strategic thinking performed by managers and leaders of the cluster, determined by flexibility, creativity and intuition, playing a very important role in the process of developing organisational entrepreneurship in these kinds of structures. The consideration, whose outline has been presented in the article, was made on the basis of theoretical studies.*

**Keywords:** *cluster, decision, entrepreneurship, information, knowledge, management*

### 1. INTRODUCTION

A significant challenge for clusters is active identification and taking advantages of opportunities dynamically arising in a turbulent environment. This challenge can be met through efficient cluster management. This ability is reflected mainly in the way of decisions making (deciding). Entrepreneurial cluster management, constituting a complex system of mutually connected actions and decisions orientated towards objectives' achievement, including integration and coordination of using the present and the future resources within the cluster structure, and towards the development of intra- and interorganisational cooperation, determines the efficiency of cluster activities, its development and competitiveness.

Assuming that contemporary cluster management constitutes a sequence of decision-making and creation of conditions for efficient decision realisation, it was agreed that the main objective of the article will be to determine the role of decision-making in the process of cluster development. Moreover, the aim of the paper is to describe the decision process specificity in the context of organisational entrepreneurship, since it leads to a conscious choice of direction and manner of activity, increasing the probability of beneficial results and diminishing the risk of possible loss. It is very important as organisational entrepreneurship is

an integral part of clusters' nature and it is manifested in creativity, going boldly beyond the conventional schemes of thinking, flexibility, continuous involvement in newer and newer areas of activity of management personnel as well as individual members of an organisation.

## **2. THE NATURE OF STRATEGIC MANAGEMENT IN THE CLUSTER**

In the literature on economics and management it is indicated that the cluster is such a flexible concept that it is difficult to find its universal definition. Many definitions prove that the cluster is geographic concentration of highly specialized, competing, collaborating and interdependent companies and institutions (universities, R&D units, standards agencies, trade associations, financial institutions) which are connected by a system of market and non-market links (Kuah, 2002, p. 207). E.J. Feser (1998, p. 26) claims that economic clusters are not just related and supporting industries, but rather related and supporting institutions that are more competitive by virtue of their relationships. Clusters are characterized by an advanced and specialized infrastructure, intense formal and informal contacts, exchange of business information, knowledge, know-how, technical expertise, tend to develop a set of idiosyncratic norms, institutions, personal networks, and trust (Europe Innova, 2008, p. 11-12). Research shows that: knowledge spillover is an important mechanism within area of clusters, organizations of this type emerge spontaneously and they require an abundance of new firms – either new ventures or new entrants, firms – to secure development (Andriani et al, 2005, p. 17). The advantages of the cluster are also (Das and Das, 2011, p. 162-163; Uyarra and Ramlogan 2012, p. 5-8):

- cluster creates a healthy co-relation between the firms, central with state government, local institution/organization, international organization and other educational institutions etc;
- clusters give opportunities to its members for work and grow – which attracts the new customer and public investment by providing high quality products and services, which benefits all area business;
- firms in clusters grow faster than average (if clustered with others in their own sub-sector of the industry);
- cluster provides an opportunity to the firm for innovation development (in their products and production, decision making process, management etc.);
- cluster provides an identity to the clustered firms and actors in the society and related market – which strengthens the bargaining power of the firms with the suppliers and buyers;
- cluster helps the faster growth of regional economics through maximum utilization of local resources such as human resources;
- cluster enables small individual firms to specialize in specific tasks, gives access to special skills, services and inputs;
- local co-operation, both individual firms and cluster institution can strengthen the ability of clustered actors to compete in the markets by sharing costs through engaging in joint tasks such as shared marketing and distribution;
- in cluster, the agglomeration benefit raises the efficiency of the small firms and makes it possible to access the markets through a division of labour;
- the knowledge spillover in cluster make feasible to small firms to acquire new know-how, new products and new production techniques that could not be obtained through markets.

In the article it was assumed that clusters constitutes an example of an modern flexible form, an entrepreneurial economic organisation, which, as a complex whole, is able to fulfil its aims due to cooperation with the key stakeholders, not only internal but also external ones.

Managing this organisation refers directly to the management activity, which concentrates on establishing goals and contributing to their successful achievement, undertaken by authorities adequate for a particular organisational and legal form, including the leader and the manager of a cluster. Cluster management can be defined as an organisation and coordination of the activities of a cluster in accordance with certain strategy, in order to achieve clearly defined objectives. This complex, non-linear process includes the following cycles (Schretlen, Dervojeda, Jansen and Schaffmeister, 2011, p. 8):

- define – vision, mission, objectives, development strategy, key performance indicators, key uncertainties;
- design – actions, communication platform, monitoring and evaluation systems, agreements with stakeholders,
- implement – actions as designed (e.g. networking, providing information and knowledge, lobbying, collaboration, education, cluster promotion);
- monitor implementation (i.e. collect and record knowledge on key performance indicators, review progress, identify problems in planning and implementation);
- evaluate the results (i.e. determine the scope and purpose of the evaluation, identify key evaluation questions, facilitate the evaluation process, analyse the results);
- revise objectives and uncertainties, prepare a report for stakeholders.

The manner of cluster management is dependent on a number of determinants, among others: the stage of development, territorial scope, type of activity, dynamics of the development, basis of activity, technological advancement, competitive position, the manner of creating innovative processes, characteristics and the structure of connections between the network constituents. Clustering practice proves that it is not easy to manage a cluster comprising various entities with different outlooks, expectations, resources. The cluster management's main objective is to ensure the networking at three different levels, corresponding to three specific tasks related to the systemic networking process (Cavigliasso and Pamminer, 2012, p. 11):

- the primary task is the networking between the different stakeholders in cluster,
- the second task is the networking between the cluster and the external stakeholders,
- the third task is the networking inside each stakeholders group (project groups).

Managing a cluster structure in the conditions of a turbulent environment necessitates strategic approach among others towards the choice of most profitable development strategy, its implementation and control. In this case it is crucial to implement the assumption of the strategic management concept. D.J. Ketchen and L.C. Giunipero (2004, p. 52) suggested that strategic management can be distinguished from other organisational sciences by its emphasis on identifying, explaining, and predicting the determinants of organisational performance. Strategic management as an example of a process related to: defining of the goals, mission, vision, shared values, environmental analysis, formulation, evaluation, implementation and control of strategies, defines how organisations develop sustainable competitive advantages resulting in the creation of new value (Kraus and Kauranen, 2009, p. 39). In general, strategic management includes three steps: establishment of strategic goals, strategic planning, and strategy implementation and evaluation. This type of management aims at leading, driving and helping people, these inside the organisation and these outside it (also involved in its development), to focus on the organisation's identity and image, question its worth in a new environment, and fix its longer term growth, while using its present capacity and fostering its »potential« for stable development (Tabatoni, Davies and Barblan, p. 5). S. Ranson and J. Stewart (1994, p. 189) argued that the distinctive purpose of strategic management is to protect the capacity of an organisation to respond to the change and to redirect day-by-day routines in the light of strategic choices. J. Harrison (2010, p. 4) believes that strategic

management is a complex process through which organisations analyse and learn from their internal and external environments, establish strategic direction, create strategies that are intended to help to achieve the established goals, and execute those goals, all in an effort to satisfy key organisational stakeholders.

Strategic management in a cluster is a set of managerial decisions and actions that determines the efficiency and long-run performance of this organisation (Wheelen and Hunger, 2012, p. 5). Strategic management process should aim to unleash the benefits for the cluster – better results through better decisions, identification of more opportunities, consideration of more factors, improved coordination and communication, strong motivation, and provision of a means of coping with the pressures for change for the cluster (Pirtea, Nicolescu and Botoc, 2009, p. 956). Managing a cluster in a strategic way a manager and a leader of the cluster should make decisions that are coherent with the development strategy, and which take into consideration internal and external conditions of cluster activity, mission, commonly accepted values. What is also crucial is orientation to improvement, comprehensive perception and solution of the appearing problems. Strategic management as a tool of development control enables reactive and proactive opposition to the negative external stimuli, providing the cluster with relatively stable conditions for further activity and development. This type of management increases the probability of the success within the scope of translating the assumptions of the development strategy into concrete actions of the partners in a cluster. It also develops the ability to affectively and quickly identify and connect necessary resources and activities within the strategy realisation. It has to be however remembered that strategic management process as well as the strategy formulation is not the aim itself. They only constitute certain tools that serve more effective realisation of the common objectives. The success of implementing the concept of strategic management in a cluster depends mainly on the professionalism and the involvement of the cluster manager and the leader. What is significant for this purpose is strategic thinking, interdisciplinary knowledge, adequate competences, experience, intuition, creativity. It has to be emphasised that efficient cluster management is impossible without entrepreneurial basis and entrepreneurial activities of the managing entity as well as entrepreneurs associated in the network.

### **3. THE IMPORTANCE OF STRATEGIC DECISIONS IN THE CLUSTER**

Not only the complexity of cluster structures but also the complexity of their environment cause strategic decision making to be realised in the conditions of high risk or uncertainty. This process is connected with a number of factors and conditioning for problems, as well as lack of knowledge of available alternatives, results, cause-and-effect relationships and their probability (Gänswein, 2011, p. 19). Decisive situation in the above mentioned case is defined as unmarked, fuzzy. On one hand managers make strategic decisions in the conditions of informative chaos and informative smog, i.e. in situations of excessive stimuli, numerous potential choices, cognitive overload and stress. On the other hand, however, they have to make decisions in a situation of a substantial information gap, thus a large discrepancy between the resource of useful information that is possessed and that is desired. Information available to a manager is cross-sectional, collective (of wide scope), mainly qualitative, incomplete, not quite accurate. It assumes an explicit and unreliable forms (gossips, rumours, vague signals); it is unprogrammable (e.g. comes from informal sources) and frequently contradictory. The cost of acquiring and processing information is therefore very high. Information, knowledge, experience and so far used methods do not appear sufficient to a decision-maker. Solving strategic problems, which are to a considerable extent new, complex, dynamic, ambiguous (difficult to define) and non-algorithmic, requires from the decision-

makers great inventiveness. All the mentioned factors cause a large decisive gap while strategic decisions making.

It can be stated that strategic decisions making in clusters is a process even more complicated than in a classically understood organisation. It results directly from the following features of the cluster:

- in the cluster there are numerous nerve centres; its leader creates a vision, a manager is responsible for the strategy realisation. Additionally, each entity constituting a cluster has its own management and strategies, and it aims at making the cluster strategy conducive to its development. Different positions and functions of the decision-makers in such a type of a structure cause different perception of the scale, time perspective, risk, object, scope, or significance of strategic problems. It hampers reaching a common ground by the entities involved in the cluster structures,
- variety of kinds, aims and strategies (business models) of organisations creating clusters cause the increase in the quantity of inconsistent areas of interests. Hence, strategic decisions are a result of tenders, values confrontation, game of power, political influences, agreements, compromises, negotiations, mediations. Therefore in a cluster in different relationships, periods of time and decisive areas, competition, co-opetition (cooperation) or cooperation,
- clusters associate economic and noneconomic organisations, in which there are groups of stakeholders of various organisational cultures. Their blending in a cluster cause the necessity of taking into account in the management the social and cultural aspects, such as: age, sex, professional group, position, education, creativity, qualifications and experience of members. Taking into consideration such a diversity to a considerable extent complicates strategic decision-making process.

All above mentioned features of the cluster undoubtedly cause the increase in complexity of its managing processes. Paradoxically, they can also constitute conditions conducive to accurate strategic decision making in a cluster. Hence, they can stimulate the growth of organisational entrepreneurship of its all members. Accurate strategic decisions in a cluster can be therefore treated as a cause as well as a result of entrepreneurship of an organisation for the following reasons:

- numerous nerve centers in a cluster enable avoiding coercive leadership, that is strong centralisation of power. In order to properly represent the interests of many different entities, a cluster manager should be prepared to subject themselves to criticism, and to be open to the need for correcting the strategic decisions, postulated by Stanovich (2010, p. 155): ‘This is a good thing. Principles of rational thought are not set in stone, never to be changed. In fact, the best decision-making strategies will be those that are self-correcting. This we might call the insight of metarationality-that all reasoning principles, even those concerned with rationality itself, must be subject to critique’ (Stanovich, 2010, p. 143). Making metadecisions (conditioning other decisions) requires metarational approach,
- generally clusters are open structures, which enables other entities to join them on a voluntary basis – by choice, on the basis of interests similarity, aiming to achieve the scale and the synergy effects, and also the added value. Despite the differences, all organisations creating a cluster are seeking their own advantages, according to properly understood egoism. The variety of kinds, aims and strategies (business models) of organisations creating clusters enables them to obtain simultaneity. This denotes the ability of using divisional strategy consisting in simultaneous realisation of many tasks of different aims. It results in the increase in flexibility and adaptability of

activity, synthetic (multithreaded, generalising, intuitive, visionary) approach to problems solution, high ambiguity tolerance; all these is a distinct sign of entrepreneurial orientation of a cluster structure.

- clusters require the diversity management defined also as the cultural diversity management, management of multiculturalism, intercultural management. The major assumptions of this concept concern building consciousness and acceptance of social and demographical differences in an organisation and using them to its advantage (Roberson, 2004, p. 4). Accurate strategic decisions making in a multicultural organisation requires the manager of a cluster to move mentally between extreme cognitive approaches. It consists in ensuring coexistence (complementarity) of organisation's features such as: pro-transactivity, pro-partnership, collectivism and individualism, femininity and masculinity, long-term orientation and global approach.
- it is also worth aiming at "metaculture" (cultural cooperation) or cultural heterarchy (cultural coexistence), and besides: acceptance of uncertainty, performing a synthesis, ensuring internal locus of control and short power distance in the organisation. It is also necessary to maintain consciousness of the existence of intercultural differences, and will and ability to use them in managing, taking into consideration the principles of: reflexivity, empathy, community and cooperation, tolerance, constant adaptation and activity promptness.

Strategic decision making in a cluster in the above mentioned way increases the probability that each member of a cluster can realise their own mission easier while being a member of a cluster than while outside a cluster. Hence, it is more probable that each participant who wants to remain in a cluster will endeavour to be useful to cluster partners and its environment.

#### **4. STRATEGIC DIMENSION OF ORGANISATIONAL ENTREPRENEURSHIP IN THE CLUSTER**

Organisational entrepreneurship is a notion drawing attention to the significance of entrepreneurial spirit in already existing, mature organisations of diverse character and various sizes. It is identified with intrapreneurship, interpreneurship, or corporate entrepreneurship. Owing to organisational entrepreneurship, enterprises (organisations) are inclined 'to take a risk and to experiment; [...] to independent activity and innovativeness; [...] to identify and take advantage of chances preempting competitors from doing that [...], to interorganisational changes aiming to enhance effectiveness of functioning and development in highly competitive environment' (Doh, 2000, p. 551). Adopting an entrepreneurial orientation by a given organisation increases its long-term development possibilities. For the organisation entrepreneurship is a specific power, intangible resource which is able to stimulate innovativeness, increases the speed of risk decision making and propensity to change. Organisational entrepreneurship is a driving force of every process that takes place in a given entity. It is highly desirable – simply necessary – in various economic and non-economic organisations regardless of their kind and size.

Organisational entrepreneurship understood as entrepreneurial ventures undertaken by entities within a cluster, should be coherent with its strategic objectives – various kinds of initiatives, strategic decisions realised inside the cluster, which translate into realisation (and possible change, assuming flexibility) of strategic aims. Entrepreneurial orientation regards every cluster member, every area of its activity. In the first instance, however, it should be reflected in the strategy orientated to innovations' implementation, taking advantage of opportunities, and taking into consideration untypical behaviours, unusual and creative approach to problem

solving. Only then will it constitute an incentive for entrepreneurial behaviours of cluster members – the condition, however, is the familiarity with the strategy, its acceptance and translation into aims and tasks on the operational level. Entrepreneurial-oriented strategy should also assume a certain dose of independence and responsibility for the results of the decisions and implemented activities.

Entrepreneurship (and organisational entrepreneurship in a cluster in particular) and strategic aspect are closely interrelated, particularly in a cluster, which originally takes into consideration strategic orientation. Strategic management supports organisations with the process of creating and taking advantage of competitive advantages in a certain area of the market. Whereas entrepreneurship supports seeking competitive advantage can contribute to more active (more effective) activity within this scope. Entrepreneurship and strategy in a cluster must “go hand in hand with” each other; they should be interrelated – cluster management should manifest entrepreneurship while formulating cluster strategy, and the strategy itself should take into consideration entrepreneurial activities. It should be designed in a way that assumes seizing opportunities that appear in the environment (new sources, values), and subsequently translate them into the realities of a concrete component of a cluster network. This stimulates proper (orientated toward using these opportunities) behaviours. Moreover, entrepreneurship is conducive to the efficacy on the strategy level, and also flexibility, creativity, constant implementation of innovations, which contribute to higher level of cluster profitability (Kuratko and Audretsch, 2009, p. 1-17).

Organisational entrepreneurship is inseparably linked with strategic orientation of a given organisation. It is frequently described as strategic entrepreneurship. Since it is one of many key elements for the whole entity, where a very important role plays so-called strategic renewal understood as introduction of new undertakings, orientated to change of a fundamental relationship of an organisation with the market. These are significant changes within an organisation, of key character for its functioning, and strategic and structural dimension, which can become the source of competitive advantage. This leads to so-called revitalisation of major (strategic) system elements (for its renewal, refreshment, rebirth, revival, exchange of the old, useless, defective elements with different, better ones (Agarwal and Helfat, 2009, p. 282), and also to the change of organisation’s management strategy and basic principles of its functioning towards entrepreneurial orientation. Due to strategic renewal there is possible a constant regeneration that enables redefining the domain of activity, and owing to that – revival of the activity, and even the reconstruction of the business model in the long-term. It has its very positive implications not only for the enterprises, but also for branches, and even whole regions and economies. According to Agarwal and Helfat (2009, p. 282), strategic renewal is strictly connected with the J. Schumpeter’s process of creative destruction. It results (mainly due to innovations) in creating new combinations of the means of production, and the machines and devices used so far are replaced by new, better ones (then a phenomenon of the so-called obsolescence occurs), and this in turn is comprised in the notion of strategic renewal. The significance of innovativeness in the process of strategic renewal of an organisation is emphasised by V. Sathe and D. Miller (Ferreira, 2002, p. 7). Owing to innovations the ability to compete and to take a risk is developed. Due to innovations it is possible to gain and maintain favourable competitive position in a given sector of the market. Moreover, competitive advantage based on innovations is far more permanent.



Concluding, it can be stated that strategic aspect (with particular regard to the process of strategic decision making) in a cluster as well as entrepreneurship are strictly interrelated. Strategic management and entrepreneurship are dynamic processes orientated towards effectiveness. Strategic decisions making contributes to building and using competitive advantage in the context of concrete conditions of environment. Entrepreneurship promotes seeking opportunities to gain permanent competitive advantage by means of innovativeness (Hitt, Ireland, Camp and Sexton, 2002, p. 1-16). Combination of innovative and entrepreneurial activities in such a specific structure as cluster is simply necessary. Usually, it means the orientation to finding new competitive space, and particularly to new ways of conducting activities contributing to the creation of the unknown effective business models and to discovering new areas of competition.

## 5. CONCLUSION

In the article it was endeavoured to prove that strategic and entrepreneurial orientations of the cluster are inseparably interrelated. Strategic decisions are always connected with a great risk of suffering a loss, and regard key issues – survival, structure development, strengthening the market position, and the level of the profits. All these components cannot be achieved without entrepreneurship on the level of organisation as well as the members engaged in the cluster structure. Strategy originally shows the direction in which a given organisation wants to proceed, and determines the way of achieving this state. When in the process of realising a strategy entrepreneurial attitude is domineering, the abilities of a cluster within this scope can be far greater. Cluster is a network of simultaneously cooperating and competing with one another entities merging in order to achieve the effect of synergy, which results from cooperation of various stakeholders. It is a flexible, conducive to creative behaviours structure, in which entrepreneurship especially on the strategic (organisational) level is simply necessary. Clusters are originally concentrated on the fulfilment of their strategic aims. This enables them to adequately orientate their long-term activity, contributing to identification and creation of new areas of cooperation within a cluster and of a cluster integrated with the environment, and also to achievement of higher effectivity due to the transfer of knowledge, technologies and innovations. However, the success of strategic objectives' attainment in every case depends on the quality of decisions. This in turn depends on the correctness of the process of making them, including adequately designed system of managing information and knowledge in a cluster. Obviously, professionalism of the decision-makers in this regard is also meaningful. Decision making in a cluster is a more and more difficult and complex task since the complexity and the importance of the encountered problems, decisive situations are constantly growing. This creates the need for constant improvement of the decisive process in a cluster, not only the preparation for decision making but also final deciding.

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## THE ADAPTATION OF TOURIST AGENCY BUSINESS IN CROATIA - DOMINANT TRENDS IN GLOBAL TOURISM

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### **ABSTRACT**

*The globalization and liberalization of markets are what affects the change of the dominant trends in the tourism industry of the 21st century and create a turbulent business environment prone to rapid changes to which every tourist business must adapt successfully in order to maintain and improve their competitiveness. Equally important is adapting to global trends in terms of tourist destination which would require the cooperation of the private and public sectors. The distribution systems and the creation of strategic partnerships both have an important role in tourism, and the dominant trends are changes in consumer behaviour, focus on the environmental aspects of tourism and cultural tourism, orientation to extend of the tourist season and consolidation trends in tourism. The results show that the Croatian tourist agencies are insufficiently involved in the global distribution systems as well as in creating a destination value chain, which is the basis of competitive destinations. On the other hand, tourist agencies in Croatia regularly explore the demand market and adapt to trends, especially in terms of making arrangements for cultural and ecological tourism, which are globally recognized selective forms in future of tourism.*

**Keywords:** globalization, tourism market, global distribution systems, dominant trends, tourist agencies

### **1. INTRODUCTION**

The subject of this research paper is the comparison of trends in Croatian tourism with global travelling trends from the perspective of tourist agencies that operate in Croatia. The study refers to the involvement of tourist agencies in Croatia regarding global distribution systems that work together on the principle of strategic partnership offering various services in a heterogeneous tourism industry. It also explores how tourist agencies follow global trends in terms of market research and enrichment of their offers according to the needs and desires of the modern, global tourists, how much focus is placed on the development of arrangements in selective forms of tourism (cultural, environmental) and how the agencies involved in the destination value chain, which is a key factor of competitiveness in the international tourism market. The relationship between participation in the GDS and the income that the tourist agencies from Croatia generate is also explored.

## 2. THEORETICAL FRAMEWORK OF THE RESEARCH

Global organization in the tourism sector is very complex and characterized by a strong interplay of global and local actors. Given that tourism is a heterogeneous product, international airline carriers, shippers, global tour operators and multinational hotels play a lead role in the global tourism value chain. Individual tourist offers from developed countries play a key role in shaping the tourism trends through strong marketing campaigns and close contact with consumers. "Many tourists from developed countries reduce the risk and uncertainty of international travel in working with global companies. Traditionally, tourist agencies are important channels for providing information and linking tourism supply and demand. In this process, the Internet is growing in importance as well as global distribution systems (GDS) such as Sabre and Travel port ([www.snvworld.org](http://www.snvworld.org), accessed on 04.01.2014.).

In the structure of tourists on a global level there is a notable dominance of elderly due to life span getting increasingly longer and the fact that the elderly have an adequate amount of money and free time which allows them to participate in all sorts of tourism activities. In addition to the domination of elderly tourists, there is a strong redistribution of the national structure of tourists globally." In fact, with the rise of the middle class population in developing economies such as China, India and South Africa, the number of foreign tourists is likely to continue to increase with the growth of tourists from these countries in the total number of tourist activities ([www.ssrn.com](http://www.ssrn.com), accessed on 01.02.2014.).

The capacity of Croatia as a destination that wants to increase its total tourism revenues will, especially in the future largely depend on the connection between local and global industry - developing strategic partnerships that will enhance the overall chain of value of Croatian tourism. There is a significant role of the government and public institutions that should provide the infrastructure and administrative requirements for the entry of global firms (e.g. airlines, tour operators, tourist agencies and hotel chains). In the absence of such strong global - local connections, Croatia as a tourist destination may lose long-term opportunities for strong tourism growth and development. The tourism industry is seeing a strong consolidation trend on a global level, in terms of horizontal and vertical integration. Related and unrelated mergers arise with regard to the basic criterion of the company's activities. The related companies are those that deal with the same or similar base activity and unrelated companies are those which are engaged in various activities and come from different sectors. Related mergers can occur horizontally and vertically. Horizontal mergers are mergers between competitors in the same industry- and vertical mergers can form when companies are related in terms of their relationship to customers and suppliers. Some examples of vertical integration: - Forward integration occurs when a firm is connected with those who follow behind her in the course of the products lifetime, - Backward integration occurs when a firm is connected with those who preceded her in the lifetime of an ongoing product. Value chain in tourism is different from the value chain in the industry of consumer goods. Namely, in other industries, value chain is structured in such a way that there is production first while the distribution is one of the last stages. Meanwhile in tourism, the situation is reversed and the distribution is first stage because the tourist's first contact takes place with the intermediary to whom the service is paid, and only then the total travel arrangement is consumed. The intermediaries act as a single point of sale for heterogeneous tourist services (transportation, accommodation and meals, excursion) while the tour operators are wholesalers. This is important feature of today's tourism industry where large corporations coexist with small and micro enterprises.

## **2.1. Trends in the global tourism of the 21st century**

International tourism has become one of the most important economic activities in many countries and a major source of foreign exchange earnings and employment opportunities. Due to its positive economic effects, tourism became an industry of great importance in the development strategies of many developing countries. Although the global market trends are plagued by insecurity and uncertainty, it is anticipated that the tourism industry will „globally, in the next 20 years, continue to record growth trends (www.ssrn.com, accessed on 07.01.2014).

The demographic picture of the global population has a great influence on the major trends in the global tourism industry. As the population is rapidly aging and average lifespan is prolonged, it is expected that the older population will establish themselves as an important starting point in the global tourism demand and consumption as a result of accumulated funds and sufficient free time. The changes in needs and desires of tourist demand create a growing necessity for detailed market segmentation according to psychographic characteristics and increasingly diverse requirements of demand, and it especially means increased focus on the individual tourist trips with various themed events. Awareness of the need for sustainable development is all the more intense in the area of global tourism and will therefore require an ecological, long-term approach to tourism planning (Marusic, Z., 2005). Experts predict ten macro trends which will have a significant impact on the consumers: globalization, technological acceleration, peacetime war, debt collapse, changed behaviour, encouraging growth, expectations, “close to home” syndrome, focus on yourself and research (Vukovic, 2006, p.35).

Selective forms of tourism are in line with the concept of sustainable development that respects economic, social and aesthetic needs of tourists while maintaining cultural integrity, ecology and biodiversity in a tourist destination. The basic idea of the concept of sustainable development lies in the fact that human nature is not inherited from their ancestors, but borrowed from his grandsons. UNESCO has given strong support to the development of creative tourism by developing a network of creative cities. That branch is closely linked to cultural tourism, and continues the trend of European aristocracy of the Romantic period - the Grand Tour. It is a journey with the aim of education and enlightenment through numerous interactive meetings, cultural events and happenings. In the creative tourism, tourist becomes an active participant in the domicile community, through interactive workshops and informal learning experiences. "It is particularly developed in the UK, Jamaica, Spain, Italy and New Zealand (Jelinčić, 2010). The 21st century has seen a rise in a trend which shows that tourism is not always exclusively tied only with the areas of high aesthetic value, preserved natural and cultural attractions, but is associated with areas characterized by specificity.

## **3. EMPIRICAL RESEARCH - COMPARISON OF TRENDS IN CROATIAN TOURISM AND GLOBAL TOURISM**

This part of the paper will show the problem, objective, hypotheses and research questions, data collection methodology, the selected sample and the results and analysis of the primary data. The main problem of this research is to compare tourism trends in Croatia with global travel trends, from the perspective of tourist agencies that operate in the territory of Croatia. Therefore, the main objective of the research is to determine the extent to which travel agents from Croatia are involved in global tourism trends and how they monitor and adjust them in order to increase the competitiveness of their business.

Fundamental research questions posed in this paper are:

- How much are the tourist agencies in Croatia involved in global distribution systems in the tourism industry?
- Are Croatian agencies conducting market research and do they adjusted their offer according to the needs of the current tourism demand?
- Are tourist agencies a part of destination value chain in the formation of integrated destination product aimed at raising the competitiveness of the destination?
- Do Croatian tourist agencies follow the global trends in the development of offers in the field of cultural and eco-tourism?
- Is there a statistically significant relationship between income of the agency and its involvement in global distribution systems?

The research is based on the following hypotheses:

- H1: tourist agencies in Croatia are not significantly involved in the global distribution systems in the tourism industry ( GDS )
- H2: tourist agencies in Croatia do not conduct research in tourism demand and don't respond accordingly in terms of their offer.
- H3: tourist agencies in Croatia are involved in the value chain for the tourist destination-
- H4: tourist agencies in Croatia follow the global trends in the development of cultural and eco-tourism.
- H5: There is statistically significant relationship between the involvement of tourist agencies in Croatia in the GDS (global distribution systems in tourism) and the level of agency income.

### **3.1. The target population and sample surveys**

In 2012 there were 1008 active tourist agencies in Croatia which make up the overall targeted population for the implementation of specific research. (www.dzs.hr, accessed 08.01.2014.). For the purposes of this survey ,a calculator of sample size will be used ( sample size calculator is a handy tool for easy calculation of required sample size to the default level of reliability , confidence interval and the size of the target population (Calculator is available on <http://www.primresearch.ba/en-index.php?id=en-sscalc>).

To define the optimal sample size, the calculator is given the following criteria: The level of confidence = 95%, Confidence interval = 4 (confidence interval is a positive or negative number which is usually displayed in the results of surveys or opinion polls, published on television or in the newspapers). For example , if you use a confidence interval 4 , and 47 % of respondents in the sample selected specific response, the researcher may be "safe" that when the same question was raised throughout the population, between 43% (47 minus 4) and 51% (47 plus 4) of respondents would chose the same answer. Population size = 1008 With the chosen level of confidence at 95 % confidence interval at 4 plus population size of 1,008 , a calculator calculating sample size in the study provides a result that the optimal sample size N=376. Since this is a sample that is larger than 5% of the target population, the selected sample can be considered a large sample. Testing will be conducted by randomly selecting agencies, without pre-defined criteria of size, number of employee, branches or levels of income.

### 3.2. Research results

*Table 1: Revenue classes of tourist agencies (Research by the author)*

Income	Absolute frequency	Relative frequency
200.000-300.000	80	21%
301.000-500.000	153	41%
501.000-800.000	68	18%
More than 800.000	75	20%
TOTAL	376	100%

According to Table 1 it can be concluded that the majority of the interviewed agencies are in the revenue class from 301,000 kunas to 500,000 kunas.

*Table 2: Agency involvement in GDS (Research by the author)*

Involvement in GDS	Absolute frequency	Relative frequency
Yes	99	36%
No	277	74%
TOTAL	376	100%

It can be concluded from table 2. that a larger number of tourist agencies in Croatia are not a part of global distribution systems in tourism.

*Table 3: Conducting market research and enrichment of the offers in Croatian agencies (Research by the author)*

Market research and enrichment of the offers	Absolute frequency	Relative frequency
Yes	289	77%
No	87	23%
TOTAL	376	100%

Based on Table 3 we can conclude that most of tourist agencies 77% are continually conducting market research and change and enrich their offer according to the results.

*Table 4: Involvement of tourist agencies in the destination value chain (Research by the author)*

Tourist agencies as a part of destination value chain	Absolute frequency	Relative frequency
Yes	92	24%
No	284	76%
TOTAL	376	100%

Table 4 shows that only a quarter of tourist agencies in Croatia are involved in destination marketing - management as an active participant in creating a destination value chain. Table

5. Describes how tourist agencies from Croatia monitor global trends related to cultural and ecological tourism.

*Table 5: Development of arrangements for cultural and ecological tourism  
(Research by the author)*

<b>Tourist agencies – arrangements in cultural and ecological tourism</b>	<b>Absolute frequency</b>	<b>Relative frequency</b>
Yes	303	81%
No	73	19%
<b>TOTAL</b>	<b>376</b>	<b>100%</b>

Table 5 shows how a large number of tourist agencies from Croatia (81 % of them) create arrangements of cultural and ecological tourism in line with global trends. In the following tables, 6, 7 and 8 the results of “hi” will be shown - square test that was aimed to conclude whether there is a statistically significant relationship between agency income and its involvement in global distribution systems in the tourism industry to and find out whether there is a lucrative justification of involvement in the distribution of global trends in tourism.

*Table 6: Table of relationship between agency income and its involvement in GDS systems  
(Research by the author)*

<b>Income</b>	<b>Involved in GDS</b>	<b>Not involved in GDS</b>	<b>Total</b>
200.000-300.000	3	77	80
301.000-500.000	12	141	153
501.000-800.000	32	36	68
More than 800.000	52	23	75
<b>TOTAL</b>	<b>99</b>	<b>277</b>	<b>376</b>

*Table 7: Table of expected frequency (Research by the author)*

<b>Income</b>	<b>Involved in GDS</b>	<b>Not involved in GDS</b>	<b>Total</b>
200.000-300.000	21	59	80
301.000-500.000	40	113	153
501.000-800.000	18	50	68
More than 800.000	20	55	75
<b>TOTAL</b>	<b>99</b>	<b>277</b>	<b>376</b>



*Table 8: Hi – square test of research for the relationship in agency income and its involvement in GDS systems (Research by the author)*

<b>f0</b>	<b>Ft</b>	<b>f0-ft</b>	<b>(f0-ft)2</b>	<b>(f0-ft)2/ft</b>
3	21	-18	324	15,43
77	59	18	324	5,49
12	40	-28	784	19,60
141	113	28	784	6,94
32	18	14	196	10,89
36	50	-14	196	3,92
52	20	32	1024	51,20
23	55	-32	1024	18,62
<b>UKUPNO</b>				<b>132,09</b>

With regard that the testing of hypotheses gave an empirical hi-square 132.09 higher than the theoretical hi- square with three degrees of freedom (df ) and 5% of significance, which amounts to 7.815 (or  $P < 0.05$ ), the alternative hypothesis that there is in fact a significant relationship between involvement of agencies in GDS and the level of its income is accepted. In fact, as can be seen from Table 6, there is a significant correlation between income and the use of the GDS system.

#### 4. CONCLUSION

The results show that the Croatian tourist agencies are insufficiently involved in the global distribution systems as well as in creating a destination value chain, which is the basis of competitive destinations.

The first hypothesis H1 predicted that tourist agencies in Croatia are not significantly involved in the global distribution systems which proved to be accurate based on the tested sample of 376 tourist agencies. Contrary to the other hypothesis where tourist agencies do not conduct regular surveys of market demand and enhance its offerings in line with the results of these studies, the results show that a large number of tourist agencies in Croatia regularly analyzed the market and changed accordance with market demand and supply trends, improving themselves and thus fought for the preservation of their competitive position in the market (both local and global). Although the H3 hypothesis assumes a significant degree of involvement of tourist agencies in Croatia in destination marketing management or in creating a destination product value chain, the results refute this claim and show how tourist agencies in Croatia are not an active participant in the chain and increase the overall quality destination product. It shows how an umbrella organizations for destination management in the Republic of Croatia (Tourist Board) must better link individual participants in destination offers and create synergy at the level of their destinations because it is the key to improving competitiveness in the global tourism market that demands more in terms of differentiation and the creation of special, specific destinations, which are different when compared to the competition. The results showed that the relationship between these two parameters is statistically significant. Therefore, the involvement in the global distribution systems, tourist agencies in Croatia are expanding the range of their businesses, opening the possibility of distribution or sale of tourist packages outside national boundaries, accelerating their business processes and relationships with other service providers in a heterogeneous activities such as

tourism (links with hotels, handlers, carriers, etc.). The usage of global distribution system enhances business profitability of Croatian tourist agencies.

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## CHALLENGES OF THE COMPLEX GLOBAL ECONOMY ON THE NETWORKED MODERN ENTERPRISE

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### ABSTRACT

*The academic literature (in the fields of international economics, international business and international management) increasingly argues that the global economy is a complex system and/or a complex network. Therefore, the (not necessarily economic rooted) sciences of complexity and networks, and the recent advancements in some very different fields (such as: physics, neuroscience and psychological science) seem to offer the appropriate knowledge and instruments in order to understand the features and the dynamics of the new global economy.*

*The turbulent, even chaotic environment dominating over and influencing nowadays all the dimensions of human activity are nothing than extra sources of uncertainty and risks that the modern enterprises have to deal with, in their search for survival and competitiveness.*

*Within this global framework, the modern enterprise is also experiencing challenges of its own: it is becoming, more and more, a networked business – defined and governed by the power of its internal and external interrelations.*

*Thus, a whole new plethora of opportunities and threats (linkages and spillovers, connections – in space and dynamics – in time) has to be considered and then positively integrated into the strategies and behaviors of the modern enterprise, redefining its economic core itself.*

*The paper aims to explore, based on a trans-disciplinary and multi-level bibliographical approach, the main challenges of the complex global economy on the networked modern enterprise, in order to identify possible solutions to problems such as: co-evolution with the environment(s), co-opetition between different network nodes, and synergy between stakeholders' needs.*

**Keywords:** *complex system, global economy, modern enterprise, networks*

### 1. INTRODUCTION

*The networked modern enterprise is a complex system – component of the complex and networked global economy – that faces many challenges coming from inside and outside the enterprise as well, and affecting both its internal and external networks. Under these circumstances, the brilliant solution – of the "pattern language" – to the organization design problem, revealed by Szpakowski (2011) and attributed to Christopher Alexander (*A Pattern Language*, 1977): "each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over, without ever doing it the same way twice" – does not seem nowadays to be enough (or, at least, has to be refined and redefined), because "complexity requires both new tools and an augmentation of the conceptual framework" (Amaral and Ottino, 2004).*

The bad news here is that “*networks do not offer a miracle drug*, a strategy that makes you invincible in any business environment. The truly important role networks play is in *helping existing organizations adapt to rapidly changing market conditions*” (Barabasi and Frangos, 2002), while the good news here is that, “*despite the many differences in the nature of the nodes and the interactions between them, the networks behind most complex systems are governed by a series of fundamental laws that determine and limit their behavior*” (Barabasi, 2012).

Recent advancements in the fields of: complexity, network theory, physics, neuroscience and psychological science – on one hand, and of: international management, organizational theory, international business – on the other hand, bring a whole new plethora of concepts and understandings, linkages and spillovers, connections (in space) and dynamics (in time), that *have to be considered and then positively integrated into the strategies and behaviors of the modern enterprise, redefining its economic core itself*.

So, a *trans-disciplinary* and *multi-level approach* based on *complexity* and the *network theory* will allow us to develop and sustain this idea. Two referential articles determined us to reach to this kind of approach: (1). Amaral and Ottino (2004) thesis arguing that “*network theory* is now an essential ingredient in the study of complex systems”; more than that, they proposed a “*toolkit used for studying complex systems*”, which consists of: nonlinear dynamics and chaos; statistical physics: scaling, universality and discrete models; and networks and network theory (Amaral and Ottino, 2004); (2). Barabasi and Frangos (2002) assumption that “*the very concept of network implies a multidimensional approach, (and...) the truly important role networks play is in helping existing organizations adapt to rapidly changing market conditions*”, while, on the other hand, “*the corporate model is in the midst of a complete makeover*” (Barabasi and Frangos, 2002).

## **2. THE COMPLEX GLOBAL ECONOMY – A NEW FRAMEWORK ASKING FOR NEW APPROACHES AT ENTERPRISE’S LEVEL**

Transcending the reductionism of the flat (Friedman, 2005) or curved (Smick, 2008) world, there is an increasingly convergent approach that globalization is “*a process of rapid international integration towards a geo-economy of complexity*” (Mayrhofer and Urban, 2011). The aforementioned complexity is based on and justified in the lights of three basic *determinants, characteristics and effects* that govern it: (1). active presence (through interconnections and interdependencies) of an increasing diversity of actors on the global arena; (2). the large variety of connection types (alongside their number and quality) that define the relationships between different entities; (3). uncertainty, as both cause and result of misinformation and bad appreciation of actor behaviors – leading to the distortion of the rules of the game and of the interconnections’ characteristics (Mayrhofer and Urban, 2011).

In consonance with this approach, some are arguing that “*our economy, especially the global economy, is a complex system*”, which: (1). *resulted from*: growth in co-evolutionary diversity; structural deepening; the phenomenon of capturing software that encompasses all the good and bad sides of complexity; (2). and is *characterized by*: many components; high degree of connectivity between components; thermodynamically openness; information, matter, and energy flowing across the boundaries; nonlinear behaviors; emergence (Homer-Dixon, 2011).

Others "view the *economy as a complex network*", where "companies, firms, corporations, financial institutions, governments, and all potential economic players are the nodes. Links quantify various interactions between these institutions, involving purchases and sales, joint research and marketing projects, and so forth. The *weight* of the links captures the value of the transaction, and the direction points from the provider to the receiver. The *structure and evolution* of this *weighted and directed network* determine the *outcome* of all macroeconomic processes" (Barabasi and Frangos, 2002).

Under these circumstances, the fields of *complexity and networks* seem to offer the appropriate knowledge and instruments in order to understand the features and the dynamics of the new global economy.

Generally speaking, "a *complex system* is a system with a *large number of elements*, building blocks or agents, *capable of interacting* with each other and with their environment. The interaction between elements may occur only with immediate neighbors or with distant ones; the agents can be all identical or different; they may move in space or occupy fixed positions, and can be in one of two states or of multiple states. The *common characteristic* of all complex systems is that they display organization without any external organizing principle being applied. The whole is much more than the sum of its parts" (Amaral and Ottino, 2004). On the other hand, "a *network* is a mathematical representation of a real-world complex system and is defined by a collection of nodes (vertices) and links (edges) between pairs of nodes" (Rubinov and Sporns, 2010), while *complex networks* are "networks whose structure is irregular, complex and dynamically evolving in time" (Boccaletti, Latoré, Moreno, Chavez and Hwang, 2006).

Although relatively young and ever evolving disciplines – at least considering their interconnections with the economic/business sphere, complexity- and network-related theories and practices represent, more and more, genuine and solid milestones for the understanding and further management of the modern enterprises. We cannot ignore here some of the most famous (and useful for our purpose) leading works and their essential contributions:

- Johnson's (2011) book on "*Simply Complexity: a clear guide to complexity theory*", arguing that "complexity science is a double-edge sword in the best possible sense. It is truly <<big science>> in that it embodies some of the hardest, most fundamental and most challenging open problems in academia. Yet it also manages to encapsulate the major practical issues which face us every day from our personal lives and health, through to global security" (Johnson, 2011);
- Newman's (2003) article on "*The structure and function of complex networks*", which "review developments in this field, including such concepts as the small-world effect, degree distributions, clustering, network correlations, random graph models, models of network growth and preferential attachment, and dynamical processes taking place on networks" (Newman, 2003);
- Borgatti and Lopez-Kidwell's (2011) chapter on "*Network Theory*", emphasizing that "two underlying models are in evidence in network theorizing. (...) *The flow model* views a social system as a system of nodes interconnected by paths (the backcloth) which carry information or other resources (the traffic). Theories based on the flow model define properties of the backcloth structure and relate these to flow outcomes (...). *The architecture model* sees network ties as creating structures of interdependency and coordination. Theories based on this model explain how the

pattern of interconnections interacts with contextual rules to generate outcomes such as power” (Borgatti and Lopez-Kidwell, 2011);

Thus, we have to agree that “the world economy of today appears to be radically different from what it was only fifty years ago. It can be argued that radical changes call for radically new theories to explain them. (And...) *complexity* provides an impressive range of novel jargon for describing change in the international business system. (...) But a lot of what is described as <<complexity>> is often just confusion.” (Rugman and Brewer, 2001). So, the risk of misinterpretation – leading to bad, even catastrophic decisions – is adding an extra source of uncertainty for managers operating within the complex and networked global economy.

### **3. THE MODERN ENTERPRISE AS A NETWORKED BUSINESS – PARTICULAR FEATURES AND CHALLENGES**

Within this global framework, the *modern enterprise* is also experiencing challenges of its own: it is becoming, more and more, a *networked business* – defined and governed by the power of its internal and external interrelations, which are developed and conducted within the complex global economic world. Over the last decade or so, the academic literature has developed a lot of different approaches to the modern enterprise – depending on the scientific background of their authors, and conforming by this the need for multi and trans-disciplinarity in this field of research. Some of the most interesting and valuable contributions are hereinafter emphasized.

Generally speaking, the *stakeholder theory*, if not the oldest one, is probably the most well known when talking about the networked enterprise. While *stakeholders* refer to “groups and individuals who benefit from or are harmed by, and whose rights are violated or respected by corporate actions” (Snoeyenbos, Almeder and Humber, 2001), *stakeholder symbiosis* “recognizes that stakeholders are dependent upon each other for their success and well being. That is, managers acknowledge the interdependence among employees, suppliers, customers, shareholders, and the community at large” (Dess, Lumpkin and Eisner, 2007). By assuming such a broad perspective on business, the *stakeholder management approach*, “including frameworks for analyzing and evaluating a corporation’s relationships (present and potential) with external groups, aims ideally at reaching <<win-win>> collaborative outcomes” (Weiss, 2006).

From an *international business* and *international management perspective*, Ghoshal and Bartlett (1990) argued that *multinational corporations* “can be conceptualized as an *interorganizational network* that is embedded in an *external network* consisting of all other organizations such as customers, suppliers, regulators, and so on, with which the different units of the multinational must interact. Based on such a conceptualization, the (...) authors draw on interorganization theory to develop a model of the multinational corporation as an internally differentiated interorganizational network. They propose hypotheses that relate certain attributes of the multinational, such as resource configuration and internal distribution of power, to certain structural properties of its external network” (Ghoshal and Bartlett, 1990).

Taking on a *strategic networks perspective*, Dagnino (2004) develops further the *networks of external relationships* approach and defines the *system of business enterprise (SBE)* when analyzing “Complex systems as key drivers for the emergence of a resource- and capability-based interorganizational network”. According to the author, strongly related to “the basic concepts of complexity” – complexity itself, self-organization, organizational closeness,

coevolution and emergence, “the SBE is defined as a collection of business firms giving shape to a complex and dynamic network of resources and capabilities. The thrust of the argument is that an SBE is a complex dynamic self-organizing network system that evolves over time” (Dagnino, 2004). Under these circumstances, for the management practice is very important: to seriously take into consideration the existence and potential of the ‘networks of external relationships’; to mandatory either found or join a system of business enterprise; to both strongly cooperate and honestly compete within the SBE (Dagnino, 2004).

After defining the “*information age enterprise*” in the lights of three different perspectives – social: “a purposeful social collective”; complex system: “an open system with energy and information flowing in and out across the boundary”; and economics: “a networked set of autonomous (commercial) units whose transaction costs are lower if they cluster together” – Atkinson and Moffat (2005) translate the complexity concepts to the “*information age enterprise*” as they define it, emphasizing on “the agility of an enterprise” – as “a function of how it is organized and more specifically, a function of its approach to command and control” (Atkinson and Moffat, 2005) – see Table 1.

*Table 1: The Relation between Complexity Concepts and the Information Age Enterprise (Atkinson and Moffat, 2005, p. 132)*

<i>Complexity Concept</i>	<i>Information Age Enterprise</i>
Nonlinear interaction	The Enterprise is composed of a large number of nonlinearly interacting parts.
Decentralized control	There is no centralized management dictating the actions of each and every entity.
Self-organization	Local coevolution induces long-range order.
Non-equilibrium order	Interactions within the Enterprise proceed far from equilibrium. Correlation of local effects is key.
Coevolution	Entities must continually coevolve in a changing environment.
Collectivist dynamics	Cascades of local effects ripple through the Enterprise.

For Ekbja and Kling (2005), the *network enterprise* should take the form of the *multivalent negotiated network* (MNN) model, “a realistic theory of the network enterprise that can explain both the strengths and weaknesses of this form of organization”. Arguing “that, in the most general case, the links among network components might be multivalent and nuanced, ranging in character from complete trust, voluntarism, and cooperation to outright deception, coercion, and antagonism”, the authors define a series of themes and assumptions (see Table 2) which characterize MNN “as a collection of heterogeneous entities (firms, inter- and intrafirm bodies) with multiple links of varying strengths, which can be characterized anywhere from total cooperation, trust, and voluntarism to outright antagonism, deception, and coercion” (Ekbja and Kling, 2005).

On the other hand, starting by validating (long time before the “deadline”) a Peter Drucker’s prophecy – dated 2000 and saying that “the corporation as we know it is unlikely to survive the next 25 years. Legally and financially, yes. But not structurally and economically”, Shuman and Twombly (2010) are arguing that organizations have recently become (and, in order to succeed in the future, have to behave as) “*collaborative networks*”, because “competitive advantage accrues to those best able to assemble and manage a network of collaborative networks”.

Table 2: Themes and Assumptions Characteristic of MNN (Ekbja and Kling, 2005)

<i>Themes</i>	
Cooperation	Antagonism
Voluntarism	Opportunism
Team Spirit	Individualism
Decentralization	Concentration of Power
Empowerment	Coercion
Transparency	Secrecy
<i>Background assumptions</i>	
Market orientation	Market manipulation
Trust	Deception
“Stateless” firm	Political pressure
Adaptability	Gaming behavior
Informationalism	Strategic misinformation
Internationalism	Network protectionism

According to the authors, “the collaborative network is a dynamic, fit-for-purpose structure that has the agility to iterate its components and how they relate to one another legally and operationally as the purpose and context of the network evolves”, and “only a collaborative network has the capital, capacity, and expertise required to take on the complex, major challenges of our time” (Shuman and Twombly, 2010).

The *global network organization* represents nowadays the most refined, complex and sophisticated form of networked business. When, more than a decade ago, Monge and Fulk (1999) have argued that “global network organizations are an increasingly prevalent organizational form whose diffusion promises to dramatically impact the way business is conducted within and between organizations”, they also analyzed (by comparison to other, more traditional organizational forms) the four *major components* of the global network organization: “their internal structures are comprised of flexible internal communication networks that typically are emergent rather than imposed (...); internal networks are connected to dynamic networks of external organizations through a parallel set of flexible linkages (...); both internal and external network linkages are governed by partnerships based on mutual trust and respect and by shared collective outcomes, as contrasted to the traditional dominance of ownership or hierarchy (...); they are based on a sophisticated information technology infrastructure that supports rapid, cost-efficient communication across network linkages” (Monge and Fulk, 1999).

#### 4. POSSIBLE SOLUTIONS FOR THE MODERN NETWORKED ENTERPRISE TO THE CHALLENGES OF STRATEGY AND BEHAVIORS

A comprehensive view on “*The Network Paradigm in Organizational Research*” is dated approximately a decade ago and belongs to Borgatti and Foster (2003). Arguing that “the 1990s saw *network theories* emerge in virtually every traditional area of organizational scholarship, including leadership, power, turnover, job satisfaction, job performance, entrepreneurship, stakeholder relations, knowledge utilization, innovation, profit maximization, vertical integration, and so on” (Borgatti and Foster, 2003), the authors: (1). made “a review on current research” – emphasizing on: *social capital, embeddedness, network organizations and organizational networks, board interlocks, joint ventures and inter-firm alliances, knowledge management, social cognition and group process* – on one



hand, and (2). defined the “dimensions of network research” – focusing on: *direction of causality*, *levels analysis*, and *consequences of networks* – on the other hand. As regards the “typology of studies focusing on network consequences”, Borgatti and Foster (2003), based on explanatory goals (defined in terms of *performance vs. homogeneity*) and explanatory mechanisms (defined in terms of *structuralist vs. connectionist*) developed a matrix of four types of studies, which were defined as: “structural capital, social access to resources, environmental shaping, and contagion” (Borgatti and Foster, 2003).

On the other hand, as Levy (2000) argued into his work on “*Applications and Limitations of complexity theory in organization theory and strategy*”, “*complexity theory* offers a number of new insights, analytical methods, and conceptual frameworks that have excited many scholars of management in recent years. It suggests that simple deterministic functions can give rise to highly complex and often unpredictable behaviour, and yet this complexity can still exhibit surprising order and patterns” (Levy, 2000).

By assuming a dynamic and transformative perspective (especially when arguing about “*Transforming organizations using complexity*”), McMillan’s (2004) book “seeks to explain and describe how viewing the world from a complexity paradigm perspective can shed fresh light on a range of organizational problems and issues, and suggest innovative and ground-breaking ways of reshaping the organizational world so that is more in tune with the times” (McMillan, 2004).

Because complexity is “a reality that is here to stay”, Maznevski and colleagues (2007) strongly state that “*managing complexity* must (...) become a *core competency* of top executives and management” (Maznevski, Steger and Amann, 2007). Paradoxically, their solution combines simplicity/simplifying (regarding the key areas, those which are essential for the long run of the enterprise) with complexity (as concerns all the other domains within the enterprise): they outline that managers should take into consideration “*four key issues around which companies must simplify*: purpose and values; core processes and decentralization; early awareness systems; and leadership. Once these are clear and consistent, managers in different areas of the company can respond to complexity according to their own needs and realities” (Maznevski, Steger and Amann, 2007).

Szpakowski (2011) develops a relatively similar vision when arguing: “*Emergent design* is defined by *creative paradox* – by a tension between freedom and constraint, chaos and structure. (...) We could say that these <<new>> approaches to social design create <<minimum structure>> in order to avoid too much rigidity and harness the innate intelligence, creativity, and capacity for self-organizing and selfactualizing in people and groups. (...) A *good strategic design* is elegant in its simplicity, with well-defined parameters, clarity of purpose and success criteria. Such a design also provides a way to discern the needs of the future by reaching deeply into the evolving patterns of the present, rather than simply projecting the assumptions and lessons of the past” (Szpakowski, 2011).

Snow and colleagues (Snow, Miles and Miles, 2006) embrace a *configurational approach*, based on the premise that “*an organization is both an articulated purpose and an established mechanism for achieving it*. Over time, both organizational purposes (and the environments they serve) and their mechanisms have become increasingly complex. The configurational approach identifies patterns and relationships within this complexity, providing a conceptual framework for linking purpose and strategy to organizational structures and processes.”

According to their authors, this approach is leading to a valuable and dynamic set of best fitted benefits for the enterprise: “by making explicit the complete construct of configuration - strategy, capability, structure, process, and philosophy - we can begin to imagine, and then design, alternative organizational forms that can achieve such ends. Furthermore, we will be able to measure the contribution that a particular organizational form is making to firm performance and to modify it as appropriate. Finally, when organizations need to be redesigned, we will be able to assist managers in their efforts with useful diagnostic and planning tools and, eventually, with best-practices guidelines for changing their organizations” (Snow, Miles and Miles, 2006).

## 5. CONCLUSION

In the lights of the aforementioned challenges (which occur at both global and organizational level), the best answer is given by the idea of *evolution of complex adaptive systems* – or Panarchy Theory as Homer-Dixon (2011) defines it, which “represents the evolution of complex adaptive systems (that is, systems that adjust or adapt to their external environment as that environment changes) *in three-dimensional space*. This space is defined by the variables: *potential* (“the possibility for novelty within a system”), *connectivity* (links between components), and *resilience* (“the capability to withstand shock without catastrophic failure”)” (Homer-Dixon, 2011).

This kind of approach offers us the opportunity to make an *analogy* between the *networked modern enterprise* and the *brain networks*. The reverse analogy – between brain organization and economy – was successfully made just recently by Bullmore and Sporns (2012), which “propose that brain organization is shaped by an economic trade-off between minimizing costs and allowing the emergence of adaptively valuable topological patterns of anatomical or functional connectivity between multiple neuronal populations. This process of negotiating, and re-negotiating, trade-offs between wiring cost and topological value continues over long (decades) and short (millisecond) timescales as *brain networks evolve, grow and adapt to changing cognitive demands*” (Bullmore and Sporns, 2012).

This analogy is also based on the assumption that “brain networks are increasingly understood as one of a large class of *information processing systems that share important organizational principles in common*, including the *property of a modular community structure*. A *module* is topologically defined as *a subset of highly inter-connected nodes which are relatively sparsely connected to nodes in other modules*. (...) Moreover, brain networks and many other complex systems demonstrate *the property of hierarchical modularity, or modularity on several topological scales*: within each module there will be a set of sub-modules, and within each sub-module a set of sub-sub-modules, etc. There are several general *advantages* to modular and hierarchically modular network organization, including *greater robustness, adaptivity, and evolvability of network function*” (Meunier, Lambiotte and Bullmore, 2010).

By assuming such a perspective, a lot of opportunities and threats (in terms of: linkages and spillovers, connections – in space and dynamics – in time) have to be considered and then positively integrated into the strategies and behaviors of the networked modern enterprise, redefining its economic core itself, alongside its ability to evolve. That could be a way in order to identify possible solutions to problems such as: co-evolution with the environment(s), co-opetition between different network nodes, and synergy between stakeholders’ needs.

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## **THEORETICAL OVERVIEW OF MICROECONOMIC ASPECTS OF MERGERS AND ACQUISITIONS**

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### **ABSTRACT**

*Mergers and acquisitions represent prominent phenomenon of the developed capitalist world. In turbulent business environment of 21<sup>st</sup> century companies are forced to use different growth strategies in order to successfully position themselves with respect to competition and to preserve and increase their profit margins. Mergers and acquisitions, as a part of a growth strategy, often fail to create synergies and value for shareholders. Therefore, variety of organizational variables like employee resistance, changes in business strategy and organizational structure, as well as changes in organizational culture are being analyzed and pointed out as crucial variables for M&A success. Since majority of research in field of M&A is focused on internal organizational variables the main aim of this paper is to present overview of microeconomic aspects of M&A with special focus on industry structure and its impact on M&A success. Besides, historical development of mergers and acquisitions is also presented in this paper.*

**Keywords:** *mergers and acquisitions, industry structure, Herfindahl-Hirschman Index, M&A waves*

### **1. INTRODUCTION**

In turbulent business environment of 21<sup>st</sup> century companies are forced to use different growth strategies in order to successfully position themselves with respect to competition and to preserve and increase their profit margins. Growth strategy is part of the corporate strategy which emphasizes corporation as a whole and provides answers regarding business scope of the corporation and resource allocation (Tipurić, 2005, p. 105). Growth strategies are concerned with increasing the size and viability of the business over time. A successful growth strategy will allow entrepreneurs to increase its customer base, market segments, geographical scope, and/or product lines, which should lead to revenue growth. Mergers and acquisitions, as a part of growth strategy, but also as a research field of numerous scientists and consultants, represent prominent phenomenon of developed capitalist world since the end of 20<sup>th</sup> century. Mergers and acquisitions have become popular choice for companies' growth and expansion. M&A come in waves and extant literature identifies six M&A waves. In academic community heterogeneity regarding probable obstructions for successful execution

of M&A prevails. Employee resistance, changes in business strategy and organizational structure, as well as changes in organizational culture are being analyzed and pointed out as crucial variables for M&A success. Since majority of research in field of M&A is focused on organizational variables the main aim of this paper is to present overview of microeconomic aspects of M&A with special focus on industry structure and its impact on M&A success. Besides, historical development of mergers and acquisitions is also presented in this paper.

## **2. HISTORICAL DEVELOPMENT OF MERGERS AND ACQUISITIONS**

Research regarding M&A is present in economic literature for a long time period starting from 1890s. It is a well-known fact that mergers and acquisitions come in waves when firms in industries react to shocks in their operating environments. Shocks could reflect such events as deregulation; the emergence of new technologies, distribution channels, or substitute products; or a sustained rise in commodity prices (DePhampillis, 2014, p. 11). Thus far, six completed waves have been examined in the academic literature. Beginning of the first wave at the end of 19<sup>th</sup> century in the United States of America was characterized with huge technological changes, economic expansion and innovation in industrial processes. An important attribute of this wave was the simultaneous consolidation of producers within industries, thus qualifying the description "horizontal consolidation". Nobel Prize winner George Stigler described the first wave as merging for monopoly. In that time period more than 1800 firms disappeared due to consolidation, and many of the US corporate giants such as General Electric, Eastman Kodak, American Tobacco and DuPont during the first wave trough such consolidation. The wave came to an end around 1903–1904 due to the stock market crash (Sudarsanam, 2010, p. 16).

M&A activity remained at a modest level until the late 1910s as a consequence of the First World War. The second takeover wave emerged in the late 1910s and continued through the 1920s. The second wave was considered as a move towards oligopolies because, by the end of the wave, industries were no longer dominated by one giant firm but by two or more corporations. Most of the mergers of the 1920s were between small companies left outside the monopolies created during the previous wave. By merging, these companies intended to achieve economies of scale and build strength to compete with the dominant firm in their industries (Marynova and Renneboog, 2008, p. 2150). The second wave accompanied economic growth and stock market boom. An estimated 12.000 firms disappeared during this period, although the impact on the market structure of industries was much less dramatic than the first wave mostly due to antimonopoly legislation acts. This wave ended in 1929 with the stock market crash of that year. In the following four years, due to the global economic depression, many corporations formed during second wave collapsed into bankruptcy (Sudarsanam, 2010, p. 18).

After the Second World War which followed after the worldwide economic depression, M&A activities decreased significantly. The third M&A wave took off only in the 1950s and lasted for nearly two decades. The beginning of this wave in the US coincided with a tightening of the anti-trust regime in 1950. The main feature of this wave was a very high number of diversifying takeovers that led to the development of large conglomerates. Compared to first and second wave, mergers in this wave were not large and did not involve large acquirers and their motive was growth through unrelated diversification. The main feature of this wave was a very high number of diversifying takeovers that led to the development of large conglomerates. By building conglomerates, companies intended to benefit from growth opportunities in new product markets unrelated to their primary business. This allowed them

to enhance value, reduce their earnings volatility, and to overcome imperfections in external capital markets. The third wave peaked in 1968 and collapsed in 1973, when the oil crisis pushed the world economy into a recession (Marynova and Renneboog, 2008, p. 2151).

Recovery of the stock markets in the USA at the middle of the 1980s indicated the revival of takeover activity and start of the fourth wave. The start of the fourth wave coincided with changes in anti-trust policy, the deregulation of the financial services sector, the creation of new financial instruments and markets (e.g. the junk bond market), as well as technological progress in the electronics industry. Many transactions were financed with large amounts of debt, and takeovers were often conducted by company's management through management buyouts (Damodaran, 2002, p. 5). Except of management buyouts, this wave was characterized the activity of private equity funds which conducted takeovers through leverage buyouts (Lake and Lake, 2007, p. 109-115). As the main motive for this wave, the academic literature suggests that the conglomerate structures created during the 1960s had become inefficient by the 1980s such that companies were forced to reorganize their businesses. The merger wave of the 1980s includes a number of mergers designed either to downsize or to specialize operations. Some of these corrected excessive conglomeration, others responded to excess capacity created by the 1970s recession (following the creation of the OPEC oil cartel), while yet others responded to the important advances in information and communication technologies. The 1980s also experienced the largest number of hostile bids in U.S. history. Like all earlier waves, the fourth one declined after the stock market crash of 1987 (Shleifer and Vishny, 1991, p. 51-59).

The fifth takeover wave started in 1993 along with the increasing economic globalization, technological innovation, deregulation and privatization, as well as the economic and financial markets boom. This wave is important because of its size and geographical dispersion emphasizing its international nature. Remarkably, the European takeover market was about as large as its US counterpart in the 1990s, and an Asian takeover market also emerged. Second, a substantial proportion of M&As was cross-border transactions. Previously domestically-oriented companies resorted to takeovers abroad as a means to survive the tough international competition created by global markets. The dominance of industry-related (both horizontal and vertical) takeovers and the steady decline in the relative number of divestitures during the fifth wave suggests that the main takeover motive was growth to participate in globalized markets. Compared to the takeover wave of the 1980s, the 1990s wave counted fewer hostile bids in the UK and US. However, an unprecedented number of hostile takeovers were launched in Continental Europe (Marynova and Renneboog, 2006, p. 1).

As with the four prior merger waves, the fifth wave came to an end when the economy turned down and entered a brief eight-month recession in 2001. An initially weak recovery took place after the recession ended. However, the economy was buoyed by the low interest rates initially established by the American Federal Reserve as a response to the 9/11 economic shock that took place at the end of the 2001 recession. These low rates provided the fuel for a speculative bubble in real estate that became an international bubble as the international investment world developed an insatiable appetite for mortgage-backed securities and other debt securitizations. The low interest rates also gave a major boost to the private equity business. Leveraged acquisitions became less expensive for private equity buyers to do as the bulk of the financing costs were relatively low interest rate debt. This wave came to the end in 2008 due to subprime mortgage crisis in the United States of America (Gaughan, 2013, p. 18).

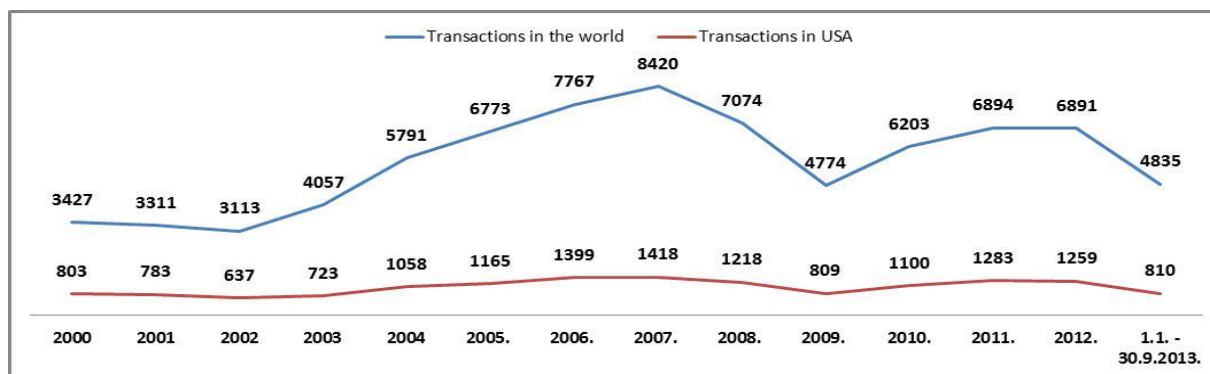


Figure 1: M&A activity in the world in period from 2000 to 30.9.2013.

Figure 1 presents M&A activity in the USA and world in the period from 2000 to 30.9.2013.<sup>75</sup>, and also encompasses volume of transactions during the sixth merger wave.

### 3. MICROECONOMIC ASPECTS OF MERGERS AND ACQUISITIONS

One of the external organizational variables which is in the focus of this paper is the industry structure and its impact on the M&A success. In the long run, higher or lower profitability as a feature of a company's competitiveness is not solely the result of the development and implementation of strategic activities, but it also depends on the industry structure, i.e., the competitive space in which companies compete. The industry structure is characterized by a number of companies in the industry at a given point of time as well as by size of these companies, and the industry concentration ratio is used as a measure of industry structure (Lipczynski and Wilson, 2001, p. 103).

Scientists use different measures of concentration through which they try to describe the industry structure. Information on industry concentration suggests the nature of competitive forces in any industry. Most commonly used concentration measures are the concentration ratios and the Herfindahl-Hirschman Index. Concentration ratio measures the market share of the N largest firms in the industry, and N usually presents 3, 4, or 8 companies. The market share is generally measured by the value of sales, assets or number of employees. Concentration ratios represent an incomplete measure of industry concentration, because the N shows how much of the total industry output was produced by only the largest companies in the industry. The shortcomings of these indicators include frequent impossibility of precisely defining the industry, inability of incorporating the entry and exit barriers along with the regional and foreign competition, and not taking into account the distribution of the market shares of other companies. Due to the shortcomings of the concentration ratio, some scientists use measures of concentration which take into account all the companies in the industry (DePhampillis, 2014, p. 57). Unlike the concentration ratio, the Herfindahl-Hirschman Index (HHI) shows not only the distribution of market shares by the N leading companies in the industry, but also the market shares of other companies. In order to obtain statistical measures of concentration, Herfindahl-Hirschman Index, squares the market shares of all companies in the relevant market and by doing so it gives greater importance to the shares of leading companies and thus more accurately reflects the relative importance of large companies in the event of a merger or a takeover. The index can have a value from 0 to

<sup>75</sup> Information regarding M&A activity in the world was gathered from the Mergermarket data base and includes all deals with value of 5 million Euros or more.



10 000 (100<sup>2</sup>). If the index tends to be lower, then the industry has a large number of companies with a small market share (fragmented industry), whereas the index of 10 000 means that the industry consists of only one company - a monopoly (Tipurić, Pejić-Bach and Pavić, 2008, p. 97-118). The Federal Trade Commission (FTC) is an independent agency established to protect consumers and to prevent and eliminate what regulators think to be harmful anti-competitive business practices. According to the FTC, when the value of the HHI index is less than 1000, the market is not concentrated, while index values between 1000 and 1800 reflect moderate concentration (DePhampillis, 2010, p. 63). Index values above 1.800 suggest a concentrated market.

Industry structure may range from a highly fragmented to a firmly consolidated industry. The fragmented industry is a form of poorly concentrated industry with a large number of small or medium-sized enterprises, none of which is in a dominant position, nor does it have the power to shape the industry events (Porter, 1980, p. 196-212). Consolidated industry is a form of concentrated industry dominated by one company or a small number of large companies. The main feature of this type of industry structure is the accentuated interdependence of companies, which is reflected by the fact that the actions of one company affect the profitability of others, as well as their market shares. The more concentrated the industry, according to some research, the more likely it is for the companies in the industry to recognize their interdependence and not to encourage strong rivalry that can reduce everyone's profitability (Tipurić, 2007, p. 2).

There are lots of studies about the influence of industry structure on the company's profitability. In 1951 Bain conducted an analysis of the impact of industry structure on the profitability of 42 manufacturing companies in the USA and came to the conclusion that the profitability of companies that operate in industries with a higher degree of concentration is higher than the profitability of companies which operate in low concentrated industries. Demsetz's research from 1973 was conducted on a sample of 95 manufacturing companies, and it showed that the profitability of companies in the sample did not grow with the increase in the concentration ratio (Demsetz, 1973, p. 1-9). Horizontal mergers and acquisitions increase the company's market share, as well as its market power, which can affect the price of the industry products. Increasing market share in the situation of horizontal mergers and acquisitions is a short-term increase and it is a real challenge to maintain this share in the long term. After a merger or acquisition of one or two companies within the same industry, many companies follow that trend, and the initial increase in the market share of companies is very hard to maintain (Sudarsanam, 2003, p. 100). On a sample of 1000 mergers and acquisitions in the period from 1950 to 1972, Mueller showed that only 18% of companies in the sample managed to retain their market share as opposed to 88,50 % of companies that have maintained their market share, while not being involved in mergers and acquisitions. The study did not confirm the hypothesis that mergers and acquisitions increase the efficiency of the companies involved in transactions by increasing its market share. Mueller postulates that bidders, whose market share did not increased, operated neither better nor worse than companies that did not use mergers and acquisitions as a growth strategy. In addition, Mueller's opinion was that it was difficult to believe that the loss of market share did not affect the decrease in profitability (Mueller, 1985, p. 262-266). Mergers and acquisitions can result in increased industry concentration but that does not automatically mean a reduction of competition between established companies in the market. Thus, the increased concentration does not result in increased profitability and creation of shareholder's wealth. Schmalensee and Willig concluded that the relationship, if

there is any, between concentration and profitability of companies is statistically insignificant and the estimated effect is usually small (Schmalensee and Willig, 1989, p. 992-995). Extensive research by Hay and Morris, conducted in 1991, suggests that very little research proves that the concentration has a negative impact on profitability, and that only half of the research stresses the significant positive correlation between these two variables (Hay and Morris, 1991, p. 261). Keating's study from 1991 was conducted on a sample of 2.438 large companies and their performance in the period from 1969 to 1981. The conclusion was that the profitability of companies in concentrated industries is less stable compared to the profitability of companies in fragmented industries (Keating, 1991, p. 897-902). Research by Kandžija, Filipović and Kandžija conducted on the sample of 43 companies that were taken over in Republic of Croatia in period from 1998 to 2006 confirmed the proposed hypothesis which states that lower the concentration ratio of the target company's industry, the more successful is the target company's performance after the takeover. Authors of the same research point out that after the M&A variety of changes occur in companies involved in transaction, and therefore if the industry is characterized by lower concentration ratio, these changes will have a greater effect on the business performance of the target company as opposed to the situation when the industry is concentrated (Kandžija, Filipović and Kandžija, 2014, p. 17-25). Taking into consideration presented empirical evidence it can be concluded that industry structure impacts M&A success and that M&A practitioners should put special focus on that external organizational variable when closing M&A transactions.

#### **4. CONCLUSION**

Despite the increasing popularity of mergers and acquisitions, it has been reported that the rate of M&A failure is very high, so there is a need for analysis of variables that impact M&A success. It is hard to find books, journals and scientific papers in the current literature that do not address issues such as the impact of mergers and acquisitions on the increase or decrease of shareholder value, motives for M&A, realization of planned synergies, operational efficiency of acquired companies and the reasons due to which mergers and acquisitions fail and do not achieve the expected benefits. Researchers usually point out corporate culture and other internal organizational variables as the most common explanation of high failure rate for M&A while little attention is given to external organizational variables. Therefore, theoretical overview of microeconomic aspects of M&A was used to achieve the main goal of this paper which relates to the analysis of the impact that industry structure, as an external organizational variable, has on the success of mergers and acquisitions. In the long run, higher or lower profitability as a feature of a company's competitiveness is not solely the result of the development and implementation of strategic activities, but it also depends on the industry structure, i.e., the competitive space in which companies compete. Considering the results of studies presented in this paper about the impact of industry structure on M&A success it can be concluded that M&A success is related to industry structure and that it is important for M&A success that companies involved in transactions conduct business in industries which are characterized with low concentration ration. If companies operate in industry with low concentration ratio all changes that occur after the transaction will have higher impact of business performance than in the situation if companies operated in industry with high concentration ratio. Finally, after the overview of historical development of mergers and acquisitions, and microeconomic aspects of M&A reflections presented in this paper can help M&A practitioners to focus on industry structure, as well as other organizational variables, when closing M&A transactions.

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## **PROBLEM OF AN ASSESSMENT OF EFFICIENCY OF THE ENTERPRISE WITHIN THE CONCEPT OF NONLINEARITY OF TIME**

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### **ABSTRACT**

*One of the most actual problems of the modern management is adequate estimation of the efficiency of enterprises. Enterprise development is a cyclic process. The traditional financial focused concept of an assessment of results of the enterprise functioning, based on indicators of financial statements, has been criticized since end of XX century. Essential disadvantages of traditional methods of the assessment of efficiency showed the necessity to develop new approaches to the assessment. The goal of the measurement of efficiency is to associate most of systems of indicators, concerning to different fields of the enterprise activity (for example, expenses, the income, investments, innovations, marketing) in order to estimate and analyze the efficiency of enterprise at each organizational level. The key factor, determining the resultant indicators, is the time factor. In our opinion, time problem in management is of high importance. All disadvantages of the methods of the efficiency measurement appear, because the basis measurement process is based on the linear model of the current of time. This approach does not consider specifics of business - enterprise processes, as well as does not take into account the extent of a full financial cycle, duration of a production cycle, rates of moral obsolescence of equipment and technology, the speed of changing of market conditions and many other significant factors. The approach is preferable, in which:*

*A. there is the nonlinear current of time for economic systems*

*B. there is only one previous condition, and a set of future conditions for each current state.*

*The essence of time is better explained by the quantum theory, which is also applicable to economic systems.*

**Keywords:** *efficiency, enterprise, estimation, nonlinearity of time.*

### **1. INTRODUCTION**

Nonlinearity of time is object of research for natural and philosophical sciences. Nonlinearity of time is obvious to the scientist-physicist. But in economics the majority of econometric models and methods of the analysis use linear time. Even considering cycles of development of economic systems, economists use the dynamic models according a temporary beam.

The problem of nonlinear time series analysis found broad reflection in scientific literature in relation to macroeconomic dynamics. H. Kantz and T. Schreiber (Cambridge, 2004) excellent opened the econometric instruments of the nonlinear analysis. Basis of this approach is philosophical and natural-science understanding of essence of time as nonlinear phenomenon. The modern engineering view on this problem found reflection in the article by Matthew Frazier, Biniyam Taddese, Thomas Antonsen, and Steven M. Anlage (2013). Authors investigate stochastic tools of the analysis in a Wave Chaotic System.

The high importance of nonlinear approach for the analysis of macroeconomic dynamics is confirmed by its use by the U.S. Federal Reserve. In particular, it is reflected in collaboration of Barry E. Jones (Binghamton University) and Travis D. Nesmith (Board of Governors of the

Federal Reserve System). Their monography (2007) includes the dynamic model of nonlinearity analysis.

But the problem of nonlinearity of time is very important for microeconomics too. Each firm, each organization and each enterprise lives in the own time, making the own cyclic fluctuations and going through the own stages of own life cycle with a own speed and own acceleration. Therefore it is necessary to investigate influence of nonlinearity of time on an assessment of results of activity of firm.

Existing systems of an assessment, the account and the analysis of activity of the enterprises don't allow to compare adequately results of the separate companies. Professor Y.V. Sokolov (St. Petersburg State University) was one of pioneers in this area of researches.

According to professor Sokolov, "The traditional account is a history of the past, but written today. We always write either about the future, or about the past, the last prevails in traditional accounting" (Sokolov, 2011, p. 346). "First of all, importance of time factor is shown in the balance analysis. Accepted form of accounting ignores time factor (Sokolov, 2011, p. 347). Sokolov's idea was that "traditional forms of accounting of the organizations are deprived of the sense, not allowing to transfer action of a factor of the time in the economic life of the firm and its financial position presented in the reports" (Sokolov, 2011, p. 351). M. L. Pyatov (2013) developed this hypothesis in the article. He notes need of reforming of system of accounting, and proves the incomparability of existing approaches.

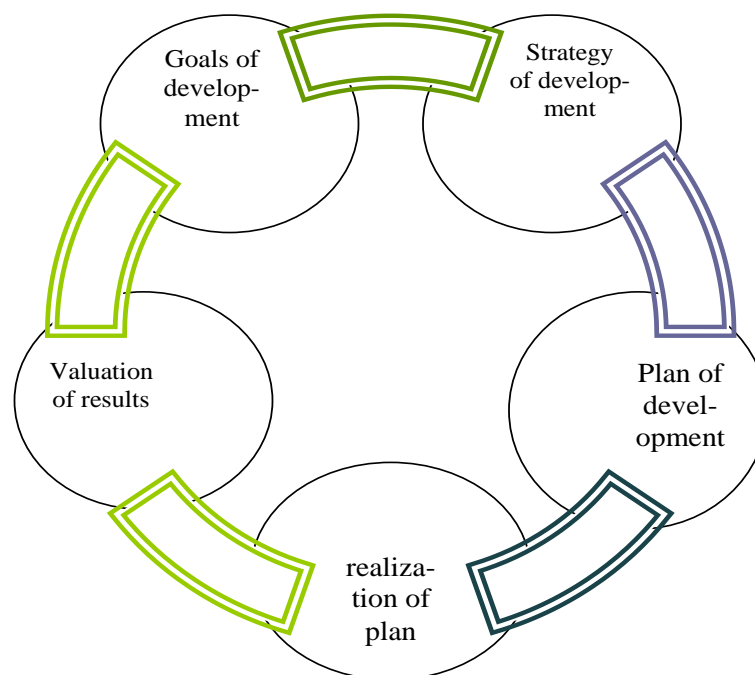
## **2. THE MAIN APPROACHES TO AN ASSESSMENT OF RESULTS OF DEVELOPMENT OF THE ENTERPRISES**

One of the most actual problems of the modern management is how to estimate adequately results of development of the enterprises. Management of development is a cyclic process. On the whole, it can be presented in the form of the scheme (figure 1). The purpose of development of the enterprise is the increasing of its competitiveness, which depends on efficiency. Therefore, one of basic questions of business management is connected with an assessment of its results, as an indispensable condition to identify, if the development purposes are achieved. The main task of an assessment of efficiency of the enterprise activity is development of the conclusion about viability of the enterprise and possibility of its further development, based on the comprehensive analysis. This analysis should be carried out, using the system of the indicators, displaying the condition and development of the subject of the assessment.

For receiving a system assessment of the enterprise activity, there is an integrated approach to the assessment of activity results of the organization from points of view of the different interested groups:

- managements of the enterprises;
- owners of the enterprises;
- commercial partners, creditors, suppliers;
- tax and customs services;
- consumers.

From this point of view it is necessary to allocate basic elements of the enterprise as a systems of economic interests. It is also important to define the indicators, corresponding to each group of interested subjects, according to the criterion of completeness of satisfaction of their interests, connected with activity of this concrete enterprise.



*Figure 1: Management of the enterprise development as a cyclic process (developed by author)*

Two main approaches to forming indicators of the assessment of efficiency of the enterprise activity (the resource approach and the expensive one) shows the necessity to divide correspondingly main types of the resources, composing economic capacity of the enterprise, into two groups: the applied resources and the consumed resources.

Let us consider the standard classification of approaches to an assessment of results of the enterprise development.

First of all, it is necessary to define the period, for which the assessment is carried out. The results of development can be estimated both for short-term, and for the long-term period. Respectively, it is important to allocate the approaches, allowing to estimate operational and strategic results. Classification of methods of this kind is given in figure 2.

The traditional financial focused concept of an assessment of results of the enterprise functioning, based on indicators of financial statements, has been criticized since late 1980th – early 1990th. That is caused by a number of reasons. It is possible to allocate the following main negative sides of models in this concept:

- lack of non-financial indicators;
- weak interrelation with strategic planning;
- strong orientation to previous results;
- brevity;
- -orientation only on a part of representatives of the external and internal enterprise environment (owners and management).

Essential disadvantages of traditional methods of the assessment of development results showed the necessity to develop new approaches to the assessment. Since late 1980th the financially focused concept of the assessment of the development results has been

reconsidered and developed. As a result, multiple-factor models of an assessment of efficiency of functioning of the enterprises have appeared. Multiple-factor models, estimating the results of development, are called Performance Measurement or the measurement of results of activity (MRA) in English-speaking literature on controlling. The question is, if the financial focused approaches completely became out-of-date and cannot successfully be applied in the modern management? In our opinion, it is necessary to remember limited opportunities of these methods and respectively to narrow the sphere of their application by the operational management.

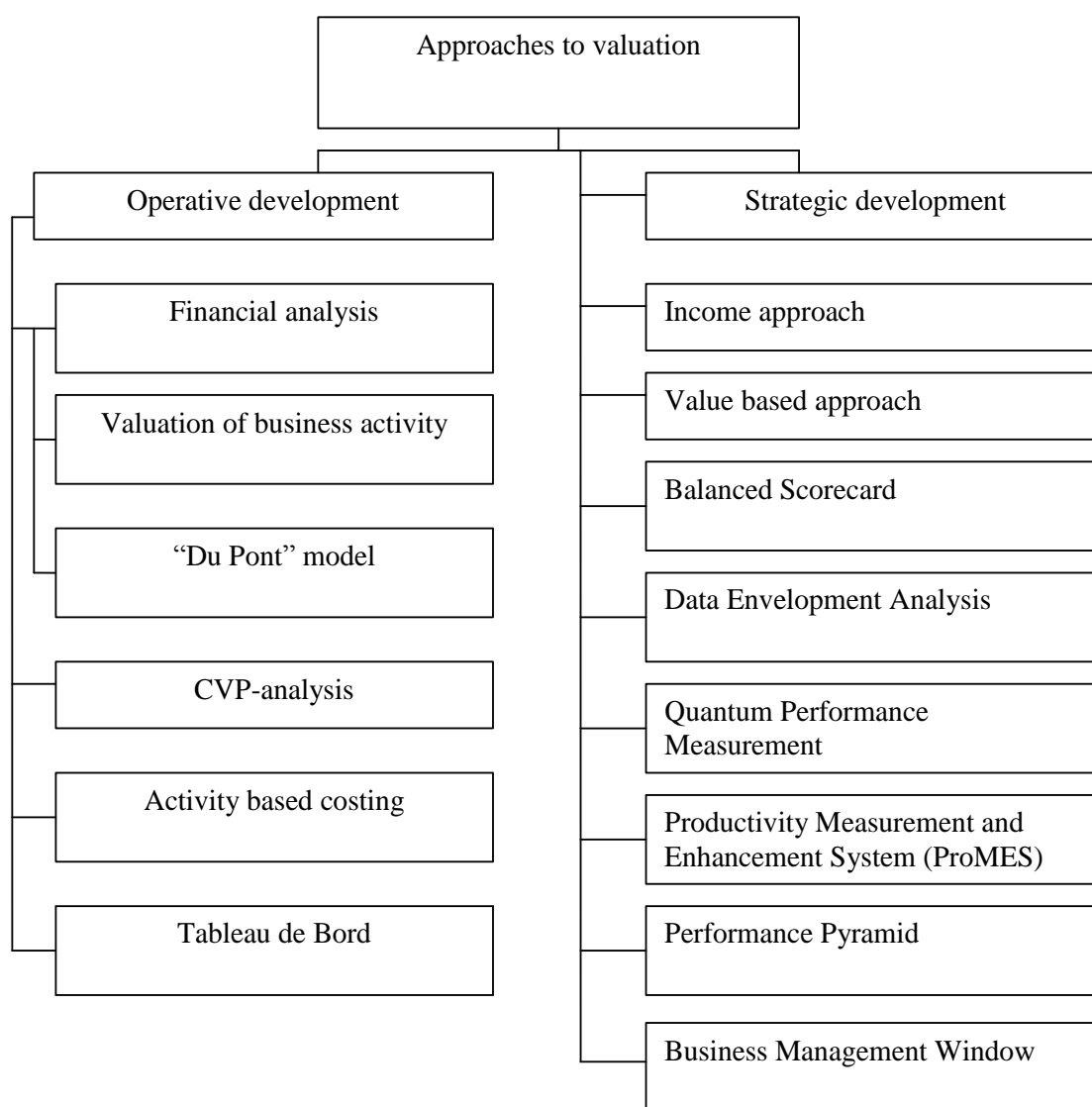


Figure 2: Estimation's method classification (developed by author)

The goal of the measurement of activity results is to associate most of systems of indicators, concerning to different fields of the enterprise activity (for example, expenses, the income, investments, innovations, marketing) in order to estimate and analyse the efficiency of functioning at each organizational level. Development, introduction and application of MRA belong to the most important tasks in the management of modern manufacturing enterprise. Besides, MRA plays an important role in development and the assessment of implementation

of strategic plans, in the assessment of activity of departments in an organization, as well as the increase of motivation of employees on implementation of plans.

Recently, the MRA new multiple-factor models of the enterprises are regularly fixed. Besides various options and modifications of Balanced Scorecard, there are many other new models, that have already found application in large business, or are offered for discussion as scientifically reasonable methodical recommendations.

As the MRA financial and analytical models are widespread, the main financial performance is well-known.

Owing to their main advantages, these methods allow to carry out the complex diagnostics of the financial position of an enterprise, in order to estimate the trends, characterizing dynamics of liquidity, solvency and profitability. When using the scenario approach, these methods allow to predict consequences of administrative decisions for a short-term outlook. As these methods do not consider risk factors and uncertainty, the reliability of their forecasts sharply decreases at increase in the expected period.

### **3. ADVANTAGES AND DISADVANTAGES OF MODERN METHODS OF THE ANALYSIS OF ACTIVITY OF THE ENTERPRISES**

The considered approaches to MRA of the enterprise reflect the main tendencies of the modern economic theory and practice in this sphere. Having analysed advantages and disadvantages of each model, it is necessary to generalize results.

Most of the considered models can be used not only for the assessment of activity results. From the point of view of their developers, these models can be considered by the company as the concept of management. Aforesaid models include Balanced scorecard (The balanced system of indicators), the Control system and estimates of activity results, based on the indicator of EVA (the added economic cost), Productivity Measurement and Enhancement System (ProMES) (System of improvement and productivity measurement), Performance Pyramid ("A pyramid of achievements"), Quantum Performance Measurement (Quantum measurement of achievements), Model of measurement of activity results of the Ernst and Young company, Caterpillar company model, the Concept of domestic market "Hewlett-Packard".

Let us formulate requirements, which the management concept should answer to.

1. The system of indicators has to include qualitative and quantitative characteristics of the major factors, providing the effective functioning of the company;
2. Motivating function of target indicators should be considered;
3. Interests of external and internal interested persons (owners, managers, workers and public interests) have to be taken into account;
4. The model of management must provide interrelation of strategic and operational level of management, as well as carry out ordering and mutually submission of the purposes of the company, according to their hierarchy;
5. It is necessary to develop the methodical ensuring of forming procedures of calculated rates and reports. The reports should have standard character, obligatory for all departments of the company, that has to be fixed by the corresponding internal regulations;



6. The system of indicators must allow to carry out forecasting of future results of development, to form planned target indicators and to carry out the analysis of implementation of plans.
7. The applied concept should help to make administrative decisions, supplying the persons, making decisions, with necessary, actual and reliable information;
8. The system of used indicators must be adequately flexible, adaptive, allowing quickly to react to changes in internal and external environment;
9. There should be a mechanism of the accounting of risk and uncertainty, especially in the course of forecasting and long-term planning.

The main lack of existing systems of MRA is, that they do not consider risk factors and uncertainty during the forecasting of development of the enterprise and the assessment of its prospects, as well as not always allow to coordinate the strategic and operational purposes of the enterprise. From the practical point of view the three following models are advantageous:

- BSC (The balanced system of indicators in combination with the EVA model);
- Business Management Window ("A business window of management");
- Quantum Performance Measurement (Quantum measurement of achievements).

Thus, all aforesaid models need the additional mechanism of forecasting of the development results, considering qualitative and quantitative factors, as well as risk and the uncertainty, connected with the forecasting of future events.

Besides, all considered models do not have sufficient flexibility. The target indicators, established within these models, are strictly determined. According to the practice, it is seldom possible to reach the set size of target indicators during the development of the enterprise. Is it necessary to recognize development unsuccessful, in case of deviations from the set parameters of development? Is it possible to consider the purpose of development reached, if the group of target criteria of efficiency carries out planned values not in all respects? From the theoretical point of view, operating with categories of strict logic, inexact implementation of the plan is a failure. However, in practice, at a complex assessment of development, taking into account the synergetic effect, some deviation of the actual parameters from target values is considered admissible and accepted.

Therefore, the model, allowing effectively to predict results of development, has to be based on the principles of the indistinct logic (fuzzy logic), application of which permits to set target indicators as indistinct sets with indistinct borders and to consider qualitative parameters as linguistic variables.

### **Quantum Performance Measurement (Quantum measurement of achievements)**

The concept is developed by consulting firm "Arthur Andersen" for optimization of the enterprise productivity. Applied indicators - "Essential signs" (Vital Signs) - have to provide information about organizational structure, processes, workers, based on the quality, expenses and time simultaneously.

The following items are used as measuring instruments of productivity of the enterprise:

- The quality of goods or service;
- The time, that reflects the quality of process;
- The expenses, showing the degree of economic quality.
- Processes are analyzed at three levels:
  - organizations;
  - processes;
  - worker/process.

Thus, there are 9 areas (or levels) of measurement, composing this concept.

The measurement is fulfilled, according to the assessment process. Thus, if we add the system of the forecasting, based on the principles of indistinct logic, to the model of quantum measurement of activity results, the model of management of the enterprise development gets the structure, reflected in the picture.

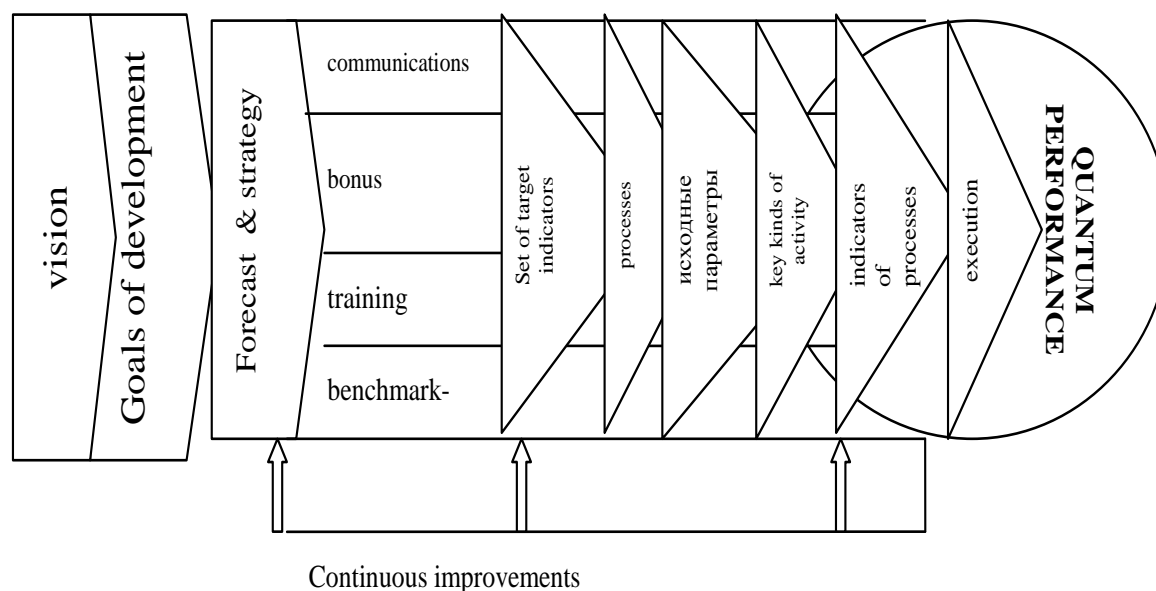


Figure 3: Model of quantum measurement of results of the enterprise activity with the built-in mechanism of fuzzy sets approach. (Popov, 2003)

#### 4. CONDITIONS OF ADEQUACY OF METHODS OF AN ASSESSMENT TO REQUIREMENTS OF NONLINEAR MODEL OF TIME

Besides, the key factor, determining size of resultant indicators, is the time factor. In our opinion, time problem in management is of high importance. All disadvantages of the methods of the results measurement appear, because the basis measurement process is based on the linear model of the current of time. Therefore, all results are attached to the conditional scale, accepted for the measurement of time intervals. This approach does not consider specifics of business - enterprise processes, as well as does not take into account the extent of a full financial cycle, duration of a production cycle, rates of moral obsolescence of equipment and technology, the speed of changing of market conditions and many other significant factors.

A number of researchers, for example B.H. Kruchkov, suggest using phase model of time for the description of cycles of development of economic systems. This model offers to correlate developed strategy and results of the activity of the enterprise in accordance with the phase of its development (figure 4)

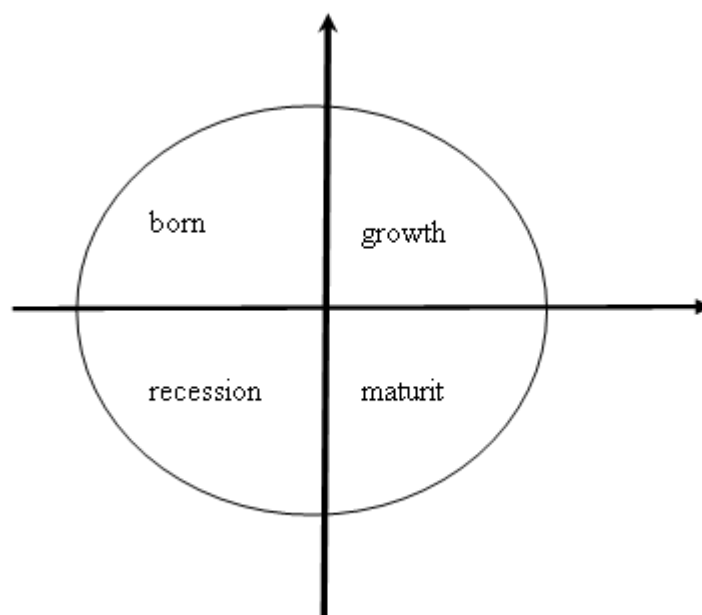


Figure 4: Phase plane of the development of the enterprise (Kruchkov, 2009)

In our opinion, the phase model has a serious disadvantage – the traditional ways of the results assessment are correlated to a development phase. But there is a paradox –the result often depends on the fact of its supervision. Differently, the result arises only in case of its calculation, and with use of strictly certain methods. The most striking example of such "result" is the accounting profit. According to accounting reports, at the end of fiscal year the enterprise can have good financial results, without having any money at all. Therefore, the approach is preferable, in which:

- there is the nonlinear current of time for economic systems
- there is not only one last condition, but a set of future conditions for each current state. These future conditions become the only present at the time of the observation.

## 5. CONCLUSION

Thus, at present the essence of time is better explained by the quantum theory, which is also applicable to economic systems. However, at present in the economic theory there are no ways of measurement of results of activity of the enterprises, adequate to this theory. Probably that is why 100% of the interviewed heads of the large and medium-sized industrial enterprises of St. Petersburg (Russia) noted, that the payback period is the key criterion of the project efficiency. It is one of the oldest indicators, and it reflects specifics of business processes of the concrete enterprise better, than all modern measuring instruments.

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## **FUTURE OF AUDITING PROFESSION**

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### **ABSTRACT**

*Auditing profession is exposed to public criticism for a while. That criticism is based on recent numerous corporate scandals which have, among other reasons, additionally flamed always interesting debate about auditor's independence. Are public expectations unreal and is there a space for further concerns about auditing profession are some of the questions examined in this paper. In order to anticipate the role of auditing profession ahead of us, this paper focuses on current status of auditors and challenges auditors encounter in their work. Therefore, concentration of audit companies, forming auditor's fees, auditor's independence, providing non-audit services by auditors as well as auditing litigations are also examined in this paper. This paper tries to initiate discussion about auditing future. It is extremely important that auditing profession maintains its position in turbulent business environment. Only independent auditors with their report can enhance the reliability of information presented in companies' financial statements which are basic decision making tool for investors and creditors.*

**Keywords:** *auditor's independence, challenges of auditing profession, future of auditing, litigations*

### **1. INTRODUCTION**

This paper focuses on auditing profession. That is very ungrateful topic because it is very hard to anticipate the auditors' role ahead of us even though that topic is not unknown in academic and expert field. Only few authors (e.g. Soltani, B.) tried to look into the future of that important profession. As well as other professions, auditing faced various challenges that needed proper answers during its evolution. All of that influenced the development of auditing profession.

During evolution of auditing profession, auditors started to provide, besides auditing, non-auditing services which raised questions about their independence. As a consequence of disturbed independence, there are numerous examples of non-professional engagement of auditors who supported the false corporate reporting and thus brought a wide range of information users in delusion. Such inappropriate engagements are usually motivated by continuing business relationship, increasing the price of audit services, providing a larger number of non-audit services, etc. The result of such relationship of one part of the auditing profession is disturbing balance of corporate scandals for which are also auditors "responsible". The perception of the public about the role of auditors from today's perspective is not good. That fact can certainly be a chance for audit profession to begin fulfilling the expectations of the public in order to provide useful status of the profession in the future.

### **2. ACTUAL STATUS AND CHALLENGES OF AUDITING PROFESSION**

Efforts of many corporate managers that, no matter what, meet the expectations of investors in terms of increasing value of their shares opened a door for creative accounting practices. Thereby, misleading financial information has become one of the ways which management

used in order to satisfy investors' expectations. Part of the auditing profession has succumbed to pressure from the management of those corporations, and then presented management's false financial statements as they were prepared in accordance with the applicable framework of financial reporting. Such "cooperation" was rewarded with the perennial privileged auditor's status in these corporations and with a number of other compensations. As a result of unprofessional behavior of one part of auditors whole auditing profession is nowadays marked with a shaken reputation, and reputation recovery will certainly take some time. Part of auditors, which were perceived by public as guardians of the integrity of financial reporting, placed itself in function of capital interests causing immeasurable damage not only directly to the deceived users of financial statements information, but also to the audit profession. People started to perceive accounting and auditing profession as ordinary game of numbers. Warren Buffett once said that pretty numbers in the financial statements indicate that artists work in the accounting department. The auditing profession is facing major challenges which seek for answers to a number of open questions, all in order to increase the audit quality and restore its shaken reputation. In this context, clear standpoint should be taken on 1) further concentration of audit firms, as well as 2) the provision of non-audit services by auditors. In addition, issues related to 3) auditor's independence, 4) method of determining the price of audit services, and 5) litigation in auditing will continue to intrigue those who are interested in this very important profession.

## **2.1. Concentration of audit industry**

Audit industry is highly concentrated, and industry leaders are companies also known as the "Big Four".<sup>76</sup> Big Four audits financial statements of the largest corporations in the world, since only those audit companies have the capacity to respond on those demanding engagements. By the logic, companies that form the Big Four generate the highest revenues so all other audit firms can not in any way be compared with them. Regulators, as well as all others interested in the auditing profession, are concerned about the current level of concentration in the audit industry, and even more for possible further mergers of audit firms. If it is known that some audit firms<sup>77</sup> from the Big Four already announced plans for mergers, and even though that plans did not realized, the question raises about outlook of audit industry if it were dominated by Big Three. The uniform opinion of most of the scientific and professional community is that further concentration of audit companies would reduce the space for their competition, limit customer choice of audit companies, reduce audit quality and increase costs (Soltani, 2009, p. 581). Accordingly, increased engagement of regulators can be expected, and also from the most influential governments worldwide, in order to prevent further concentration of audit companies. Bearing in mind the fact that the relentless globalization trends are also present in other spheres of business, the reasonable question arises about reality of efforts of all those who try to prevent further mergers of audit firms. The odds that in the foreseeable future there will be new mergers between the Big Four, and that means a further concentration of the audit industry, are much larger than the odds that there will be mergers of audit companies which do not belong to the group of largest ones in order to expand the circle of large companies from four to five, six or more, and thus open up the space for their competition and enhance audit quality.

## **2.2. Non-audit services**

Auditor's independence is one of the key reasons for using services of an auditor. Auditors are often exposed to pressures coming from clients whose financial statements are being audited.

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<sup>76</sup> Price water house Coopers, Deloitte and Touche, Ernst and Young and KPMG.

<sup>77</sup> Ernst and Young and KPMG in 1997.

Those pressures represent permanent threat to the auditor's independence. Therefore, the auditor's independence is sometimes seen as a synonym for the auditor's objectivity and ability to withstand the pressure of the client when conducting the audit (Soltani, 2009, p. 193). Auditors have to work in the interest of owners and not in the interest of the company's management board and they are expected to provide their services with highest quality. Audit quality can be affected by non-audit services provided to the client. Those services extend the scope of the auditor's engagement and pose a threat to its independence. Some researchers and experts think that regulators should prohibit a part of, if not all, non-audit services. That is because the increase of the scope of services provided to the client increases the auditor's economic dependence on the client (DeAngelo, 1981, p. 113-127). Consequently, it is assumed that in such situations, the auditor may report in the interest of the client, and not the owner. In fact, it is considered that the auditor's independence is threatened by increasing the scope of non-audit services to the client, its affiliated companies and significant shareholders, especially if fees charged for these services are higher than audit services. Leading auditing companies in the world generate significant revenues by providing non-audit services for a while, with the tendency of their steady growth. Regulators' concern for the quality of auditing is because of that increasing. Regulators require, with a reason, from the companies listed on the stock exchanges to disclose fees paid to their auditors for audit and non-audit services. Of course, there were and there are opinions on the desirability of providing non-audit services. Proponents of that practice argue that auditors, when providing non-audit services, get to know the client better and that reflects on increasing auditing quality. In addition, proponents of such opinions think that non-audit services can be performed better and at lower cost by auditors than competition because of auditors' expertise and staffing. Those who advocate such opinions think that it is incorrect to focus on non-audit services and non-audit fees since they do not endanger auditor's independence.

### **2.3. Auditor's independence**

The provision of non-audit services by auditors inevitably actualizes the debate about their independence. Independence is the foundation of the success of auditing profession. Without auditors' independence there is no protection of public. Only independent auditors can be public protectors of the integrity of the financial statements. The highest priority should be to protection of public interest, especially of those who rely on the information contained in the financial statements of companies listed on the stock exchange. The future of the auditing profession, logically, is imbued with uncertainty. That is the case because its position depends on the turbulent business environment. If negative trends in the economy continue, which currently characterize national economies of many countries in the world, a drop in demand for audit services can be expected. Smaller scope of auditors' activities can be explained by the need for more responsible cost management by companies that need their services. Lower revenues of audit companies can be expected, also due to the rationalization of costs of those clients that would be required by legislation to conduct the audit of financial statements. Pressures on auditors' fees will inevitably stimulate the debate about their independence. If reduced presence of auditors adds to reducing auditors' fees many questions arises especially regarding protection of public interest. Somebody needs to protect a wide range of information users from in the financial statements. Who could it do instead auditor? It is very hard to find a better guardian of financial statements' integrity than auditor. Only auditors, totally independent in their work, can be effective guarantee of protection from potential legal disputes which could occur, due to non-credibility of financial statements, to companies which would present information in their financial statements without auditor's opinion. The lack of external oversight arguably opens up space for potential manipulation in the area of

financial reporting. The damages that companies can suffer because of undetected frauds and lost court disputes are significantly higher than the savings that can be achieved by not engaging auditors and making continuous pressures on their fees. A question that is often associated with auditors' independence refers to the length of the engagement of auditors for the same client. Rotation of auditors as well as measures to strengthen the independence of the auditing profession is advocated for a long time. In fact, it is considered that perennial engagements with the same client impair auditor independence. Consequently, long-term engagements with the same client impair audit quality. In the context of numerous corporate scandals it is often pointed out that the perennial relationship e. g. closeness of the auditor and the client is the most common reason for failure in the area of auditor reporting. That is also the most common argument proponents of mandatory rotation of auditors point out. Those who oppose the rotation of auditors suggest the increased audit costs as well as a lack of familiarity with the business of the client audit (Soltani, 2009, p. 597.). In addition, low quality of audit as a result of lack familiarity of the client and, in this regard, the probability of audit failure is also pointed out from those who oppose the rotation of auditors. Regardless of these different opinions it is sure that in the future the rotation of auditors will, as it has been the case up to now, be in the focus of the debate between scientists and experts in the field of auditing.

#### **2.4. Fees for auditing services**

One of the enteral topics in auditing, which will also be discussed in the future, is related to the determining fees for audit services. In some countries the auditing profession regulated that issue with forming tariff of auditing services, while in other countries relevant factors from auditing profession left fee issues to the classic commercial contracting. Determining fees of audit services by using tariffs, points out the auditor's quality and their reputation. It is believed that the higher reputation of auditors is a guarantee of its independence, and thus a higher quality audit services. In the situation when tariffs are applied, all auditors and clients are familiar with the cost of audit services, so clients have no other choice but to choose, in their view, the best auditor. Most often it is an auditor with good reputation who is believed to be able to perform high-quality audits and provide reliable information on the financial statements of the client. Commercial access opens space for "low-ball tactics"<sup>78</sup>, "buying of opinion"<sup>79</sup> and other techniques of determining the price of auditing services audit (Soltani, 2009, p. 598). Auditors are often exposed to the fear of losing an existing client, and therefore the revenue of auditing services rendered to him. That fear is mainly reason for expressing a modified opinion on the financial statements of the client audit (Filipović, 2009, p. 147-153). In addition, the rejection of lower prices proposed by the client to the auditors often ends up with termination of business cooperation. In contrast to the application of tariff which is establishing the price of auditing services and introducing a order in the auditing profession, commercial approach gives a chance to those auditors who are not in the category of those "with reputation" and who are prone to unprofessional conduct in order to secure their place in the audit industry. Price of auditing services is inseparably linked to the independence of auditors. So it was, so is today and will be in the future.

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<sup>78</sup> "Low ball tactics" is created when companies determine audit fees which are below their starting costs with new clients because they believe that future fees will exceed future marginal auditing costs.

<sup>79</sup> "Buying of opinion" exists in the situation when company can avoid adverse or qualified opinion even when there are no extra revenues for exiting auditor. For example, company's management can replace auditor if they believe that new auditor will probably express an unqualified opinion sooner than present auditor.



## **2.5. Litigations**

The auditing profession is, like no other, "doomed" to litigations. Each audit engagement can be a cause for potential litigation. The risk of litigation is always exists because financial statements may contain undetected material misstatements that can be discovered after the issuance of the audit report. The consequences of litigation, which auditor lost, can manifest itself in the form of cost of damage recovery, costs of lawyers and auditor's shaken reputation. Costs of damage recovery and costs of lawyers are measurable, while the damage caused to distort the reputation of auditors is considerably more difficult to identify. Because of that, when all the circumstances are suggesting that auditor's reputation could severely be shaken it is recommended to use outside court settlement to resolve the dispute with the plaintiff. This perspective opens possibilities for new engagements to auditors' which can offset losses from legal disputes. Otherwise, loss of litigation is often a synonym for bankruptcy auditing company. The only real answer to potential lawsuits is auditor's high quality work which is the best prevention from unpleasant litigations.

## **3. DEVELOPMENT DIRECTIONS OF AUDITING PROFESSION IN THE FUTURE**

The audit profession, as well as many others, is constantly exposed to the need to adapt to changing environment. Frequent changes in the regulatory framework, creation of new accounting standards and financial instruments demand from auditors, as it has been the case up to now, to adapt to all forms of financial and accounting innovations. Auditors used to create new International auditing standards, which have been and will remain to be a basic tool of auditing profession, in order to adjust to previous changes. These standards are not given once and for all, but they should improve and adapt to new situations audit (Tušek and Žager, 2006, p. 127-143).

Innovative trends in financial, accounting and auditing profession will be monitored only by auditors who continually invest in their education. Without continuous education high public expectations of the auditing profession will not be satisfied (Messier, 1998, p. 782). The reputation of the auditing profession, shaken by numerous corporate scandals, is only possible to restore with honest and professional work. Honesty and professionalism are the determinants of auditing future. Only these values can restore and be used to develop reputation of the auditing profession in order for the profession to respond to the current challenges that stand ahead of it, but also to all new challenges in the future. In addition to the challenges mentioned in the previous paragraphs, which relate to the concentration of the audit industry, non-audit services, auditor's independence, auditing fees and litigation auditing profession will face many other open questions that demand answers in the future.

Thus, the time ahead of us will provide an answer on which services will auditors provide in future. Changes in the environment will continue to demand high-quality auditing profession's contribution to the society needs, and the general public. Increasingly, the question on whether the traditional auditor's opinion on the annual financial statements should be replaced with the continuous auditor's assurance about the information selected by the user (Soltani, 2009, p. 601). The need for more frequent reporting to users seems to be reasonable, so it can be expected that auditors will continually inform those who hired them in the future. Unlike the current annual reporting, quarterly or monthly reporting to the user would be practiced. As a result of frequent reporting instead of expressing the opinion auditors would provide an assurance on selected information. Thus, the auditor's assurance would relate to the information selected by the user, rather than the financial statements as the previous practice. In order to meet the requirements of continuous auditing auditors will increasingly be directed

to use the automated software, embedded audit modules and integrated testing tools (Soltani, 2009, p. 603). Accordingly, future services of auditors will be dedicated for a wide range of decision makers, and not primarily to investors and creditors as it is now.

*Table 1: Comparison of present and future auditing services (Soltani, 2009, p. 601)*

<b>Basics for comparison</b>	<b>Present services</b>	<b>Future services</b>
Reporting dynamics	Annual	Continues (quarterly/monthly)
Main product of auditing	Opinion	Assurance
Scope of engagement	Financial statements	Information selected by user
Users	Investors and creditors (mostly)	Decision makers
Engagement focus	Mistakes (primarily)/frauds (secondary)	Frauds (primarily)/mistakes (secondary)

Although auditors have so far been focused on detecting mistakes and frauds in the area of financial reporting, in the future, the focus of their engagement will move primarily to fraud detection. Since large corporations worldwide suffer from huge damages every year due to frauds, it is reasonable to expect that the expectations from auditors will be directed to work on fraud prevention and detection. That is how general public will measure auditing success. Auditor's success in prevention and detection of frauds will be a measure of their profession's reputation. Therefore, auditors should start providing serious concrete results in terms of uncovering frauds. Prevention and detection of frauds will return confidence to general public in auditor's independence which was, due to numerous corporate scandals, seriously doubted. Comparison of the foregoing future service auditor with the present is shown in Table 1.

#### **4. CONCLUSION**

This paper is a small incentive to reflection on the future of the auditing profession. Part of the public, especially those who directly felt the consequences of corporate scandals, is disappointed with the auditor's role in society. Stand point of the part of the public, i.e. those who have lost their jobs, their savings, and who have suffered other losses, is going so far that the question on the purpose of auditing profession is being raised on the waves of discontent efficiency of auditors. It is widely known that the reputation is extremely difficult to build, and extremely easy to lose. No matter how hard it sounds and even harder to accept, nowadays the audit profession is in a situation when it needs to regain its lost reputation. Return of lost confidence will take time. A positive attitude towards auditors can be built, primarily, with honesty and professionalism. The moment when the public begins to perceive the auditor's report as a document in which there is no doubt will be a sign that independence has become a real basis for the audit engagement and that the report was made by a competent people. Breaking point for the full return of confidence in auditors' work will be impressive balance of increasingly frequent concrete results of the audit engagements on fraud prevention and detection. These results were absent or were undetectable in a wave of bankruptcies of numerous corporations in which the auditors did not triumph. Therefore, the primary focus of future audit engagements should be equal in terms of fraud prevention, as well as their detection. Independence and frauds are key words of the future of auditing profession. Only independent auditors can prevent and detect frauds, while only successes in the field of prevention and detection of frauds can restore public confidence in the auditing profession.

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## PERFORMING BUSINESS THROUGH VOLUNTARY DISCLOSURE. INSIGHTS FROM ITALIAN LISTED COMPANIES

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### ABSTRACT

**Motivation:** *In a turbulent environment, the communication of detailed and realistic corporate plans helps a company to aggregate internal and external consensus around strategies and risks. In particular, periodic presentations of company's intentions, future actions and expected results are among the most important devices used to attract capital at a lower cost than rivals.*

*Nevertheless, there are little researches that analyze how companies disclose voluntary information to financial community through detailed forward-looking plan, such as the business plan.*

**Object and methodology:** *This research highlights principles and content of an effective voluntary disclosure, deriving them from the three major guidelines on business plan proposed by the Italian Stock Exchange, the National Board of Accountants and Accounting Experts and the IBAN-A.I.F.I.-PriceWaterHouse Coopers.*

*Through the method of the Likert scale, the research evaluates the quality of all type of voluntary communication presented by Italian industrial listed companies, investigating information on market competition, strategies, actions, key value drivers and expected results. The objective is to trace a connection between their quality, the consensus gathered on financial market and the profitability achieved.*

**Results:** *Collectively, the findings indicate that:*

- *few companies adopt the business plan as a tool for voluntary disclosure;*
- *no business plan reaches the maximum score, and over half are insufficient because:*
  - *confidentiality takes precedence over transparency,*
  - *it is often surrounded by uncertainties regarding environmental changes, competitors' moves and market reactions,*
  - *it do not provide a clear map of cause-and-effect links by which specific actions lead to specific results.*

*Therefore, uncertainty of voluntary disclosure is not always penalised by financial markets, and its credibility does not always undermine the achievement of expected performance, evidenced by financial statements.*

**Keywords:** *business plan, voluntary disclosure, public and private disclosure.*

### 1. INTRODUCTION

Disclosure is an issue that is highly regulated under the securities laws of many nations. However, corporations may voluntarily disclose beyond what is mandated by laws. Generally, both developed and developing countries place heavy legal emphasis on the financial reporting obligations of the board of directors, as well as the board oversight of the audit

function. In many instances, corporations provide more voluntary information that tell the business story and strategic intentions to external users. There are in fact pressing investor needs for improving quality and quantity of corporate disclosure. They would explore how the corporations conduct their business: their main commercial objectives and strategies, competitive advantages, ownership and governance structures, board of directors and key executives, their remuneration and independence, internal controls and future earnings and risks. Especially for listed companies, conveying these information to the market is an important device to gain consensus and confidence from shareholders, financial institutions and analysts. Such information is disclosed in the context of investor relations, and includes voluntary annual and interim reports, Chairman's letters to shareholders, press releases, public presentations and analysis, private direct contacts and meetings with analysts and institutional investors, and posting on the corporation's website. Their importance is growing in respect to the more closely regulated and standardized financial report, which is become «too complex, too large, and too cumbersome for many users» (Holland, 1998a, p. 262). These new channels put potential investors in a position to assess not only the quantitative results, but also the qualitative data on the specific risks and, moreover, on the future prospectus of the business, enabling them to make a decision regarding their investment on a continuing basis. Consequently, they help promote the development of an efficient capital market, improving the deployment of scarce resources, and making able the market to react to current information by discounts or a higher cost of capital (Borgia, 2007, p. 69-70; Bhattacharya, Daouk and Welker, 2003, p. 641; Holland, 1998b, p. 29; Ellis and Williams, 1993, p. 247; Healy and Palepu, 1993, p. 1; Lev and Penman, 1990, p. 49). Although all publicly traded companies must meet minimum disclosure requirement set by laws and the national stock exchange guidance, they vary substantially in communication channels employed (institutional versus private, and formal versus informal agenda), and in the amount of additional information and details provided to the capital markets (Holland, 1998a, p. 260; Lang and Lundholm, 1996, p. 468). There is no magic communication disclosure formula that makes some corporations thrive while other fades away. It has been argued that «the need of information multiplies itself when it is started», and that this unleashes a perverse mechanism: the more the market know, the more it demands to know, the more there seems to be disclose (Borgia, 2007, p. 49-50). But too much disclosure produces a white noise effect, making it difficult to know what is significant or even to have the time to sort through all the data. Successfully disclosure is made putting careful attention to minimizing the indecipherable and unnecessary data, and formatting the functional ones in a user-friendly way. Therefore, a checklist of what to disclose in one comprehensive statement should be developed, in order to help investors to compare and evaluate corporations all over the market. This is our objective, and suggestions on the theme are presented in par. 3, after a literature review (par. 2). In the par. 4 we examine the actual quality of voluntary disclosure presented by industrial company listed on the Italian stock exchange. We study the correlation between the resulted quality of voluntary disclosure and the variation of share capital, financial debts and cost of debt in par. 5. Conclusive remarks are exposed in par. 6.

## **2. LITERATURE REVIEW**

Assessing a company's strategic direction and its potential performance requires not just an appreciation of the past and current outcomes, but the need to forecast the future. This is difficult given the uncertainties and dynamics of the business environment. The effect of turbulence is that the past and current levels of performance are only useful to the extent that they provide the basis of reaching informed judgements about the future. Recognizing this fact, shareholders, analysts and financial institutions often pay more attention to the

company's voluntary disclosure, and perceive irrelevant the balance sheet, because of its reliance of historical costs and arbitrary write-offs of intangible assets.

The impact of voluntary disclosure has been recognized by various academics since the 80's. Day (1986) identified corporate contacts as important sources of information for analysts and for fund managers, with the annual report acting as a reference. Bence et al. (1995) identified the four highest rated sources of information for a sample of 12 UK institutional investors as company visits, personal interviews, company annual reports and company presentations. Holland and Doran (1998) confirmed this trend and revealed that contacts focused on management quality, succession, coherence of strategy and many other qualitative sources of private information.

Although many researches have examined how the market responds to these new different form of voluntary disclosure (Baginski et al., 1993; Pownall, Wasley and Waymire, 1993; Kim and Verrecchia, 1991), they have not jointly considered their characteristics, in term of accuracy, completeness and consistency of the content and its form.

A survey of 140 star analysts made by Epstein and Palepu (1999, p. 50-51) delineates that analysts receive very little information for a proper valuation of the firm, and that there is a substantial difference in corporate disclosure practices related to whether a company is doing well or not. Moreover, 87% of the star analysts believe that the board of directors represents the interests of corporate management, not the interests of the stakeholders, including institutional and individual investors, bondholders, creditors, employees and community.

In particular, asking what additional information they would find useful in making investment decisions, more than 85% of the analysts said they would like more information on prospective corporate strategy, significant business units and their competitive strategy and profitability, primary drivers of revenues and expense, key business risks and uncertainties, financial liquidity and flexibility.

Generally, this information is widely described in forward-looking plan and earning forecasts, such as the business plan. Contrary to the idea that it is reserved for start-up companies or in the extraordinary transactions, the business plan is a tool for systematic strategic planning activities. It is the most detailed and accurate plan on the future of the company.

Capturing the above mentioned dissatisfaction of analysts regarding the adequacy of corporate voluntary communication, our research suggests some improvement deriving principles and content of an effective disclosure from the three major guidelines on business plan proposed by the Italian Stock Exchange (2013; 2003), the National Board of Accountants and Accounting Experts (CNDCEC, 2011) and the IBAN-A.I.F.I.-PriceWaterHouse Coopers (2002).

### **3. PRINCIPLES AND CONTENT OF A VOLUNTARY DISCLOSURE**

The mentioned guideline on voluntary disclosure argued that the route to more and better corporate disclosure lay in simplified, shortened reporting that make know and clarify public accounts in a few pages. To minimize the loss of credibility risk, the same guidelines set out the principles that an additional communication should respect. Our interpretation on this characteristics is summarized below:

- Completeness: it requires the inclusion of all relevant information in order to understand and evaluate objectives, actions and expected results;
- Reliability: it obliges to identify the source of data collection, to specify the assumptions underlying the forecasts, and to elaborate reasonable achievable results, according to a proper economic model;
- Prudence: it involves the use of realistic assumptions that represent the most likely scenarios in relation to the dynamics of the competitive environment, the behaviour of competitors, the relationships with suppliers, and in general the regulatory, technological and social context;
- Clarity: it implies the constancy of evaluation method, assumptions and terminology, that is the meaning of each word must be the same throughout the document;
- Neutrality: the plan must not pursue any purpose other than those stated;
- Financial sustainability: it requires the absence of financial imbalances, to be assessed in relation to the quantity and quality of funding sources and the risks associated with the firm.

We believe that the form of the document should be free. However, regardless of the structure adopted, the company must make use of the macro and micro economic analysis: in this period of crisis the strategic viability of the project depends on the dynamics of the context in which it works. Therefore, an effective disclosure take into account the salient features of the socio-political, technological and cultural environment, together with the characteristics of the specific sector, its wideness, competitive forces and emerging threats and opportunities. An effective disclosure also take into account the present strengths and weaknesses of the firm, its actual market share and core competencies, in order to highlight the current positioning and its potential evolution.

Starting from these premises, the voluntary disclosure should focus on the following information:

- Realized strategy: an explication on past objectives and results, in term of absolute and relative profitability (compared to other companies in the same sector), both at the corporate and the single strategic business unit of the firm.
- Strategic intentions: choices about the role that the company will play in the competitive arena, defining the target customers, the product/service portfolio, the pricing strategies and distribution channels, the key value drivers, and all factors underlying the future competitive advantage.
- Action plan: a list of the operative activities that allow to achieve the strategic objectives, together with a thorough analysis on their conditions and constraints, and their organizational, economic and financial impacts.
- Assumptions and future financial data: a clarification of the hypothesis on quantitative targets related costs, revenues, taxation, interest rates, exchange rate, inflation, etc., and criteria used to quantify the risks, and the economic and financial results. Nowadays, given the uncertainty of the assumptions, it is useful to conduct a sensitivity analysis, constructing different scenarios (among the most optimistic and the most pessimistic) for the main variables, giving them a likelihood ratio, and identifying those that most influence the results.

Such an articulation should enable the reader to identify the company's value proposition, that is a set of unique products or services a company provides to be able to create value for customers. If a company is in multiple businesses, the disclosure should be organized so the discussion focuses on each of the strategic business units.

An effective way to link management actions and financial results is to use leading metrics which captures future consequences of a company's business decision. Therefore, our final recommendation is that to include into the document specification of non-financial leading indicators useful in judging the effectiveness of the strategy implementation, and discussion of the relation between the leading indicators and future profits.

#### **4. METHODOLOGY**

Our research aims to evaluate the real quality of public voluntary disclosure presented by the 58 industrial companies listed on the Italian stock exchange. We seek to found some interaction between the quality of voluntary disclosure and the amount of new share capital collected, the total financial debts and the cost of capital during selected years. We collected all the voluntary disclosures presented by listed companies from 2009 to 2012 in their website or in the website of the Italian stock exchange, and we mailed them to elicit additional unpublished documents. All of these reports contain traditional information, such as historical financial data, customer statistics and operational metrics. Our objective is to evaluate the presence of all the characteristics and minimal content analyzed in par. 3. The method chosen for the analysis of the quality of public voluntary disclosure is content analysis. It is a method widely adopted in corporate disclosure studies because it allows repeatability and valid inferences from data according to their context (Krippendorff, 2004). Neuendorf (2002, p. 10) defines content analysis as a summarizing, quantitative analysis of messages that relies on the scientific method and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented. In other words, content analysis is a scholarly methodology in the social sciences and humanities in which texts are studied as to authorship, authenticity, or meaning. It is conceived as a technique for making inferences by objectively and systematically identifying specified characteristics of messages (Holsti, 1969).

Four researchers conducted the analysis (two post-graduate student and two assistant professor). On the basis of characteristics above mentioned, a list of detection and classification rules was defined and discussed with the research team, and classification criteria for each dimension of the research questions were subsequently identified. We decided to analyze quality disclosure in collected documents using the items presented in Table 1. For all the items, we decided to evaluate the quality level by using a Likert scale on five levels.

Some tests of the coding procedure were conducted to highlight ambiguous or unclear interpretation of coding rules. Three 2012 disclosure documents were independently examined by each member of the research group. The results were compared and differences of interpretation discussed. This resulted in a final set of detection and classification rules for information contained in the documents. Finally, the revised procedure was tested on another 2012 disclosure document - this time by the whole research group - to align the conduct of all research team members.

The next step was to divide documents for content analysis among team members (coordinator excepted), dividing the workload in such a way as to ensure that each member had a chance to analyze disclosure documents of every listed company. The coordinator afterwards compared the results obtained by the other three members, checking that there were no differences of interpretation with regards to the research questions.



With our survey form we aimed to verify the quality of voluntary disclosure by studying the completeness, reliability, prudence, clarity, neutrality and financial sustainability of additional information contained in public reports or presentations collected. We investigate if their content include the 4 above listed information.

*Table 1: The survey form for content analysis*

<p><b>1. Realized strategy</b></p> <p>1.1. Corporate competitive strategy</p> <p>1.2. Competitive strategy of the individual Strategic Business Units</p> <p>1.3. Story of the key financial data for individual Strategic Business Units</p> <p><b>2. Strategic intentions</b></p> <p>2.1. Need and opportunity for a strategic renewal</p> <p>2.2. Strategic intentions at the corporate level</p> <p>2.3. Strategic intentions of the individual Strategic Business Units</p> <p><b>3. The Action Plan</b></p> <p>3.1. Main actions, timing and responsible managers</p> <p>3.2. Economic and financial impact of actions</p> <p>3.3. Investment and financing arrangements</p> <p>3.4. Organizational impact of actions</p> <p>3.5. Conditions and constraints to actions implementation</p> <p><b>4. Assumptions and future financial data</b></p> <p>4.1. Economic forecast model</p> <p>4.2. Assumptions underlying the economic and financial forecasts</p> <p>4.3. Comparison between forecast data and historical data</p> <p>4.4. Primary drivers of revenues and expense and their dynamics</p> <p>4.5. Performance of the key value drivers</p> <p>4.6. Sensitivity analysis</p> <p>4.7. Other critical aspects to highlight</p>
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In order to evaluate the presence of these characteristics in all the major content of the documents, we attribute the dummies from 0 to 4, according to a Likert scale articulated in five levels (inacceptable=0; very poor=1; satisfactory=2; very good=3; excellent=4). After that we determined the total scoring of quality in voluntary disclosure as the sum of the dummies. Total maximum score is 72.

Italian industrial listed company obtained a minimum score of 18 (forty-three cases) and a maximum score of 48 (one cases). The mean is 21, 69.

Collectively, the findings indicate that:

- Very few companies adopt the business plan as a tool for voluntary disclosure, and only a minimum part of its content is presented to investors by others channels, in particular through private contacts and meetings;
- Companies prefer to expand on the details in private, because the confidentiality takes precedence over transparency. Transparency lies at the intersection between public's

right to know and company's right to privacy. The stakeholders have a legitimate claim to know vast quantities of information about actions and intents, but the company has the right to control the collection, use and disclosure of all information related the corporation. In particular, companies would not reveal management quality and innovations or R&D knowledge in public. In both cases, the private knowledge would become a public good and lose value for the company. Private contacts are the only feasible means to disclose this kind of information;

- Voluntary disclosure is often surrounded by uncertainties regarding environmental changes, competitors' moves and market reactions. Moreover, information is lacking on strategic intentions and assumptions, which capture the attention of the potential investor, aggregating consensus around strategies and risks;
- Voluntary disclosure do not provide a clear map of cause-and-effect links by which specific actions lead to specific results. Therefore, the reader can not assess how effectively the value proposition will be implemented.

## 5. INTERACTION BETWEEN THE QUALITY OF VOLUNTARY DISCLOSURE AND PERFORMANCE

It has been argued that high levels of transparency, that we have measured through the quality of voluntary disclosure in par. 4, are associated with higher volume of capital collected by equity and financial debts and lower cost of capital. In order to investigate relations among these variables, we also collected data from the balance sheet of the years from 2009 to 2012 on the variation of:

- the net capital and share premium reserve;
- all the financial debts, that is: loans, bonds and convertible bonds;
- the total interests expenses;
- the return on debts (ROD).

Three regressions were performed. The quality of the voluntary disclosure above measured was always taken as the independent variable. In the first regression, the share capital variation during the years from 2009 to 2012 is the dependent variable. In the second regression, the financial debts variation during the same period is the dependent variable. In the last regression, the variation of the ROD, that is the cost of debts during the same years is the dependent variable. Results are presented in Table 2, 3 and 4.

*Table 2: Regression between the voluntary disclosure quality and the share capital increases*

Residual:				
Min	1Q	Median	3Q	Max
-11.793	-10.854	-10.122	-3.671	266.322
Coefficients:				
	Estimate	Std. Error	T value	Pr (>  t )
Intercept	18.9405	15.5821	1.216	0.23
PI	-0.4526	0.6671	-0.679	0.50
Residual standard error: 40.84 on 51 degrees of freedom				
Multiple R-squared: 0.008947				
Adjusted R-squared: -0.01048				
F-statistic: 0.4604 on 1 and 51 DF, p-value: 0.5005				

*Table 3: Regression between the voluntary disclosure quality and the increase of the financial debts*

Residual:				
Min	1Q	Median	3Q	Max
-484.9	-484.4	-484.0	-423.5	21967.9
Coefficients:				
	Estimate	Std. Error	T value	Pr (>  t )
Intercept	882.86	11003.44	0.800	0.427
PI	-22.14	47.59	-0.465	0.644
Residual standard error: 2969 on 56 degrees of freedom				
Multiple R-squared: 0.003849				
Adjusted R-squared: -0.01394				
F-statistic: 0.2164 on 1 and 56 DF, p-value: 0.6436				

*Table 4: Regression between the voluntary disclosure quality and the cost of debts*

Residual:				
Min	1Q	Median	3Q	Max
-1.01200	-0.39267	-0.09488	-0.29418	2.51339
Coefficients:				
	Estimate	Std. Error	T value	Pr (>  t )
Intercept	-0.052443	0.275000	-0.191	0.850
PI	0.004041	0.011727	0.345	0.732
Residual standard error: 0.7166 on 50 degrees of freedom				
Multiple R-squared: 0.002369				
Adjusted R-squared: -0.01758				
F-statistic: 0.1188 on 1 and 50 DF, p-value: 0.7318				

## 6. RESULTS AND FUTURE RESEARCH

The construction of the regression model should be subjected to a series of evaluation to test its goodness of fit. The most commonly used statistic is the standard error of  $R^2$ . It expresses the proportion of variance explained by the model. It always varies between 0 and 1, where values close to 0 indicate a poor goodness of fit of the model while values close to 1 indicate a good ability to adapt the model. In the case in question, the three regressions highlight  $R^2$  values close to 0. This fact indicates the lack of fit of the model, making it unnecessary subsequent checks to test the predictive ability of the above model. Therefore, there are no correlation between the quality of the voluntary disclosure and the capacity of the company to collect capital through new equity or debt and to gain lower rate of debts cost. This means that uncertainty of voluntary disclosure is not always penalized by shareholders, investors and financial analysts. If the voluntary disclosure form and accuracy do not influence investor judgments, it becomes interesting to investigate the basis for their motivations. How can a company enhance its strategic credibility and confidence of analysts and markets? What are their determinants?

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## PRISE SURPRISE AT THE RUSSION STOCK MARKET

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### **ABSTRACT**

*It is proved that Russian stock market does not react to the appearance of unexpected macroeconomic statistics. Studying the price surprises caused by the release of macroeconomic statistics, we hypothesized, the essence of which was the following: exit unexpected market statistical information must necessarily lead to price fluctuations in the stock market. This hypothesis is based on economic theory.*

**Keywords:** *Event Studies, Surprise, Russian Stock Market*

### **1. INTRODUCTION**

Studying the price surprises caused by the release of macroeconomic statistics, we hypothesized, the essence of which was the following: exit unexpected market statistical information must necessarily lead to price fluctuations in the stock market. This hypothesis is based on economic theory. Thus, according to the theory of Conrad, Cornell and Lendsman if the information has an impact on the market, the total difference for the period will increase with the appearance of positive information on the market and decrease the appearance of negative information (Conrad, Cornell and Landsman, 2002, p. 2507-2532). Therefore, the calculation was carried out by us for the two types of information that the influence on the stock market (and hence index RTSI) or defined as "good" (for the total difference between the appearance of such information will increase), or as "bad" (total difference for the period will be reduced). Recall that in a study analyzing the market reaction to the news officially announced, the authors decided to allocate the "good" and "bad" news, depending on market reaction. Same account directly expectations declared information (besides the declared information) was first included in the analysis D. Skinner and R. Sloan (Skinner and Sloan, 2002, p. 289-312).

The type of information was determined by the difference between its actual value and the consensus (Skinner and Sloan, 2002, p. 289-312) ( $\Delta E = E_{\text{actual}} - E_{\text{forecast}}$ ).

Based on the availability of two types of information, calculated the average excess cost index. Depending on this, all the curves of CAR are divided into two groups:  $\Delta E > 0$  and  $\Delta E < 0$ .

For each group, the mean values were calculated and analyzed CAR temporal dynamics of aggregates if averaged CAR after the news increases - so the information leads to an increase in the value of securities (Fama et al., 1969, p. 1-21).

### **2. RESEARCH**

The calculations we have received an array of charts during the study period from 2004 to 2013. Next, we examined in detail the relationship and influence price surprises caused by such macroeconomic indicators as exports, GDP, CPI and M2 on the Russian stock market, and also tested the relationship of these indices and index RTSI. Testing in this case was carried out in order to check the implementation on empirical data and theoretical

performance index relationships. And, in addition, to form ideas about the existing relationships between indicators and index RTSI, as a basis for testing hypotheses about the impact of the release of information on the value of the index. Obtaining empirical data on the impact of the release of information on the RTSI index was necessary for a full and objective analysis of the information provided in the theoretical part of this work. Otherwise, the exclusive use of theoretical knowledge in an applied context, would inevitably lead to erroneous conclusions and errors. We emphasize that no prior knowledge of theoretical applied research on the impact of the release of information on the RTSI index has no economic content. Testing indicated relationships between the dynamics of macroeconomic indicators and RTSI index allowed us to compare the impact of information and its type ("good" and "bad" news) on the stock market. Relevance of the empirical data of these relationships are very high, because studies have shown that the real dependence RTSI index of the release of information about the four indicators is considered more complex than assumed in the theory. Therefore, testing of the empirical data in our work allowed to check and refine the theoretical part of the study, to make adjustments to existing hypotheses, as well as form the basis for further research.

In the end, summarizing the results of this study of the formation, we can say that the degree of linear dependence of the reaction of the stock market (for example, index RTSI) was less significant than might be expected on the basis of theoretical research. In particular, the study of the regression relationship between the main macroeconomic indicators and the RTS index did not show the expected degree of influence of these parameters on the dynamics of RTSI. There is some relationship to established indicators such as the CPI and M2. Export performance and GDP affect the dynamics RTSI even less (up to the virtual absence of such influence - for GDP).

Thus became obvious fact that there is not a linear relationship between macroeconomic indicators (information about them) and the reaction of the stock market.

Further empirical testing included determination of the type of information search for correlation between the type of incoming information and the market, as well as to determine the degree of influence of information on the stock market.

Analysis of data on the impact of information on the dynamics of the CPI RTSI, showed that the actual value of the index RTSI on the Russian stock market is mostly lower than predicted. That is, predicting the value of the index on the basis of information on the inflation index is constantly reevaluated and significantly. As a result, the total output of information is the difference between actual and expected cost increases RTSI. If, on the basis of information on inflation, predictive value of the index is lower than the actual average total difference between the actual and expected value for the period RTSI reduced. With an average deviation from reality forecast is -0.5.

Based on an analysis on the impact of information on the dynamics of M2 RTSI, we noted the lack of market reaction to yield negative information. In this case, the forecast RTSI index values in the context of information about the index M2 tends to underestimate (as evidenced by the steady growth of the total difference between the actual and expected value RTSI). Yield positive information, in turn, leads to changes in the dynamics of the indicator, which indicates the presence of the reaction of the market. That is, when the actual value of the index on the basis of information on M2 is higher than expected, the average total difference

between the actual and expected value for the period RTSI changes the dynamics and showed a downward trend. Here, however, noted the importance of error of mean - the average deviation from the forecast of 427.7 reality.

Analysis of the impact of information on the dynamics of GDP RTSI, showed that when leaving a negative market reaction to the information the information is missing, as is the case with information on monetary aggregates. At the same time, the Russian stock market is characterized by underestimation RTSI index in the context of information about the GDP. At the same time, the yield of positive information about the state GDP stimulates the market reaction. The total difference between the actual and the expected value of the index increases. The average deviation of the forecast from the reality here is 0.18. The last of the indicators is considered export. Analysis of data on the impact of export information on the dynamics of RTSI, led to the conclusion that in the context of this indicator the market reacts to yield negative information decrease total difference between the actual and the expected value of the index. When leaving a positive market reaction to the information is no information (note, however, that the average values obtained in this case for a very small sample ( $n=2$ ), which reduces the reliability of the data). Forecast index values based on the information about exporting, as well as in the case of GDP, characterized by a tendency of underestimating the index. The average deviation from reality forecast for the index in the context of information on exports is 10.8. Overall, the data analysis suggests that the impact of information on macroeconomic factors, the stock market is not as much as expected. Also, talking about the difference between theory and practice, depending on market reaction information on macroeconomic indicators, we recall that in the theory of growth of value of exports leads to an increase in the total cost of shares of major Russian companies (growth RTSI). However, paying attention to the mean CAR charts note that for  $\Delta E > 0$  (when the output of a "positive" information), this value increases. When  $\Delta E < 0$  rate graph the mean CAR changes character - cut to the release of information has a positive slope, cut after the information has a negative angle.

In the case of GDP growth in this index also leads to an increase in the value of shares and, consequently, to an increase in value of the index RTSI. Empirical studies have shown that at  $\Delta E > 0$  (when the output of a "positive" information), the mean value of CAR changes the nature of the day the information decreases on increasing. However, when the output of "negative" information rate graph the mean CAR has a sustained growth. The consumer price index (which is a measure of the inflation rate), in theory reduces the index RTS. Graphs describing the dynamics of the total difference in the real and expected value RTSI index for the period demonstrate the following: when  $\Delta E > 0$  (when the output of a "positive" information), the mean value of CAR shows steady growth (chart significantly close to a straight line). When  $\Delta E < 0$  (when the output of "negative" information) shows the mean value of CAR is the same steady decrease. In the case of the aggregate money supply, M2 growth theory should be accompanied by growth RTSI. On empirical dependency graphs, we see that at  $\Delta E > 0$  (when the output of a "positive" information), the mean value of CAR has a positive slope, while remaining on the board after the release of information and putting downward trend. When  $\Delta E < 0$  (when the output of "negative" information) the average value of CAR shows steady growth. That is the impact of information on this indicator on the market can be characterized as minor. The significance of the impact of macroeconomic indicators on the four RTSI index is very low. Based on the calculated values of F-test, only information about the CPI affects the dynamics of the stock market according to the type of news ("positive" or "negative"). This conclusion is confirmed (with somewhat less reliability) regression analysis.

At the same time, the method shows the effect of ES release of information about the dynamics of the CPI RTSI. These findings make significant adjustments to the theoretical understanding of the dependence of the stock market and macroeconomic indicators are the basis for further research.

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## **IMPROVING THE CREATIVE THINKING OF TALENTED KNOWLEDGE WORKERS AND MANAGERS IN POLISH AND FRENCH ENTERPRISES**

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### **ABSTRACT**

*The study is the issue of creative and participatory activities of employees in the organization in the context of the changing expectations of socio - economic, forcing both to employees and teams and executives of innovative activities. The planned research seeks an answer to the question.*

*What factors attributable to the organization can help to improve the working conditions of knowledge workers classified as "talent", teams of such employees and managers in charge of the work of outstanding employee teams in Poland and France?*

*In order to answer such a question was developed (and subsequently validated) adjusted for purposes of research and questionnaire research was conducted on a sample of 142 Polish workers in 23 medium - small enterprises, 84 employees from 10 companies in France. Workers considered to be particularly talented in both in Poland and France stressed in the first place the need of approval by the entrepreneurs and board members deviating from accepted standards of work style. Members of the outstanding teams in somewhat greater in France than in Poland (the variance obtained a criterion for statistical significance) for the relevant member "favorable personnel policy" and the ability to obtain additional compensation for an above-average job. In the group of Polish managers clearly accentuated "more autonomy" in the workplace (in the French differed from the Poles in statistically significant) and already cited "favorable personnel policy". The latter category was also nominated by the bulk of the French managers.*

**Keywords:** *creative thinking, talented employees, determinants of creative thinking of employees*

### **1. INTRODUCTION**

Although the issue of innovation, creativity and creative thinking already was – and still is – the subject of numerous considerations in the field of science of organization and management, sociology and psychology and pedagogy, there is a lack of a broader and more in-depth reflection on the role of knowledge and science in the world. In addition, lacking has been the importance of creative thinking in achieving greater competitiveness, both in the marketplace and in the scale of the individual careers of employees. Furthermore, we may ask which role creative thinking can achieve in removing barriers and optimizing challenges which will benefit organizations.

It is true that the representatives of these sciences do not accept unconditionally the dominant role of technology – especially information technology – in the development of humanity. Technology is only recognized as being instrumental in the progress of civilization.

Representatives of social sciences are focusing rather on values (for example, how to build and create sustainable businesses) in determining whether or not technology plays an important role in developing creative thinking and uniting talented groups of employees—who in the literature are referred to as talent.<sup>80</sup> (Listwan, 2004, p. 41) It has been difficult to overestimate the role played by the creation of conditions for the development of creative thinking in the organization. Within this process, an important task remains: breaking down the stereotypes in thinking, which is a task shared by both employees and managers.

The purpose of this study is to identify factors that support creative thinking, both at the level of the organization and also among individual units – particularly among talented employees. This paper now turns to an examination of the results of research concerning the support of creative thinking.

## 2. TERMINOLOGY

Porter (2003) formulated opinion in which creative thinking relates to the operation of innovation. The latter term may be defined 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 practice, the nature of organization of work or relationship with the environment” (Kozusznik, 2010, p. 170). Innovation, at least in its assumptions, leads to greater efficiency (Sennett, 2006; Zgorzelski, 2002). Schumpeter views innovation similarly while emphasizing, however, that the source of innovation is discovery and the existence of an entrepreneurial entity (Schumpeter, 1960, p. 41). Drucker (1985) however, writing about innovation, accentuates market success, but innovations without success he called ideas.

Social Studies indicate a link (and sometimes an identity) between innovation and work (Kozielecki, 1992) and creativity (Altszuller, 1972; 1983; Nęcka, 1987). Psychology uses another term, which it treats as synonymous with creativity – invention, which is described as “a creative process involving individual, group and organizational creative potential” (Kozusznik, 2010, p. 15).<sup>81</sup>

Elaborating further, a representative of management sciences, J. Brilman, (2002) explained the existence of two types of creativity: *adaptive creativity*, which characterized the improvement of workers, their skills and thus contributed to the improvement of the company's functioning, and secondly, *innovational creativity*, which defined employees introducing or discovering new and original solutions which become a source of competitive advantage.

From the behavioral perspective put forth by this author, creativity, when it is equated with the ability to think creatively, is a characteristic of operating while considering the results of efforts to introduce new solutions and explore new and effective methods. Creativity facilitates original ideas, which consequently contribute to raising the quality of human life. In

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<sup>80</sup> Listwan characterizing the person, saw talent as being attributed to one's above-average ability, creativity, commitment to work and ability to manage people; this involves intelligence, self-control, empathy, the ability to influence, and the ability to motivate. The authors have used interchangeably the term "employee especially gifted" because of its subjective nature.

<sup>81</sup> The issue of the roles of groups, how teams stimulate involvement and create activities, has been documented by many authors (e.g. Brav et al., 2009; Konradt et al., 2009), who emphasize the importance of supporting the role of the team and organizational culture.

this action creativity does not necessarily translate into direct market success and as it is said, the effects of this type of activity can occur only in the perspective of future generations.

### **3. DETERMINANTS OF SOCIO-ECONOMIC KNOWLEDGE**

In studies devoted to the direction of the development of economics, an abandoning of the classical approach based on the economics of the product – or the calculation of profit popularly called economics quantifiable (tangible economic) – to the innumerable economy (economic intangible) can be seen. Therefore concepts such as the value of intellectual knowledge, competence or reputation arise. Thus defined, the new economy creates a new economic reality. In fact, in this course spatial-temporal boundaries disappear between market participants and the boundaries' sphere of influence creates new connections and quality relationships. In this situation, the contemporary society is forcing enterprises and institutions dealing with education into a new paradigm of operation.

New challenges and expectations in terms of development of the economy, due to a new diagnosis of the challenges faced by the global economy have been called “conceptual challenges”. This term was first used by Alan Greenspan at the University of Connecticut in 1997. According to the proponents of this approach, in recent years there has been a particularly significant increase in the requirements of employees that they cannot only add know-how to established knowledge and obtain information, but also they can development their capacity for conceptual thinking. Hence, they have the ability to create, analyze, and transform information as well as create effective and efficient interaction with other people (Kozusznik, 2010, p. 25).

### **4. THE DEVELOPMENT OF INDIVIDUALS' CREATIVE THINKING**

A variety of positions on the formulation of creative activity is found in the literature. An attribute that is considered quite extensively in the literature is *reflectivity*, which is recognized as the ability to maintain an emotional distance to surrounding human phenomena, to avoid collisions of their own emotions with the subject matter and restrain their involvement in certain activities (Brav, Andersson and Lantz, 2009; Heatherton, Krendl, Macrae and Kelly 2007). Developing reflectivity involves staff training programs which may involve creating a narrative as a method of developing self-reflection. This helps employees to define and assess their own position with respect to the presented content.

On the other hand, M. Lewicka (1993) and also other authors studying this problem, for example Parker and Griffin (2011), highlight the important role of positive mood as an important ally of creative thinking and experiencing positive emotions. According to these authors, positive moods and positive emotions become a kind of mediator, facilitation creative thinking. These contrast with negative moods, which tend to support only the reproduction of previously mastered content. This concept is consistent with the ideas advocated by the author, as cited in Pink (2005). Pink states that the importance of the right hemisphere of the brain, responsible for experiencing emotions and moods, has been emphasized.

In practice, this means not only striving to reduce and minimize the emotional strain during work – especially creative work – but also a deliberate action on the part of executives to induce positive emotions that harness talents (for example, by rewarding effort, positive mobilization, shaping positive vision, as is the case for the transformation and actual leadership, (Avolio, Gardner, Walumbwa and Luthans, 2004; Avolio and Gardner, 2005; Bartkowiak, 2010). Similarly, creative thinking and inspiration play an important role in

problem-solving and support creative interaction. Conflicts within groups clearly reduce motivation (Konradt, Andersen and Ellwart, 2009, p. 333-338).

Research conducted recently by an Italian teacher (Simbuli, Guglielmi and Schaufeli, 2011) has shown a relationship between a sense of agency (also called self-efficacy), and creative involvement in work.<sup>82</sup> By collecting their own positive experiences that can be reinforced by specific manifestations of organizational culture and remembering such things as certificates and prizes awarded during a special ceremony employees can reinforce self-efficacy. Building a sense of agency plays an extremely important role in organizational structure, called the system of “self”. The self in the literature is referred to as a “dynamic and orderly arrangement of thoughts, feelings and motives relating to their social relations and personal relationship to the world.” (Holy, 2006, referenced by Strelau and Doliński, 2010, p. 738). It includes the following elements:

- Cognition: self-knowledge
- Value of the self: self-esteem
- Implementation of the self: self regulation (Headherton, Krendl, Macrae and Kelly, 2007)

These first two items characterize the structure of the self, and the last refers to the self considered as a process. Obuchowski has identified *self subjective* and *concerned self intentional*. According to this author, *self subjective* is, as a phenomenon, secondary to *concerned self intentional* (Obuchowski, 2003, p. 162-177) and functions by allowing one to distance himself from his immediate needs and desires. In other words, she does not succumb to the influence of external factors while operating within an organization. *Self subjective*, constituting the content and structure of the system, is under the control of *self-intentional*. In this way, we can talk about the autonomy of the individual (Obuchowski, 2000, p. 320) in fulfilling their own aspirations, creating a vision of her own career and professional success. *Self subjective* involves two processes: self-reflection, as the ability to self-discover, and recognition. Likewise, self in relation to the environment and self-regulation, as executive functions, involve the ability of individuals to exercise control over their thoughts, feelings, and actions (Mc Donald, 2000, referenced by Oleś and Drat-Ruszczak, 2010, p. 712).

Conditions for efficient operation associated with the process of self-regulation assure self-efficacy. This belief does not guarantee certainty of success, but rather a kind of acquiescence which allows for success to be achieved and for the development of specific competencies (Bartkowiak, 1999, p. 11). The notion of self-efficacy results in an individual taking action, being perseverant, showing effort and displaying appropriate feelings that accompany this activity (Oleś and Drat-Ruszczak, 2010, p. 714).

The conviction of self-efficacy is associated with efficacy, which is understood as personal effectiveness in the realization of goals. In the literature, this term is associated with terms such as initiative, creativity, intelligence and entrepreneurship. It includes three elements: the circumstances of the action, understanding their goals and values, and effective action (Bartkowiak, 2010, p. 161-162).

Similarly, as in the case of exploring the world, knowledge about ourselves is apprehended in the form of specific patterns of self, such as a conviction of one's own independence. These

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<sup>82</sup> Similar conclusions were reached in their research conducted among the employees of the company Bakker, Albrech and Leiter (2011). Among Polish authors a relatively complete analysis of efficacy as a determinant of success in the operation was carried out by the already quoted author, M. Adamiec (2000; 2010)

schemes become part of the standard, which in turn are part of the self real, self ideal or self duty. The existence of self ideal allows humans to have aspirations and motivation to achieve ideals in different areas of life (Carvey, 2001). Therefore, the discrepancies between the self real and self perfect, or between self identified and self duty (the created in the process of socialization), induce different emotional states.<sup>83</sup> Realizing the standards of self- ideal increases a sense of satisfaction, fulfillment and even joy.

The almost classical assumption of Khan and Katz (1979), postulates that executives on the second level of management (operational managers) play the most important role (75%), provide social skills (competencies), and thus communicate, motivate, evaluate management conflict, negotiation and coping with stress. In such situations, the activity of the creative manager is reduced to stepping up the teams' motivations to think creatively. It is, in the opinion of B. Kozusznik and M. Adamiec (2001) a position of inspirational role manager. Motivating teams to work creatively seems to result in underestimating task and task for particular rank, when working in teams is granted as a priority (Bartkowiak, 2011, p. 52-65).

In addition, studies have shown that although there is no reason to oppose the ability to think creatively and to develop social competence, they rarely occur in the same person (Trzebiński, 1976). Because of this, however, managerial work, assuming that it impacts on people, competence is especially important and seems to inspire employees to creative activity, and do creative work.

## **5. RESEARCH ON ORGANIZATIONS' CREATIVE THINKING**

### **5.1. Methodological assumptions and research organization**

A consideration of the diversity of views on how creative activities are fostered among employees in organizations, as well reflection on conditions from the point of view of individuals and teams of employees, resulted in the formulation of the following research questions:

- 1. What are the factors attributable to the organization that can contribute to the improvement of workers who are classified as "talents"?*
- 2. Which conditions should motivate an organization to improve the work of outstanding employees?*
- 3. Which factors may facilitate the work of managers in charge of distinctive bands of employees?*

Obtaining answers to these questions required the planning and execution of a particular test procedure consisting of two steps. In the first stage of the study (142 and 84 persons) – workers employed in independent positions classified in the company as a talents – 20 and 12 teams of employees (between 6-8 people each) and their managers (respectively 67 and 54 people) determined the list of factors that improve the work of talented employees and teams and allow them to achieve above-average results and motivate managers to streamline directing their work, exchange their opinions and other significant factors. Next, these factors were narrowed down, by competent judgement, to those that occurred in at least 50% of the statements. In this way, three short lists were established, containing respectively of 5 and 4 (see tables 1 and 2 below). The staff were employed in 23 medium-sized enterprises and two banks in Poland and 10 medium-sized enterprises that were similar (e.g. shopping and

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<sup>83</sup> This topic is explain in a communicative manner by ns Thorry's and Higgin's Self-orientations theory (1987; 1996), in which the thought of assumptions emphasis a large discrepancy between the Self ideal and Self real generated emotional states such as depression, grief, and depression, while large discrepancies between Self - real and Self-duty, accompanied by fear of the fear of punishment, guilt.

services) and two banks in France. They were deliberately chosen. In addition, short interview were carried out to verify the accuracy of answers to the questionnaire. The study was conducted in the months of July and August, 2012. All participants had completed higher education.

## 5.2. Research results

For employees operating in independent positions, classified (by managers) as particularly talented (talents), significant factors that may improve work and are attributable to the distinguished organization are as follows:

- acceptance by the management of individual work styles, personal values of talented people, and no need for talents to adapt to the formal aspects of labor discipline;
- a sense of the meaning of work in the context of an understanding of its importance to the company's strategy and the broader social terms;
- the need to fulfill the obligations arising not only from a contract of employment , but from the psychological contract between the employer and employees;
- employers creating flexible forms of work;
- allowing the building of individual career paths.

*Table 1: Factors facilitating the work of talented employees (based on their reviews)  
(authors work)*

<b>Factors category</b>	<b>Poles (N)</b>	<b>Poles (%)</b>	<b>French (N)</b>	<b>French (%)</b>
Acceptance of an individual work style	142	100.00	84	100.00
Having a sense of purpose in their work	125	88.00	49	58.33
Maintaining a psychological contract	94	66.19	49	58.33
Having flexible forms of cooperation	79	55.63	42	50.00
Allowing for individual career paths	71	50.00	41	48.81

The table shows that the subjects in both Poland and France are measuring their expectations of the employer by a similar hierarchy. In both nations, most important turned out to be “the acceptance of individual work style”, followed by a group of Poles who pointed to “a sense of meaning of work” and a group of French who cited “keeping the findings of psychological contract.”

In individual interviews especially skilled workers in Poland (56%) pointed to the importance of fair, but at the same time professional, assessment of their work, and (circa 44%) emphasized that employers are not interested in giving other employees “material incentives” (e.g. bonus extras, internship, gradually raising salaries, etc.).

Noteworthy is the fact that there was a kind of ignorance about the importance of working relationships with other employees. One gets the impression that these relationships were minor in nature, in the context of the overall assessment of the working conditions. Rating expression showed that in most cases, except for two people with a pro-social motivation, surveyed workers displayed self-centered motivation.

This view was confirmed by representatives of the Management Board (consisting of employers) in Polish enterprises, who pointed to the isolation that characterized a group of employees from their colleagues, mentioned their extreme individualism, and sometimes stated that they were narcissistic. These reviews confirm the existing evidence, that there is a need for an individual approach to employees who are especially gifted.

Turning now to the analysis of the questionnaire executives deemed the most effective in motivating creativity, committed and creative work it can be seen that we could distinguish the following categories of statements indicating the conditions to be met by the organization (employers) in motivating the team to a more committed operation. These criteria included:

- a favourable personnel policy, fostering the employees' development; this involves creating opportunities for promotion, equitable policy of employees rewarding, keeping employment obligations made at the time;
- the use of specific, additional forms of reward for outstanding teams (e.g. attractive trips abroad, etc.);
- reliable assessment of the contribution of work, of both individual employees and work teams;
- improvement of working conditions and wages resulting from the physical effects of worked out.

As we can see on the following table, staff stressed the importance of the subjective relationship between self-involvement, obtained by the company, profit, and income earned from work. When we measure conditions to improve, remove barriers and optimize their own work a team of surveyed managers identified the following factors:

- greater autonomy in personnel decisions regarding the team which is managed; this involves the impact of the choice of the people, from rewarding, promotions and wage increases;
- greater autonomy in their work;
- HR policy focused on building long-term intellectual and social capital in the company;
- accepting a broader perspective on the company's strategy, which involves growth of key competences, which should be linked to concern about the increased competence of individual employees;
- eliminating problematic attitudes that owners of the company have, such as focusing solely on profit in a relatively short period of time, overlooking the fact that the company's employees are its most valuable resource.

*Table 2: Factors facilitating the work of team members achieving outstanding results (in executives' opinion) (authors work)*

<b>Factors category</b>	<b>Poles (N)</b>	<b>Poles (%)</b>	<b>French (N)</b>	<b>French(%)</b>
Favourable personnel policy	50	74.62	54	100.00
Additional forms of reward	47	70.15	54	100.00
A thorough assessment of the contribution of labour	43	64.18	33	61.11
The relationship between labour input and elaborated works effects	43	64.18	33	61.11

*Table 3: Factors that empower managers running distinctive employee teams (based on their reviews) (authors work)*

<b>Factors Category</b>	<b>Poles (N)</b>	<b>Poles (%)</b>	<b>French (N)</b>	<b>French (%)</b>
Greater autonomy of work	67	100.00	27	50.00
Favourable personnel policy	67	100.00	36	66.66
Widely recognized (in the long term) strategy of the company	33	49.25	27	50.00
Quickly achieving a profit should not be the primary factor determining the operation of the company	44	65.67	27	50.00

The data obtained show a greater explicitness in the opinion of Polish managers, compared with the French concerning factors that could contribute to the improvement of their work. In the case of the Polish group important factors were: greater autonomy at work, as well as favorable personnel policies – which were factors pointed out by all managers participating in the research. Among the French managers the most popular opinions turned out to be the second of the listed categories (selected by about 67% of respondents).

Speaking about their own work, Polish managers gave differing statements. The vast majority emphasized that they like their job and cannot imagine that they could do anything else.



Some(50%) claimed that in motivating the team they have a vision of the situation of the target, while others said that their vision occurs during the operation of the team and is simultaneously created by that team worked out (also 50%).

Some of the people commenting on their own workshop emphasized the role of their own involvement(circa 67%), the importance of their impact on the selection of team (circa 33%), their determination in lieu of family life, and still others on the expectation of success, and then his experience as a factor especially motivated others to action. Most of the speech, as it did in the case of particularly talented employees could be deduced motivated individual, usually more self-centered than intrinsic motivation or pro-social.

At this point, it is worth mentioning that a fairly skeptical view was expressed by less than 50% of respondents – executives from Poland that is, indicating that low autonomy is associated with low levels of creativity are evident in private, medium-sized Polish enterprises, as well as in corporations. In other words, in both corporations and smaller companies employees were expected to achieve goals that were impossible to meet and, as a result, creativity suffered. Some interviewed subjects indicated directly that the condition of the property as a factor that “condemns them to an employment”, hence limiting their creativity.

## 6. CONCLUSION

In conclusion, comparing the three groups that participated in the research, each of which included subjects within Poland and France, it is important to, first and foremost, pay attention to the discrepancies between the employees who were recognized as particularly gifted – members of outstanding teams – and managers directing the teams. Employees recognized for particular talent in both Poland and France stressed, first of all, the need to gain acceptance by the Management Board their deviating from accepted standards of work style. Members of the outstanding teams in somewhat greater numbers in France than in Poland found as essential “favourable personnel policy” and the possibility of obtaining additional compensation for an above average job.

The group of Polish managers clearly accentuated “more autonomy at work” and “favorable personnel policy”. This second category was also nominated by the bulk of the French managers. There are differences between talented people working in independent positions, employees in outstanding teams and also managers leading the teams. In the last two groups, they (workers from outstanding teams and managers, that is) paid attention to the material forms of rewarding their activity involved, while among those employees working in independent positions rewards took the form of the doing the same job.

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## **IMPACT OF REWARD SYSTEM ON JOB SATISFACTION THROUGH ORGANIZATIONAL COMMITMENT: A STUDY OF PRIVATE BANKS BASED IN ISLAMABAD PAKISTAN**

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### **ABSTRACT**

*The study of reward system based job satisfaction has earned great attention from the researchers all over the world in recent times. It is commonly believed that job satisfaction enhances the organizational commitment among employees of different organizations and this research study will examines the impact of reward system on job satisfaction which ultimately enhances the overall organizational commitment among the employees of private banks of Pakistan based in Islamabad. Through a questionnaire data has been collected from the lower and middle level employees of the ten private banks based in Islamabad Pakistan. Data evaluation has been performed to collect the results. This research paper enhances the understanding of the importance of reward system based job satisfaction for the employees of different private banks of Pakistan.*

**Keywords:** *Reward System, Employees, Job Satisfaction, Organizational Commitment, Private Banks, Pakistan.*

### **1. INTRODUCTION**

Achieving a high level of productivity is the main concern of firms in current competitive situation of globalization. Job satisfaction is the most important task to the work environment of employees and the way how organizations use their personnel is achieving a higher level of job satisfaction (Koeske, Kirk, Koeske and Rauktis, 1994; Foster, 2000). If employees are more satisfied at work place then they are likely to be more productive, committed and dedicated to organizational and personal goals. According to Acker (1999) employees who feels satisfied from their work life are highly committed and also give quality of service to clients as compared to the dissatisfied one. Behaviors towards job and its different aspects are influenced by level of job satisfaction among employees. Mowday, Steers and Porter (1979) stated that there are organizational and personal factors that affect job satisfaction which later on causes emotional feelings resulting in the higher levels of organizational commitment. Results of job satisfaction also include performance, retention and turnover intention and very productive attitudes towards work (Morrison, 2008).

Great interest has been shown by practitioners and researchers in the area where employees experience standard work life (Sekaran, 1989). The idea or concept of Job satisfaction in work arrangements has significant importance in the literature of social sciences since many years. According to Locke (1976) job satisfaction is the evidence of the extent of quality of job experience. Locke also says that many articles are written in this area of research and still more articles are compiled with growing number and interest. The most commonly accepted definition of job satisfaction is given by Locke (1969) “a positive emotional feeling, a result of one’s evaluation towards his job and his job experience by comparing between what he expects from his job and what he actually gets from it”, although many other authors and researchers have defined job satisfaction too. We can even define job satisfaction in other words as employee’s perception about his job and his environment of work (Locke, 1976).

From among many determinants that affect job satisfaction includes work rewards, work ethics, work environment, working hours, emotions, performance, values at work studied by Fisher (2000); Ravinder and Browne (1977); Ronald and Steade (1976); Sekaran (1989); Clifford and Macue (1997); Eyupoglu and Saner (2009). From these different determinants of job satisfaction rewards have strong relationship with job satisfaction (Clifford, 1985). Rewards for job are termed to be as salary, promotions, behavior of supervisor and subordinates, work group cohesiveness, security, working environment and fringe benefits (Gruenberg, 1979; Locke, 1976).

Employee if appears to be dissatisfied from the job will be having a desire to flee from the job environment (Porter and Steers, 1973; Hulin, 1991; Mobley, 1977). Although commitment towards the goals and organizations values tends to have less thoughts of withdrawal (Porter, Mowday and Steers, 1973). Researcher those working on commitment says that commitment has more significance importance than the job satisfaction, the reason is that employees quits by not liking the company instead of the job (Hom and Hulin, 1981).

### ***Problem Statement***

This study mainly focuses on the relative significance of reward system with employee job satisfaction which ultimately increases organizational commitment. The study will target banking sector of Islamabad where employees are working together with different age groups, education level and experience level.

### ***Research Questions***

Our research questions will be encompassing that:

1. Does reward system have significant impact on employee job satisfaction?
2. Does organizational commitment influenced by the feeling of job satisfaction?

### ***Research Objectives***

The objectives of the study from the above research questions are:

1. To know whether reward system have effect on job satisfaction.
2. To know whether job satisfaction has direct relationship with organizational commitment.

### ***Research Design***

#### ***Dependent Variable***

With mediating effect of job satisfaction relationship between reward system and organizational commitment is the main focus of this study. So organizational commitment serves as a dependent variable in this research study.

#### ***Independent Variables***

Reward system is independent variable in this research study. Study will find out that how the independent variable affects the mediating and dependent variables.

### ***Research Model***

The research model for the present study is given below.

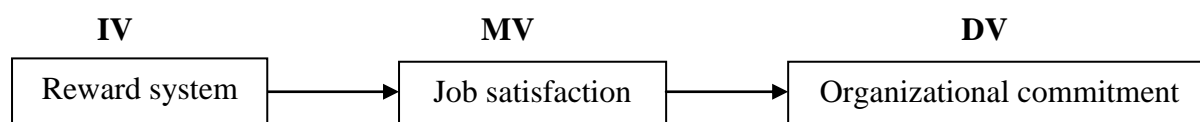


Figure 1: Dependence reward system and job satisfaction with organizational commitment.

### **Hypothesis**

Based on our research objectives and literature study following hypothesis will be studied and analyzed. The purpose is to study the impact of rewards systems on organizational commitment through job satisfaction in private banks of Islamabad.

$H_1$ : Rewards system has an impact on job satisfaction.

$H_2$ : Job satisfaction affects organizational commitment.

### **Methodology**

Here in this part of the study overall research methodology has been explained along with the discussion of the sources of data. Secondary data includes journals, research papers and text books and primary source will be the research questionnaire. Secondary data will be used in the literature survey and primary data gathered from questionnaire will be used in empirical study. The data collected will be then analyzed and inferences will be drawn on the basis of sample.

### **Sampling**

This research study will be executed in the banking sector of Islamabad. There are many banks that are situated in Islamabad but for the study we have selected 10 private banks that are Allied bank, Faysal bank, Askari Commercial bank, Citi bank, Emirates bank, Habib bank, First women bank, UBL, The bank of Punjab and Al-Falah bank. Data will be collected from the middle and lower level employees of those banks to find out whether the existing reward system of private banks have any impact on job satisfaction of those employees which ultimately enhances the overall level of commitment of those employees to their organization.

### **Population**

Banking industry got boosted in this decade due to which many international banks entered the market of Pakistan. Merger and acquisition of some banks occurred. According to SBP report there are total 45 banks in Pakistan under classification that public sector commercial banks are 4, domestic private banks 25, foreign banks 12 and specialized banks are 4. This study is being carried out in banking sector of Pakistan and particularly in Islamabad.

### **Data collection method**

Preece (1994:96) suggested different techniques such as questionnaires, interviews, and observations which are commonly used for the collection of empirical data. For the collection of data from the specified target group, a questionnaire has been designed. This questionnaire contains questions with some choices given to select appropriate one. The questionnaire will be distributed electronically and for some banks direct visits paid to the employees of the banks. The data will be gathered to see the impact of reward system on organizational commitment through job satisfaction.

### **Data Evaluation Technique**

Data collected from the above given sources will be evaluated through graphical representation i.e. different age groups, experience, education and the rest of the data

collected through questionnaire will contain the likert scale and this part will be evaluated by statistical tool of SPSS 17 version. Different statistical tests will be applied in order to see the homogeneity of the data and some descriptive influences will be drawn on the basis of these techniques.

## **2. METHODOLOGY**

### ***Procedures***

There will be about 100 questionnaires to be filled by middle level and low level employees of the private banks in Islamabad via emails and if not responded through email then we will direct visit the banks. The questionnaire has the explanation that is relevant for the study which will achieve our goal of the study to increase organizational commitment by reward system through job satisfaction. For the aim to maintain confidentiality we will email the questionnaire to the branch incharge i.e. branch manager. 10 questionnaires will be distributed to each bank in which 5 questionnaires will be filled by each level of employees.

### ***Measures***

#### **1. Demographics**

In this study we will collect information of employee about their gender, age group, education and work experience with the organization. Gender contains that whether the participant is male or female. Age groups contain groups of 25-30 years, 31-35 years, 36-40 years, 41 years and above. Education level of bachelors, masters and Mphil.

#### **2. Rewards system**

The effect of reward system was measured with a scale used by Cates, (2007) whose outcome was job satisfaction. They measured affect of reward system on job satisfaction by using five point likert scale which showed the likeness and dislikeness of the employees about the relevant question (1=strongly disagree to 5=strongly agree). We used four questions in our study to measure the impact of rewards system.

#### **3. Job satisfaction**

Macdonald and MacIntyre (1997) used their scale based on ten questions to measure the level of job satisfaction. We in this study will also be using the same scale to measure job satisfaction. Ten questions contains likert scale ranging from strongly disagree to strongly agree. The employees are to simply tick the relevant response.

#### **4. Organizational commitment**

Saks (2005) used six questions to measure the level of organizational commitment. We will be using the same questions to measure the commitment level of employee in the lower and middle level of employees in the private banks of Islamabad.

## **3. ANALYSIS AND DISCUSSION**

The purpose of this section is to present the information collected from data collection techniques of the research study. This section explains the analysis and interpretation of the collected data. The data is analyzed through different techniques and different statistical tools. Various statistical tests are executed to analyze and interpret the data.

For the purpose of the data analysis, regression analysis has been carried out to check the relationship between rewards systems, job satisfaction, and organizational commitment. The study focuses on the relationship between the rewards systems in organization and

organizational commitment with the mediating effect of job satisfaction. The hypothesis has also been checked out through regression analysis.

### ***Regression Analysis***

The expression regression indicates a category of statistical data analyses methods that evaluate the connection between a dependent variable and independent variable. The main objective of regression analysis is to analyze the associations among the variables in the study. The analysis is executed through the assessment of the relationship between the studied variables. The results of the table examine that how much one variable effect the other variable in the study.

*Table 1: Regression Analysis of Rewards Systems and Job Satisfaction*

<b>Variable</b>	<b>B</b>	<b>SD</b>	<b>t-statistics</b>	<b>Sig.</b>	<b>R-Square</b>	<b>F</b>	<b>Sig</b>
(Constant)	3.4160	0.187	18.268	1.152	0.585	5.241	0.04
Rewards Systems	0.8542	0.049	4.059	0.017			

The above table demonstrates the regression analysis of rewards systems and job satisfaction. The purpose of this statistics is to check the relationship between rewards systems and job satisfaction. A regression analysis is conducted to scrutinize the relationship between the rewards systems and job satisfaction. The results of the table reveal that there is positive association between rewards systems and job satisfaction. The beta coefficient (Beta= 0.85) indicate that rewards systems in the organization are responsive to job satisfaction and can bring 85% change in job satisfaction of the employees. The results of the table further divulge that the regression model is significant with the values of (F=5.241), P<0.05 with the (R-Square = 0.585) express that the rewards systems in the organization account 58.5% variation in job satisfaction of the employees.

The association between the rewards systems, job satisfaction, and organizational commitment has been the field of research. There is an extensive research in this field but little attention has been given to the relationship between the three variables. This research has been conducted to explore the relationship between rewards systems and organizational commitment with the mediating role of job satisfaction. Organizations used rewards systems as motivating factor to increase job satisfaction of the employees, which in turn will ultimately increase the commitment of employees to stay in the organization.

*Table 2: Regression Analysis of Job Satisfaction and Organizational Commitment*

<b>Variable</b>	<b>B</b>	<b>SE</b>	<b>t-statistics</b>	<b>Sig.</b>	<b>R-Square</b>	<b>F</b>	<b>Sig</b>
(Constant)	3.608	0.200	20.031	1.4712	0.537	5.745	0.031
Job Satisfaction	0.794	0.052	3.9632	0.0243			

The above table reveals the regression analysis of job satisfaction of employees and organizational commitment of employees. The regression analysis test is carried out to investigate the connection between job satisfaction and organizational commitment. The results of the table disclose that the regression analysis of the variable is significant with the values of (F=5.745), P<0.05 with the (R-Square = 0.537) express that the job satisfaction of the employees report 53.7% variation in organizational commitment of employees. The



results of the table further show that the beta coefficient (Beta= 0.794) indicate that job satisfaction of employees is responsive to organizational commitment of employees and can bring 79.4% change in organizational commitment of the employees.

#### 4. CONCLUSION

Based on the results of the study and the sample participants we can conclude that the relationship between job satisfaction and rewards system is positive, the study also proved from the results of statistics that job satisfaction has positive correlation with the level of commitment to the organization. So therefore employees (managers and non managers) working in private sector banks of Islamabad will be satisfied from the job due to the rewards given to them against the work or performance required. Ultimately those private banks in Islamabad will tend to have committed employees for which human resource practitioner strives. Committed employees contribute well to the organization's success. Rewards system plays an important role in the satisfaction level of employees in the private banks of Islamabad.

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## THE RELATIONSHIP BETWEEN TYPES OF ENTREPRENEURIAL ACTIVITIES AND GDP PER CAPITA

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### ABSTRACT

*The paper investigates the assumption that a country's economic development depends on the capacity of its society to innovate and its capability to react to changes as foundations for creating higher living standards. Entrepreneurship seems to be an important determinant of economic development, with independent entrepreneurs and entrepreneurial employees in leading roles as innovators. Using the indicators of entrepreneurial activities from the Global Entrepreneurship Monitor (GEM) project, the aim of this paper is to analyze the significance and the intensity of impact of three different types of entrepreneurial activities: (1) total early stage entrepreneurial activity, (2) entrepreneurial employee activity (also known as intrapreneurship or corporate entrepreneurship) and (3) established entrepreneurial activity on real gross domestic product per capita in cross-national perspective. The influence of these entrepreneurial variables as independent variables on real GDP per capita as dependent variable is analyzed by methods of correlation and regression analysis. The regression diagnostics of the linear regression model has been carried out and it has been found out that the model is statistically significant and meets all the regression assumptions. Based on the ordinary least squares method for regression parameters estimation, the results of the analysis show that the impact of entrepreneurial employee activity on real GDP per capita is positive and about twice as strong as the negative impact of total early stage entrepreneurial activity on real GDP per capita. Also, entrepreneurial activity of individual employees is about 2.4 times stronger than the positive impact of established entrepreneurial activity on real GDP per capita.*

**Keywords:** *Economic Development, Entrepreneurial Employee Activity, Global Entrepreneurship Monitor, Regression Analysis, Testing the Regression Assumptions*

### 1. INTRODUCTION

Entrepreneurship as a phenomenon should be observed in the context of its contribution to economic development. Exploration of the relationship between entrepreneurship and economic growth has been an intriguing research topic for many years. Entrepreneurship contributes to economic performance by introducing innovation, creating changes and creating and intensifying competition (Wennekers and Thurik, 1999, pp. 27-55; Carree and Thurik, 2003, pp. 437-471). By observing the behavior of economies, the scientists conclude how intensified investments in physical and human capital don't necessary lead to growth and prosperity, i.e. human creativity and entrepreneurship are necessary to combine these inputs in

a profitable way. Hence, the institutional environment that enables capitalization of entrepreneurial opportunities has become the key factor for economic growth, but not all important entrepreneurial aspects and links have yet been incorporated in the theories of economic growth (Holcombe, 1997, pp. 45-62).

In order to explain the relationship between entrepreneurship and economic development, scientists devote special attention to Schumpeterian entrepreneur (self-employed and entrepreneurial), intrapreneur (employed and entrepreneurial) and owner-manager (self-employed but managerial oriented). First two types of entrepreneurs initiate the process of creative destruction, while the third is mostly based on routine work. Accordingly, by introducing innovative activities the first two types of entrepreneurs influence not only the business activities of the business and industry, but also the region they belong to, i.e. in the macro-perspective they influence the economic development of a country (Wennekers and Thurik, 1999, pp. 27-55).

The work of the Global Entrepreneurship Monitor (GEM) provides empirical data on entrepreneurship defined as “any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business” (Bosma et al., 2012a, p. 20). Even though GEM rather narrowly sees entrepreneurship as (new) business activity, it takes a broad view of what it recognizes as (new) business activity, since it also looks at entrepreneurship from behavioral perspective. Results of the research based on the GEM data show that the relationship between entrepreneurship and economic growth is dependent upon the motives that determine one’s decision about entrepreneurial activity. Therefore it is usual to distinguish between entrepreneurship motivated by opportunity and by necessity. These two key motives for starting a business explain the “U-shaped” relationship between early entrepreneurial activities and economic growth, where their contribution to economic growth also varies according to country’s level of economic development (Wennekers et al., 2005, pp. 293-309). Namely, in countries with lower levels of GDP *per capita*, where early entrepreneurial activity rates are higher, necessity entrepreneurship is more prevalent, and entrepreneurs have proportionally lower level of education (Acs et al., 2005, pp. 18-22, 28-29). Such entrepreneurship can lead to unfavorable allocation of entrepreneurial resources, knowledge and abilities, and consequently have an unfavorable effect on economic growth. Hence, the relationship between the entrepreneurship motivated by necessity and GDP *per capita* is negative, while opportunity motivated entrepreneurship shows the opposite direction of the relationship (Kelley et al., 2011, pp. 26-28). Entrepreneurial activity of employees is less prevalent way of expressing entrepreneurial behavior than early independent entrepreneurship. The share of entrepreneurially active employees in adult population in developed countries is about twice as high as in less developed countries, while the situation with the early entrepreneurial activity is just the opposite (Bosma et al., 2010, pp. 12, 21-23). Relationship between entrepreneurial employee activity and GDP *per capita* is strong and positive, what is probably caused by a higher share of adult population employed in large firms in economies with higher-income, relatively high degree of autonomy and higher level of education of these employees (Bosma et al., 2011, pp. 18-19; Bosma et al., 2012b, pp. 69-70). Using GEM’s indicators of entrepreneurial activities, the research questions in this paper are whether the level of real GDP *per capita* in 2011 is influenced by early entrepreneurship, established entrepreneurship and intrapreneurship, and how strong their individual and common influence is.

## 2. DATA AND METHODOLOGY

As a dependent variable we investigate real GDP *per capita*. Even though GDP *per capita* is not a good (absolute) measure of a country's living standard, it is often taken as its good indicator since all country citizens benefit from increase in productivity and since the living standard tends to move with the movement of GDP *per capita*. The analysis is based on The World Bank data (The World Development Indicators) on real GDP *per capita* ( $Y_{GDPpc}$ ) for the year 2011 expressed in constant 2005 international purchasing power parity dollars (PPP\$, 2005=100). Since the purchasing power parity method refers to a relative domestic purchasing power of an average consumer or producer in an economy and it compensates for the weakness of local currency on international markets, it can serve as a relatively good indicator of living standard in less developed countries (Samuelson and Nordhaus, 2007, pp. 607-609).

The independent variable *total early entrepreneurial activity* ( $X_{TEA}$ ) identifies the percentage of individuals in 18-64 population who are either a nascent entrepreneurs (actively involved in setting up a business that has not paid salaries, wages, or any other payments for more than three months) or owners-managers of a new business (those owning and managing a business that has paid salaries, wages, or any other payments for more than three, but not more than 42 months). The variable *established entrepreneurial activity* ( $X_{EST}$ ) identifies the percentage of 18-64 population who are currently owner-manager of an established business, i.e. owning and managing a business that has paid salaries, wages, or any other payments for more than 42 months (List of key indicators and definitions). The data for variables  $X_{TEA}$  and  $X_{EST}$  have been collected for 59 countries that participated in GEM in year 2010 (Data: Key indicators). The last independent variable is the *entrepreneurial employee activity* (also known as intrapreneurship or corporate entrepreneurship) which identifies the employees that have the leading role in creating and/or implementing new products/services or business activity in the last three years for the firm they work in. GEM's entrepreneurial employee activity in the last three years ( $X_{EEA(3Y)}$ ) is also expressed as a percentage of 18-64 population and was measured for 51 economy in 2011 (Zbierowski et al., 2012, pp. 41-42). All independent variables have been collected for the period preceding the observation period of the dependent variable so as to allow the effects of changes in their values to reflect on the value of the dependent variable.

The first step in the data analysis is the correlation analysis, in which based on the graphical presentation of the covariance of the variables (scatter diagram) the goal is to determine the shape and the direction of the relationship (if possible) between variables and to determine the intensity of that relationship. Since the covariance is dependent on the measuring units of the variables, the Pearson correlation coefficient was used as a relative measure of the intensity and the direction of the linear correlation between the variables (Wooldridge, 2013, pp.737-739). After the correlation analysis, the multiple regression analysis as well as the regression model evaluation and regression diagnostics was conducted (Asteriou, 2006, pp.56-58, 65-74). Assuming that the relationship between the dependent and  $k$  independent variables is linear, the estimated model for the sample of the size  $n$  is

$$\hat{y}_i = \hat{\beta}_0 + \sum_{j=1}^k \hat{\beta}_j x_{ij}, \quad i = 1, 2, \dots, n.$$

Using softwares EViews 7 and MegaStat 2007, the regression parameters of the model were estimated based on the ordinary least squares (OLS) method.

### 3. EMPIRICAL ANALYSIS RESULTS

#### 3.1. Correlation analysis results

The goal of the correlation analysis is to determine whether correlation between real GDP *per capita* in 2011 (in PPP\$) and other variables exist. Also, the goal is to explore the correlation between the pairs of independent variables. Based on the maximum available sample size for each pair of the variables, the Pearson correlation coefficient has been calculated. The results are presented in table 1.

Table 1: Linear correlation coefficients between real GDP *per capita* in 2011 (international PPP\$; 2005=100) and independent variables based on different sample sizes (n) (authors work)

	<i>GDPpc11</i>	<i>TEA10</i>	<i>EEA(3Y)11</i>	<i>EST10</i>
<i>GDPpc11</i>	<b>1</b> <i>n=173</i>			
<i>TEA10</i>	<b>-0.60</b> <i>n=54</i>	<b>1</b> <i>n=59</i>		
<i>EEA(3Y)11</i>	<b>0.62</b> <i>n=46</i>	<b>-0.39</b> <i>n=40</i>	<b>1</b> <i>n=51</i>	
<i>EST10</i>	<b>-0.35</b> <i>n=54</i>	<b>0.69</b> <i>n=59</i>	<b>-0.16</b> <i>n=40</i>	<b>1</b> <i>n=59</i>

Note: Bold coefficients are statistically significant at 5% significance level.

Linear correlation coefficient between real GDP *per capita* in 2011 and early entrepreneurial activity in 2010 (-0.60) shows that economies with higher early entrepreneurial activity tend to have lower values of real GDP *per capita* (PPP\$). This result is consistent with the literature and is explained by the fact that the reason for negative correlation is higher share of necessity entrepreneurship in overall early entrepreneurship activity in less developed economies. Linear correlation between entrepreneurial employee activity and real GDP *per capita* is 0.62, which means that economies with higher EEA(3Y) tend to have higher real GDP *per capita*, while real GDP *per capita* shows low and negative (but statistically significant) linear relationship with established entrepreneurial activity (-0.35).

Correlation between the independent variables shows that there is positive and statistically significant correlation between established entrepreneurial activity in 2010 and early entrepreneurial activity in 2010 (0.69). This means that higher share of established entrepreneurs also means higher share of early entrepreneurs in 18-64 population. There is no statistically significant correlation between established entrepreneurial activity and entrepreneurial employee activity. The correlation between entrepreneurial employees and early entrepreneurs is low and negative (-0.39), but statistically significant at 5% significance level, i.e. higher early entrepreneurial activity means lower entrepreneurial employee activity. This result implies that these two types of entrepreneurial activities are substitutes (Bosma et al., 2010, pp. 21-23).

The shape of correlation was analysed based on the scatter diagrams (Figure 1).

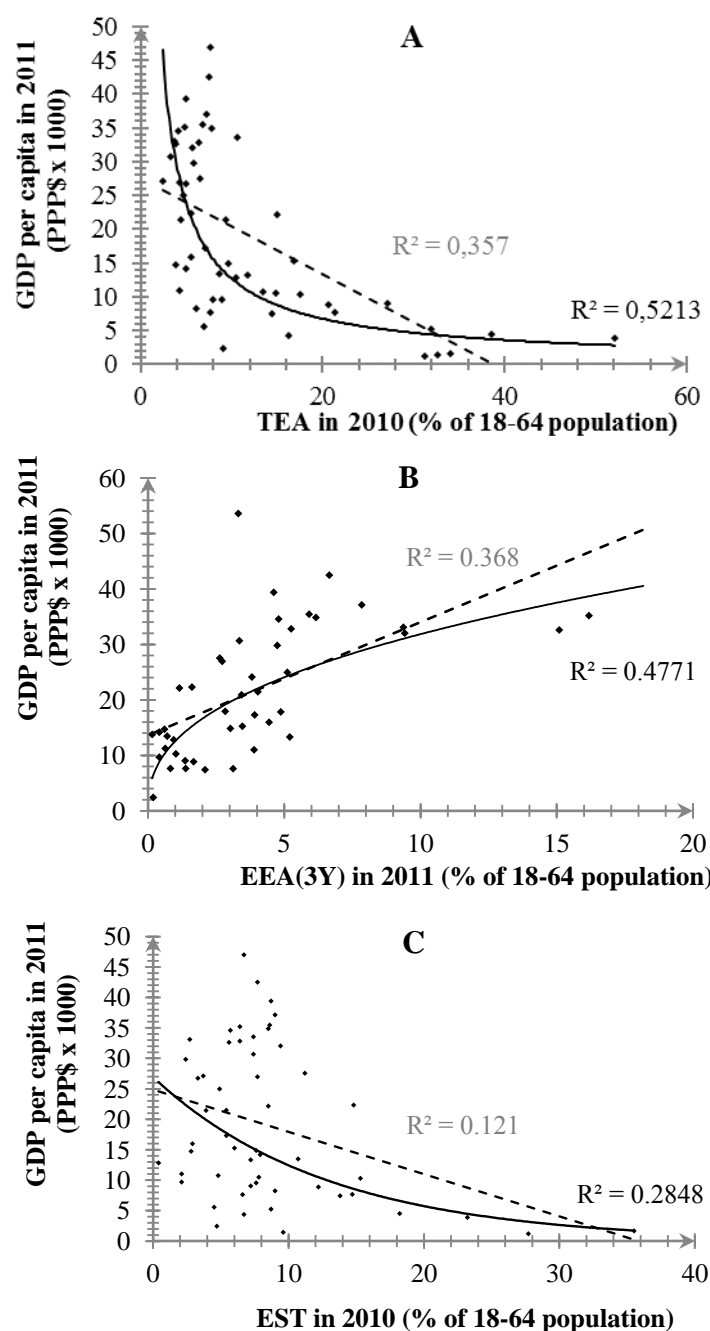


Figure 1.: Scatter diagrams for real GDP per capita in 2010 (in PPP\$) and other variables (authors work)

Scatter diagram A suggests that the power function is a better choice for the shape of the relationship between early entrepreneurial activity and real GDP *per capita* than the linear function. With power function the coefficient of determination for simple regression model equals  $R^2 = 0.521$  and implies stronger negative correlation between these variables (-0.72) than the linear model. Scatter diagram B shows that the relationship between entrepreneurial employee activity and real GDP *per capita* is also described better with the power function ( $R^2 = 0.477$ ) than with linear function, which means higher positive correlation coefficient between these two variables (0.69). Scatter plot C shows that the coefficient of determination for simple exponential regression model equals  $R^2 = 0.285$  and implies stronger negative



correlation between established entrepreneurial activity and real GDP *per capita* (-0.53) than linear correlation.

### 3.2. Regression model and model diagnostics

The influence of total early entrepreneurial activity in 2010, entrepreneurial employee activity in the last three years (measured in 2011) and established entrepreneurial activity on real GDP *per capita* in 2011 (in constant international PPP\$, 2005=100) was analyzed for 36 countries by the means of multiple linear regression analysis. The results are presented in table 2.

Table 2: Regression coefficients for real GDP *per capita* in 2011 (in international PPP\$, 2005=100) (authors work)

Independent variables	Dependent variable $Y_{GDPpc11}$	
	Regression coefficient	Standard error
C	17000.46*	4023.52
$X_{TEA10}$	-795.75*	279.43
$X_{EEA(3Y)11}$	1623.09*	383.06
$X_{EST10}$	675.38***	393.40
	$R^2$	0.554
	$\bar{R}^2$	0.512
	R	0.744
	$\sigma_{\hat{y}}$	7774.50
	$V_{\hat{y}}$	35.27
	F (p-value)	13.25 (0.0000)
	n	36
	k	3

Note: \* Significant at 1%. \*\* Significant at 5%. \*\*\* Significant at 10%.

Based on the *t*-test of significance, each of the regressors is statistically significant at 1% significance level, except *established entrepreneurial activity* which is significant at 10%. The whole regression model based on the overall *F*-test is also statistically significant.

The estimated model is:

$$\hat{Y}_{GDPpc11,i} = 17000.46 - 795.75 \cdot X_{TEA10,i} + 1623.09 \cdot X_{EEA(3Y)11,i} + 675.38 \cdot X_{EST10,i}.$$

(4023.52)      (279.43)      (383.06)      (393.40)

The regression coefficient  $\hat{\beta}_1 = -795.75$  shows that the increase in *total early entrepreneurial activity* for one percentage point (without changing the percentages of *entrepreneurial employee activity in last three years* and of *established entrepreneurial activity*) leads to the decrease in the regression value of real GDP *per capita* in 2011 for 795.75 international PPP dollars. The regression coefficient  $\hat{\beta}_2 = 1623.09$  shows that if the *entrepreneurial activity of employees in last three years* would increase for one percentage point (without changing the percentages of *total early entrepreneurial activity* and of *established entrepreneurial activity*) the regression value for real GDP *per capita* in 2011 would increase for 1623.09 international PPP dollars. The regression coefficient  $\hat{\beta}_3 = 675.38$  shows that the increase in *established entrepreneurial activity* for one percentage point (without changing the percentages of *total early entrepreneurial activity* and of *entrepreneurial employee activity in last three years*) leads to the increase in the regression value of real GDP *per capita* in 2011 for 675.38

international PPP dollars. The regression coefficients also show that the increase in *entrepreneurial employee activity* has the highest impact on changes of real GDP *per capita* in 2011. Also, the absolute value of the coefficient next to the variable *total early entrepreneurial activity* is twice as smaller as the coefficient next to *entrepreneurial employee activity*, and coefficient next to the variable *established entrepreneurial activity* is about 2.4 times smaller than the coefficient next to *entrepreneurial employee activity*.

The coefficient of determination shows that 55.4% of the variation in real GDP *per capita* in 2011 is explained by the chosen entrepreneurial regressors in the model. Adjusted R-squared equals 0.512. The multiple correlation coefficient (Maddala and Lahiri, 2009, p.146) equals 0.774 and shows that there is a (moderate) strong correlation between real GDP *per capita* and these independent variables. The estimated coefficient of variation of the model shows that average deviation of empirical from estimated values of real GDP *per capita* in 2011 equals 35.27%.

### 3.3. Testing the regression assumptions

Diagnostics tests for the regression model were conducted and no violations of the regression assumptions (Asteriou, 2006, pp.30-31, 61) were found. Multicollinearity of the independent variables was tested with variance inflation factor (*VIF*) (Wooldridge, 2013, pp.94-98), whose values are presented in table 3. Since average *VIF* is smaller than 5 for all independent variables, the multicollinearity problem does not exist.

*Table 3: Variance Inflation Factors (authors work)*

<i>Variable</i>	<i>Coefficient Variance</i>	<i>Uncentered VIF</i>	<i>Centered VIF</i>
<i>C</i>	16188724	9.642073	NA
<i>X<sub>EEA(3Y)11</sub></i>	146733.5	2.745129	1.165730
<i>X<sub>EST10</sub></i>	154760.0	5.789328	1.131835
<i>X<sub>TEA10</sub></i>	78080.70	4.552471	1.297056

Heteroskedasticity of residuals was tested with White's test, in which the null-hypothesis assumes homoscedasticity (Asteriou, 2006, pp.100-117). The test results show that at 5% significance level the null-hypothesis might not be rejected (table 4).

*Table 4: Results for White heteroskedasticity test (authors work)*

F-statistic	0.451257	Prob. F(9,26)	0.8935
Obs*R-squared	4.863632	Prob. Chi-Square(9)	0.8460

The Ljung-Box autocorrelation test (Asteriou, 2006, pp.242) for the null-hypothesis that autocorrelation of residuals up to order 12 does not exist was performed and the results presented in Figure 2. show that the null-hypothesis might not be rejected at 5% significance level.

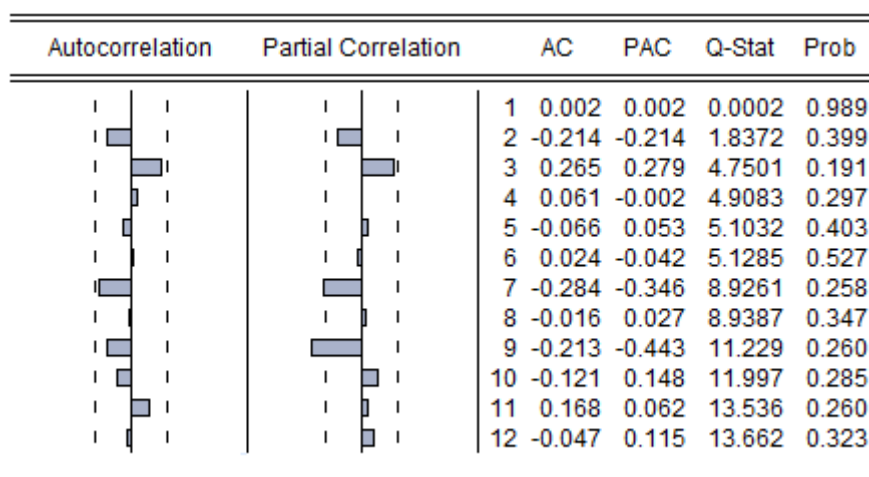


Figure 2.: Residuals correlogram (authors work)

The assumption about the normality of residuals was tested by Jarque-Bera test, in which the null-hypothesis assumes the normal distribution of residuals (Maddala and Lahiri, 2009, pp.440-441). It was determined that at 5% significance level the null-hypothesis might not be rejected (Figure 3.).

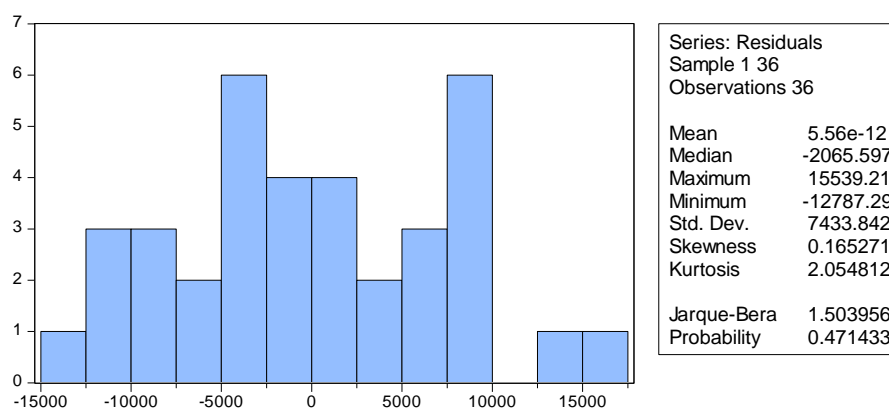


Figure 3.: Residuals histogram (authors work)

#### 4. CONSLUSION

Linear correlation between real GDP *per capita* (PPP\$; 2005=100) in 2011 and three types of entrepreneurial activities is statistically significant and negative between *early entrepreneurial activity in 2010* and GDP *per capita* (-0.60) as well as between *established entrepreneurial activity in 2010* and GDP *per capita* (-0.35), but positive between *entrepreneurial employee activity in last three years measured in 2011* and GDP *per capita* (0.62). However, nonlinear correlation describes the relationship between entrepreneurial activities and real GDP *per capita* much better. Assuming that the relationship is described by the power function, the correlation coefficient between *early entrepreneurial activity* and real GDP *per capita* equals -0.72, and between *entrepreneurial employee activity in last three years* and real GDP *per capita* equals 0.69. Correlation coefficient between *established entrepreneurial activity* and real GDP *per capita*, assuming the relationship is exponential, equals -0.53. The multiple linear regression model which describes the influence of *early entrepreneurial activity*, *entrepreneurial employee activity* and *established entrepreneurial activity* on real GDP *per capita* in 2011 is statistically significant. All independent variables in the model are also statistically significant: *early entrepreneurial activity* and *entrepreneurial employee activity* at 1% significance level, and *established entrepreneurial*

activity at 10% significance level. The model fulfils all regression modeling assumptions, and the coefficient of determination shows that these three types of entrepreneurial activities explain about 55.4% of the variation in values of real GDP *per capita* in 2011. Regression analysis results show that the influence of *entrepreneurial employee activity* on real GDP *per capita* is positive and about twice as strong as the negative influence of *early entrepreneurial activity* on real GDP *per capita*. The regression coefficient next to *established entrepreneurial activity* in the model is positive and shows about 2.4 times weaker impact of this variable on real GDP *per capita* than is the impact of *entrepreneurial employee activity* on real GDP *per capita*.

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# THE QUALITY OF FINANCIAL REPORTING AND CORPORATE GOVERNANCE: EVIDENCE FROM ROMANIAN'S AERONAUTIC INDUSTRY

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## ABSTRACT

*One of the most important functions that corporate governance can achieve is assuring the quality of financial reporting. This study investigates the association between corporate governance attributes and the quality of financial reporting process across the aeronautic entities listed on the Bucharest Stock Exchange. The sample consist of six companies observed for a period of five years (from 2008 until 2012) in terms of testing the research hypothesis ``There is a positive association between corporate governance and the quality of financial reporting``. In order to achieve this research`s aim, a multiple regression was designed and the results indicate that there is no significant association between the specific corporate governance attributes and financial reporting quality in the case of Romanian entities operating in aeronautic industry. In terms of value, this article addresses, for the first time in Romania, the issue of the association between corporate governance and financial reporting quality.*

**Keywords:** *Aeronautic industry, Corporate governance, Romania*

## 1. INTRODUCTION

The most important objective of financial reporting is to provide high quality information through the financial reporting process in which concerns economic entities, information which finds its utility in underlying economic decisions (IASB, 2008). Moreover, one of the most important functions that corporate governance can achieve is the one of assuring the quality of financial reporting process. Thus, the prior studies provide evidence of divergent findings in terms of association between the quality of financial reporting and corporate governance attributes.

Although both Financial Accounting Standard Board (FASB) and International Accounting Standard Board (IASB) highlight the importance of high quality financial reports, one of the core-issue persistent in previous accounting literature is represented by the manner of operating and evaluating this quality. Due to its contextual specific, an empirical evaluation of the quality of financial reporting is implacably influenced by a series of preferences among a wide range of constituents (Dechow and Dichev, 2002; Schipper and Vincent, 2003; Botosan, 2004; Daske and Gebhardt, 2006).

According to Arthur Levitt, the former President of Securities and Exchange Commission (SEC), an active and efficient Board, a responsible financial management, sceptical and independent auditors, as well as attentive regulatory bodies, they all have responsibilities in assuring the investors' confidence. In accordance, the efficient corporate governance of financial reporting process constitutes an important tool in allowing companies and their auditors to fulfil all these responsibilities.

Corporate governance is perceived as an important constituent of firms' wellbeing, especially in emerging economies, due to the fact that these countries do not have an institutional infrastructure established for a long period of time. Since this research has been conducted in an emerging economy, namely Romania, a brief introduction into the Romanian's Corporate Governance Code is being presented.

The Bucharest Stock Exchange Code of Corporate Governance was implemented in order to subscribe to the international guidelines of good practices and it addresses a series of particular features related to corporate governance, such as corporate governance structures, shareholders' rights, the Board composition, transparency, financial reporting, internal control and risk management. Although the Code embraces a wide area of corporate governance aspects, its adoption by the listed companies is made on a voluntary basis, fact that leads to the assertion that the corporate governance rules elaborated by the Bucharest Stock Exchange are neither legally binding, nor mandatory.

The present research aims to investigate the association between the quality of financial reporting and corporate governance at the level of aeronautics entities listed on the Bucharest Stock Exchange. This paper is organized as follows: Section 2 provides a brief presentation of the existing literature that captures the aim of this study, Section 3 is dedicated to the presentation of research's methodology, while Section 4 – Results and Section 5 – Conclusions and further research present the findings, interpretation of the regression output and draw the relevant conclusion.

## **2. LITERATURE REVIEW**

At the level of accounting literature, a series of factors that influence the quality of financial reporting were dignified. Among those, the most frequent ones are governance, accounting profession, economic factors, international influences and culture (Gray 1988; Cooke and Wallace 1990; Meek and Saudagaran, 1990; Douppnik and Salter, 1995; Saudagaran and Diga, 1997; Imhoff, 2003; Blouin, Grein and Roundtree, 2007; Rudzioniene and Gipiene, 2008; Holder-Webb and Sharma, 2010).

Although the academic literature that captures the influence of corporate governance mechanisms on the quality of financial reporting developed on an extensive manner, the empirical output of this undertaken researches is mixed. For example, studies that examine the Board's characteristics upon financial reporting present divergent results. Some of these researches reveal that a Board composed of more independent members is associated with a higher quality of financial reporting (for example Klein, 2002; Efendi, Srivastava and Swanson, 2007), other studies indicate on a lower manner the fact that the Board's independence has a significant impact on the quality of financial reporting (as an example Warfield, Wild and Wild, 1995; Armstrong, Guay and Weber, 2010).

The previous studies focused on the audit committees' independence centred mainly on the association between committees independence and improved efficiency. Predominantly, these researches revealed that a higher independence of audit committees is positively associated with an improved monitoring of the process of financial reporting (Abbott and Parker, 2000; Carcello and Neal, 2000; Klein 2002a; Abbott, Parker, Peters and Raghunandan, 2003; Carcello and Neal, 2003; Abbott, Parker, and Peters, 2004; Bédard, Chtourou and Courteau, 2004; Lee, Mande and Ortman, 2004).

Another stream in the literature is associated with the investigation of the manner in which the manager's remuneration influences financial reporting. As well as in the case of the Board independence, the results are miscellaneous. On the one hand, some studies dignified a negative association between manager's capital incentives and the quality of financial reporting (as an example Cheng and Warfield, 2005; Bergstresser and Philippon, 2006; Efendi, Srivastava and Swanson, 2007); on the other hand, other researches revealed no association at all between these two aspects (for example Erickson, Hanlon and Maydew, 2006; Baber, Liang and Zhu, 2012), while other studies indicate a positive association (as example Warfield, Wild and Wild, 1995; Armstrong, Guay and Weber, 2010).

The first empirical evidence to support the association between the quality of financial reporting and corporate governance is attributed to Wright (1996). This study indicate a significant correlation between two aspects of financial reporting's quality and the Board composition, in particular the directors serving the audit committee. The results emphasise that two features of the audit committee's members, namely composition and the features of shares possessed by audit committee's members are the dominant characteristics of corporate governance useful in explaining the cross-sectional differences related to the quality of financial reporting.

A wide area of researches has been conducted on the association between countries, industry and the quality of financial reporting (Burgstahler, Hail and Leuz, 2006; Leuz, Nanda and Wysocki, 2003; Soderstrom and Sun, 2007; LaPorta, Lopez-de-Silanes, Shleifer and Vishny, 1998). Still, Wright (1996) indicated in his research that the towering characteristics of corporate governance tenable in explaining the sectional differences at the level of financial reporting's quality are represented by the composition and the features of audit committee's possession of shares in that particular entity.

The recent review of accounting literature (Armstrong, Guay and Weber, 2010; Brickley and Zimmerman, 2010) concludes that the existing literature provided feeble evidence on the causal relation between corporate governance and the quality of financial reporting, reason why it becomes absolutely necessary to adopt an approach which is properly underlined on the endogenous issue and which is able to provide a clear evidence of causality.

### **3. RESEARCH DESIGN**

In order to test the research question, six entities operating in the aeronautic industry and listed on the Bucharest Stock Exchange (Tier I, II and III) were selected (as it can be seen in Table 1). All these companies were analyzed through a period of five years, from 2008 until 2012.



*Table 1: Sample Data*

Company Name	Industry	Analyzed period
Aerostar	Aeronautics	2008-2012
Eurocopter		
Unison Engine Components		
Romaero		
Turbomecanica		
Avioane Craiova		
Total	6	

In order to conduct the analysis, the entities' annual reports, financial statements and all related documents were consulted; further, the relevant information was integrated into the operational database.

### 3.1. Hypotheses Development

In order to reach the aim of this research, namely to investigate the association between the quality of financial reporting and corporate governance, the following four research's hypothesis were developed:

- *Hypotheses 1: There is a significant association between board size and financial reporting quality.*
- *Hypothesis 2: There is a significant relation between board independence and the quality of financial reporting.*
- *Hypothesis 3: There is a significant association between institutional ownership and financial reporting quality.*
- *Hypothesis 4: There is a significant relation between ownership concentration and the quality of financial reporting.*

### 3.2. Regression Model

The following regression model was used in order to test whether there is an association between the quality of financial reporting and corporate governance attributes in case of entities operating in the aeronautic industry in Romania. The dependent variable of the following regression is represented by the quality of the financial reporting (noted Qfi), which is described later in this section.

$$Qfi = \alpha_1 + \beta_1 BRDIND_{it} + \beta_2 BRDSIZE_{it} + \beta_3 INSTOWN_{it} + \beta_4 OWNCON_{it} + \beta_5 \sum \text{CONTROLS}_{it} + \varepsilon_i$$

The independent variables are represented by Board Independence (BRDIND), Board Size (BRDSIZE), Institutional Ownership (INSTOWN) and Ownership Concentration (OWNCON), while firm size, firm age and audit size are designed as controls. These variables are described as it follows:

- BRDIND = the composition of non-executives in the Board of Directors in form of percentage
- BRDSIZE = number of Board members of firm i in year t
- INSTOWN = total shares of firm i in year t belonged to banks, insurances, financial institutions, holding companies and governmental institutions
- OWNCON = total percentage of shareholders having a minimum 5 percent of firm i in year t.

- CONTROLS = Control variables, specifically:
  1. Firms size: natural logarithm of firm  $i$  in year  $t$
  2. Firm's age: distance between the time of firm establishment to studied period
  3. Audit size: if a firm is audited by a Big 4 audit organization, it takes 1, otherwise 0
- $\varepsilon_i$ : error term.

The dependent variable is represented by the quality of financial reporting ( $Q_{fi}$ ) and it is measured through the residuals of the Dechow et al. (1995) accrual model. This model is described below as it can be noticed:

**Modified Jones Model (Dechow et al., 1995 model)** for measuring the quality of financial reporting:

$TA_i = \alpha_1 + \alpha_2 (\Delta REV_i - \Delta REC_i) + \alpha_3 PPE_i + \varepsilon_i$ , all variables are scaled by Total Assets year  $t-1$ ;

Where:

1.  $TA_i$  = total accruals (Net Income-Cash flow from operations)
2.  $\Delta REV_i$  = changes in revenue
3.  $\Delta REC_i$  = changes in net receivables
4.  $PPE_i$  = gross property, plant and equipment
5.  $\varepsilon_i$ : error term.

### 3.3. Descriptive Statistics

In this section of the research, the results of the performed analysis are presented as it can be seen in Figure 1. The results indicate that the average number of Board members is 8, reaching a minimum level of 5 members and a maximum of 16; in what concerns the Board independence, the ratio of independent directors is 11%, with a maximum of 36% and a minimum of 0%.

The institutional ownership variable's results reveal that the average of 44% of shares is owned by institutional investors in relation to the issued capital of the companies; moreover, when taking into account the ownership concentration, it appears that the concentration percentage of ownership equals 35% for the investigated companies.

DESCRIPTIVE STATISTICS	<i>BRDSIZE</i>	<i>BRDIND</i>	<i>INSTOWN</i>	<i>OWNCON</i>	<i>FIRMSIZE</i>	<i>FIRMAGE</i>	<i>AUDITSIZE</i>
Mean	8.333333333	0.118666667	0.4472	0.353666667	17.647	33.66666667	0.5
Standard Error	0.666666667	0.024615355	0.07403712	0.031011616	0.260773452	5.108778412	0.092847669
Median	7	0.1	0.425	0.35	18.02	27	0.5
Mode	7	0	0.73	0.26	18.88	8	0
Standard Deviation	3.651483717	0.134823853	0.405518008	0.169857614	1.428315019	27.98193177	0.508547628
Sample Variance	13.33333333	0.018177471	0.164444855	0.028851609	2.040083793	782.9885057	0.25862069
Kurtosis	0.261761084	-0.773771107	-1.9322883	-0.545690671	6.575623864	0.398766404	-2.14814815
Skewness	1.188530968	0.745029633	0.087883337	-0.163716647	-2.34848263	1.25786707	0
Range	11	0.36	0.98	0.56	6.69	84	1
Minimum	5	0	0	0.05	12.19	8	0
Maximum	16	0.36	0.98	0.61	18.88	92	1
Sum	250	3.56	13.416	10.61	529.41	1010	15
Count	30	30	30	30	30	30	30

Figure 1: Descriptive Statistics (Summary Output)

### 3.4. Results of Logistic Regression Model

In order to test the research's hypothesis, the analysis of logistic regression was conducted. Table 2 presents the correlation matrix for the selected variables. Taking into account the results of this analysis, it can be noticed that the Pearson's correlation matrix indicate that the degree of correlation between the independent variables is either low or moderate, leading to the conclusion that there is no multicollinearity between the model's independent variables.

*Table 2: Matrix Correlation Analysis*

	<b>Brdsize</b>	<b>Brdind</b>	<b>Instown</b>	<b>Owncon</b>	<b>Firmsize</b>	<b>Firmage</b>	<b>Auditsize</b>
<b>Brdsize</b>	1						
<b>Brdind</b>	0.069576	1					
<b>Instown</b>	-0.10535	-0.12187	1				
<b>Owncon</b>	-0.61138	-0.23407	0.358907	1			
<b>Firmsize</b>	0.310813	0.285444	-0.1427	-0.453	1		
<b>Firmage</b>	-0.42309	-0.4851	0.583253	0.367298	-0.1061	1	
<b>Auditsize</b>	0.464238	0.54316	-0.46518	-0.42115	0.372425	-0.55734	1

The multivariate analysis (the following section of this research) is devoted to presenting the information related to the regression model. Table 3 shows the Regression statistics, namely the explanatory power of the model (assessed through Adjusted R square); when taking this aspect into account, it can be noticed that the quality of financial reporting for the selected sample cannot be associated with the corporate governance.

*Table 3: Regression Statistics*

<b>Multiple R</b>	<b>0.5031</b>
<b>R Square</b>	0.2531
<b>Adjusted R Square</b>	0.0976
<b>Standard Error</b>	0.1571
<b>Observations</b>	30

When testing the explanatory power of Dechow et al. (1995) model used for defining the regression's dependent variable, namely the quality of financial reporting, the R Square equalled 0.76 and the Adjusted R Square indicated a value of 0.74, indices that support the model's power to explain the variables (see Table 4).

*Table 4: Dechow et al.'s Model Regression Statistics*

<b>Multiple R</b>	<b>0.8743</b>
<b>R Square</b>	0.7644
<b>Adjusted R Square</b>	0.7469
<b>Standard Error</b>	0.1714
<b>Observations</b>	30

Table 5 presents the analysis of variance. The result indicate that the probability of regression output is random. The value of Significance F shows that there is a little over 19% chance that the regression result is arbitrary.

Table 5: Regression - Analysis of Variance (ANOVA)

ANOVA					
	df	SS	MS	F	Significance F
<b>Regression</b>	5	0.2008	0.0401	1.6273	0.1909
<b>Residual</b>	24	0.5924	0.0246		
<b>Total</b>	29	0.7933			

As far as the corporate governance variables are concerned, Figure 2 properly describes the regression output.

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.014269727	0.218956683	0.065171462	0.948577	-0.437634654	0.466174108	-0.437634654	0.466174108
BRDSIZE	0.002082315	0.011924173	0.174629732	0.862835	-0.022527969	0.026692599	-0.022527969	0.026692599
BRDIND	-0.405893027	0.269228866	-1.507613332	0.144705	-0.961554092	0.149768037	-0.961554092	0.149768037
INSTOWN	-0.084884573	0.10233066	-0.829512616	0.414989	-0.296084674	0.126315527	-0.296084674	0.126315527
OWNCON	-0.136279447	0.249348207	-0.546542717	0.589739	-0.650908849	0.378349956	-0.650908849	0.378349956
Controls	0.001982131	0.001729175	1.14628757	0.262977	-0.00158671	0.005550973	-0.00158671	0.005550973

Figure 2: Regression Output

Figure 2 shows that the size of the Board has a positively significant association with the quality of financial reporting ( $p < 0.05$ ), supporting *Hypothesis 1*. Under these findings, a Board composed of more members contributes to the entity's ability to attain higher levels of financial reporting quality. This finding supports the results of Farber (2005), Ditropoulos and Asteriou (2010) and Beasley (1996), but are inconsistent with the findings of Petra (2007), Bradbury et al. (2006), Ahmed and Duellman (2006) and Vafeas (2000). In what concerns the other corporate governance attributes, this research indicate that these independent variables have no association with financial reporting quality. Namely, board independence ( $p < 0.05$ ), ownership concentration ( $p < 0.05$ ) and institutional ownership ( $p < 0.05$ ) are not associated with the quality of financial reporting. Due to these findings, the *Hypothesis 2, 3 and 4* were rejected. The research's results of Shama (2006) indicated that there is no association between ownership concentration and financial reporting quality, finding revealed as well by this study. When testing the Controls, the regression output indicates that there is a positive association between firm size, firm age, audit size and financial reporting quality ( $p < 0.05$ ). Taking these control variables individually, it appear that firm's age is strongly associated with the quality of financial reporting, mainly due to the fact that the older the entity is, the higher is the susceptibility to increase its financial reporting quality.

#### 4. CONCLUSIONS AND FURTHER RESEARCH

This study investigates the effect of corporate governance attributes on the quality of financial reporting in entities listed on the Bucharest Stock Exchange during the period of 2008 to 2012. In this research, the modified Jones model (Dechow et al., 1996 model) was used to define the quality of financial reporting – the dependent variable of the regression - while the independent variables were represented by specific corporate governance attributes: board

size, board independence, ownership concentration and institutional ownership. This regression operated with three control variables, generically called Controls, namely firm size, firm age and audit size.

The results of this study show that there is a positive association between the board size and the quality of financial reporting. Thus, no relation was revealed between board independence, ownership concentration, institutional ownership and financial reporting quality. Due to the fact that at the level of accounting literature, the results are miscellaneous, these findings can be integrated in the mixed empirical evidence that exist in similar studies.

Another relevant finding of this research is the one that firm size, firm age and audit size have a significant influence on financial reporting quality, especially firm age is strongly positive associated with the quality of financial reporting.

There are a few drawbacks of this research. First of all, the population is undersized; still, the same companies were analyzed all over the selected period of time, fact that increases the relevance of the observations. Second of all, the selected corporate governance attributes do not indicate an association with the quality of financial reporting, except for the board size.

As for further research, there is a wide area of possibilities. For example, the population can be extended to all the listed companies on the Bucharest Stock Exchange and there can be made a comparison between Romanian's aeronautic industry and another emerging economies aeronautic industry in terms of investigating the association between financial reporting quality and corporate governance.

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## THE IMPACT OF OFF-BALANCE SHEET ITEMS ON THE PROFITABILITY OF CROATIAN BANKING SECTOR

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### ABSTRACT

*Off-balance sheet items present the potential bank obligations which can significantly effect on bank financial position and profitability as well as the cash flows in case of the settlement. According to the regulations of Croatian National Bank, banks in Croatia are obligated to evaluate the credit risk for created off-balance sheet items in order to make provisions which are recorded as an expense and obligations in accounting records and therefore presented in bank financial statements. Although, the contracted value of off-balance sheet items are recorded in off-balance sheet records, the provisions for identified and unidentified losses on those off-balance sheet items are actually income statement item and thus can seriously effect on bank profitability. Provisions for identified losses on bank off-balance sheet items are formed based on the classification of certain off-balance sheet item into risk groups defined by the Croatian National Bank. The more riskier the off-balance sheet items is, the more provisions must be calculated on this item and therefore the more expenses must be recorded in accounting records and presented in income statement. The primary objective of this research is to determine the intensity of the relationship between off-balance sheet items and the profitability of Croatian banking sector and to identify the significance of provisions on the profitability of Croatian banking sector. The research includes the period from 2010 to 2012, because in this period the new methodology for the preparation of aggregate financial statements is applied by the Croatian National Bank. Moreover, the objective of this paper is to identify the structure of off-balance sheet items in Croatian banking sector and the circulation of these items in the period from 2010 to 2012.*

**Keywords:** *Croatian banking sector, financial statements, off-balance sheet items, profitability, provisions*

### 1. INTRODUCTION

As in other transition countries, Croatian financial sector is still primarily oriented to the banks. So, the banking sector represent the most important and significant part of a whole financial sector in Croatia. There are different on-balance and off-balance sheet items that influence on banks financial position and profitability. For the purpose of this paper, the research will be oriented on the role of the off-balance sheet evidence on the banks financial position and profitability. In the light of global recession and multi-year decline in economic activity it is necessary to emphasize that business activity of banks are slowed, financial position of the bank is worse than before recession and banks profitability is decreased. Goals of the theoretical part of the paper are investigating and explaining off-balance sheet items and their influence on the banks financial position and profitability as well as the cash flows in the case of their settlement. Furthermore, the goal is to explain the risk groups of the off-balance sheet items and the criteria for classification them into risk groups. Accordingly, the



aim of this paper is to determine the key banks profitability indicators. The aim of the empirical research is to determine the relationship between off-balance sheet items and the net income of Croatian banking sector, the relationship between off-balance sheet items and the profitability of Croatian banking sector and the correlation between bank provisions and off-balance sheet items in Croatian banking sector in the period from 2010 to 2012.

## 2. LITERATURE REVIEW

In terms of global recession, the impact of risk in banking business is significantly growing due to increasing competition, the process of business internalization that facilitates enter into global markets and developing new products such as derivatives and other products that have an influence on off-balance sheet evidence. Risk in the banking industry is a possibility, probability or expectation of circumstances that may cause adverse effects on income or capital of the bank (Leko, 2006, p. 193). In the literature are recognized lots of risk classification and their types. The basic division divides risks into two groups: financial risks and operating risks (White, Sondhi and Fried, 2003, p. 648-649). Financial risks are the risks of loss the bank income or bank equity arising from bank's financial transactions, while operating risks arise from bank's nonfinancial transactions. According to different authors, the main risks to which banks are exposed are credit risk, liquidity risk, interest rate risk, market risk, currency risk, operational risk, legal risk, country risk, etc. (Bessis, 1998; Crouhy, Galai and Mark, 2000; Saunders and Cornett, 2006; White, Sondhi and Fried, 2003). For the purpose of this paper and according to the goals of this paper, we highlight the credit risk as one of the most important banks risks. In terms of this paper, we investigate the credit risk which arises from created off-balance sheet items. Credit risk is the risk that debtor will not refund the debt in full to the lender (Miller and Van Hoose, 1993, p. 402). Credit risk is possibility that one part of the bank's assets, particularly loans will fall in value and may become worthless (Rose, 1996, p. 182). In order to better recognize and manage the credit risk, the bank's management is responsible for the development and ongoing review of the strategy and policy of the bank to quality credit risk management. Mentioned bank's strategies are based on official documents edited and prescribed by the Croatian National Bank. The Croatian National Bank is by the Decision on the classification of loans and off-balance sheet liabilities of credit institutions (Narodne novine, 2009) prescribed the criteria for classification bank loans and off-balance sheet liabilities, according to which bank is exposed to credit risk, in appropriate risk groups. In the appropriate risk groups are classified those off-balance sheet items that can be allocated to individual customers, based on which the bank is exposed to credit risk due to the impossibility to return cash flows that may arise the payment assumed off-balance sheet liabilities (Narodne novine, 2009, p. 22).

The structure of the off-balance sheet item according to the Decision on the classification of loans and off-balance sheet liabilities of credit institutions is (Narodne novine, 2009, p. 22-23):

- guarantees,
- opened uncovered letter of credit,
- bill and other guarantees,
- contracted (yet unused) irrecoverable credit lines and other loans,
- concluded, but still not implemented irrecoverable finance lease, factoring and forfeiting, and
- the other irrevocably off-balance sheet liabilities.

In the case of the off-balance sheet liability settlement, this off-balance sheet item becomes on-balance sheet item.

The criteria for classification bank off-balance sheet liabilities, according to which bank is exposed to credit risk, in appropriate risk groups are (Narodne novine, 2009, p. 23):

- the creditworthiness of a subject according to whom a credit institution has assumed financing (or by order of a credit institution has opened uncovered letter of credit or issued a guarantee),
- the quality of collateral of the receivables that may arise from payment off-balance sheet liabilities, and
- timeliness in meeting their liabilities to the bank.

According to accepted credit risk, all these off-balance sheet liabilities are classified in three risk groups (Narodne novine, 2009, p. 24-27):

- off-balance sheet liabilities that are not expected cash outflow of credit institution, or if the outflow occurs, it is expected that it will be fully recovered (risk group A),
- off-balance sheet liabilities that are expected cash outflow of credit institution will not be fully recovered (risk group B-1/B-2/B-3) or
- off-balance sheet liabilities that are expected cash outflow of credit institution will not be even partially recovered (risk group C).

Each bank in Croatia has to carry out the provisions for each risk off-balance sheet item in accordance with International Accounting Standards and the Decision on the classification of loans and off-balance sheet liabilities of credit institutions. Also, by this Decision is prescribed the way of implementing provision to cover losses related to credit risk and the way of establishing credit exposure. Provisions are recorded as the expense in the income statement in the period in which the losses are identified and in the balance sheet liabilities on the account of provisions. Provisions for identified losses on bank off-balance sheet items are formed based on the classification of certain off-balance sheet item into risk groups defined by the Croatian National Bank. So, the provisions for off-balance sheet liabilities influence on the bank's financial position and its profitability. The more riskier the off-balance sheet items is, the more provisions must be calculated on this item and therefore the more expenses must be recorded in accounting records and presented in income statement. Off-balance sheet items present the potential bank obligations which can significantly effect on bank financial position and profitability. Profitability of bank focuses on the bank ability to earn profits. The ability of a business to earn profits depends on the effectiveness and efficiency of its operations as well as the resources available to it (Reeve, Warren and Duchac, 2007, p. 755). Thus, balance sheet and income statement relationships are often used in evaluating profitability. Therefore, the profitability analysis focuses on the relationship between operating results and the resources available to a business (Warren, Reeve and Duchac, 2014, p. 711). In the most scientific literature, return on assets (ROA) and return on equity (ROE) have always been mentioned as key indicators that characterized bank performance. Profitability ratios are measures of the degree of success or failure of a given company or division for a given period of time (Kieso, Weygandt and Warfield, 2013, p. 1523). Bourke (1989) was one of the first who discovered in his research that net income before and after tax against total assets and capital and reserves factors have the greatest impact on profitability indicators.

### **3. RESEARCH METHODOLOGY**

As it is stated before, the purpose of this paper is to identify the intensity of the impact of the off-balance sheet items on the profitability of Croatian banking sector. Off-balance sheet items used in this research include only contracted value of traditional off-balance sheet obligations without contracted value of derivative financial instruments. Since the aim of the research is to determine the relationship between off-balance sheet items and the profitability of Croatian banking sector, the profitability in this research is measured by the net income and

return on assets (ROA). ROA of Croatian banking sector is calculated as net income divided by total assets of Croatian banking sector. Although the contracted value of off-balance sheet items are recorded in off-balance sheet records, these items are actually potential bank obligations so bank has to form certain provisions for these potential obligations. Since bank provisions for off-balance sheet items are recorded as an expense and an obligation, off-balance sheet items can have a significant impact on bank income i.e. bank profitability. According to the regulations of Croatian National Bank, Croatian banks must evaluate credit risk for off-balance sheet items and according to the level of evaluated credit risk, certain off-balance sheet item must be classified in appropriate risk group. Provisions for potential losses on off-balance sheet item depend on the classification of certain off-balance sheet item into risk group. So, in this paper it will be investigate the relationship between off-balance sheet items and net income of Croatian banking sector. The relationship between off-balance sheet items and net income of Croatian banking sector and the relationship between off-balance sheet items and ROA of Croatian banking sector will be determined by the Pearson correlation coefficient and linear regression model. Regression model in this paper is based on the assumption that net income is dependent variable while off-balance sheet items are independent variable i.e.:

$$\text{Net income} = f(\text{off-balance sheet items})$$

Regression model in the research cover the period from 2010 to 2012. This period is taken into research due to the fact that in this period the new methodology for the preparation of aggregate financial statements is applied by the Croatian National Bank. Data for the regression model are taken from the aggregate unconsolidated revised financial statements of Croatian banking sector prepared by Croatian National Bank. The structure and the circulation of off-balance sheet items in Croatian banking sector from 2010 to 2012 is presented in the following table. As it can be seen in Table 1, the most significant off-balance sheet items in Croatian banking sector are guarantees, revolving credits and other lines of credits and financing obligations. All these off-balance sheet items are subject to credit risk evaluations.

*Table 1: Off-balance Sheet Items in Croatian Banking Sector from 2010 to 2012*  
(Hrvatska narodna banka, 2012)

Off-balance sheet item	Years		
	31.12.2010.	31.12.2011.	31.12.2012.
Guarantees	20.061.397	19.492.069	18.408.785
Uncovered letters of credit	1.373.640	1.334.833	1.247.892
Letters of guarantee	368	368	810
Accepted bill of exchange	0	0	0
Revolving credits	12.427.576	9.657.281	9.474.152
Lines of margin credits	0	776	506
Other lines of credits and financing obligations	22.508.723	26.030.933	23.351.850
Other standard risky off-balance sheet items	2.977.804	3.248.536	3.038.488
<b>Total standard off-balance sheet items</b>	<b>59.349.508</b>	<b>59.764.795</b>	<b>55.522.484</b>

The profitability of Croatian banking sector for research purposes is measured by net income and ROA of Croatian banking sector. The values for these variables are presented in Table 2.

*Table 2: Bank Provisions, Net Income, Total Assets and ROA of Croatian banking sector from 2010 to 2012 (Hrvatska narodna banka, 2012)*

Variables	Years		
	2010	2011	2012
Bank provisions	3.586.338.000	3.718.300.000	4.005.900.000
Net income	3.760.861.000	3.784.900.000	2.723.900.000
Total assets	391.071.200.000	406.937.600.000	399.915.700.000
ROA %	0,96	0,93	0,68

As it can be seen in Table 2, there was a significant decrease of net income of Croatian banking sector in 2012 followed by the decrease in total assets and consequently decrease in ROA. This decrease of profitability of Croatian banking sector is the result of still ongoing recession of Croatian economy. Since the aim of the research is to identify the interdependence between off-balance sheet items and profitability of Croatian banking sector, the correlation between off-balance sheet items and net income of Croatian banking sector and the correlation between off-balance sheet items and ROA of Croatian banking sector is determined using the Pearson correlation coefficient. Besides, correlation between bank provisions and off-balance sheet items of Croatian banking sector is also determined using the Pearson correlation coefficient, because off-balance sheet items affect on bank profitability through provisions formed on the basis of evaluated level credit risk for off-balance sheet items. Regression analysis is applied in case of the significant Pearson correlation coefficient. The descriptive statistical analysis of simple linear regression model is used to determine the analytical expression of prediction model for the interdependence between net income and off-balance sheet items as well as to evaluate the quality of the model. The inferential statistical analysis of simple linear regression model is applied in order to estimate the regression parameters and to test hypothesizes of regression parameters. The significance of regression model is tested using the F – test.

#### 4. RESEARCH RESULTS

The research about the interdependence between off-balance sheet items and bank profitability began with the determination of correlations between off-balance sheet items and net income of Croatian banking sector from 2010 to 2012. The results of Pearson correlation coefficient are shown in Table 3.

*Table 3: Correlations between off-balance sheet items and net income (Authors work)*

		OFFBALAN	PROFIT
OFFBALAN	Pearson Correlation	1	,998(*)
	Sig. (2-tailed)	.	,044
	N	3	3
PROFIT	Pearson Correlation	,998(*)	1
	Sig. (2-tailed)	,044	.
	N	3	3

\* Correlation is significant at the 0.05 level (2-tailed).

Pearson correlations coefficient  $r=0,998$  indicates the strong positive linear relationship between off-balance sheet items and net income of Croatian banking sector. Besides, Pearson correlation coefficient is significant at the level of significance  $\alpha=0,05$ . Due to the fact that Pearson correlation coefficient is significant, the coefficients for linear regression model are estimated and presented in Table 4.

Table 4: Coefficients(a) (Authors work)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-1161874,3987	1041027,896		-11,161	,057	-24846257,568	1608769,595
OFFBALAN	,258	,018	,998	14,457	,044	,031	,486

a Dependent Variable: PROFIT

The equation for linear regression model about the interdependence between net income and off-balance sheet items in Croatian banking sector is following:

$$\text{Net income} = -11.618.743,99 + 0,258 \text{ off-balance sheet items.}$$

The quality and relevance of the regression model are estimated by the ANOVA table (Table 5), coefficient of determination (Table 6) and standard error of estimate (Table 4).

Table 5: ANOVA(b) (Authors work)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	730367788291,121	1	730367788291,121	209,002	,044(a)
	Residual	3494541389,546	1	3494541389,546		
	Total	733862329680,667	2			

a Predictors: (Constant), OFFBALAN

b Dependent Variable: PROFIT

As it can be seen from the ANOVA table, the explained variation is much higher than unexplained variation which means that model is relevant. Besides, coefficient of determination  $r^2=0,995$  indicates that 99,5% of total variations are explained by the regression line using the independent variable i.e. 99,5% of the variation in the dependent variable can be attributed to the variation in the independent variable. Therefore, coefficient of nondetermination is 0,5%. The empirical value of F- test is 209,002 and it is significant at  $\alpha=0,044$ . This means that regression coefficient is not sufficient in the regression model at  $\alpha=0,044$ .

*Table 6: Model Summary(b) (Authors work)*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,998 (a)	,995	,990	59114,64615	,995	209,002	1	1	,044	2,339

a Predictors: (Constant), OFFBALAN

b Dependent Variable: PROFIT

According to the research results, there is a strong positive linear relationship between net income and off-balance sheet items in Croatian banking sector. But it is important to emphasize the limitation of the model. The model refers to the period from 2010 to 2012. For professional use of the model as well as for its more relevance, it is important to cover a much longer period that those applied in the research. This period is taken into research due to the new methodology for the preparation of aggregate financial statements is applied by the Croatian National Bank. In order to confirm the results from the regression model presented above, the correlation between off-balance sheet items and ROA of Croatian banking sector has been determined. The results of correlation between off-balance sheet items and ROA of Croatian banking sector using the Pearson correlation coefficient is presented in the following table.

*Table 7: Correlations between off-balance sheet items and ROA (Authors work)*

		OFFBALAN	ROA
OFFBALAN	Pearson Correlation	1	,983
	Sig. (2-tailed)	.	,119
	N	3	3
ROA	Pearson Correlation	,983	1
	Sig. (2-tailed)	,119	.
	N	3	3

Pearson correlation coefficient  $r=0,983$  indicates strong positive linear relationship between off-balance sheet items and ROA of Croatian banking sector. But, in this case Pearson correlation coefficient is not significant at level of significance  $\alpha=0,05$  yet at  $\alpha=0,119$ . This means that this correlation is not as confident and reliable as the correlation between net income and off-balance sheet items of Croatian banking sector. Since off-balance sheet items can influence on net income through provisions for losses (formed on the basis of credit risk evaluation), the correlation between bank provisions and off-balance sheet items in Croatian banking sector has also been determined using the Pearson correlation coefficient. The results are shown in the following table:

*Table 8: Correlations bank provisions and off-balance sheet items (Authors work)*

		<b>OFFBALAN</b>	<b>PROVISIO</b>
OFFBALAN	Pearson Correlation	1	-,920
	Sig. (2-tailed)	.	,256
	N	3	3
PROVISIO	Pearson Correlation	-,920	1
	Sig. (2-tailed)	,256	.
	N	3	3

The value of Pearson correlation coefficient  $r=-0,920$  indicates strong negative linear relationship between bank provisions and off-balance sheet items. But, this Pearson correlation coefficient is not significant at the level of significance  $\alpha=0,05$  yet at  $\alpha=0,256$ . This means that this correlation is less confident and reliable than previous correlations. In this particular situation, it can be concluded that the majority of bank provisions are formed on the basis of credit risk on bank placement rather than off-balance sheet items.

## 5. CONCLUSION

The purpose of this paper is to investigate the relationship between off-balance sheet items and the profitability of Croatian banking sector. Off-balance sheet items include traditional (standard) off-balance sheet bank obligations without derivative financial instruments. The most significant off-balance sheet items in Croatian banking sector in the period from 2010 to 2012 are guarantees, revolving credits and other lines of credits and financing obligations. For the research purposes, profitability of Croatian banking sector is measured by net income and return on assets (ROA) of Croatian banking sector. According to the research results, there is a strong positive linear correlation between net income and off-balance sheet items of Croatian banking sector in the period from 2010 to 2012. Furthermore, research results also indicate strong positive linear correlation between ROA and off-balance sheet items of Croatian banking sector in the period from 2010 to 2012, but this correlation is less significant than correlation between net income and off-balance sheet items. Besides, research results have shown strong negative linear correlation between bank provisions and off-balance sheet items of Croatian banking sector in the period from 2010 to 2012, although this correlation is not at acceptable level of significance. Research has a certain limitations. The main limitation is short period taken into research. The research covers the period from 2010 to 2012, because in this period the new methodology for the preparation of aggregate financial statements is applied by the Croatian National Bank and also the existing regulation regarding financial reporting and formation of bank provisions are valid. Besides, in this period Croatian economy is still deeply in recession and this economic situation negatively affect on bank activities and therefore on bank profitability. If any of this conditions change, the presented correlations and regression model wouldn't be representative any more.

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## **DIVIDENDS ON COMMON AND PREFERRED SHARES: THE RELATIONSHIP WITH THE OWNERSHIP CONCENTRATION IN RUSSIAN PUBLIC COMPANIES**

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### **ABSTRACT**

*This paper investigates the relationship between the dividend policy and ownership structure in Russian public companies. A study of the link between dividends and ownership concentration is based on the sample of public companies with dual class share structure. These shares were traded on the Russian Trading System (RTS) in the period of 2003-2009. The authors explore a broad range of factors related to the ownership concentration. This study allows making conclusions on the impact of the ownership concentration on the dividend policy. Moreover, there is evidence that this impact differs for the dividends on ordinary and preferred shares.*

**Keywords:** *dividends, corporate governance, public companies, dual class shares, ownership concentration.*

### **1. INTRODUCTION**

The growing attention to the agency problem and to the role of dividends in mitigating an agency problem is explained, in particular, by the growing number of corporate scandals related to violation of shareholders' rights and to managers using insider information for personal enrichment. The corporate scandals, having resounded around the world during the recent decade, revealed serious drawbacks in corporate governance systems. Thus, the study of dividend policy, as a way to mitigate the agency problem and the factors affecting it, is of relevance in general and in the context of the Russian market, for example, in view of existence of such factors aggravating the agency problem as high concentration of ownership and weak legal protection of shareholders' rights.

There is a limited number of studies based on Russian companies and dealing with the problems range in question. This research, in a way filling up the gap in the studies in place, is based on data on companies having two classes of shares simultaneously traded on RTS stock exchange during 2003-2009.

## **2. DIVIDEND POLICY, CORPORATE GOVERNANCE AND DUAL CLASS SHARES STRUCTURES**

According to Jensen and Meckling (Jensen, Meckling, 1976), agency costs arise when the decisions taken by the managers entail destruction of the company's value and the investors have to incur monitoring costs. One of the mechanisms capable to reduce agency costs is decrease of the cash flow at the managers' disposal. Availability of an ample free cash flow results in managers adopting more investment programs even if with low net present value (NPV). Thus, payment of extra funds to shareholders in the form of dividends is more appropriate to avoid such funds spending in a way ineffective from the point of view of the company value maximization. Easterbrook (Easterbrook, 1984) notes that dividends are the main means of reduction of the cash flow available to managers and play an important role in the agency problem mitigation. Another argument in favour of dividend payment is the assertion that firm pay dividends in order to create a favourable image and avoid underestimate of the company in situations when the firm has to raise external capital. Increasing the dividends paid, the company has to resort to the capital market to raise funds to make investments. This entails thorough evaluation of the management's decisions by potential investors which also mitigates the agency problem. According to studies (such as, for example: (Shleifer, Vishny, 1997; La Porta et al., 2000)), pyramidal structures of property, cross-holdings, issue of two or more types of shares and other mechanisms used for changing the proportionality and distribution of risk and control within the company represent a source of agency costs. These instruments are capable to increase private benefits from control and the conflict of interests between major and minority shareholders and, accordingly, may affect the company's dividend policy. R.La Porta (La Porta et al., 2000) qualifies issue of two classes of shares as one of the most apparent and frequent ways of managers and shareholders "entrenchment". In companies with two classes of shares cash flow and voting rights are distributed unequally. Thus, in companies with two classes of shares the conflict of interests is more acute than in those with but a single class of shares. Co-existence of two classes of shares within a company enables the largest holder to maintain control over the company through holding a large portion of voting shares without the need to have hold of shares conferring rights to cash flow only. Thus, the largest shareholder is capable to control decision-taking within the company without assuming the costs burden. This enables a greater extent of benefiting at the expense of minority shareholders as compares to largest shareholders of companies with but a single class of shares. In Russia the two classes of shares were introduced in 1992 parallel to the privatization program launch. The program envisaged three variants of state-owned enterprises privatization and stipulated obligatory introduction of a corporate charter for all large state-owned enterprises proposed as privatization targets. One of privatization ways was transformation of state-owned enterprises into companies with chartered capital wherein preferred or non-voting shares freely distributed among the active and retired employees of the company could account for as much as 25%. The legal status of the two classes of shares was defined in the charters of all privatized companies. Notably, the status of ordinary shares was similar to that of ordinary shares in most developed countries (grant of the right to vote at a general meeting of shareholders and the right to dividends the amount whereof was undefined) while preferred shares had certain specificity. Since enactment of the federal law "On joint-stock companies" in 1996 the rights granted by preferred shares became variable, depending on changes in companies' charters. Thus, holders of preferred shares ceased to enjoy the veto right but were occasionally granted the right to vote at a general meeting of shareholders. But since the portion of preferred shares in the chartered capital was not in excess of 25%, their holders could not ban any decision. Additionally, the law ceased to attach to holder of preferred

shares the right to dividends amounting to 10% of net profit, confining itself to indication that companies be obliged to define in their charters the amount of dividends on preferred shares in the form of a fixed percentage of the company's net profit or in any other clearly defined form. With a view of enhancing the level of minority shareholders' rights protection several important amendments were introduced to the law in 2001. Thus, the veto right was returned to preferred shares holders. Preferred shares have certain advantages over ordinary ones. However, absence of the right of vote and the company being entitled to partly define the rights under preferred shares at its own discretion demonstrate essential inequality between the two classes of shareholders and the opportunity for preferred shares holders being expropriated by holders of ordinary shares.

### **3. HYPOTHESES**

For a long time empirical studies in corporate governance dealt mostly with companies with dispersed ownership structure (Grossman, Hart, 1980). Investigators into dividend policy focused mostly on the impact of the owner holding the controlling block of shares on decisions taken on dividend payment (see, For example, (Jensen, Meckling, 1976; Shleifer and Vishny, 1986)). However, the ownership structures prevailing in many countries involve presence of multiple major shareholders within the company. For example, in Germany about a quarter of publicly traded companies have two or more shareholders with a portion of shares amounting to at least 20% (Gomes and Novaes, 2005). According to works available (Maury and Pajuste, 2002; Bebczuk, 2005), such companies' dividend policy is the result of largest shareholders interaction: formation of coalitions or largest shareholders fight for influence on decision-taking. Only recently researches started to study the categories and amount of largest shareholders' ownership portions as well as such controlling group's impact on the fact of minority shareholders expropriation. According to the studies of S.Grossman and O.Hart (Grossman nad Hart, 1980) as well as A.Shleifer and R.Vishny (Shleifer and Vishny, 1986), it is the major shareholders that should carry out management monitoring. Presence of a major shareholder within the company mitigates "the free rider problem", accordingly reducing agency costs. Shareholders in possession of a major portion of shares are more incentivized to carry out management monitoring since the benefits from such monitoring considerably exceed the implementation costs. Notably, the more recent works by R.La Porta (La Porta et al., 2000) and A. Gomes (Gomes, 2000) state that in countries where the legal protection of shareholders is weak it is through high concentration of ownership that the agency problem is to be reduced. At the same time, existence of shareholders in possession of a major portion of shares or a controlling shareholder among the company owners may be unfavourable for less influential stakeholders. A.Shleifer and R.Vishny (Shleifer and Vishny, 1997) assert that in a situation when major shareholders obtain almost complete control over the firm they begin to derive private benefits minority shareholders fail to participate in. There are multiple ways of minority shareholders' rights impairment, M.Faccio, L.Lang and L.Young (Faccio, Lang and Young, 2001) specially emphasizing low dividend payments.

*Hypothesis 1.* Increase of percentage of ordinary shares held by a major shareholder will lead to decrease of dividend payments.

*Hypothesis 2.* Increase of percentage of ordinary shares held by three major shareholders will lead to decrease of dividend payments.

*Hypothesis 3.* Increase of percentage of ordinary shares held by the second largest shareholder will lead to increase of dividend payments.

*Hypothesis 4.* Decrease of the difference between the amounts of ordinary shares held by the first and the second largest shareholders will lead to increase of dividend payments.

*Hypothesis 5.* Presence of a controlling shareholder within the company will lead to decrease of dividend payments.

*Hypothesis 6.* Largest shareholders having a portion of ordinary shares exceeding that of preferred shares will prefer dividend payments to decrease.

It is worthy of note that researchers' opinions differ with regard to practically every of the listed suppositions concerning the described relations character. This fact is quite understandable. Legislation peculiarities, level of financial markets development, corporation's evolution history and legal status of holders of different types of shares entail variable impact of ownership concentration and a specific shareholder type on dividend payments policy.

#### 4. METHODOLOGY

The study aimed to reveal the character of ownership structure impact on the dividend policy of Russian companies with two classes of shares is based on a regression model (1):

$$Div\_Payout_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 Y_{it} + \beta_3 Z_{it} + \beta_4 \chi_{it} + u_{it}, \quad i=1, \dots, n; \quad t=1, \dots, T. \quad (1)$$

Dependent variable  $Div\_Payout_{it}$  characterizes the dividend payout ratio of company  $i$  at moment  $t$ . In equation (1)  $X_{it}$  is the vector of variables characterizing concentration of ordinary shares in the hands of the company's shareholders (dimension  $(m \times 1)$ );  $Y_{it}$  is the vector of variables characterizing the type of the company's major shareholders (dimension  $k \times 1$ );  $Z_{it}$  is the variable determining the largest shareholder's portfolio structure;  $\chi_{it}$  is the vector of variables "in charge of" the company's financial and economic standing indicators (dimension  $(l \times 1)$ );  $u_{it}$  is a random disturbance. All the vectors and variable have index  $it$  showing that the data are measured for each company  $i$  at time moment  $t$ . Note that the model is linear in terms of parameters but the variables vectors include non-linear components.

#### 5. DATA AND SAMPLE

Included into the study sample were companies that were traded on RTS stock exchange during 2003-2009 and had two classes of shares. All in all, during 2003 - 2009 there were 145 such companies. The final panel is composed of 598 observations. The conditions for companies to be included in the sample were as follows: both classes of shares simultaneously traded on RTS stock exchange; dividends paid in cash form. The required data on the companies' ownership structure and dividend payments were obtained from the issuers' quarterly reports. For collection of data on the results of financial and business activities, ownership concentration, the largest owners identity, amount of dividends paid and other details of the issuers we used SKRIN and SPARK public databases. See Table 1. for description of the variables used in regression models.

*Table 1.: Description of variables used in regression analysis*

Variable	Description
1	2
<i>Dependent variables</i>	
<i>Div_Payout</i>	The aggregate dividend payout ratio, the variable characterizing the company's dividend policy. <i>Div_Payout</i> value is calculated as the ratio of the sum total of dividends actually paid on the both classes of shares during the year to the firm's net profit following the results of the year wherefore the dividends were paid
<i>Ord_Payout</i>	Ratio of dividend payout on ordinary shares; calculated as the ratio of the amount of dividends actually paid on ordinary shares during the year to the firm's net profit following the results of the year wherefore the dividends were paid
<i>Pref_Payout</i>	Ratio of dividend payout on preferred shares; calculated as the ratio of the amount of dividends actually paid on preferred shares during the year to the firm's net profit following the results of the year wherefore the dividends were paid
<i>Independent variables</i>	
<i>Variables included in vector X</i>	
<i>Share_1</i>	Largest shareholder's ordinary shares portion
<i>Share_2</i>	Second largest shareholder's ordinary shares portion
<i>Share_3</i>	Third largest shareholder's ordinary shares portion
<i>Conc_3</i>	Portion of ordinary shares held by the three largest shareholders
<i>Spread</i>	Difference between the portions of ordinary shares in possession of the first and the second largest shareholders
<i>Control(d)</i>	Binary variable characterizing existence of a controlling shareholder within the company. Its value is equal to 1 if there is a shareholder with a 50% portion of shares within the company and to 0 if otherwise
<i>Share_2(d)</i>	Binary variable characterizing existence of a second largest shareholder within the company who is a blockholder. Its value is equal to 1 if the second largest shareholder's portion of ordinary shares is in excess of 25% and to 0 if otherwise
<i>Variable Z</i>	
<i>Power_1</i>	Variable characterizing the largest shareholder's portfolio structure The variable value is calculated as the ratio between the portions of, accordingly, preferred and ordinary shares belonging to the largest shareholder
<i>Variables included in vector X</i>	
<i>Size</i>	Variable characterizing the company size and measured as the natural logarithm of sales
<i>ROA</i>	Return on assets
<i>Leverage</i>	Variable characterizing the company capital structure: debt to equity ratio.

For the results of descriptive statistics of the variables used in the econometric analysis see Table 2. From Table 2. it follows that the average value of the aggregate dividend payout ratio for the whole of the period is 0.311 which means that the sampled companies paid out in the form of dividends, on the average, approximately 31% of their net profit. Preliminary statistical analysis showed that the minimum value of the dividend payout ratio was -0.401 since nine of the companies under observation paid dividends having a negative value of net profit while the maximum dividend payout ratio value was 2.393. Such situations when the dividend payout ratio value is negative or in excess of 1 are possible in cases when the



company pays out dividends from reserves<sup>84</sup>. In the course of further statistical and econometric analysis the outliers were excluded.

*Table 2.: Descriptive statistics*

<b>Variable</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Minimum</b>	<b>Maximum</b>
<i>Div_Payout</i>	0.311	0.681	0	1.934
<i>Ord_Payout</i>	0.236	0.606	0	2.901
<i>Pref_Payout</i>	0.078	0.099	0	0.982
<i>Share_1</i>	0.563	0.176	0.072	0.995
<i>Share_2</i>	0.159	0.092	0	0.449
<i>Share_3</i>	0.059	0.069	0	0.295
<i>Conc_3</i>	0.781	0.143	0.073	0.995
<i>Spread</i>	0.404	0.229	0	0.995
<i>Power_1</i>	0.156	0.585	0	1.915
<i>Size</i>	22.736	1.627	16	27.630
<i>Leverage</i>	201.167	711.693	0	2336.270
<i>ROA</i>	5.944	11.181	0	39.487

Analysis of the average dividend payments dynamics evidences considerable fluctuation of the dividend payout ratio from year to year. Notably (as we already remarked above), the largest fluctuation of dividend payout ratio occurred in 2006–2009.

Thus, from the descriptive statistics, behaviour of dividend payout ratio as well as the main ownership concentration characteristics it follows that the amount of dividends paid by the companies underwent a considerable variation during the period under consideration. Notably, a variation also occurred in the companies' ownership concentration and the ratio of the amounts of the largest shareholders' portions, and consequently - in the character of such shareholders' interaction as well. In order to test the suppositions concerning existence and character of the relation between the dividend amount paid and the ownership concentration we applied regression analysis.

## 6. REGRESSION ANALYSIS RESULTS

See Table 3 for the results of the regression analysis wherein the following three types of dividend payout ratio were used as the dependent variables: aggregate ratio of dividend payout on the both classes of shares (*Div\_Payout*), for ordinary shares (*Ord\_Payout*) and preferred shares (*Pref\_Payout*). Consequent testing of the models demonstrated that the fixed effect model describes the empirical data most adequately.

All the models apart from that presented in Column 9 are statistically significant. Variable *Share\_3*, *Conc\_3*, (*Conc\_3*)<sup>2</sup> turned significant in all the models. Variable *Control(d)* is significant in the models where the dependent variables are: ratio of dividend payout on the both classes of shares *Div\_Payout* и dividend payout ratio for ordinary shares *Ord\_Payout*. In the model (see Column 11) wherein the dependent variable is represented by the ratio of dividend payout on preferred shares *Pref\_Payout*, in contrast to the other model, it is the variable characterizing the largest shareholder's portion of ordinary shares *Share\_1* that is

<sup>84</sup> See [Russian Federal Law on Joint-Stock companies, 1995, p. 2, page 42].

significant. In some parameter assessments the coefficients on the significant variables are different from those supposed. Thus, the coefficient on the variable *Control(d)* has a positive sign in spite of the hypothesis put forward alleging existence of a reverse relation between the dividend payments amount and existence of a controlling shareholder within the company.

Let us proceed to analysis of the variables characterizing the impact of ownership concentration on the dividend payout ratio (Table 3). Contrary to the supposition concerning existence of the link between the major shareholder's portions of ordinary shares and *Div\_Payout* and *Ord\_Payout*, variables *Share\_1* (largest shareholder's ownership portion) and *Share\_2* (second largest shareholder's ownership stake) are insignificant in the models (Columns 1, 2, 6 and 7). However, in the model with *Pref\_Payout* as the dependent variable (Column 11) the coefficient on the variable characterizing the largest shareholder's portion of ordinary shares *Share\_1* is significant. Consequently, one can admit the supposition on existence of a reverse relationship between concentration of ordinary shares held by the largest shareholder and the amount of dividends paid on preferred shares.

Additionally, one revealed statistically significant relation between the third largest shareholder's portion of ordinary shares *Share\_3* and the dividend payout ratios. The negative value of the coefficient (Columns 1, 6, 11) shows that this variable is inversely related to the three types of the dividend payout ratio. With regard to this variable no hypothesis was put forward, the variable having been introduced with a view of analyzing the relation revealed in the paper (Maury and Pajuste, 2002).

*Table 3.: Regression analysis results*

Type of the ratio		Dividend payout ratio													
		Div_Payout				Ord_Payout				Pref_Payout					
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
<i>Share_1</i>	-0.146	0.012				-0.100	-0.007				-0.067**	-0.132			
<i>Share_2</i>	0.108	0.285				0.090	0.039				-0.038	0.024			
<i>Share_3</i>	-1.267***	-0.675				-0.914***	0.047				-0.206***	0.023			
<i>Share_1</i> <sup>2</sup>		-0.179					-0.142					0.050			
<i>Share_2</i> <sup>2</sup>		-0.659					0.047					-0.171			
<i>Share_3</i> <sup>2</sup>		-3.270					-5.600*					-1.475**			
<i>Conc_3</i>			-2.249**	-0.352				-1.815**	0.185				-0.374**	-0.053	
<i>Conc_3</i> <sup>2</sup>			1.551**	0.265				1.288**	-0.041				0.229*	0.012	
<i>Spread</i>			0.099	0.072				0.056	0.022				0.011	0.005	
<i>Control(d)</i>					0.175***					0.147***					0.012
<i>Share2(d)</i>					0.018					0.069					0.008
<i>Power_1</i>				-0.039	-0.018				0.003	0.017				0.001	0.007
<i>Size</i>	0.078**	0.082**	0.065*	0.071*	0.095**	0.085***	0.090***	0.073**	0.077	0.096***	0.019***	0.019***	0.017**	0.019***	0.023***
<i>Leverage</i>	-0.0002**	-0.0002**	-0.0002**	-0.0002***	-0.0002***	-0.0001	-0.0001	-0.0001*	-0.0001	-0.0001*	-0.00002*	-0.00002	-0.00002*	-0.00002*	-0.00002*
<i>ROA</i>	-0.005**	-0.005**	-0.005**	-0.005**	-0.005**	-0.003*	-0.003*	-0.003*	-0.003	-0.003**	0.000	-0.000	0.000	-0.001	-0.001
<i>Cons</i>	-1.272	-1.403	-0.370	-1.178	-1.943**	-1.591**	-1.715**	-0.839	-1.643	-2.08***	-0.294*	-0.291*	-0.159	-0.317*	-0.452***
<i>R</i> <sup>2</sup>	0.0111	0.0141	0.0056	0.0024	0.0124	0.0054	0.0088	0.0021	0.0001	0.0043	0.0021	0.0058	0.0012	0.0004	0
<i>p-value</i>	0.0002	0.001	0.0065	0.0461	0.0005	0.0015	0.0032	0.0128	0.1289	0.0006	0.0036	0.0042	0.011	0.0954	0.0237
<i>N</i>	551	551	551	541	542	519	519	519	509	510	514	514	514	504	505

Note: \*, \*\*, and \*\*\* mean significance at 10, 5, and 1 percent levels respectively

We found statistically significant non-linear relation between the aggregate portion of ordinary shares held by the three largest shareholders *Conc\_3* and the value of the dividend payout ratio for the both classes of shares as well as for the ordinary and the preferred shares viewed separately (Columns 3, 8, 13). Analysis of the quadratic function (Column 3) shows that growth of ordinary shares concentration in possession of the three largest shareholders from 7.3 to 73% brings about decrease of the ratio of dividend payout on the both classes of shares *Div\_Payout*, while further concentration growth within the range from 73 to 99.5% will entail increase of the dividend payout ratio. Similar analysis of the quadratic function (Column 8) that in case of variable *Conc\_3* value change from 7.3 to 70.5% the amount of dividend payments on ordinary shares *Ord\_Payout* is reduced, further change of the variable value within the interval from 70.5 to 99.5%, entailing increase of the ratio of dividend payout on ordinary shares. Additionally, the results of analysis of the non-linear function (Column 13) enable one to conclude that at a 7.3-81.7% concentration of ordinary shares growth in concentration of ordinary shares in possession of the three largest shareholders will entail decrease of dividend payments on preferred shares *Pref\_Payout*. Notably, increase of ordinary shares concentration within the interval from 81.7 to 99.5% will entail increase of the volume of dividend payments on preferred shares.

According to the results obtained (Columns 5 and 10), there is a statistically significant relation between the ratio of dividend payout on the both classes of shares *Div\_Payout* and on ordinary shares *Ord\_Payout* and existence of a controlling shareholder within the company. Relying on the coefficients signs, one may conclude that the amount of dividend payments on



the both classes of shares and on ordinary shares with companies having a controlling shareholder are accordingly 17.5% and 14.7% higher as compared to companies without a controlling shareholder.

The other ownership concentration indicators (difference between the two largest shareholders' portions of ordinary shares *Spread* and fact of presence of a second largest shareholder with a block stake described by the binary variable *Share2(d)*) turned insignificant in all the models considered.

Analysis of the models wherein variable *Power\_1* (characterizing the largest shareholder's portfolio structure) is used (Columns 4 and 5, 9 and 10, 14 and 15) fails to allow of a conclusion on the possibility of the largest shareholder using the portion of ordinary shares in excess of that of preferred ones to derive private benefits of control and reduction of the level of dividends paid. From the regression analysis it follows that this variable is statistically insignificant.

One may conclude that dividend policy on preferred shares considerably differs from that on ordinary shares and is determined predominantly by the company's performance measures and ownership concentration.

## 7. CONCLUSION

Taking into account high concentration of ownership in Russian companies with two classes of shares as well as imperfection of the Russian legislation concerning protection of minority shareholders' rights, we supposed that *increase of ordinary shares concentration in the hands of the largest shareholders is associated with lower dividend payments* because of the largest shareholders deriving private benefits of control. However, we did not reveal the relation between the amount of aggregate dividend payments on the both classes of shares and that of the ordinary shares portions held by the largest and the second largest shareholders. Notably, there is a nonlinear relationship between dividend payout ratio and concentration of ordinary shares in possession of the three largest shareholders. We found out that with companies where ordinary shares concentration in possession of the three largest shareholders grows from 7.3 to 73% the dividend payout ratio on the both classes of shares aggregately will decrease while further ordinary shares concentration growth (within the range from 73 to 99.5%) will lead to increase of the dividend payout ratio. One of the hypotheses was that *existence of a controlling shareholder within the company will lead to decrease of dividend payments*. It found confirmation, for example, in the market of Finland (Maury and Pajuste, 2002). However, according to our study, with companies having a shareholder with a controlling portion of ordinary shares, the average value of the dividend payout ratio is 17.5% higher as compared to companies without a controlling owner. Thus, the hypothesis previously put forward was not supported.

Relying on the results obtained, we may conclude that the character of the relation between the ownership concentration factors and the ratio of dividend payout on ordinary shares considerably differs from the said factors relation with dividend payments on preferred shares. We found a similar link between the ratio of dividend payout on ordinary shares and the company's financial and economic indicators, a non-linear relationship with concentration of ownership in the hands of three largest shareholders, a direct relationship with the factor characterizing the fact of a controlling shareholder presence. At the same time, we revealed that most ownership concentration factors fail to significantly affect the amount of dividend payments on preferred shares.

However, we confirmed the hypothesis on existence of a reverse relationship between concentration of ordinary shares in the hands of the largest shareholder and the amount of dividends paid. Such a result may be demonstrating a manifestation of the agency problem between the major and the minority shareholders in accordance wherewith the largest shareholder strives to reduce the portion of net profit paid in the form of dividends on preferred shares and to use this part of free cash flow for deriving private benefits. The reverse relationship between the ratio of dividend payout on preferred shares and the largest shareholder's portion of ordinary shares may be attributed to largest shareholder, as a rule, failing to strive at possession of preferred shares or having held of but a small portion thereof. According to the descriptive statistics data, 77% of the largest owners fail to have preferred shares in their portfolios, the average amount of the largest shareholder's portion of preferred shares being 6.8%. The reverse relation between the amount of dividends on preferred shares and concentration of ordinary shares in possession of the largest shareholder, at first sight, contradicts the result on existence of direct relation between the amounts of both dividend payments on ordinary shares and aggregate dividend payments on the both classes of shares and existence of a shareholder with a control stake within the company. This result may be attributed to controlling owners having hold of small portions of the company's preferred shares: only 20% of controlling shareholders hold preferred shares, the average amount of preferred shares portion with controlling owners being 6.1% of the total amount of the company's preferred shares. Thus, largest shareholders, apparently, may be not interested in high dividend payments on preferred shares.

Thus, dividend policy on preferred shares considerably differs from that on ordinary shares and is determined predominantly by the company's financial and economic indicators and ownership concentration. However, the amount of dividend payments on preferred shares, unlike those of dividend payments on ordinary shares and aggregate dividend payments, is unaffected by existence of a controlling shareholder that, according to the results of the analysis, is represented by the state or state corporations to an extent of 74%. As one has previously noted, controlling shareholders, on the average, hold a small portion of preferred shares and thus may be not interested in increase of dividends on preferred shares, the same way they are interested in dividends on ordinary shares.

Based on the study results one may conclude that ownership concentration factors more apparently affect the amount of dividend payments on ordinary shares while dividend payments on preferred shares (determined predominantly by the company's financial results and decisions of the largest shareholder) are an obligation of the company similar to debt obligations on the one hand and means to manipulate distribution of voting shares among the largest shareholders - on the other.

All the aforesaid serves to raise questions regarding legal protection of preferred shareholders' rights in general and such rights abuse by large shareholders of the company that are holders of ordinary shares. It appears that even further steps for enhancement of investors' rights protection level are not likely to dismantle the acute problem. Only unification of shares classes meaning equalization of shareholders' control and cash flow rights as per one share may promote mitigation of the agency problem with regard to the conflict of interests between holders of different types of shares.

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## THE ROLE OF INTELLECTUAL CAPITAL IN BUILDING COMPETITIVE ADVANTAGE OF NON-PUBLIC UNIVERSITIES

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### ABSTRACT

*The paper analyses the role of intellectual capital in gaining and sustaining competitive advantage of HEIs. Intellectual capital is a determinant of quality in research and education. Higher Education Institutions (HEIs) are considered one of the pillars of the Polish educational success in the last 20 years. Thanks to them thousands of Polish undergraduate students gained access to higher education. This institutional change was one of the enablers for the development of the knowledge society in Poland both in terms of qualitative and quantitative growth. The tertiary education market in Poland is defragmented with approximately 150 public and 300 non-public higher education institutions. The number of non-public HEIs is decreasing due to financial problems causing their bankruptcies or forcing them to merge with other non-public universities. With the ongoing demographic downturn the market is characterized by fierce competition among those HEIs which have not closed down their operations. This paper includes a short theoretical introduction to strategic management of HEIs in general context. The results from the empirical study conducted by the authors among managers of Polish non-public universities are presented in the paper. The study consisted of an on-line survey which asked questions relating to the three key elements of intellectual capital, namely: human capital, organizational capital and customer capital (students and other external stakeholders). The paper includes a quantitative analysis of selected research questions which are presented in Ms Excel figures. The paper summarizes the research finding which are followed by includes a discussion on the importance of IC in strategic management of IC. The lessons from the Polish education market (which makes up approximately 50% of the market for tertiary education in the region) can be useful to other countries from the emerging markets which face similar challenges (e.g. Romania, Turkey, Hungary) to name just a few.*

**Keywords:** *Intellectual Capital, Knowledge Management, Strategic Management, Tertiary Education*

### 1. INTRODUCTION

Intellectual Capital (IC) is usually associated with the gap between an organisation's book value and market value (Lev, 2001). This measure is not appropriate for organizations which are not public companies. Therefore, alternative methods of IC measurement were developed throughout the last two decades. One of the most popular ones are intellectual capital reports. The market value of an organisation is an indication of how investors value the organisation based on its future earnings potential. However, book value is only based on information found in backward looking financial statements (De Silva, Stratford and Clark, 2013). One of the first IC reports was produced by a Swedish insurance company Skandia. Intellectual Capital reporting became prominent in the late 1990s (Guthrie, Petty, Yongvanick and

Ricceri, 2004). Measurement of intellectual capital in Higher Education Institutions dates back to the early 2000's when the Austrian government imposed a law, the first of its kind in the world, which obliged public universities to publish their intellectual capital reports. Other countries followed with similar initiatives. For example The Poznan University of Economics launched its own IC measurement programme in 2004 (Fazlagić, 2005). This paper builds upon the existing body of knowledge on measurement of IC and provides some additional insights into the discipline by focusing on the role of IC in building competitive advantage of non-public universities in Poland.

## **2. INTELLECTUAL CAPITAL IN HIGHER EDUCATION INSTITUTIONS**

No commonly accepted definition of Intellectual Capital exists, and the terms intellectual capital, knowledge assets or intangible assets are often used interchangeably (De Silva, Stratford and Clark, 2013). Intellectual capital items are often considered to be intangible in nature, and intangible assets are often considered to be intellectual capital (Madinios, Chatzoudes, Tsairidis and Theriou, 2011). Intellectual capital relates to the future value and performance of an organization. Its measurement is necessary to counterbalance the bias of traditional accounting methods, which are based on historical data. The narrow focus on backward looking financial performance is failing to keep up with today's changing environment that relies on items such as knowledge, innovation and experience to create organisational value (International Integrated Reporting Committee, 2011). Historical data is becoming less and less relevant in the turbulent environment, which is characterized by shortened life-cycles of products and services, changing consumer demands and disruptive innovations. Intellectual capital is essentially the ability to translate organisational knowledge into value (De Silva, Stratford and Clark, 2013). Examples of this include an organisation's ability to innovate and to implement new initiatives, as well as the ability to forge and maintain positive relationships with external stakeholders.

The term IC, when referred to a HEI, is a concept used to cover all the institution's non-tangible or non-physical assets, including processes, capacity for innovation, patents, the tacit knowledge of its members and their abilities, talents and skills, the recognition of society, its network of collaborators and contacts, etc. IC is the collection of intangibles which "allows an organisation to transfer a collection of material, financial and human resources into a system capable of creating value for the stakeholders" (European Commission, 2006; Ramírez and Gordillo, 2013). IC includes thus a set of intangible elements (resources, capabilities and competences) that drive the organizational performance and value creation (Bontis, 1998; Bontis, Keow and Richardson, 2000; Roos, Roos, Dragonetti and Edvinsson, 1997).

The IC value of HEIs is rarely discussed when cost and efficiency performance is debated (Fairchild and De Vuyst, 2005; Secundo, Margherita, Elia and Passiante, 2010). Secundo et al, (2010) identify four reasons why the IC in HEIs should represent a core aspect to investigate and measure:

1. IC can help to shift strategic focus towards intellectual resources and enhance their capability to adapt to the turbulent environment,
2. IC is a key value driver for organisational competitiveness and performance improvement,
3. The ranking of education and research organizations should be based more on consistent, objective and shared metrics, also to strengthen the links among universities and companies on the basis of a common language.

4. A fourth reason to measure IC stays in the fact that measurement could bring the “ivory-tower philosophy” of researchers closer to real requirements of the public and industry, resulting in a more transparent assessment of performance (Fazlagić, 2005).

HEIs play an important role in the development of the knowledge economies around the world. The contribution to the growth of knowledge economies is multifaceted. They produce, disseminate and utilize different types of knowledge acting as knowledge brokers within complex networks with numerous stakeholders. Of the distinguishing features of IC in HEIs is their ability to excel the ability to effectively transfer the knowledge from employees (academic teachers) to clients (students). The advent of distance learning technologies and initiatives (e.g. Khan Academy, MOOC<sup>85</sup>) bring in new challenges to traditional business models in the education sector.

Research studies on competitiveness may be focused on determining the key factors of competitiveness, as well as their impact on performance of particular entities. Furthermore, the competitiveness can be examined from the perspective of those entities, as well as their customers (Pierścioneek, 2003). The main focus of this paper is the elements of Intellectual Capital (IC) which influence the competitive position of entities from the tertiary education sector, namely Higher Education Institutions. This research aims to analyse those knowledge assets in HEIs which make up the potential for competitiveness. The proper utilisation of knowledge assets allows HEI's to create an attractive market offering that leads to the competitive advantage (Stankiewicz, 2005; Rahimli, 2012). The proof that a given element of knowledge asset offers a competitive advantage is the ability to offer services which are more appealing to the needs and tastes of the customers in terms of price, quality and other features. The competitive advantage achieved in particular area, however, requires making sustainable efforts to protect it. The ultimate evidence for the strength of a knowledge asset is a strong competitive position, which in the case of university means increasing market share and achieving a more favourable financial results compared to competitors (Porter, 2006; Hall, 1993).

### 3. BACKGROUND

The research results presented in this paper were sponsored by the National Science Centre (NCN), the Polish grant agency, in 2010-2012. The research findings are a part of a larger research project conducted between 2010-2012 titled “Intellectual Capital of non-public Higher Education Institutions in Poland” conducted by Jan Fazlagić. A total of four empirical studies were conducted during the research project: a survey among managers of HEIs, a survey among academic teachers employed at HEIs, a series of thirty in-depth interviews with experts on tertiary education and one case study of a HEI (Milenium University, Gniezno, Poland). The research project was aimed at developing a method of IC measurement for non-public higher education institutions in Poland. Poland boasts of having an exceptionally high number of higher education institutions (HEIs). With a population of 38.5 mln and over 300 non-public HEIs, it has one of the largest numbers of universities per capita in the world. Polish HEIs tend to be relatively small. With a few exceptions, they host between 400 and 2000 students. The majority of them operate in smaller cities. Space does not allow providing an in-depth description of the Polish tertiary education system. The large population of HEIs makes them a challenging research areas for intellectual capital measurement.

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<sup>85</sup> From *massive open online course*. A course of study made available over the Internet without charge to a very large number of people (source: Oxford Dictionary).

The research finding presented in this article have not been published previously. They are based on statistical analysis of 132 questionnaires returned by middle and top management staff of non-public HEI in Poland. This number represent roughly 3-5% of the general population.

#### 4. COMPARISON OF STRENGTHS AND WEAKNESSES OF NON-PUBLIC UNIVERSITIES

A series of in-depth interviews conducted prior to the survey revealed a number of key success factors, which were grouped into strengths and weaknesses (see Table 1). These factors were then analysed in a survey addressed to the management staff in Polish non-public universities. The general population of managers in non-public HEIs can be estimated at approximately 2-3 thousand. The request to participate in the survey was sent to all non-public universities via e-mail and regular mail. Additionally a web link with an invitation to participate in the survey was available at all major associations and organizations grouping tertiary education professionals. A total of 132 questionnaires were returned.

The research results indicate that no universal pattern can be identified regarding the strengths which would characterise all HEIs. The comparison of the share of respondents considering a given factor as its strength allows for some conclusions. The most frequently mentioned strength of a HEI according to the respondents is the convenient location (53.0%) and highly-qualified, talented academic staff (47.7%) (see Figure 1). Very few respondents consider the location of their HEI (9.8%) and the competencies and talents of academic staff (6.8%) as their weaknesses (see Figure 2). It has to be emphasized that the importance attached to the location of a HEI in Poland can be explained by the national culture. Polish students are not used to studying in remote locations away from their home. Many HEIs continue their operations in small town and are able to attract students who prefer studying in a 'local' university.

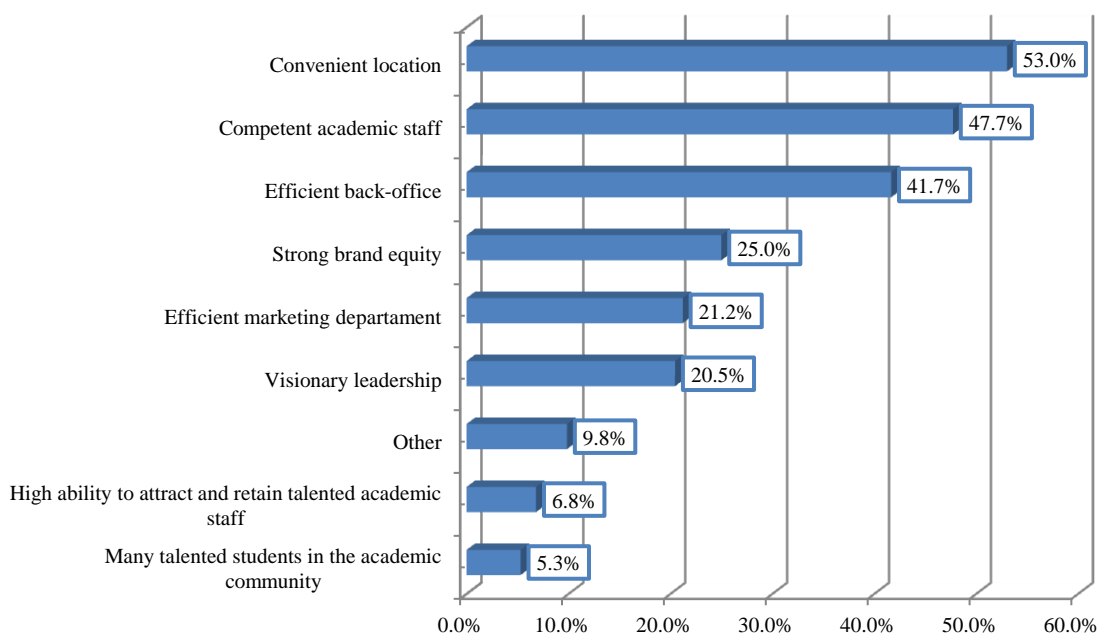


Figure 1: Strengths of non-public universities (Source: authors work)



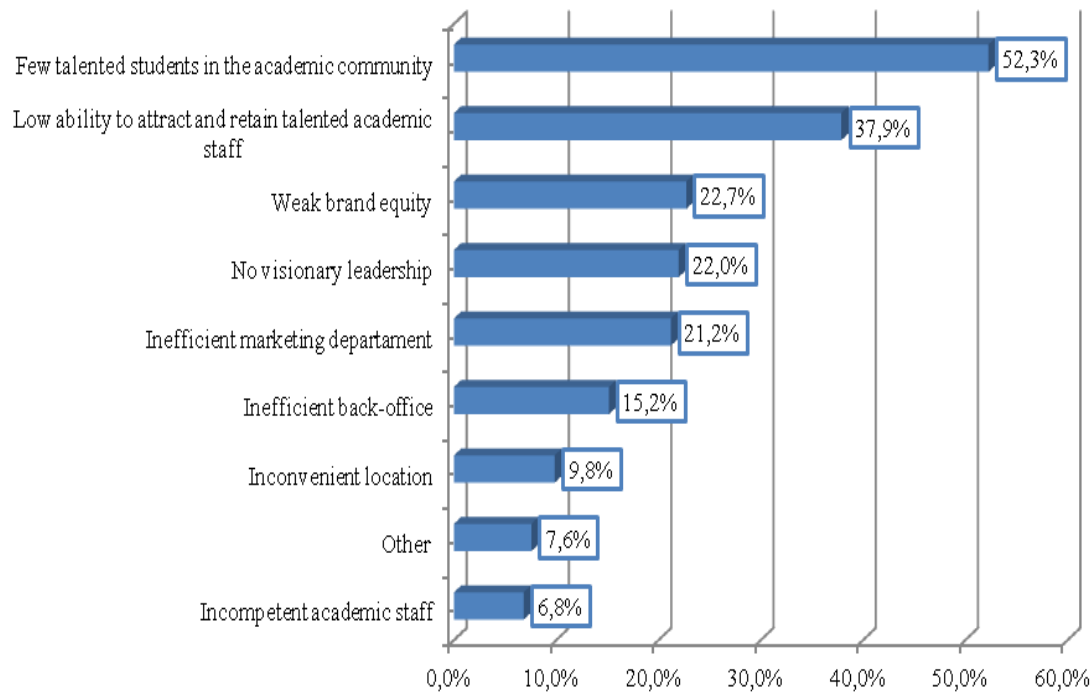


Figure 2: Weaknesses of non-public universities (Source: authors work)

Similar conclusions can be drawn from the comparison of the most frequently indicated strengths and weaknesses. The two most frequent weaknesses of non-public HEIs are the low percentage of talented students (52.3%) and inability to attract talented academic staff (37.9%). These features are the least frequently indicated strengths because the ability to attract talented academic staff characterizes only 6.8% of HEIs and the high number of talented students characterizes merely 5.3% of HEIs.

Table 1: Strengths versus weaknesses of non-public universities (Source: authors work)

	Strong brand equity	Many talented students in the academic community	Convenient location	Visionary leadership	Competent academic staff	High ability to attract and retain talented academic staff	Efficient back-office	Efficient marketing department	Other
<b>Weak brand equity</b>		-8,4%	3,0%	18,0%	2,7%	21,7%	2,7%	5,8%	15,7%
<b>Few talented students in the academic community</b>	8,3%		10,6%	14,4%	6,5%	-7,8%	11,4%	12,0%	-21,5%
<b>Inconvenient location</b>	8,3%	18,7%		-6,1%	6,0%	12,4%	4,7%	0,9%	-2,2%
<b>No visionary leadership</b>	8,3%	20,9%	12,3%		1,8%	-10,9%	-0,2%	-4,1%	-6,6%
<b>Incompetent academic staff</b>	-0,8%	7,5%	0,3%	4,3%		4,3%	4,1%	7,5%	0,9%
<b>Low ability to attract and retain talented academic staff</b>	4,5%	5,0%	7,8%	-12,0%	0,2%		2,1%	1,4%	16,0%
<b>Inefficient back-office</b>	0,0%	13,4%	6,3%	-0,3%	-7,2%	-15,2%		9,8%	31,0%
<b>Inefficient marketing department</b>	-3,0%	-6,9%	8,8%	-2,7%	7,4%	1,0%	2,4%		1,9%
<b>Other</b>	-1,5%	-7,6%	1,0%	-0,2%	1,9%	-7,6%	3,3%	-4,0%	



Those Higher Education Institutions which are interested in the improvement of their strategic capabilities may look at their strengths and weaknesses and indentify their capabilities and the areas for improvement. A similar analysis can be conducted based on the collected empirical data which characterizes the analyzed population of HEIs in Poland. Here, the research findings may be used in order to improve the whole system of tertiary education. Based on the data from Table 1, which contains information on the frequency of occurrence of weaknesses (compared to the average frequency of occurrence in the research sample) one can identify certain patterns. The respondents who consider the location of their HEI as its strength are more likely (than the average in the sample) to indicate such problems as *few talented students* or *lack of visionary leadership*. The percentage of such answers in the above mentioned group is higher (10.6% and 12.3% respectively; see Table 1).

The other frequently mentioned strength of non-public HEIs is *competent academic staff*. Those HEIs, which report this feature among their strengths, are more likely to report *inconvenient location among their strengths*, *having few talented students in their academic community* and *inefficient marketing department* (6.0 – 7.4% above the average). It is worth mentioning that those HEIs which boast with *competent academic staff* are less likely to have *inefficient administration personnel* (7.2% below the average). Other strengths worth mentioning include *visionary leadership*, which decreases the probability of occurrence of as many as five weaknesses from the list. As it appears, *visionary leadership* is a panacea for solving many of the problems which HEIs are facing. It is especially conducive in attracting *talented academic staff*. Apparently academic staff are attracted by the leadership of HEI more than by other characteristics of the university where they seek employment. Visionary leadership is also a good counterbalance against inefficient location of a university (12.0% and 6.1% respectively below the average).

The strength of a HEI which impacts the occurrence of as many as four weaknesses in a HEI is the *ability to attract and retain talented academic staff*. Those HEI which are characterized by the ability to attract and retain talented academic staff are likely to have below-the average occurrence of such weaknesses as *inefficient administration* (15.2% below average) and no visionary leadership (10.9% below average). Those HEIs which are characterized by high ability to attract and retain talented academic staff are also characterized by substantially higher percentage of such weaknesses as *weak brand equity* (21.7% below the average) and inconvenient location (12.4% below the average).

## 5. MOST PROMISING AREAS FOR IMPROVEMENT IN RELATION TO HEIS STRENGTHS

The respondents had a choice to select three most promising, cost-effective areas for improvement in their HEIs. The statistical analysis of the selected items indicates that the distribution of answers is very even: no single weakness has been voted as the leading area for improvement. The most popular area for improvement is increasing the percentage of successful graduates. This opinion is shared by 22.7% of respondents. The three following areas of students which were voted as the most cost-effective were indicated by one in every five respondents (Figure 3). Some similarities can be observed when comparing the most cost-effective methods for improvement of HEIs' competitive position which indicated *convenient location* as one of their strengths with those HEIs which indicated competent academic staff. In both cases the components of the five least frequently mentioned methods for improvement were identical. For HEIs which were conveniently located the most cost-effective methods for improvement are successful graduates and *teaching skills of academic*

*teachers. On the other hand, those HEI which have employ competent academic staff usually postulated good relations within the local community and brand recognition (Figure 4).*

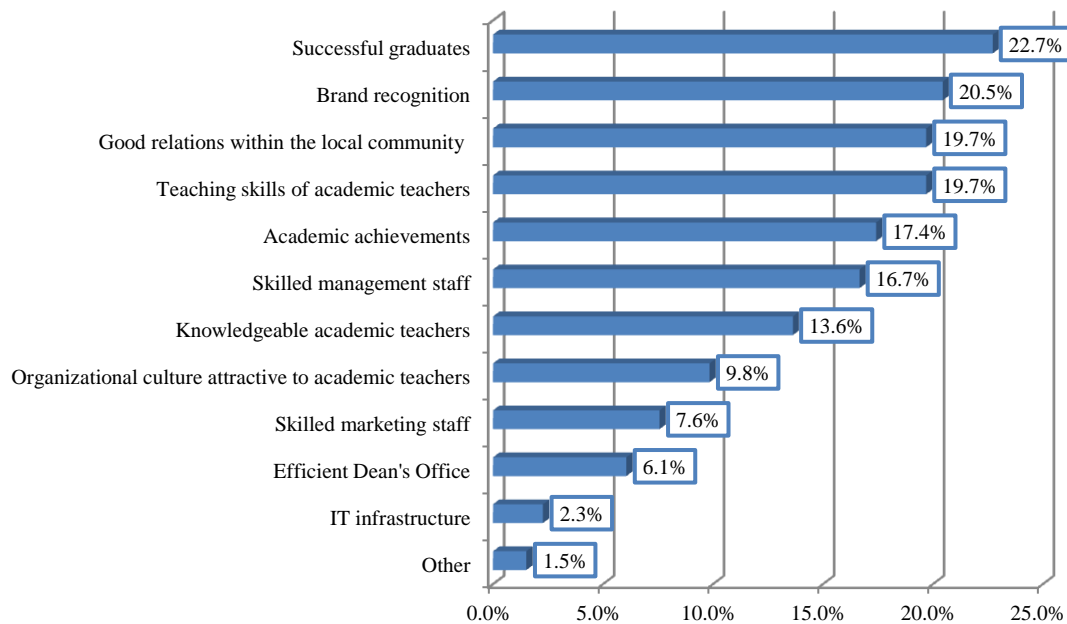


Figure 3: Most cost-effective areas for improvement in HEIs. (Source: authors work)

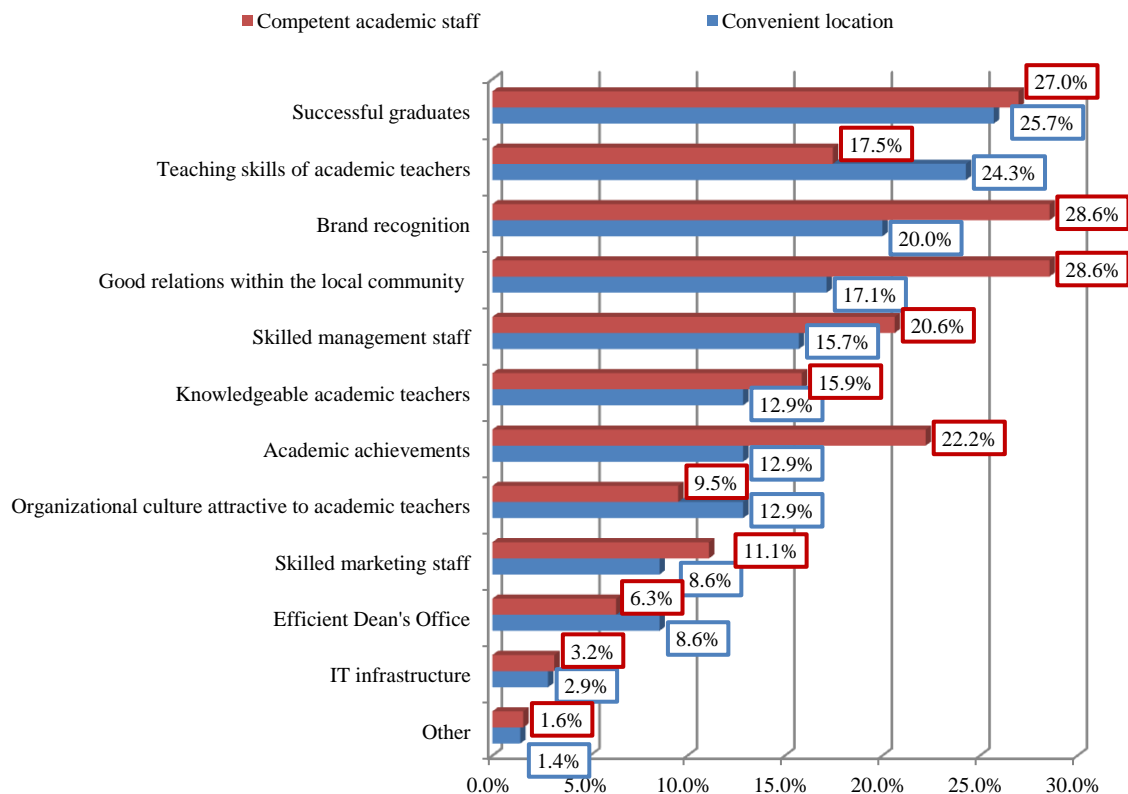


Figure 4. Most cost effective areas for improvement for those HEI's where academic staff and convenient location are their strengths (Source: authors work)

Depending on the strengths indicated by the respondents, the most popular areas for improvement are successful graduates (3 votes), good relations within the local community (3 votes), brand recognition (2 votes), teaching skills of academic teachers (2 votes), knowledgeable academic teachers (2 votes), skilled management staff (1 vote), academic achievements (1 vote). Regardless of HEIs strengths, the least frequently indicated areas for improvement were such options as organizational culture attractive to academic teachers, IT infrastructure, efficient Dean's Office, skilled marketing staff.

## 6. CHARACTERISTICS OF HEIS WHICH HAVE THE STRONGEST IMPACT ON THEIR COMPETITIVE POSITION IN RELATION TO THEIR STRENGTHS

According to the respondents, the competitive position of HEIs is most influenced by four factors. The most crucial are the managerial skills of the top management staff. Their importance is indicated by the largest percentage of respondents (41.7%). The other most popular items are: brand recognition, good relations within the local community, teaching facilities and clear vision of HEI's development. The importance of the remaining factors is recognized by a substantially smaller percentage of respondents (between 10.6% and 16.7%). Only the support from IT department plays a marginal role as a key competitive advantage (it was indicated only by 3.0% of respondents) (Figure 5).

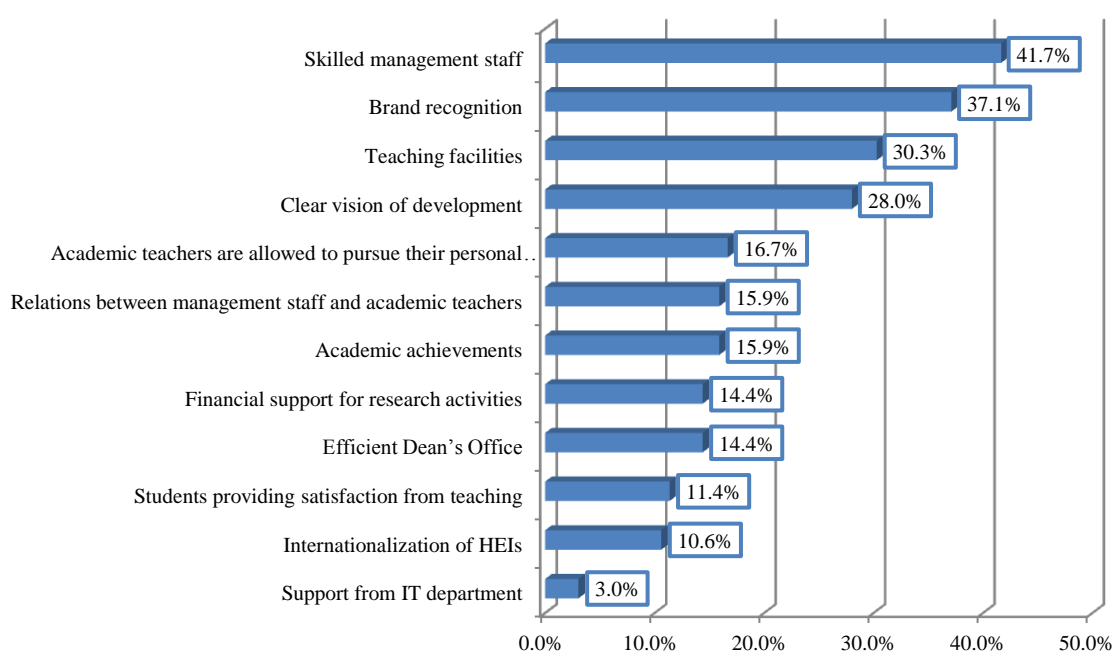


Figure 5: Characteristics of a HEI which have the strongest impact on its competitive position. (Source: authors work)

Both in the case of those HEIs whose strength was convenient location and in those where their strength was competent academic staff, the sequence of characteristics and the percentage of answers are almost the same. The order of the four most important sources of competitive position is the same in both cases. Some differences appear in the remaining characteristics. Those HEIs which declare "competent teaching staff" as their strength indicated *academic achievements* and *the possibility to pursue personal goals* and *efficient Dean's Office* as important sources of competitive advantage. Those HEIs which declare "convenient location" as their strength also indicated *efficient Dean's Office*, *good relations*

between management staff and academic teachers and financial support for research activities as as important sources of competitive advantage (Figure 6).

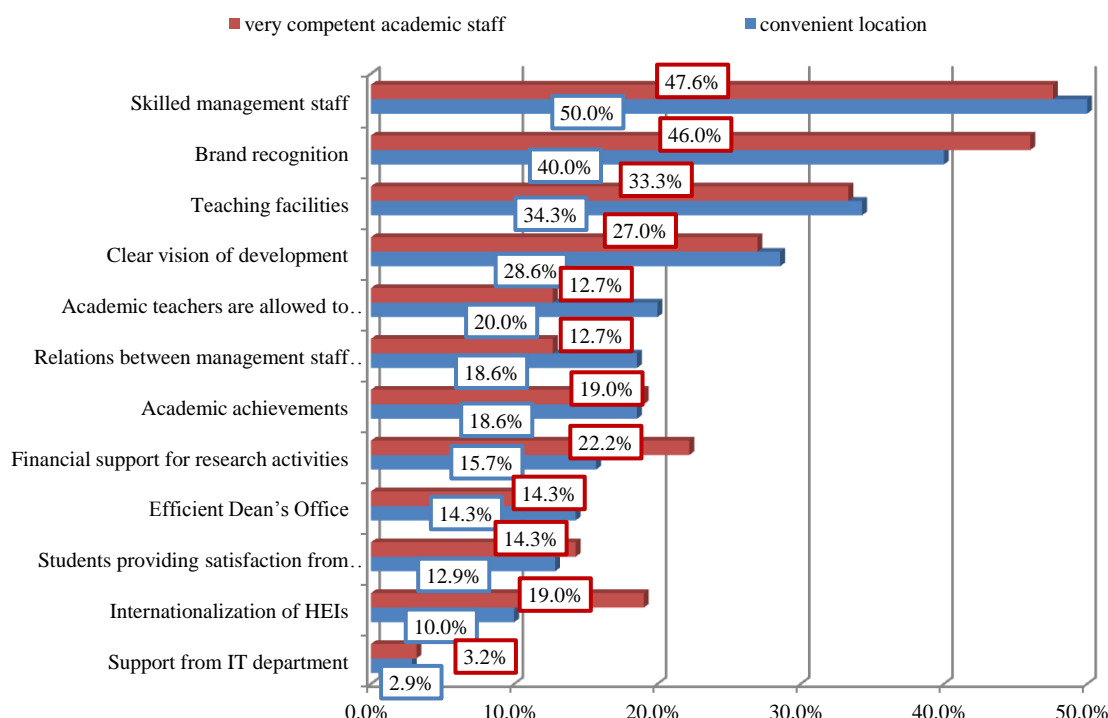


Figure 6: Characteristics of a HEI which have the strongest impact on its competitive position (for those HEIs which indicate competent teaching staff and convenient location as their strengths) (Source: authors work)

The comparison of the order in which the different elements of competitive advantage in HEIs appear confirms the statement that *skilled management staff* is the dominating success factor. Only in those HEIs where their strength was efficient back-office and strong brand equity, the most important competitive advantage is brand recognition in the local community.

## 7. SUMMARY AND CONCLUSIONS

The results from a survey among 132 management staff from non-public HEIs in Poland were presented in this paper. Its goal was to investigate the relations among the different determinants of the competitive position of HEIs.

The results of this study indicate that such strengths as visionary leadership and high ability to attract and retain talented academic staff are very important. Those HEIs which possess both features combined are also least likely to display certain weaknesses. It seems that the possession of some strength contributes to achieving the competitive position also the elimination or immunising a HEI against some weaknesses. According to the research results, regardless of the particular strengths of HEIs, the skilled management staff of universities and the brand recognition in the local community are the key success factors.

Only every fourth HEI mentions strong brand as their strength and only one in five respondents indicate visionary leadership as their strength. These features are at the same time recognized by the management staff as very important in achieving competitive advantage. This may lead to the conclusion that their efforts will be directed in the future into improving the

competitive position in these specific areas. Surprisingly, such factors as internationalization of HEIs, financial support for research activities and academic achievements are relatively rarely indicated as crucial in gaining strong competitive position. The identification of HEIs' strengths also may lead to the strategic decisions regarding the allocation of resources in order to achieve cost-effective results. There are no clear indications of one area and the differences in opinion of the representatives of non-public universities are relatively large.

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## **SOCIAL RESPONSIBILITY OF COMPANIES – GREEN JOBS**

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### **ABSTRACT**

*Modern corporations are taking initiatives to assess and take responsibility for the company's effects on environment and impact on social welfare. One of the aspects of social responsibility is the concern on green jobs in business sector. Information and Communication Technology (ICT) infrastructure has become a vital part of all sectors in business economy contributing to the fact that it will take more and more specialists with ICT skills. Demand for people who are capable of greening ICT itself and helping ICT to make other activities greener is the revolution in business. Green jobs and the use of green ICT represent a vision of the future. Goal of this paper is to present, through literature analysis, findings on importance of green jobs in industry and especially in ICT sector. In empirical part a preliminary research on perspective of students on aspects of green job as well as perspective of ICT companies is presented.*

**Key words:** *green jobs, ICT, social responsibility*

### **1.. INTRODUCTION**

Aspect of environmental protection and the ‘green’ of a company is nowadays becoming a ‘must have’. One of the responsibilities of companies is the concern regarding nature and environment. Concept of the *green* and *green economy* has moved beyond the boundaries of environmental economics and into mainstream politics and business in response to the dual problems of global climate change and the economic crisis (Borel-Saladin and Turok, 2013). Without change in economic and social policy and continuing with current form of business, growth and development, it will lead to negative consequences which can affect natural resources and entire ecosystem on which human well-being depends. It is therefore very important that countries change the path of growth in way which is consistent with environmental protection and sustainable use of scarce natural resources because it will contribute to achievement of significant advantages and also poverty reduction. “Green” is one of the most important adjectives of the 21<sup>st</sup> century. According to Walley & Taylor (2002, p. 36) the term ‘greening’ as is described as meaning “moving towards environmental or ecological sustainability.” This refers to business that has made efforts to become more environmentally friendly or a business which started as a green company (Robinson and Stubberud, 2013). The EU’s Europe 2020 strategy suggests three priorities that contribute to overall vision of the economy in the 21<sup>st</sup> century (European Commission, 2011):

1. Smart growth – developing economy based on knowledge and innovations,
2. Sustainable growth – promoting an economy that effectively leverages resources, which is greener and more competitive,
3. Inclusive growth – fostering economy with high employment rate, which brings social and territorial cohesion

Levering resources, fostering economy, innovations and knowledge sharing, all of this need to be implemented through the 'green' aspect of business. One of the main benefits of green growth is that jobs it creates tend to have higher local content than traditional fossil-fuel-based economic activities. Energy-efficient investments such as retrofitting buildings tend to be location specific and require local labour (Pollin, 2009). Organizations oriented toward green movement and which have supportive organizational cultures and employees who believe in alignment of their organization with green movement are more likely to see the organization as higher in quality management maturity, thus outcomes in terms of overall performance and positive impact of the green movement will also be higher (Zee, Fok, and Hartman, 2011).

Goal of sustainability is depicted as a development that includes social and economic system which must be incorporated within environmental concerns (Punitha and Rasdi, 2013; Saadatian, Haw, Mat, and Sopian, 2012). This is putting large pressure on organizations because they have to carry out their social and environmental obligations and revise their business practices accordingly in order to be able to develop sustainable business processes (Smerecnik and Andersen, 2011). Emergence of 'green' phrases in manufacturing and economy has provided comfort to companies to use this as a mechanism to perform corporate social responsibility (CSR).

As the literatures supports the green development is important, but the question is how much are student, the future of our economy, familiarly with this phrases and their meaning? Also, do companies take in count, especial after the crisis period is almost over, the *green* in producing and manufacturing? And above all, is the social responsibility of companies on a high level when it comes to protecting the environment? Therefore goal of this paper is to present, through literature analysis, findings on green jobs in industry and especially in ICT sector. Based on literature analysis a hypothesis is formed, as follows: *"Perception of small Croatian companies in ICT sectors on green jobs is positive"*. In empirical part preliminary research on perspective of students, the tomorrow's employees, on aspects of green job is presented as well as perspective of small ICT companies and their employees on green issues of society.

## **2. GREEN JOBS AND ICT**

Interest in green jobs around the globe was high during the recession when numerous studies proposed green jobs as the cure for a flagging labor market (Romero, 2013). One of interesting examples of development in direction of green growth is which requires that members of EU should make tax systems that favour growth in way that in the case of an increase in taxes on labour it would not have a negative impact on jobs, but the burden would be switched to energy taxes and taxes for environmental protection that would be called 'green' system of taxation (European Commission, 2011). Pollin (2009) estimated that \$100 billion in USA allocated to energy efficiency and renewable energy, split among tax credits, direct government spending, and loan guarantees, would generate 2 million of new jobs. Various European countries have used financial and economic crisis as an opportunity for

further development of green ICT whereby the Governments of these countries have provided an opportunity for green growth in its economy through various stimulus packages (OECD, 2010).

So far, there is no unique definition of green jobs, but few which seek to describe its essence. UNEP defines green jobs (Renner et al., 2008) *“as work in agricultural, manufacturing, research and development (R&D), administrative, and service activities that contribute substantially to preserving or restoring environmental quality”*. According to the OECD green jobs are (OECD, 2012): *“jobs that contribute to protecting the environment and reducing the harmful effects human activity has on it (mitigation), or helping to cope better with current climate conditions (adaptation)”*.

Use of Information and Communication Technology (ICT) affects environment from two different perspectives. First is causing environmental problems at every stage of the life cycle from production to usage and disposal (Buchalceva and Gala, 2012). During the production process of computers and various electronic and non-electronic components large amount of electricity, raw materials, chemicals and water is being used. Semi-product is a dangerous waste, which impact on environment is more than significant. Another perspective, with increasing trend, is electricity consumption by servers, computers, monitors, data communications equipment and cooling system, which leads to an increase in greenhouse gas emissions and pollution (Buchalceva and Gala, 2012).

## **2.1. Green ICT**

Combining the green elements and ICT, modern society has developed the term green ICT, which refers to ICTs with reduced environmental burdens such as reducing CO<sub>2</sub> emissions, reducing energy consumption, participating in recycling and “smart” (ICT) applications such as “smart” grids, “smart” transport systems, and “smart” buildings that affect the improvement of environmental performance throughout the economy (OECD, 2010). The term “green ICT” relates to “environmentally friendly and resource-efficient information and communications technology (ICT), which helps companies and their employees to work together more easily, avoid unnecessary travel or make goods traffic more efficient” (Swisscom, 2012, p. 11).

Relationship between green jobs, green jobs related to ICT and ICT-related jobs as well as examples of compatible occupations are shown in Figure 1. According to the Bureau of Labor Statistics (2013) in United States of America, green jobs can be viewed from two aspects:

1. Jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources.
2. Jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources.



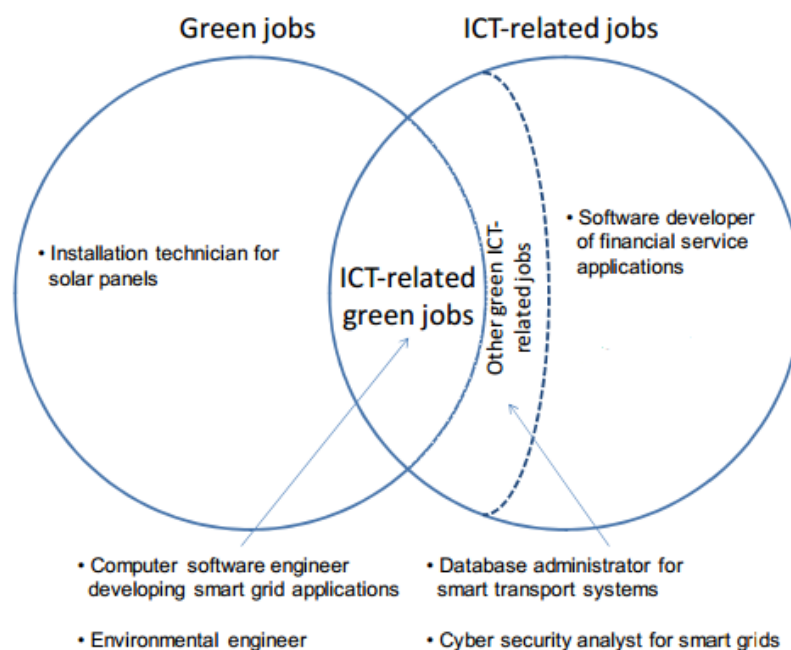


Figure 1. Relationship between green jobs, ICT-related green jobs and ICT-related jobs with examples (OECD, 2010)

Green jobs/workplaces related to ICT include (OECD, 2010): green jobs in ICT sector the ICT-sector employment (e.g. some ICT industries contribute directly to production of environmental goods and services) and ICT-skilled green jobs (i.e. ICT-skilled employment) including ICT specialists whose job is in ICTs, (e.g. software engineer), and where ICTs are used regularly as part of the job, but the job itself is not focused on ICTs (e.g. a researcher or an office worker).

As mentioned before, green ICT relates to environmental sustainability and it includes four fronts – *green designing*, *green manufacturing*, *green using* and *green disposing*. Massive use of ICT applications such as e-government, e-learning and e-transport contributes to the reduction of greenhouse gas emissions and to protection of environment (Minoli, 2010). Deployment of green technologies can directly increase demand for ICT-skilled workers i.e. for ICT specialists and ICT advanced users. Analyses done by OECD have shown that smart applications such as smart grids, smart transportation systems and smart buildings increase demand for ICT specialists and their skills, while the use of renewable energy sources such as wind and biomass increases demand for agricultural, chemical and environmental engineers who are considered to have advanced ICT skills as they are using advanced hardware and software tools (OECD, 2010). Positive role of ICT should be in a way which enables a carbon footprint analysis, monitoring and reporting on environmentally unacceptable business practice and introduction of computerized models in order to increase energy efficiency and reduce greenhouse gas emissions (Molla, 2009).

Constant rapid changes in ICT inevitably affect the company and associated jobs where is no longer enough to have just a formal education, but the emphasis is on lifelong learning and adaptability. Problem occurs with older employees who are not familiar with ICT, especially with green ICT. Therefore, company introduces training of its employees and the use of e-learning applications. In OECD countries, almost 25% of companies with 10 or more employees use e-learning educating their employees (OECD, 2012). Higher-education institutions play a major role when it comes to teaching

ICT skills, especially green ICT skills. Education programs focus mainly on smart computer systems, communications systems, systems and services engineering, intelligent systems, electronic engineering and computer networking (OECD, 2012).

### **3. THE GREEN IN COMPANIES**

Due to growth in environmental concerns over the last few decades, demand for sustainable development and green in manufacturing and marketing has been achieving its momentum (Chang and Chen, 2012; Jacques, 2009; Leonidou, Leonidou, Fotiadis, and Zeriti, 2013; Punitha and Rasdi, 2013; Romero, 2013). Previous research supports that a set of linkages among organizational green orientation, organizational culture, employee perceptions in green orientation, quality management maturity and outcomes, in terms of positive impacts of the green movement and organizational performance (Fok, Zee, and Hartman, 2009; Zee et al., 2011).

Green technologies are used to protect natural environment by minimizing waste, pollution, and carbon emissions (Day, 2012; Lober, 1998). According to OECD's report *Greener and Smarter: ICTs, the Environment and Climate Change* (OECD, 2010) ICT is listed as a key factor for green growth in all sectors of economy and they should be main part of government's strategy for a sustainable economic recovery. Adopting green ICT practices offers companies and individuals financial and other benefits like new opportunities including fresh markets, increased market share and improved current operations (Buchalcevova and Gala, 2012). Major reasons for using eco-responsible practices in companies is to reduce power consumption and lower cost, which is followed by lower environmental impact and improved system use (Molla, 2009). Large companies are more likely to succeed in implementing green ICT thanks to possibility of consolidation of their servers and using efficient data center technologies rather than small and medium companies (SME) which rely on hosting data centers or run only a few of servers (Buchalcevova & Gala, 2012). Although cost-benefits can be reaped from environmental improvements, many SMEs are reluctant to engage in eco-efficiency, possibly because they equate *green* with *expensive* (Isaak, 2002; Millard, 2011; Revell and Blackburn, 2007; Robinson and Stubberud, 2013). It may be more difficult for SMEs to recognize gains of green business given their smaller size and scale (Millard, 2011). In their research Zee et al. (2011) showed that large companies (with more than 500 employees) were more likely to produce green products and services. Although large companies exploited financial benefit from improved efficiency that can lead to reduced costs (Millard, 2011), SMEs are able to take more advantage of green opportunities due to their flexibility (Jenkins, 2009). According to Zee et al. (2011) small businesses are likely to exhibit higher levels of green awareness and belief in the importance of going green. SMEs can lower the amount of power consumed by their company computer system, by turning machines off when not used, e.g. at nights or during the weekends, or by switching to utilization of laptops and other portable devices instead of keeping traditional desktop computers (Buchalcevova and Gala, 2012).

### **4. EMPIRICAL RESEARCH**

For the purposes of this paper two independent research analyses were conducted. First the opinion of students was examined and afterward the green orientation in business practice of small ICT companies in Croatia. In order to research opinion and perception on green jobs of students, online questionnaire was formed and delivered to bachelor and master student at the Faculty of Organization and Informatics at University of Zagreb. A total of 101 students responded to the questionnaire, which formed convenient sample of full-time students from

undergraduate and graduate studies. Also 56 small companies in ICT sector answered the online questionnaire through which the awareness and acceptance of green or environmentally friendly jobs and occupations in the ICT sector was examined. Online survey was sent to a total of 758 companies' small companies, whereas questionnaire was answered by a total of 56 companies which is 7.4% response rate. A sample of 56 companies is representative of the population, because it contains all the features of population, from which the sample was taken. Population consists of all ICT companies with main business activity "Information and Communication" from Business Register of Croatian Chamber of Economy. Also, small companies are defined by the Accounting Act which states that small company can hire up to 50 employees during the year, with a nett profit of 65.000.000, 00 HRK, and assets of 32.500.000, 00 HRK. Below results of both research are presented.

#### 4.1. Data results on ICT companies

Respondents from ICT companies were mostly (64%) directors and/or owners of small companies. Due to the fact that these are small companies with up to 50 employees, authors assume that all employees are acquainted with business environment state and that correct and accurate information were provided. Perception of engagement in green jobs and activities in surveyed companies is on satisfactory level. Almost 75% of respondents stated that there is a rather larger engagement in green activities in their company. Also 36% of respondents stated that their company growth depends on their affection for applying sustainability practices either in large or small amount. In 45% of cases respondents believe that that there will be more green jobs or vacancy in the next five years, which is rather encouraging for green industry as well for environment. Due to the fact that Croatia has entered the European Union last year, all companies located in dynamic ICT environment have to be familiar with the strategy of the European Union - Europe 2020. Results are also very encouraging as far as the perception on usage of green ICT solutions such as virtual conferencing, energy-efficient workstations, fleet management and cloud computing in Croatian ICT companies goes. A whole 75% of respondents agree with previous statement. These results proved that companies use existing green ICT solutions.

When questioned on implementation and certification of systems according to *ISO 14001 Environmental management system*, unfortunately only 11% of companies have implemented ISO systems and 68% answered that they do not have it, which means that of 56 companies only 6 are certified according to 14001 (see Figure 2).

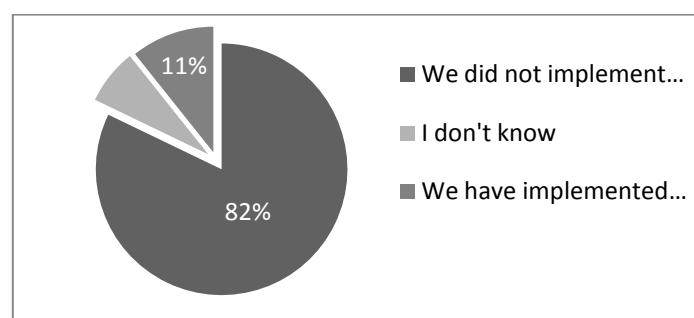


Figure 2: Response regarding the implementation and certification of the systems according to ISO 14001 Environmental management system

As stated above, education is an important puzzle piece when it comes to environment and green future, but sadly only 9 companies (20%) conduct employee education on green jobs and issues regarding environment (see Figure 3).

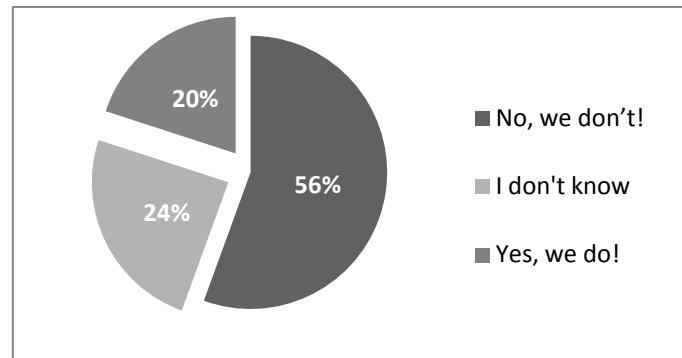


Figure 3: Response regarding employee education about environment

T-test was used to test if perception of small ICT companies on green jobs in Croatia is positive (H1). Table 1 shows average value for each variable, the ratio of the average value and the value of the t-test (test size = 2. df = 55). Total average value is 1.95 (65%) which is and p-value is less than 0.05. It proves that there is a perception and awareness of green workplaces and jobs in small companies, although due to lack of more evidence it cannot be stated that the awareness is positive or negative.

Table 1: Testing the perception on green jobs in small companies

Items	N	Mean	Ratio of average value	T-test	Sig. (2-tailed)
Engaged in activities that support the practice of environmental sustainability	56	2.68	89.33%	8.376	.000
Employing people just to do green jobs	56	1.41	47%	-6.470	.000
Believing that there will be more green jobs in next five years.	56	2.23	74.33%	2.210	.031
Using green ICT solutions such as virtual conferencing, energy-efficient workstations and fleet management. etc.	56	2.59	86.33%	5.822	.000
Implemented and certified system according to ISO 14001	56	1.29	43%	-8.190	.000
Employee education on environmental standards	56	1.52	50.66%	-4.731	.000

It can be concluded that the hypothesis 'Perception of small companies Croatian in ICT sectors on green jobs is positive' cannot be with a significance accepted nor rejected.

#### 4.2. Data results on Students

Online survey was filled by a total of 101 students, of which 49% of male and 52% female respondents and 67% were students in first year of graduate study. Data were analyzed through descriptive statistics and using Chi-square test. Below are presented final results of summarized answers related to students' familiarity with green jobs, perception of green ICT as well as a comparison by gender and type of study.

Research showed that almost two thirds of respondents (72%) understand terms like 'green jobs' and 'green career' (see Figure 4). Results of Chi-square test ( $\chi^2 = 0.34$ ,  $p = 0.983$ ,  $df = 2$ )

have shown that there is insufficient evidence which might suggest that there is a difference between male and female students' knowledge and understanding of green concepts. Also, when looking for a job opportunity 60% of students would rather choose a company with activities which support the practice of environmental sustainability. These results show a positive and high level of environmental awareness of students.

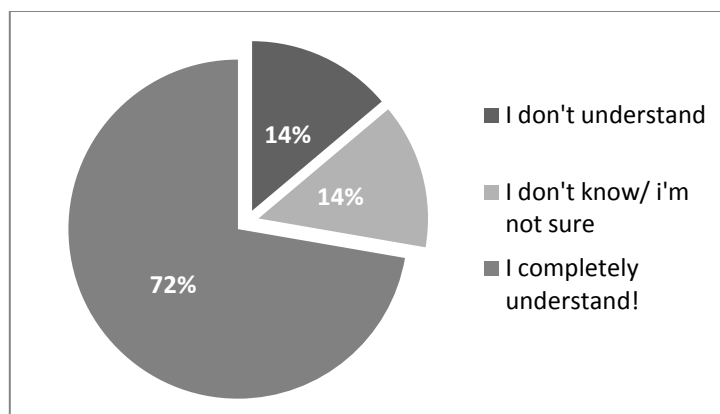


Figure 4: Students' responses regarding the terms 'green and career'

Results showed that overall 57% of students don't know what it is about in ISO 14001. This lack of information would be very easily solved by short educational seminars. The following statement confirmed that ignorance of ISO 14001 is not the problem because 69% of students agreed that they would like to be educated about environmental standards that are integrated into activities of their future jobs. During data analysis it was noticed that there is a statistically significant difference (0.006) between male and female students and their familiarity with ISO 14001. While analyzing familiarity with ISO 14001 among students from different studies, there was no statistically significant difference between undergraduate and graduate students ( $\chi^2 = 3.199$ ,  $df = 2$ ,  $p = 0,202$ ). Finally, female students are more informed about the content of ISO 14001, but the end result indicates that students, taking into account both genders, don't know what is about ISO 14001. Most students (total 68%) believe that in increase in green jobs in next five years will happen. Also, students are more optimistic and 65% of students believe that green jobs will contribute to growth and development of companies as well as to entire economy recovery.

## 5. CONCLUSION AND RESEARCH LIMITATIONS

It has been proved that green ICT will provide companies opportunity in new markets, increased market share and improved business processes. Initiative of green ICT is widely accepted among large companies around the world due to consolidation of its own servers as well as efficient use of data center technology. Problem which arises in small and medium companies is that majority of companies mostly rely on data centers that provide services to them like hosting (adoption) or they simply have a few of its own servers. Such companies have very restrictive IT and business infrastructure (Buchalcevova and Gala, 2012). It is argued that green economy will enable environmentally friendly economic and employment growth on the same, or a greater, scale than current environmentally unsustainable growth (Borel-Saladin and Turok, 2013). Due to continuous increase in number of unemployed people in Croatia, it is necessary to encourage growth of green jobs, which are often directly but as well indirectly related to ICT. However, it is necessary to distinguish between green jobs that are ICT-related and jobs that are related to green ICT.

Results of empirical research showed that perception and awareness of green workplaces and green jobs in small ICT companies in Croatia is rather positive, but a great lack of education of employees was noticed. Observing the survey results, one should bear in mind potential drawbacks of this research. Disadvantages are primarily related to the number of respondents (response rate of 7%) even though it cannot be denied that obtained data is representative and it describes the target population well. The number of students response presents representative sample. Data on number of small ICT companies is based solely on information gathered through own search of Business Register of the Croatian Chamber of Commerce.

If companies and individuals apply the practice of green ICT, they will surely achieve financial and other benefits. Specifically, there will be a decrease in energy consumption, cost reductions and it will also reduce the negative impact on the environment, which will come to a better utilization of the system both in business and in environmental terms (Molla, 2009).

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## MOTIVATION FACTOR FOR THE DEVELOPMENT OF MANAGEMENT IN THE ORGANIZATION

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### ABSTRACT

*Development of the organization depends on the skill in the application of a set of macro models and approaches to its continuous improvement and in terms of strategic behavior in situations of change, taking into account the factors of organization and its production efficiency, integration in the interaction of its structural elements as well as compliance with the dimensions of the human factor, reflecting directly into motivation, focus and Connectivity between collaborators, applying the principles of efficient and adequate life strategy. Therefore everything that concerns those aspects of the system of human resources in the organization encourage its positive development. At most, this means:*

- 1) use of its components, mechanisms and processes for stimulating each individual and management teams to self in a constantly „learning“ are organizations,*
- 2) application of techniques (tools) for selection and evaluation of individual and group behavior, analysis and study of human potential, applying policies and programs that combine intellectual and emotional commitment of employees, career development, with complex forms of impact, training talents and human capital development.*

*They are determined by its key points: allocation of labor, delegation of rights and responsibilities, specific specializations, etc. But all in the context of joint objective pursued, the different functions, operations, task assignments based on commitment and governance mechanisms connecting people in a comprehensive network of relationships and working structure. In this aspect of the analysis organizational structures are not as frozen diagrams illustrating Diversity of individual elements or planned coordination of activities, and as an active interaction between all the capabilities of the organization (technical, industrial and human) to achieve the objectives. Even in those characteristics of the organization are important as ways of its functioning (theories, concepts, models and approaches) and their critical and behavioral understanding, the impact of organizational structures and organizational design, but research and analysis of specific dimensions behavioral variables and projections.*

**Keywords:** *allocation of labor, efficiency, motivation, strategy*

### 1. INTRODUCTION

Motivation of human resources is closely linked with the preservation organizational culture and values that guide the achievement of quality and job satisfaction. To have shared interests and ideas, management must make decisions that will positively impact the staff to give it the best of yourself. Human Resources motivated because their behavior and actions in connection with their expectations. „A wide range of motives, desires, expectations, driven behavior of each person in its interaction with the environment. Itself environment determines human behavior“.



„The motive is something that initiate movement. Motivation is, what causes people to act or move a certain way. To motivate people is to steer them in a certain direction and taking on the necessary steps to get you there“.

The term „*motivation*“ comes from the Latin word, „*movere*“, and means „move.“ Three factors determine motivation: what causes behavior, what directs this behavior, and how it can be maintained. According to R. Steers and L. Porter each of these factors is important for motivation explanation and understanding of human behavior at work.

The main driver of behavior usually considered energy forces people driving them to certain behavior. In many cases, impact turns on these environmental forces. The second factor relates to the target organization - behavior that is guided and seeks something. The third factor is the strength characteristic of each person and those of the outer environment that reactivate their drivers and direct their energy.

In the process of reasoning on the one hand participating organization, and the other contractor. To motivate successful, management should be aware of basic motivational process (target needs-expectations) factors affecting on it with a realistic assessment of the performers.

The reason that provokes motivating human resources organization is the emergence of unmet needs. They push individual to take certain actions. He ranged them for yourself important and choose the way of action. On their choices affect many factors such as values and beliefs, life circumstances, typical features and more. In practice, this process does not always proceed smoothly, because the individual may experience difficulty to choose between the two needs that his seem equally important and urgent. Even when making the choice of the importance needs, it may be difficult in choosing the right way action. Individual proceed, after he has clarified what is essential to it. As a limiting condition are his abilities. Nevertheless, it may fail to achieve its objectives because it is overestimated. If an individual considers that meet their needs, they cease to determine its behavior. But if the need is not fully satisfied man again faces the choice of whether to continue to considered essential or to withdraw from the action on this issue.

„In the management of motivation seen in two interrelated aspects:

- Firstly, why people work, what drives their behavior at work;
- On the other hand, what can managers take to create and maintain work motivation among staff what to produce and keep under their desire to perform well in the organization to achieve its objectives “.

Through the process of motivation provoke cooperation, empathy, commitment to the common goals of managers and contractors. Steering staff must skillfully apply different motivational techniques that meet and situations, and contractors to turn this process into single actions, and in the continuous solutions (motivational therapy) compared human resources in the organization. To enable managers to make best use fully the potential staff and each member, they must offer them opportunities satisfaction of their needs. The main issue in this direction is the integration of the company's goals with personal goals of its members.

In theory and practice of management have developed various motivational theories. A number of managers, psychologists and sociologists working on problems of staff motivation.

The focus of their activity is to substantiate the reasons for motivating people in the labor process and how of its implementation.

Human resource development is connected with road hierarchy needs (from lower to higher needs), but should be Given that this is not compulsory process.

For people with a strong need for achievement of the award, including monetary compensation is relatively less important. They do not ignore them, but appreciate them more as a symbol of good performance work and realized goals.

Hartsbarg F. (1959) defines two types of motivational factors in its theory: hygiene and motivating. To hygiene factors he regards such such as salary, job security, working conditions, status, interpersonal relations. Motivating factors in his model six of achievements, recognition for achievements, service promotions development opportunities, work itself, responsibility. Differentiation of these two groups of factors similar to those of the internal and external factors (as psychologists). F. Hartsbarg based his theory on motivation:

„Study of meeting the needs and on the fixed motivational effect on satisfaction over 200 engineers and accountants. In their study, Hartsbarg and his associates require them to remember when they felt particularly well in their jobs and when especially bad. Then, each employee was asked to describe conditions led to a specific emotion. Employees symbolized various conditions as reasons for each of these feelings. Thus, for example, even led to the recognition that good feelings about the work, the lack of recognition was rarely cited as reasons for bad feelings“.

In analyzing the results Hartsbarg found that satisfaction and dissatisfaction in the workplace are two sides of the same thing. There are factors in the organization, which although improving, is not provoke increased motivation. Thus, it develops the concept of the two groups of factors which give the name of his motivational theory. Hartsbarg found that in case of dissatisfaction for employees, managers must analyze the factors that caused it to remove them. Accordingly, attempt to motivate contractors through hygiene factors is useless. For that attention should be directed towards motivating factors by which to stimulate excellence in work and creating a feeling among workers of satisfaction. Motivating factor must be built into the very position for to improve motivation (responsibility, autonomy, self-control). When leaders create organizational conditions for achievement, personal growth, responsibility and recognition, motivation can be increased. Comparing those meaningful motivational theories shows that each of them has its own specificity and something that distinguishes it from others. Opportunities in practice to apply the knowledge of these theories are significant the conduct in organizations motivational therapy.

„The characteristic feature of all four theories is that they studied needs and provide them to the classification, making it possible to do some implications for the mechanism of human motivation. Comparing the classification of the their needs, it can be noted that the different requirements in these groups sufficiently definite match each other“.

Process theories of motivation-The basic idea of these theories is that the motivation is caused by external factors. „These are the circumstances that create a feeling, a desire to compare, to analyze, to expect something will happen if take any action identified. Process theories

develop the thesis that people's behavior can be successfully influenced by idea and perception justice by expectations“.

### ***A Motivational Theory of expectations Victor Vrum***

It examines motivation as a process that controls the selection. The book your „Work and Motivation“ he writes:

„Whenever the individual chooses between alternatives with different results, we believe it is clear that his behavior will be influenced not only by preference for one or another outcome, but also the degree of certainty in the probability of the alternative. The expectation is defined as the instantaneous belief that a particular action will lead to a certain result“. During operation, individuals make choices between different behaviors work so as to obtain the preferred reward. Or they invest labor efforts that will lead to preferred rewards. Three variables in the motivational theory expectations are: choice expectation preference. The selection is bound to the targeting of one of several alternatives to behavior. The expectation is the belief that the selected behavior contractor will lead to success or failure. This is a subjective probability (0 - 1). Preferences are initiated with different values, which is attributed to results of labor (prizes penalties). Another problem that finds a place in the considered theory is instrumentality probability, which is characterized by the ratio performance score, as the artist. In applying this theory, managers should focus the three variables: what level of performance will select contractor results that will be implemented at the selected level (positive or negative) and what would be preferred (ie, evaluation of results of labor). These variables are closely related to specific perceptions Concrete Contractors. Managers must act with different solutions in this theory: through professional recruitment through training and upgrading skills and ability, through advice and support in various situations through knowledge of needs and aspirations for their satisfaction, etc.

### ***Motivated by objectives (Management by Objective)***

Is from Peter Drucker. The essence of this theory is composed in motivating effects of the two types of opportunities for individuals to be-informed about the objectives of the organization or participate in setting goals their own division. When he was a participant in the process of defining and the choice of goals then he will perform, with this arose involvement in the implementation of these objectives. In the choice of targets and performance management of their place and certain requirements:

- Goals are difficult but achievable goals are easiest underestimated in implementation, very difficult goals can motivate people; difficult but achievable targets generate challenges needed to meet the need for achievement;
- To develop a set of criteria for evaluating the implementation of purposes;
- People to receive accurate feedback on the progress of implementation targets.

Practice shows that applying this motivational theory is the successful in teamwork and team results.

„We are currently introducing a new management system management by objectives, wherein the base is that the dialogue between managers and subordinates are agreed goals for the next year. Then analyzes the achievements and again in the dialogue reached a common opinion. Thus we will try payment is based on real labor. Outside material point of view, I think that employees are motivated by personal example and by communication from the manager to the people who work by building of confidence, enthusiasm for work and belonging to something you like it. I do not want to motivate someone with money“.

### ***Process of motivational therapy of human resources***

Motivational problem occurs when staff organization is not optimally motivated. There are two variants of this problem: insufficient motivation or „overdose“ motivation. In both cases, there is deviation from the optimum. Symptoms of insufficient motivation are: underperforming, poorly quality of work, lack of initiative and responsibility. In 'overdose' motivation, results of human resources high initiative too. But they are relatively short. In the long plan on continuing motivation from a certain point performance reduced results deteriorate. Begins violation of motivation process, i.e., occurs demotivation of staff. It is not always obvious. But leaders is particularly important to recognize the signs of demotivation, because it can adversely affect the operation of the entire company, and also of their own success.

The reasons may be different: the lack of communication with the head, lack of experience and knowledge, lack of challenges, technical or organizational prerequisites. The analysis of the direct and indirect signals from managers will allow you to remove and solve the problems of demotivation staff.

#### ***First stage.***

*Diagnosis of the motivational problem.* The key point is it disclosure of unmet needs: Manager, subordinates, team, unit, etc. In diagnosing motivational problems should we have the following alternatives:

- Basic introduction to motivation problem before it has had negative impact on the contractor's organization.
- Analyze an existing motivation problem and clarify of its causes. Identifies and appropriate therapy.

The most likely cause for the motivational problem head/s of the department. They do not pay attention to this type of problems and thus deepen them. They are the reason for the two types of Motivation: insufficient and „Overdose“.

Diagnosis of the motivational problem starting from analysis of human personal needs, passes through the group and synchronize them with organizational goals (common objectives and interests together everybody in the organization and managers must focus on their implementation. In the case of a person and of personal satisfaction, and group and the finish - organizational purposes.) Personal needs are varied (indicated by Maslow). They are constantly changing. Upon satisfaction of a requirement, the quickly set herself a new man and want to meet. In addition, certain needs a dominant role for the contractor. People are different and they must be in order to explore the exact impact of the position of general interests.

Personal needs change over time. Individual Human development is the reason for changing needs.

#### ***Second stage.***

*Therapy motivational problem.* It is used to allow problems of motivation of human resources. The key is to create Heads of motives adequate unmet needs. The next step is to create conditions for meeting unmet needs of the performers.

In labor conditions are prerequisites introduced in action, helping to satisfaction of needs (ie the worker performs his task and nothing more). In case there are hygiene factors of Hartsbarg

remover dissatisfaction. But the motivating factors are the ones who will determine the achievement of desired satisfaction to the contractor. The majority of these factors aimed at secondary, higher needs (by admission authority development, self-improvement). It is essential that the management of organization to create those conditions by which the performers are create a real chance to meet their specific and changing time requirements.

Motivation determines the nature and direction of behavior of the individual in employment. „On the one hand is called.“ Intrinsic motivation as a result of aware of individual needs and deriving its actions to satisfying them through and in labor. On the other side is „extrinsic motivation“ where individual behavior is motivated „outside“ of the government organization directly or indirectly". distinction between the two forms of motivation is of importance for the management of the motivational process. In practice of business organizations, the behavior of human resources determined by the unity of the two types of motivation.

Managers the main issue that needs to resolve is whether motivating factors determine behavior appropriately to their expectations. The answer is given in the model of Porter-Louler. It contains the possibility to carry out a preliminary assessment of the likely behavior of the individual in the labor process.

Main points in the model of Porter-Louler help resolve (Therapy) of motivational problems. They are:

- The selection of the impact on the performer is dependent on the preliminary assessment of the possible behavior and its results (for process activity to the organization);
- Preliminary assessment covers three aspects: the probability by effects to realize the expected achievement, the probability that achievement to trigger recognition of the contractor, the value of this recognition to the contractor;
- The preliminary assessment is associated with specificity (ie a contractor), it continues with the self-assessment of the contractor's point of view its ability structure needs his work and his life experience and traditions;
- Correspondence between actual and desired recognition ensures achievements of human resources employment. The smaller is the difference between the actual and the expected acknowledgment, the higher is the degree satisfaction of human resources.

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## INNOVATION CAPABILITIES MEASUREMENT: EMPIRICAL STUDY

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### **ABSTRACT**

*The article deals with the theoretical and estimation issues related to the study of innovation capabilities in Russian industrial companies. Building on the resource based view and the dynamic capabilities concept we divided “innovation resources” and “innovation capability” constructs and estimated them by five types of dimensions. We used financial, human, technological, information and organizational dimensions. We present the theoretical background of innovation capability (IC) concept and its components. The result is a developed and validated model for measurement and planning of innovation capabilities of industrial companies in Russia. The model is based on the synthesis approach to studying in both innovation resources and capabilities. The methodology of the model provides a classification for innovation resources and capabilities, approach for estimation of these variables and platform for efficient capability's profile planning.*

**Keywords:** *Capability, Innovation, Measurement*

### **1. INTRODUCTION**

According to modern economic development, not only national economies, but also international and even small companies are interested in innovation development as a main source of competitiveness. With regard to innovations, Russian Federation is as an example of transition economy lagging behind the most developed economies. Russian Federation takes only 66th place in Global Competitiveness Rating. Instruments for measurement are essential and crucial elements for any sphere of management. The basic strategic management theories for this research are the resource based view (RBV) and dynamic capabilities (DC) concept as well as intellectual capital and operations management approaches. From the RBV point of view, a firm's resources should be valuable, rare, difficult in substitution and inimitable before the company has a competitive advantage on the market (Peteraf, 1993). The dynamic capability concept provides a capacity to create the innovation capabilities (IC) concept. Also macroeconomic innovation analysis methods have a background for micro-economic innovation analysis. The basic innovation management subject was only invention. Then Chesbrough's open innovations, operation capacity and intellectual capabilities were added and the subject was substantially expanded; now it includes not only product and process innovation, but also marketing and organization types of innovation activity. Nowadays most of investigations of innovation measurement became limited in their implementation. The most popular indicators, which were observed by global scoreboard like R&D spending or patent statistics, could no longer determine innovation activities in the company. Global statistic analysis organizations also started to change their regulations in the innovation measurement sphere. Leading consulting companies as McKinsey and Boston Consulting Group conducted innovation measurement surveys in 2008 and 2006 years. And a new strategic proposal was developed by The Advisory Committee on Measuring Innovation in

the 21st Century Economy in the USA, where new methods and goals were presented (Innovation Measurement, 2008). The paper presents a method for company's IC measurement and development planning and results of the validation of this method. We combined different approaches and used methods from several scientific fields in order to develop theoretical background, also we used Russian statistic forms, which were implemented in 2008 year and were based on Oslo Manual to formulate questions of the survey. As a result we developed a method that includes innovation resource evaluation, innovation capabilities estimation, and measurement of innovation capability's impact on the innovation firm's performance. Also we present innovation capabilities profile planning methodology, based on Russian industrial companies' survey. The novelty of this measurement method deals with estimation both resources and capabilities in a similar structure and by separate indicators and approach of innovation capabilities planning. From the model implemented in Russian industrial companies we can see, that there is a need to develop innovation capabilities in Russia in order to rich perspective goals of innovation development.

## 2. LITERATURE REVIEW

The topic of innovation measurement was investigated by many researchers, and now we have a substantial background for the future expansion of the methodology and development of new methods, which take into account full range of innovation's types and latest revelation from different scientific fields. Starting from Schumpeter's innovation as an instrument of entrepreneurial development and evolution theory, innovations were included into normative manuals. The Resource Based View (RBV) of strategic theory became the main prerequisite for a development of innovation capabilities concept. RBV allowed to consider a firm as a complex of resources and capabilities (Wernerfelt, 1984), and to explain differences between firms by their valuable, rare, inimitable, non-substitutable resources (Barney, 1986, 1991, Amit, 1993, Dierickx, 1989, Peteraf, 1993, Hamel, 1994). Secondly, the Dynamic Capabilities theory shifted the main focus in strategic management from resources to firm's capabilities. According to D. Teece innovation capabilities allow "the firm to create new products and processes and respond to changing market circumstances"<sup>86</sup>. Based on the main definition of dynamic capability, it is "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments"<sup>87</sup>. Using DC concept, we defined the innovation capability as a firm's ability to create, integrate innovation resources and apply them into operation process in order to perform innovation activities. To develop theoretical background for estimation of innovation resources we used another prolific literature dealing with innovation potential. We divided two different approaches of innovation potential understanding. On the one hand, innovation potential could be a synonymous with capability. On the other hand, innovation potential could be just a combination of available resources which not every company can use according to its abilities. According to the second view point, we analyzed innovation potential measurement methods in order to estimate available resources in Russian industrial companies. As a result of literature analysis we developed a classification of innovation measurement methods and divided them into several groups. The first group is presented by input oriented metrics. Romijn, Albaladejo (2002), Capaldo, Iandoli, Raffa, Zollo (2003), Parashar, Sunil (2005), Chaveerug, Ussahawanitchakit (2008) estimated innovation capabilities by innovation

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<sup>86</sup>David Teece, Gary Pisano. 1994. The Dynamic Capabilities of Firms: an Introduction. *Industrial & Corporate Change*, 1994, Vol. 3 Issue 3, p537-556

<sup>87</sup>David Teece., Gary Pisano, Amy Shuen. 1997. Dynamic Capabilities and Strategic Management. *Strategic Management Journal* 18(7): 509-533. 1997

resource's indicators. They analyze the relation between innovation resources and results. Lawson, Samson (2001), Sawhney, Wolcott, Arroniz (2006) and Fruhling, Siau (2007) applied process indicators to measure innovation capabilities. These approaches gave us an understanding of efficient management practices which help companies to develop innovation activity. Tuominen, Hyvonen (2004) and Salomo, Weise, Gemunden (2007) used in their methods output characteristics, which are close to innovation results estimation. Also there are many methods with mixed indicators. Swink (2006) combined process and output indicators, McKinsey and Boston Consulting Group offered input and output characteristics for innovation measurement, which they identified from companies top management surveys (McKinsey Global Survey Results, 2008, Measuring Innovation, 2006) etc. It is interesting to admit that most of Russian surveys could be attributed to 1nd and 3rd groups.

### 3. METHODOLOGY AND MODEL

The broad purpose of this study is to develop relevant management methods for innovation capability's measurement and development planning and approve them on the sample of Russian industrial companies. According to our method, the first step of innovation capabilities measurement should be the estimation of innovation resources as potential sources for innovation development. Just after understanding of the firm's profile of innovation resource we can analyse firm's innovation capabilities. This argument justified the importance of resource and capabilities comparability that we took into account in our research. The measurement of innovation resources is an essential step to estimate relations between capability's exploitation and real innovation results. The implementation of the innovation capability dimension allow us to decrease the general innovation management problem which deals with inconsistency of estimated in one period of time and innovation circle resources and results. The general estimation model is shown in the picture below.

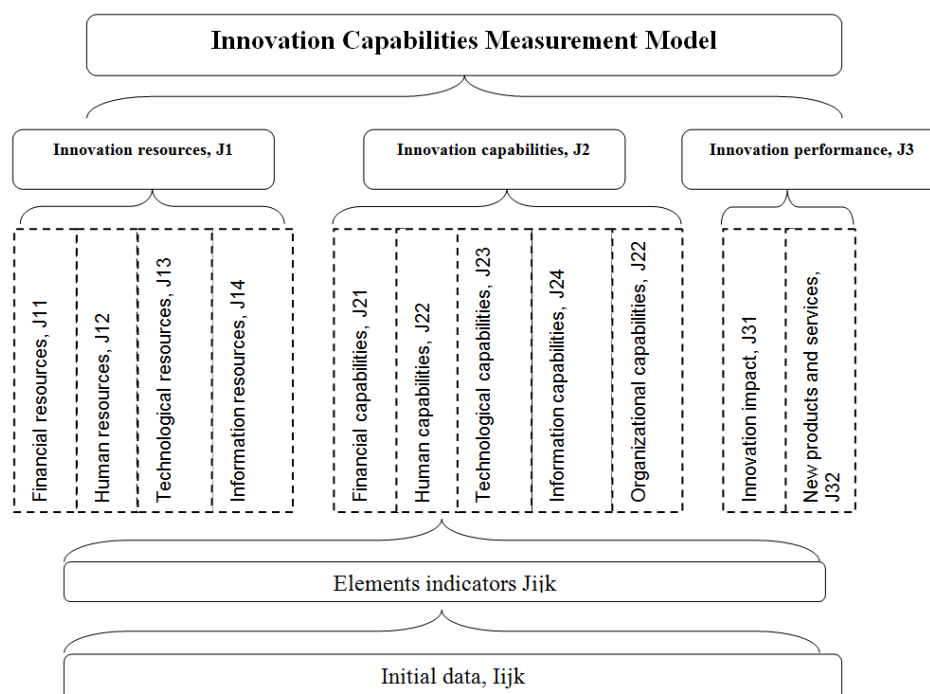


Figure 1.: Model 1



### **Innovation resources**

Barney defined resources as «all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness»<sup>88</sup>. In our research we investigate innovation capability's resources, which are resources of previous level according to Barney's conception. We analyze a general list of financial, human, information and technological resources that are responsible for a firm's ability to create organizational support for innovation activity development.

As we tried to estimate innovation capabilities of Russian industrial companies we needed to use not only foreign literature and standards but also Russian theoretical and practical surveys. One of the main official European manuals is Oslo manual, which is a guideline for collecting and interpreting innovation data. Based on this manual Russian Federal State Statistics Service developed official forms in order to gather and analyze innovation data in the country. These forms were obligatory implemented in 2008 year and all the companies were informed about new standards. So we decided to use these forms in order to collect relevant information on innovation activities of Russian companies, which used to account for this information. Financial resources we define as a complex of financial assets, which are required for innovation activity realization. So we had chosen from these forms seven questions to assess the financial resources of innovation: expenses to each type of innovations and types of financial sources as a percentage of sales.

Human resources are a combination of workforce characteristics: knowledge and education, background of founder/manager(s), skills of workforce, diverse work force, and R&D employees. In order to estimate this type of innovation resources we also used questions from statistic forms. We analysed number of employees in innovation field, diversity in their education and HR development programmes in a company.

First two types of resources were estimated using official statistic form called "Innovation". The third type of resources, technological resources we estimated on the base of another official statistic form called "Technology". Measuring technological resources we asked companies about level of novelty of six groups of technologies.

Information resources include internal and external sources of information, information and communication technologies and intellectual property rights. As internal resources we understand ideas pipeline inside the company, R&D department and management initiatives. External information sources are other organizations, suppliers, competitors, customers, consulting companies, scientific institutions, literature and Internet, professional associations and informal contacts. Also we analysed ten groups of information and communication technologies which allow a company to communicate and operate efficiently. In order to understand the role of intellectual property as an innovation resource, we estimated relevance of different types of protection of intellectual property rights.

### **Innovation capabilities**

The development of innovation capabilities depends on the availability of innovation resources. According to research methods we use the similar structures for innovation capabilities and innovation resources. This correspondence allowed us to understand valid

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<sup>88</sup>

Barney, 1991, p.101

sources of innovation capabilities. But also we added one capability which was not estimated as resource dimension – organization innovation capability.

In contradiction to resource dimensions we measured innovation capabilities by Likert scale as the subject is intangible and is not associated with a specific period of time. We decided to estimate capabilities based on several parameters. We analysed sufficiency, structural correspondence, quality, completeness of utilization and dynamic of development.

The financial innovation capabilities could be estimated by the sufficiency, budget performance, timeliness, rational time and project distribution. Human innovation capabilities define firm's abilities to motivate staff to innovate and to apply its innovation potential. Estimating human innovation capabilities we asked managers about corporate educational programs, their need and importance in careers development, organizational culture, adequacy of the functions distribution of the personnel, special time and zone for innovation activity and other questions about innovation management actions and tactics that had proven their efficiency and validity both in practice and theoretical studies. In order to account technological innovation capability we measured cohesion and structural compliance of company's technology. Also we analysed ability to implement modern technologies and degree of capacity load. Factors of information innovation capabilities as information resources we divided into several groups and estimated capabilities in information and communication technologies flow of innovation ideas and intellectual property. In order to analyse organizational innovation capabilities we asked about creation, development, implementation and planning of innovation resources.

### **Innovation results**

We measured innovation results in order to check validity of suggested innovation capabilities factors. This variable is used in many research papers and also there are many manuals and recommendations offering metrics for innovation results.

As we did in case of innovation resources, we used metrics from official statistic forms of Federal State Statistics Service in Russia. We asked respondents to estimate degree of influence of innovation activity on firm's development. We analysed product and service extension, new market penetration, quality improvement, growth in employment, increasing the flexibility of the company, production capacity growth, costs reduction, ecological improvements and improvement of technological standards. Also using McKinsey and Boston Consulting Company surveys results we added such innovation output characteristics as new or improved products and services as a percentage in sales.

### **Methodology**

The theoretical model 1 presents concept structure of innovation resources and capabilities. As we can see, structures of resources and capabilities in our model are quite similar, besides organization capabilities. According to our concept, we measured innovation resources quantitatively, so we could not add any implicit factor, which deals with organization innovation capability. There are many qualitative researches about corporate factors which contribute innovative development. We tried to take them into account estimating innovation capability and also in case we tried to measure them as resources we could not eliminate double counting effect as we analysed all firm's resources in general groups.

As a main hypothesis we suggest resource's impact on capabilities and capabilities impact on innovation performance. To create a more precise method, we plan to test associations between individual factors of variables. As an extension of measurement method we try to develop the methodology for innovation capabilities planning. The reason for the measurement method's implementation for the planning could be a positive influence of innovation capabilities on the firm's innovation performance.

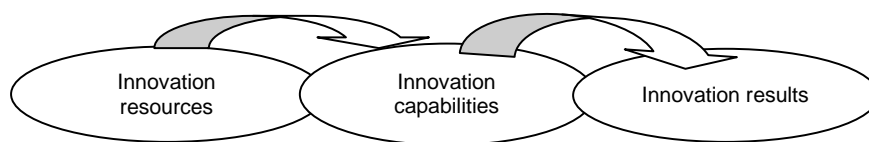


Figure 2.: Innovation process variables

The main methodology in the research is a factor analysis. The factor analysis allows us to estimate and test a range of latent variables in the one model and measure impact effects. The developed questionnaire was tested by experts, and after that we modified it. Empirical data is obtained through a mailed questionnaire to managers. As the measurement scale includes qualitative and quantitative metrics, we should index data in order to make them comparable and estimate relations between variables. In order to make both scales comparable initial data were divided by maximum value in the group.

ANNOVA methodology implementation allows us to perform explanatory factor analysis and confirmatory factor analysis. The explanatory factor analysis gave us better understanding about indicators structure and number of factors in the model. The confirmatory factor analysis provided correlation coefficients and confirmed validity of variables structures. These coefficients were used in equations to estimate latent variables.

## 4. RESULTS

Table 1. Results of explanatory factor analysis

Indicators	Initial number of questions	Final number of question	Number of factors
Financial resources	7	6	1
Human resources	4	4	1
Technological resources	7	7	1
Information resources (IT)	10	10	2
Information resources (Sources)	10	10	3
Information resources (Intellectual property)	8	8	3
Financial capability	7	3	1
Human capability	9	8	1
Technological capability	6	6	2
Information capability	11	11	2
Organization capability	4	4	1

The paper presents the theoretical background for innovation capabilities measurement and the planning methodology, indicators of innovation resources, capabilities and performance. The questionnaire went through a number of revisions after experts and sample companies

pre-testing. The number of model's factors was reduced and most of the questions were modified into interval scale. After the explanatory factor analysis the number of questions was reduced and some of them were divided into different factors. The result of this stage of research is presented in the table above.

According to results presented in the table above, Information resources were divided into three indicators: information technologies, sources of information and intellectual property. After this research stage the research model included three types of information resources.

The results of the confirmatory factor analysis provided us with regression coefficients and their relevance for each indicator that influence on different types of resources and capabilities. Also this step of research allowed excluding irrelevant indicators that had made model quality worse. We checked the number of factors estimating variables, estimated the level of structures quality of variables and finally got coefficients of influence of different types of resources and capabilities on latent variables as innovation resource and innovation capability. The sufficient change in the model structure has been the selection of two factors inside information resources. The first factor describes questions about information capacity and second – about implementation of this capacity. The main results are presented in the table below.

*Table 2. Results of confirmatory factor analysis*

Model's element	Number of indicators	Type of element	Regression coefficients Level of reliability: *0,01; **0,005; ***0,001
<b>Innovation capability</b>	38	Financial	,612***
		Human	,828***
		Information (1)	,907***
		Organization	,850***
		Technological	,894***
		Information (2)	,816***
<b>Innovation resources</b>	37	Financial	,869***
		Human	,712***
		Technological	,787***
		Information	,817***
<b>Innovation capability</b>	<b>75</b>	<b>Innovation resources</b>	<b>0,689**</b>

Regression coefficient between resources and capability allows us to assume that we develop a good measurement method of innovation capability. According to the results all the coefficients are reliable and have value more than 0,5. As we can see information and technological capabilities have the main importance for the formation of innovation capabilities. The financial capability is not the most significance for innovation capability. Contrary, financial resources have critical importance for innovation resources as a source of their development.

As a main result we got equations to calculate values of models elements based on meanings of initial indicators. We have several levels of equations:

- $J_{ijkn} = I_{ijkn} / I_{ijkmax}$  we have in order to calculate first level relative value of indicators by dividing initial data by maximum value of parameter gotten in the group;

- $J_{ij} = \sum (J_{ijk} * \beta_{ijk})$  we use to calculate value of separate type of resources or capabilities by multiplication first level indicators by standardized regression coefficients;
- $J_i = \sum (J_{ij} * \beta_{ij})$  allow us to calculate the value of innovation resource or innovation capability by multiplication separate type of resources or capabilities by their standardized regression coefficients;

Where indexes are: i – innovation resource or innovation capability; j – types of resources and capabilities, k – each indicator measuring types of resources and capabilities; n – number of responded company.

For example in order to calculate innovation capability of the company we can use following linier regression equation:

$$J2 = 0,612 * J2.1. + 0,828 * J2.2. + 0,894 * J2.3. + 0,907 * J2.4.(1) + 0,816 * J2.4.(2) + 0,850 * J2.5.$$

Where J2 is innovation capability, J2.1. is financial capability, J2.2. is human capability, J2.3. is technological capability, J2.4. are information capabilities, J2.5. is organization capability.

Based on the results of factor analysis we can confirm the existence of positive influence of innovation resource on innovation capability, the value of standardized regression coefficient is 0.689 having reliability level less than 0.005.

The analysis of innovation capabilities gives a company instruments which allow creating development plan basing on capabilities and resources estimations.

## 5. INNOVATION CAPABILITY'S PLANNING

The company can choose different innovation development strategies. According to M. Porter (Porter, 1980), the company can differentiate improving unique competencies or it can develop wide range of innovation capabilities. In both cases the company should take into consideration resource limitations. We consider several key principles of planning:

- The strategic development plan of the company should be the base for the innovation planning;
- First step of planning is a determining of the desired level of development of innovation capability;
- Second step is devoted to the planning of desired level of development of each innovation capabilities type;
- On the third step target parameters of elements of each type of capabilities should be determined as well as range of action needed to achieve goals.

First of all the company should estimate level of development of innovation capabilities and then plan desired level based on its strategy. That is not a secret that limited resources significantly constrain opportunities of development. One of the main goals of the company is to efficiently distribute these resources. There are several ways to prioritize development factors:

- Based on the leader's positions on the market;
- Based on the most developed types of capabilities that make the company unique;
- Based on the least developed types of capabilities in order to maintain balance;
- Based on the absolute number of development levels.

Then the company should use regression coefficients to calculate the level of development types of capabilities and then resources. The list of actions will differ for every company so it is impossible to calculate general costs of such development. It is also should be a task for the company, but in order to allocate limited resources it can use methodology of innovation capability development planning.

## 6. CONCLUSION

The research presented in the article aims to develop measurement and planning methodology for efficient management of innovation activity on the firm's level. As a main instrument for innovation management we offer a concept of innovation capabilities. The theoretical model includes a measurement method, factors, variables and planning approach. As a basic theory for the methodology we used a resource based view of strategic management and dynamic capability concept. The substantial literature review allowed us to extend different methods of innovation measurement with a new vision. We implemented this model for Russian industrial companies. Results provide explanatory and confirmatory factor analysis, regression analysis that gave us an opportunity to confirm the offered structure of variables and estimate influence of innovation resources on innovation capabilities. Also we got regression coefficients of each type of resources and capabilities that made possible to plan the process of development.

Based on the results we can make several scientific conclusions:

- The concept of innovation capabilities is quite new for the Russian management literature;
- According to the author's approach innovation capability is a firm's ability to create, integrate innovation resources and apply them into operation process in order to perform innovation activities;
- Innovation capability includes six different types: financial, technological, human, information (potential), information (ability to use) and organization;
- Estimation of the innovation capabilities includes estimation of innovation resources that influence on the capabilities;
- Regression coefficients allowed not only to confirm theoretical hypothesis, but could be used in the process of development planning.

The current research can be added by other industries and other countries data that allow make wider conclusions about management methods based on innovation capability concept.

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## MANAGERIAL OWNERSHIP AS AN INCENTIVE FOR MANAGERIAL ACTIONS

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### **ABSTRACT**

*Lately, the effect of firm size on managerial compensation becomes much poorer while compensations of top management team are associated mostly with the firm performance. Specifically, the use of stock options and other forms of deferred compensations puts the firms' growth as the most important goal to managers because that is how they can exaggerate the decisions and actions about firms' growth. TMTs' effort of is difficult to measure, so it is almost impossible to define how much effort the manager should invest to deliver the maximum in performing their job. Participation in ownership could provide financial incentives to managers that will make them more connected and committed to the organization and more motivated at work. Increased motivation will have direct effects on improving productivity through greater efforts and possible innovations. If the firm achieves higher profits in the long term/run, managers-shareholders will increase their wealth by receiving dividends and/or due to higher stock prices at the capital market. Managerial ownership can be viewed as a way to combine the interests and goals of managers and owners, which increases with the enlargement of manager's share ownership (Jensen and Meckling, 1976). By increasing their ownership in firm, top managers are increasing their relative power and thus reinforce and consolidate their position. Therefore, this paper discusses how managers could use their power to achieve their own interests at the detriment of the interests of other shareholders, so all that can create a negative effect of ownership.*

**Keywords:** *managerial compensation, gain sharing, managerial actions, firm strategy*

### **1. INTRODUCTION**

Involvement of workers and managers in the ownership structure may, under certain conditions, contribute to the increase of productivity and strengthen the firm competitiveness.

The participation of managers and other employees in the ownership becomes important in circumstances where they are an essential ingredient in creating new values and when they are substantially contributing to the development, creation and strengthening of firms' intellectual capital, and when it is important to tie them to the firm for a long-term. Proponents/supporters of implementation of the employee and managerial ownership program emphasize that the interests of owners and employees can be linked in that way, which could prevent the creation of unnecessary conflicts within the firm and bring entrepreneurial risk-taking activities.

Theoretical and empirical research does not provide unambiguous support for the positive role of the employee ownership, although there is no doubt that the participation of workers and managers in firms' ownership may be one factor in creating a corporate culture that supports costs reducing and enhance business potential or promote the development of economic democracy at the business level.

Managerial ownership can be viewed as a way to combine the interests and goals of managers and owners, which increases with the enlargement of manager's share ownership (Jensen and Meckling, 1976). In fact, managers have an interest in implementing the investment strategy that prior benefits them, not considering if they are reducing dividends to shareholders.

Effort of top managers is difficult to measure, so it is almost impossible to define how much effort the manager should invest to deliver the maximum in performing their job. Participation in ownership could provide financial incentives to managers that will make them more connected and committed to the organization and more motivated at work. Increased motivation will have direct effects on improving productivity through greater efforts and possible innovations. If the firm achieves higher profits in the long term/run, managers-shareholders will increase their wealth by receiving dividends and/or due to higher stock prices at the capital market.

In addition, managerial incentive contracts that involve the allocation of shares (or rights to purchase shares) are one of the ways to reduce or eliminate the problem of information asymmetry in agency relation between managers and shareholders. It is natural that managers who are involved in the daily life of a corporation with more relevant information and knowledge about the business of the company than shareholders that know the firm mainly through periodic, generally poor reporting forms. Through incentive managerial contracts interests of managers and shareholders can be much closer, rather than other control mechanisms that have higher or lower agency costs, so existing information asymmetry becomes irrelevant.

Some researchers believe that the managers and other employees should not be simultaneously concentrated on their financial and human capital; this means that due to the risk diversification they should not invest their capital outside the firm in which they work (Woodward, 2000, p. 2).

The second remark is that the models of insider ownership implementation usually do not bring new (fresh) capital in the firm and that the entrenchment of the existing management reduces the potential for the development of new knowledge and skills, as well as the desired pressure from the managerial talent market (Woodward, 2000, p. 3).

The weakness of the firms in which the owners are managers and employees is the inability of the strategic restructuring, as considered from part of the researchers. The reasons are in the fact that the ownership structure resulting from the insider privatization, does not sufficiently protect the interests of outside shareholders, and thus slows or prevents the growth of share capital. Also, some authors emphasize that the majority managerial ownership along with employees always results in excessive employment and wages that are above market (Boycko, Schleifer and Vishny, 1996, p. 317).

If there are no external oversight entities, there is the possibility that managers and employees will give priority to increasing the security of their own position in the firm as well as other sources of benefits for themselves which are arising from that position, rather than increasing corporate value. This possibility is even more likely in countries where due to the recent transition, the capital market has not yet been developed (Wright, Buck and Filatotchev, 2002, p. 309).

Through owning a share package managers can maintain their existing position. The higher proportion of top management ownership is, the greater is the likelihood that they will not be changed when the firm is not achieving satisfactory results. The probability of a reduction in the efficiency of internal control mechanisms of corporate governance increases if top managers significantly participate in the ownership structure. The rational assumption, under agency theory, is that managers are behaving selfishly so they will not accept their change regardless of how justificatory the reasons are.

By increasing their ownership in firm top managers are increasing their relative power and thus reinforce and consolidate their position. Managers can use their power to achieve their own interests at the detriment of the interests of other shareholders, so all that can create a negative effect of ownership.

## **2. GAIN SHARING AS AN INSTRUMENT OF TMT COMPENSATION SYSTEM**

By increasing their ownership in firm top managers are increasing their relative power and thus reinforce and consolidate their position. Managers can use their power to achieve their own interests at the detriment of the interests of other shareholders, so all that can create a negative effect of ownership.

Managers should behave like other investors - rational: their aim should be increasing the value of their own assets. However, managers are not traditional investors; their action is based on motives that are related to self-actualization, and other personal motives. Issues of dependence, as well as power and social influence on top managerial positions should not be neglected in the analysis of such phenomena.

Managers can gain shares of the firm, or rights to shares, based on well-designed compensation model, which should give them an incentive to make decisions in the interest of the firm and shareholders, while creating a long-term tie to the firm, and to balance the individual elements of compensation and managerial responsibility for the results achieved.

Compensation package which managers negotiate can have fixed and variable part. Shares are gained mainly in the variable part of managerial compensation. Specifically, the variable portion is usually associated with achieving business goals, and managers can get compensation in cash, shares or stock options.

Managers can gain the shares on the basis of the agreed profit sharing, a system in which the employer, in addition to the normal salary, managers (and other employees) receive payment of specific amounts in the form of cash or stock depending on the size of the firms' realised profit (Bayo-Moriones and Larraza-Kintana, 2009, p. 207). The logic of management participation in profits is related to the model of management by objectives (Henderson, 2006, p. 383). Amounts that will managers gain in this way, depend on the profit: the higher the firm profit, the more they earn. The part of the profits, in the current practice, usually between 5 and 10%, is used for the purchase of the firm shares and that benefit managers (Kruse, 1996). In some countries a portion of the profits that is used for such purchase of shares is free of tax.

The firm may also provide managers to buy each year a certain number of shares at a price more favourable than the market price, often with good credit terms. Sometimes stocks are allocated to managers without compensation. These stocks generally have to be bound for a number of years (without the right of disposal), but managers may have benefits in terms of

dividends, relations rights with the capital increase, any tax incentives, etc. In addition to participation in profits and sales of shares by the firm, managers can gain shares by contracting special purchasing rights (and selling) of shares, known as stock options. Share origin on which options are given may be: (a) the purchase of existing shares by the firm from the realised profit or unallocated shares retained in the firm treasury, (b) internal increase of the firm's capital, where for the part of newly published shares is given the stock option to employees and (c) a initial public offer of shares, where one part is reserved for stock options (Tipurić, 2004, p. 140).

Managers gain the right to purchase firm shares at a pre-defined price within a certain period. Stock price at the time of granting option is usually equal to the market price at a given moment, but depending on the type of stock options that are applied; the price can be lower and higher than market price. The deadline for which the option is usually given is three to five years, but also may be for a longer period. After the expiry of the period on which the option is given, the user of the option can buy shares, but as well doesn't have to. The right to option realization is generally given only to the managers who do not leave the firm during the period for which the option is given. Likewise, the right to sell shares by the holder of the option may be limited to a certain period of time. The period within the shares must be bought after the option realization must also be provided. Realization of profit depends on the share price. If share price rise, managers can sell their shares at higher price and thus generate a noticeable gain, which is the main incentive to this form of remuneration.

Over the past decade, firms have developed many different alternatives on the basic stock options. Options are mainly intended for long-term motivation of top management and are very rarely applied to other categories of employees. The most widespread, and also the most interesting, stock options with a premium price, restricted stocks, phantom shares (Henderson, 2006, p. 417) and shares with rights of increase in value (i.e. *Stock appreciation rights-SARS*).

*Stock options with a premium price* are frequent form of rewarding managers. Value of shares is determined by the price that is higher than the market price at the time of granting options, namely for the percentage that was estimated as the minimum level of return for shareholders. The firm has to achieve a minimum level of return so that option holders could benefit from the option realization. Generally, the premium price of these options ranges from 10% to 25% above the market price of shares. This problem may occur if the management decides to take too risky actions in order to raise the value of the shares at the premium price. If these actions fail, it can happen that stock price fall so the shareholders lose much more than managers. For this reason it is very important that the minimum threshold of return at premium options assignment is reasonably achievable (Chingos and Marwick, 1997, p. 195).

*Limited stocks* are specific type of stock options, which the firm awards a number of managers in a way to transfer a certain amount of shares in their ownership, while complete ownership of the shares is conditional upon the occurrence of certain events, such as permanent employment during a given period. The user, i.e. manager in the limitation period enjoys all shareholder rights (including voting rights and dividend rights), except the right to sell and transfer shares. Limited period can be determined by mutual agreement between the firm and the holder of restricted shares, as well by the firm itself or the regulator on the market. The period of limitation, in practice is ranging from two to ten years. At the end of the limitation period, if the conditions for gaining the shares are fulfilled, the shares are

transferred in complete manager ownership. However, if these conditions are not fulfilled, the user completely loses the shares. For the received amount of remuneration user pays taxes based on tax laws (Cuny, Martin and Puthenpurackal, 2009, p. 392).

The use of stock options should encourage ownership perspective of management and thus reduce the divergence of the objectives between owners and managers. However, it turned out that stock options are risky instrument of management compensation due to the possibility of various malversations.

### **3. THE REASONS FOR UNDERTAKING MANAGERIAL ACTIONS**

Managers can be motivated to apply growth strategy even without presence of potential sources of scale economies. Such incentives are in conflict with interests of managers to diversify because of the relationship between firm size and managerial compensations (Duane et al., 2009, p. 157). Studies have shown that top management fees do not depend primarily on business results of the firm, but may also depend on size of the firm, usually measured by sale (Barney and Hesterly, 2006, p. 234). Thus encourages managers who want to increase their income to ensure firm growth. One of the easiest ways to achieve growth is by diversification, which is usually unrelated, through merger and acquisition. With large acquisitions firms may grow continually in a short period of time, and thereby provide higher revenues to top management. Top management only needs to take care of economic profit, i.e., that profit level is not so low that the firm becomes a potential target for a hostile takeover, or to encourage owners to make change of management.

In recent years, the influence of firm size on managerial compensations became less important, while in the same time compensations of senior management are becoming more associated with firm performance. Especially, the use of stock options and other forms of deferred compensations highlights firm growth as the most important interest to managers.

Therefore, the desire for higher compensations and managerial risk reduction are two basic managerial motives for firm diversification (Combs and Skill, 2003). In other words, top managers may opt for a diversified firm with the aim of diversifying their own job risk as long as profitability does not suffer. However, diversification provides additional benefits for managers, the ones that owners don't have. Research results have shown that diversification and firm size are much related, and if firm size increases, compensations of management will increase also (Gray and Cannella, 1997). Furthermore, large firms are considered to be more complex, and therefore more difficult to manage, which leads us to significant compensations to managers. Higher levels of diversification can increase complexity of firm, as well as managerial compensations for managing diversified firm. Corporate governance mechanisms, such as the board of directors, supervisory board or market for corporate control can limit management in overextend diversification.

But sometimes the above mentioned mechanisms are not strong enough, allowing managers to diversify firm to the point where even the average returns can't be achieved (Janney, 2002). Loss of adequate internal mechanisms can result in lower relative success of a firm, and a possible threat of takeover. Despite the fact that takeovers can increase efficiency by changing ineffective top management, managers can avoid takeovers by using various defensive tactics (e.g. poison-pill or golden parachute). Therefore, the threat of takeover may restrict managers, but can't completely control motives of managers for diversification (Duane et al., 2009).

Managers are simply enjoying leading large firms, because corporate growth entails social eminence, public reputation and influence, and political power of top managers (Jensen, 1989). Stockholders want firm growth only if such growth leads to increased profit. Therefore, *Jensen* also indicates that managers evaluate firm growth, regardless of whether it is profitable or not.

Diversification can create value also in the case when the managers are able to identify firms undervalued in the stock market. There is often scepticism towards such a reason for diversification, especially if target firm operates in the field unrelated to activities of an acquirer. There is a possibility that market value of targeted firm is incorrect and that other investors have not yet realized this fact. Also, the mere announcement of takeover draws attention, often leading to other potential acquirers bidding for targeted firm. Biddings as such, are not rare, and serve to reduce the potential takeover gains for the acquirer. Probably the biggest problem is perception of how winning bidders, in auctions and similar sale arrangements, usually overpay targeted firm value, unless diversified firm owns much more information about targeted firm than other bidders (Besanko, Dranove, Shanley and Schaefer, 2007, p. 173).

Managers can perform unrelated takeovers in order to increase their own compensations. The fact that large firms CEOs generate higher compensations does not imply itself that increase of firm size leads to the increase of their own revenues (Werin and Wijkander, 1992). *Avery et al.* found no difference in wages growth between CEOs who performed takeovers and those whose businesses naturally grew. On the other hand, *Bliss and Rosen* conclude that executive directors of banks who made acquisitions had a big increase of their own compensations (Bliss and Rosen, 2001).

Managers could also perform unrelated takeovers to protect themselves from the risk (Amihud and Lev, 1981). They observe that stockholders are not inclined to change top management, except in case of bad business of the firm. In order to reduce the risk of job loss, managers must reduce the risk of bad business. One way to achieve this is through unrelated acquisitions. They showed how firms run by management participate in more conglomerate acquisitions than firms run by the owners. Although such acquisitions reduce risk of job loss for top management, they don't always bring benefits for stockholders. These stockholders can reduce their own financial risk by managing their portfolio of investments (for example by investing in mutual funds) (Besanko, Dranove, Shanley and Schaefer, 2007, p. 175).

#### **4. POSSIBLE RESTRICTIONS ON MANAGERIAL ACTIONS**

All mentioned managerial reasons for diversification are based on the existence of certain imperfections in corporate governance, namely the mechanisms by which stockholders control corporations and their managers. If stockholders could assess those takeovers that would increase profits, and those that wouldn't, and focus management only on those takeovers that increase stockholder value, the possibility of acquisitions managed by managers would disappear (Besanko, Dranove, Shanley and Schaefer, 2007, p. 175). However, stockholders most often have a hard time detecting acquisitions that will increase profits, because they don't possess such information, nor are they skilled enough to make such conclusions. Furthermore, it is difficult to change management decisions, even if stockholders disagree with them. Formally, supervisory board is responsible for monitoring management in order to ensure that management actions increase stockholder value.

Market for corporate control is a mechanism of corporate governance. Its fundamental assumption is as follows: market price of the stocks adequately reflects the effectiveness of management (Manne, 1965). Model of market for corporate control assumes that managers have the right to manage a firm as long as its market value can't be significantly improved by the alternative group of managers with an alternative business strategy (Tipurić, 2008, p. 299).

*Manne* lies out that market for corporate control represents an important limitation for managers' actions (Besanko, Dranove, Shanley and Schaefer, 2007, p. 177). Managers who perform takeovers that don't meet interests of stockholders will find stock prices of their companies falling for two reasons. First, if managers overpay diversified acquisition, value of their firm will be reduced by the same overpaid amount. Second, if the Stock Exchange expects that a firm will overpay additional takeovers in the future, the market value of firm stocks will fall today in anticipation of these events. This inequality between actual and potential stock price of firm presents an opportunity for some other entity (individual, other firm or specialized investment bank) to execute takeover. A potential acquirer can gain control of the respective firm by simply buying the firm stocks on the market. With sufficiently large package of stocks, acquirer may vote its own slate of directors and appoint managers who will work on increasing stockholders value. With the purchase of shares at the actual price and later introducing changes that will return shares to the potential value, acquirer can gain some earnings.

Observation of the market for corporate control as the market in which alternative groups of managers are competing for the rights to manage corporate resources represents a shift from traditional understanding of the mechanism. According to traditional understanding suppliers of financial resources and active stockholders (alone or in coalition) "buy" control of corporation and hire and dismiss management in order to achieve better use of resources.

Inefficient business of management will be reflected in capital market by reducing the value of stocks. Thus market for corporate control represents a constant threat to management as a mechanism of disciplining their behaviour. Finally, an active and liquid capital market represents assumption of efficient functioning of market for corporate control.

## 5. CONCLUSION

We assume that the managerial ownership has some correlation with firm performance, but shape, direction and the intensity of such relationship is very hard to determine with certainty.

There is the case where the implementation of the firms' compensation system through gain sharing becomes a significant driver of business improvement and firms' corporate governance, and on the other hand there is the case where it does not provide effects related to increased competitiveness and the overwhelming satisfaction of employees.

Companies are introducing managers in the ownership structure in order to retain them and connect their interests with those of shareholders; motivating them to add value and strengthen their loyalty; protect cash flow and provide a signal to investors how well they are protecting the assets by investing in human capital. Sometimes it is a successful strategy, and sometimes not. Therefore, further studies should devote to finding the factors that considerably affect the effectiveness of managerial ownership in achieving better firm performance and results.



A large stake in firm ownership provides a considerable power to managers in strengthening and ensuring the proper position by reducing the effects of evaluation, either by the market or the internal supervision mechanisms. Even if a company does not have notable performance, managers' stake in ownership reduces the likelihood of their dismissal.

We may conclude that the managerial ownership is an important instrument of the managerial entrenchment. It is a rational activity if the main goal is the existence at position in the TMT; thereby top managers are actively resisted potential intentions of their dismissal through the accumulation of shares.

On the other side, owning a significant portion of the shares could result in change of managers' original motives: manager could start to behave like an investor instead as the professional board member. In that case, the entrenchment strategy couldn't be a rational strategy. Therefore, the manager should resign in order to leave the leading of the company to a new CEO who could improve firm performance and thus his future returns on equity. That is one of the possible directions how the future research of this phenomenon should be organized.

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## **PUBLIC-PRIVATE PARTNERSHIP IN INNOVATION ACTIVITIES OF THE UNIVERSITIES IN CHINA**

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### **ABSTRACT**

*In 1995 China officially announced a strategy of the country's revival through modernization of economy and education. Within the transformation to the knowledge economy the country planned to make a transition from a model "Made in China" to a new model "Made and Created in China". According to the new model China had to re-orient from adopting technologies to producing its own. It was planned that universities, universities' R&D and their innovation activities would play a major role in the transition. A public-private partnership model between universities and private enterprises was used to intensify innovation activities and create a permanent link between science and industry. Our paper explores six types of PPPs in innovation activities of the Chinese universities. They are: technology contracts, technology transfer, university-owned enterprises, joint research centers, independent colleges, and university-based science parks. The aim of the research is to analyze each partnership, the goals of the government participation, and the role PPPs played in science and technology progress in China. Special attention in our study is given the unique forms of PPP that exist only in China: independent colleges and university-owned enterprises. Both structures developed naturally as a result of common interests of business and universities in education and R&D, and were not created by any governmental special legislation. Results demonstrate that PPPs in innovation activities in the universities in China significantly contributed to the intensification of scientific and technical policy of the country and the country's transition to the knowledge economy.*

**Keywords:** *China, innovation activities, public-private partnership, university*

### **1. INTRODUCTION**

In 1995 during the all-China conference on science and technology a strategy of "the country's revitalizing through science and education" was announced. Within the knowledge economy<sup>89</sup> (Untura, 2009) framework a country had to make a transfer from "Made in China" model to "Made and created in China" model (Bai, 2011). Education was chosen to act as a driver of innovation changes in the knowledge economy (Li, 2003). Reforms of the education sector assumed enhancement of the quality of educational programs; compliance of the programs with international standards, and development of universities as innovation and R&D centers.

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<sup>89</sup> Knowledge economy is an economy based on production, distribution and application of knowledge. Pillars of the knowledge economy are economic incentive and institutional regime, education, ICT and innovation systems (Measuring Knowledge Economy, 2008). Lately many researchers consider health care to be one of the pillars of the knowledge economy.

First public-private partnerships (PPPs)<sup>90</sup> between institutes of higher education and private companies in innovation sphere appeared in China in the 1990s. In this structure the public sector was represented by the government and the private sector – by businesses. Some forms of PPPs were established naturally without any government participation while other forms were created on the basis of special legislation. Having understood the importance of public-private partnerships in innovation sphere of educational organizations for development of ties between modernized universities and industry, the Chinese government pursued an active policy of stimulating the creation of PPPs in higher education institutions with a set of objectives linked to the accelerated transfer to the knowledge economy.

The aim of the paper is analyze various forms of public-private partnerships in innovative activities of the higher educational institutions in China with an emphasis on and systematization of objectives, tasks, and mechanisms of the government participation and Chinese specifics of partnerships. Subject of the current study are different institutional forms of PPPs in which a Chinese institution of higher education acts as one of participants. Based on the results of the study a comprehensive table will be put together. Information on different forms of the public-private enterprises in innovation sphere of universities and partnerships' objectives will be presented.

## **2. ANALYSIS OF PUBLIC-PRIVATE PARTSHERSHIPS IN INNOVATIVE ACTIVITIES OF CHINESE UNIVERSITIES**

In this study innovative activities of institutions of higher educations are defined broadly. They include not only activities connected with implementation of R&D to create a new, improved product or process but also all activities connected with the implementation of new forms and methods of education and training. The authors study six types of public-private partnerships:

- 1) technology contracts;
- 2) technology transfer and licensing;
- 3) university-owned enterprises;
- 4) joint research centers;
- 5) independent universities;
- 6) university science parks (technoparks).

### **2.1. Technology contracts**

From the six types of PPPs technology contracts became a major source of financing for Chinese universities. Three types of technology contracts exist: technology development (collaboration in research), technical services, and technical consultancy (training in different disciplines). Volume of technology contracts more than doubled from 2001 to 2005, from CNY 78.28 bn to CNY 155.1 bn (USD 18.93 bn)<sup>91</sup> (High Tech Industry, 2005). There is evidence that the volumes of technology contracts continue to rise.

The government participates in technology contracts via an active search of contracts by universities. List of the objectives that the Chinese government plans to achieve through enforcement of technology contracts is presented in Attachment 1. It should be noted that these objectives are similar to those of governments of other countries.

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<sup>90</sup> In this paper a term “public-private partnership” will be used to define a set of forms of medium- and long-term relationships between government and business aimed at solving public tasks on mutually agreed terms.

<sup>91</sup> Official average exchange rate of 1 USD=8.19 CNY for 2005 is used  
([http://en.wikipedia.org/wiki/List\\_of\\_renminbi\\_exchange\\_rates](http://en.wikipedia.org/wiki/List_of_renminbi_exchange_rates))

## **2.2. Technology transfer and licensing**

Technology transfer was considered by the government as one of the mechanisms of the long-term strategy “Made and created in China” from the beginning of the reforms. Successful technology transfer had to be preceded by a solution of the two tasks set by the government: development of universities as large research centers, and improvement of reputation of China at the international scientific arena via a raise of patenting activity.

From the point of view of realization of the government strategy of intensification of science and technology, the most important form of technology transfer was patenting of the scientific results. The strategy of country’s revitalizing through science and education intended to increase the patenting activities of Chinese institutions of higher education. According to statistical data in the beginning of the 2000s China lagged behind the developed countries in licensing and patenting. In 2001 China had 1653 patents granted while Japan had 125704 patents and South Korea had 35900 patents granted (Xue, 2006).

From 2000 the government purposefully increased financing of R&D in universities, which in 2009 employed 12% of the total R&D personnel. Share of the government in total R&D expenditure during the first decade of the 21 century was around 50%. R&D expenditure in universities more than doubled from 2006 to 2010: it rose from CNY 276.8 to CNY 597.3 bn in 2010. The increase in financing resulted in the increased R&D efficiency and the increase of the number of patents of higher education institutions. The number of patents granted to Chinese universities more than tripled from 2006 to 2010 (from 12043 patents to 37490 patents) (China Statistical Yearbook, 2012). This statistics provides evidence that the state successfully reached its objective: it developed Chinese universities as major research centers and increased the role of China in the global patent market. In 2011 Thomas Reuters reported that China topped the United States and Japan to become top patent filer (Yee, 2011). The share of universities in the total number of patents in 2008 was 39%<sup>92</sup>.

## **2.3 University-owned enterprises**

University-owned enterprises or university-affiliated enterprises are a unique Chinese form of public-private partnership. There is no formal definition of a university-owned enterprise and the definition embraces all enterprises that are created and, in one way or another, controlled by universities.

The process of development of university-affiliated enterprises is divided into three stages. First stage covered a period from the 1980s to the 1990s. During the period three types of university-owned enterprises were established: university-owned factories and print shops; joint commercial entities between universities and outside enterprises; technology development companies created by universities and university departments. Distinctive feature of the first stage was a spontaneous development of firms without any kind of stimulation from the government. In the UNESCO study (In Search of the Triple Helix, 2011) the spontaneous development is explained by the absence of a market to buy or sell technologies during the 1980s. University-affiliated enterprises acted as one of mechanisms for exchange and implementation of technologies. In 1989 sales of the university-owned enterprises in China reached CNY 470 bn (Xue, 2006).

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<sup>92</sup> Calculated by the authors based on [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_patents](http://en.wikipedia.org/wiki/List_of_countries_by_patents)

Process of an active creation of university-owned enterprises drew attention from the government of China in 1990 when it made a decision to promote development of these enterprises by giving them tax preferences. This decision marked a beginning of a second stage of development lasted from 1991 to 2000. By promoting this type of PPP the government pursued several objectives: attraction of additional financing to institutions of higher education through commercialization of technologies created by enterprises; utilization of professional knowledge of university employees in business sector and advancing development of applied research via strengthening ties between universities and industry. Creation of the enabling environment resulted in the increase of the number of firms up to 5451 in 2000 with volume of sales reaching CNY 48.4 bn (Jin, 2013).

Third stage began in 2000. During this period first problems connected with activities of university-affiliated enterprises surfaced. Many enterprises were oriented towards receiving short-term gains and their managers did not have adequate qualification to properly manage enterprises. Apart from that, there were problems in intellectual property management. To address these issues, the government pushed university-owned enterprises to spin-off from their alma maters and to start functioning as private companies. In 2001 the Chinese government officially announced a start of the university-affiliated enterprises reform (Jin, 2013). The reform included three main measures: 1) establishment of special holding companies to manage assets of the enterprises; 2) prohibition of a use of a university name in an enterprise title; 3) prohibition of concurrent posting at the enterprise with a teaching position at the university.

Analyzing the phenomenon of university-affiliated enterprises in China the authors came to the conclusion that the government partly admitted inefficiency of this form of public-private partnership. University-owned enterprises acted as the transfer technology mechanism when technology transfer markets were absent in China. After the establishment of technology transfer market in the form of patents and licensing and under a pressure from the government some university-owned enterprises spun-off while others were forced to discontinue their existence. By 2009 the number of university-affiliated fell to 3643 but the volume of sales increased to CHY 141.2 bn.

#### **2.4. Joint research centers**

Emergence and proliferation of joint research centers as a form of PPP between universities and private companies are linked to the two official measures: “Action scheme for invigorating education in the 21<sup>st</sup> century” launched by the Ministry of Education in 1999 and the decree on the rules of patenting for SMEs that allowed universities to retain rights on inventions that resulted from works financed by the state. Goals that the government aimed to achieve within a framework of this particular type of PPP are listed in Attachment 1.

Apart from establishment of joint research centers with domestic firms, a new, unique trend in China was a creation of research alliances with multinational corporations (MNCs). Tsinghua University is an example of a university that actively collaborates with MNCs. In 1992 this university established its first joint research center with Panasonic. In 2011 the number of 40 joint research centers in Tsinghua University rose to 40 (Tsinghua University, 2013).

Adaptation of foreign technologies in joint research centers usually was as a first step to the creation of own technologies in China. In 1995 Tsinghua University together with Ziguang company started a development of a domestic model of a scanner based on adaptation of

Taiwanese model of the scanner that was imported to the country. The development was successful and three years later, in 1998, China began producing its own scanners (Wu, 2010).

## **2.5. Independent universities**

Independent universities or colleges<sup>93</sup> represent another form of PPP that is unique for China. Independent colleges are financed by private companies but degrees are awarded by the state universities that act as parent institutions. Creation of first independent universities was initiated by institutions of higher education and not by any government legislation. City College of Zhejiang University in Hangzhou created in 1999 by a municipal government of Hangzhou, Zhejiang University, and Zhejiang Telecom Group, was the first independent college in China. Since 1999 the number of independent universities grew rapidly. In 2010 there were 323 independent universities in China (Baocun, 2012).

Rapid development of independent colleges can be explained by existence of mutual interest of universities and industrial enterprises. Industrial enterprises were interested in establishing independent universities because: it allowed access to highly-qualified personnel and new scientific knowledge; provided opportunities to solve problems, solutions to which were not found within the company; allowed for additional training and life-time learning; enhanced prestige and image of a company through collaboration with universities.

Universities also had stimuli for collaboration with industrial enterprises. Among them were: provision of additional financing to universities by enterprises; lower bureaucracy level compared with financing provided by the government; opportunities of internships and accumulation of practical knowledge for students; possible collaboration in the field of technology implementation; access to specialized state funds for financing of cooperative research of higher education institutions and industry (Wu, 1999).

From 1999 to 2002 independent colleges developed without any intervention from the government. After observing this process for a few years, at the end of 2002 the Ministry of Education officially approved the existence of independent universities that were defined as “secondary undergraduate institutions, which are established according to new mechanisms and new models by state-owned colleges or universities” (Zhang and Adamson, 2011, p. 252). In 2003 the Ministry of Education stated the principle of “7 independencies” for independent universities: independent campus and basic facilities, relatively independent teaching and administrative staffing, independent student enrolment, independent certification, independent finance budgeting, independent legal entity and independent civil responsibilities.

First task set by the government for the independent universities in China was a provision of additional places in tertiary education in response to the increased demand for education. The government also planned to use independent universities to raise a share of population with tertiary education. An increase in the number of educational programs and institutions of higher education, including independent colleges, led to growth of the share of population aged 18-22 studying at universities from 12.5% in 2000 to 30% in 2010 (China Statistical Yearbook, 2012).

Government established a focus of independent institutions: they had to concentrate on educational programs of a practical character (polytechnic), while state universities could

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<sup>93</sup> Majority of independent universities offer only bachelor's degree programs and therefore are colleges according to the definition of higher education institutions in the US and Western Europe.

continue to concentrate on educational program in fundamental sciences. It was assumed that the development of independent colleges would promote accumulation of practical knowledge by students and that this practical knowledge would comply with the requirements of potential employees and the level of technological progress in China. Finally, the government aimed at using entrepreneurial skills of the private sector in management of independent colleges.

Despite some difficulties that the independent colleges have experienced (high personnel turnover, problems in management connected with frequent involvement of parent institutions), the experience of creation of independent universities as a form of public-private partnership could be considered successful. Independent universities do not encounter difficulties in financing in comparison with public universities. At the same time quality of education and qualification level of professors are much higher in independent universities than in private ones. Also, since businesses can influence curriculum of independent institutions and tailor it to needs and requirements of the modern production, they willingly hire graduates of independent universities.

## **2.6. University science parks (technoparks)**

Process of creation of technoparks began in China during the last decade of the 20<sup>th</sup> century. China's first university-based science park—Northeast University Science Park—was established in 1989 (Xue, 2006). The Chinese government was inspired by the success of Cambridge and Stanford science parks and played an active role in the process of creation of science parks. In 2000 a national certification program of university-based science parks began. In 2001 22 university-based science parks were licensed and since that time the number grew rapidly. In 2010 there were 86 university-based science parks in China with 4346 companies established on the premises of science parks (in 2002 there were 720 such companies) (Jin, 2013).

A model of a university-based science park in China and its main goals (such as company spin-off; collaboration in science and technology between private firms in science parks and universities; commercialization of research results at local and international markets) to a great extent repeated the agenda of science parks in the Western countries. However, university-based science parks in China also possessed unique features that allow us to speak about “special Chinese characteristics” of these science parks.

- 1) Science parks became places of employment for students returning from abroad. Many Chinese students obtain their education outside China and return to the country as highly-qualified specialists with a potential to generate new knowledge in fundamental and applied sciences and create new technologies. These graduates found new firms in science parks. The government stimulates and monitors the process of attraction of foreign-university graduates to science parks.
- 2) Access to venture capital is generally limited for SMEs in China and seed financing is virtually unobtainable. Historically, Chinese graduates returning from abroad became sources of venture capital since during their stay in foreign countries they not only obtained new knowledge but also developed professional networks that included banking sector employees. Access to these networks facilitated access to venture capital for the companies based in science parks (Van Essen, 2007).

During the past decade the Chinese university-based science parks received various grants from the government and participated in a series of innovation projects. The government



considered them to be important objects of innovation infrastructure. However, according to the expert of the World Bank W. Wu (2010), many Chinese science parks failed to become leading innovation centers: they either concentrate on working with firms that are established on their premises or function exclusively as business incubators for graduates of their universities. One notable exception is Zhongguancun Science Park created by a joint effort of Peking University and Tsinghua University. Today it is a modern science and technology hub that houses such renowned high tech firms as Lenovo, Founder, Ziguang, and Tongfang. In 2008 Zhongguancun had 170 000 employees and 6100 patents granted; its industrial output exceeded USD 147 bn (Park, 2012).

### 3. CONCLUSION

Based on the authors' analysis a table "Public-private partnership types in China tertiary education and objectives of the government" was put together. Types of PPPs and the government objectives that are unique for China are in italics.

Analysis of mechanisms of the government participation and its goals in the innovation sphere of higher education institutions demonstrated that the different sets of objectives represent different stages of realization of the long-term strategy of country's revitalizing through science and education" based on the new model of economy – the knowledge economy. To achieve it the government stimulated the following processes:

- 1) enhancement of the quality of fundamental and applied research at universities;
- 2) intensification of R&D and personnel training;
- 3) development of close ties between universities and industry to allow flows of R&D outputs and personnel in order to produce new goods based on own, domestic technologies.

The government provided strong financing support for the implementation of the strategy and continues to do so now. The Ministry of Finance of China reports that despite the fact that budgetary expenditure and revenue in 2013 will fall by approximately 40-50% compared to 2012 (revenue from USD 1857.5 bn to USD 965.6 bn, expenditure from USD 1992.3 to USD 1118.8 bn), financing of main sector of the knowledge economy will even rise. Total expenditure on the knowledge economy will grow from USD 128.8 bn to USD 149 bn and its share in the budget will double: from 6.5% to 13. 3% including expenditure on science and technology (from 1.8 to 3.6%); expenditure on education (from 3.0 to 5.9%); and expenditure on health care (from 1.6 to 3.7%)<sup>94</sup>. This trend indicates that an ideological appeal to the knowledge economy construction is backed up by the financial support from the government (Report on Execution, 2013).

In conclusion, public-private partnerships in innovation sphere in Chinese institutes of higher education significantly contributed to the country's transfer to the knowledge economy. Today China is one of the leaders in the market for R&D, the country's level of education has risen and the science parks initiative led, in some cases, to the active development of territories. Authors consider continuing their research of experiences of PPPs in China with the aim of the possible adaptation of private-public partnership mechanisms to intensify the development of science and education in our country.

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<sup>94</sup>The official annual exchange rate for yuan was used to convert amounts for 2012 and the official rate for December 1, 2013 was used to convert amounts for 2013 to dollars.

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*Attachment 1. Types of public-private partnerships in innovation activities of higher education institutions in China and objectives pursued by the government*

Type of public-private partnership	Description	Goals/objectives pursued by the government
1) Technology contracts (TCs)	<p>TC type 1: technology development. Joint research: firm sets reasearch task and together with university employees finds solution.</p> <p>TC type 2&amp;3: technical services and technical consultancy. Provision of information about different technologies and organization of training in different technical disciplines.</p>	<ul style="list-style-type: none"> <li>• partial financing of universities by private companies;</li> <li>• development of applied science in universities and close ties between science and industry;</li> <li>• creation of new jobs for university graduates;</li> <li>• transfer of tacit knowledge from science to industry.</li> </ul>
2) Technology transfer and licensing (TT)	<p>TT type 1: tranfer of patents</p> <p>TT type 2: patent licensing</p> <p>TT type 3: non-patent technology transfer</p>	<p><i>Transition from the «Made in China» strategy to the «Made and created in China» via:</i></p> <ol style="list-style-type: none"> <li>1) <i>development of univirsities as major reserach centers;</i></li> <li>2) <i>enhancement of the China's reputation at the international scientific arena (through increase of patenting acitivity).</i></li> </ol>
3) University-owned enterprises	<p><i>Enterprises-1. Universities' factories and print shops that existed in the 1980s.</i></p> <p><i>Enterprises-2. Joint ventures between universitites and private companies.</i></p> <p><i>Enterprises-3. Firms founded by university departments for development of special technologies.</i></p> <p><i>The main reason for establishment of university-owned entrpises was the descrease in government financing of universities in the 1980s.</i></p>	<p><i>From 1991 to 2000 the government promoted creation of university-owned enterprises and granted them a series of tax preferences in order to:</i></p> <ol style="list-style-type: none"> <li>1) <i>attract additional financing to higher education institutions;</i></li> <li>2) <i>utilize special knowledge of university researches by industry through employment of professors as experts for private companies;</i></li> <li>3) <i>accelerate development of applied research via intensification of collaboration between universities and industry.</i></li> </ol> <p><i>From 2001 on the basis of the decree of the Ministry of Education of China the government set the goal to change management sturcture of enteprises in order to improve quality of their operations.</i></p>
4) Joint research centers	<p><i>Research centers founded together by Chinese universities, domestic industrial enterprises and multinational corporations.</i></p>	<ul style="list-style-type: none"> <li>• accelerated commercialization of domestic technologies;</li> <li>• attraction of necessary financing to R&amp;D of higher education institutions;</li> <li>• provision of jobs for university graduates;</li> <li>• acquisition of management skills by university personnel;</li> <li>• adaptation of foreign and creation of own domestic technologies.</li> </ul>
5) Independent universities (colleges)	<p><i>Higher education institutions founded by state universities with attraction of financing from private companies.</i></p> <p><i>Independent universities function on the basis of 7 independencies.</i></p>	<ul style="list-style-type: none"> <li>• <i>increase of population education level and share of population with tertiary education (long-term goal within a framework of transition to the knowledge economy);</i></li> <li>• <i>development of vocational training programs basen on requirements and demands of industrial enterprises;</i></li> <li>• <i>creation of new professions, educational and</i></li> </ul>

		<i>vocational programs in accordance with requirements of private companies and investors to graduates' skills and qualifications;</i> <ul style="list-style-type: none"> <li>• <i>utilization of entrepreneurial skills of private sector in management of independent colleges.</i></li> </ul>
6) University-based science parks (technoparks)	Physical place that supports university-industry and government collaboration with the intent of creating high technology economic development and advancing knowledge.	<ul style="list-style-type: none"> <li>• accelerated commercialization of technologies developed by universities through foundations of start-ups aimed at technology implementation;</li> <li>• technology transfer from universities to private companies;</li> <li>• development of entrepreneurial skills of university graduates;</li> <li>• <i>job placement of students returning from abroad;</i></li> <li>• <i>attraction of venture capital with assistance from foreign university graduates;</i></li> <li>• increase of investor attractiveness of territories where science parks are located;</li> <li>• development of innovation infrastructure of territories</li> </ul>

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## CREATING AUTOCATALYTIC PORTFOLIO FOR MASTERING SURVIVAL AND DEVELOPMENT OF ORGANIZATION

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### ABSTRACT

*Recent research of complex organizations in global environment identified and discovered new functions of strategic management. Among these functions mastering survival and development is becoming more and more important. This paper presents processes by which autocatalytic portfolio can be created for MASTERING SURVIVAL and DEVELOPMENT of organization. Autocatalytic portfolio requires comprehensive approach to organization by which present and future functions of organization can be discovered, then approach to structures can be developed, and effective and efficient governance can be created. It is important to emphasize, that in the study, organization is considered as living organism, which is the outcome of genetic, memetic and monetic co-evolution.*

**Keywords:** *strategic management, new functions, survival, development, autocatalytic portfolio*

### 1. INTRODUCTION

Human organizations are living organism with very high level of complexity. Basic components of any organization are human being, which is the outcome of *genetic evolution*. Existence of any organization requires transmitting ideas and thought between members of organization, in other word, existence of any organization requires information flows between people. Transmission of ideas and thought between human being are outcome of *memetic evolution*. Survival (existence) and development of any organization is possible if the organization creates value for its environment. Value creation is also outcome of an evolution, and this is the *monetic evolution*. Outcome of these evolutions is a co-evolution, therefore organizations are outcome of genetic, memetic and monetic co-evolution. As organizations are complex organisms, it is useful to introduce new terminology and ideas which are appropriate to organisms. In the process of description of structure we meet complex systems, subsystems and units, which are also organisms, so these units are considered as cells (cells of government, cells of development and cells of survival) cells are also organisms which possess all properties of any organisms. In the research of complex organization, system approach and new subject of complexity theory have been applied which resulted in several systems' models of organization. The model, which is presented in this paper (Figur) is a model of functions and carriers of these functions. Essence of behavior of any complex organism reflects their functions and the way these functions are integrated into the whole behavior of organism. Figure 1. presents a *comprehensive model of organization* which is capable to survive and develop in the turbulent changing environment. Achieving this level of capabilities requires four stages:

- In the first stage, organization starts with one cell of survival, by which, if it is successful, it is able to survive certain periodic of time.
- In the second stage, beside the cell of survival a cell of development is formed, by which new cells of survival can be created.
- In the third stage, organization consists of a certain number of cells of survival and cells of development with an integrated government.

- In the fourth stage strategic governance is developed which enables that the whole organization function as a biological system in which cells are created, exist certain time and disappear, but the whole organization survives and develops.

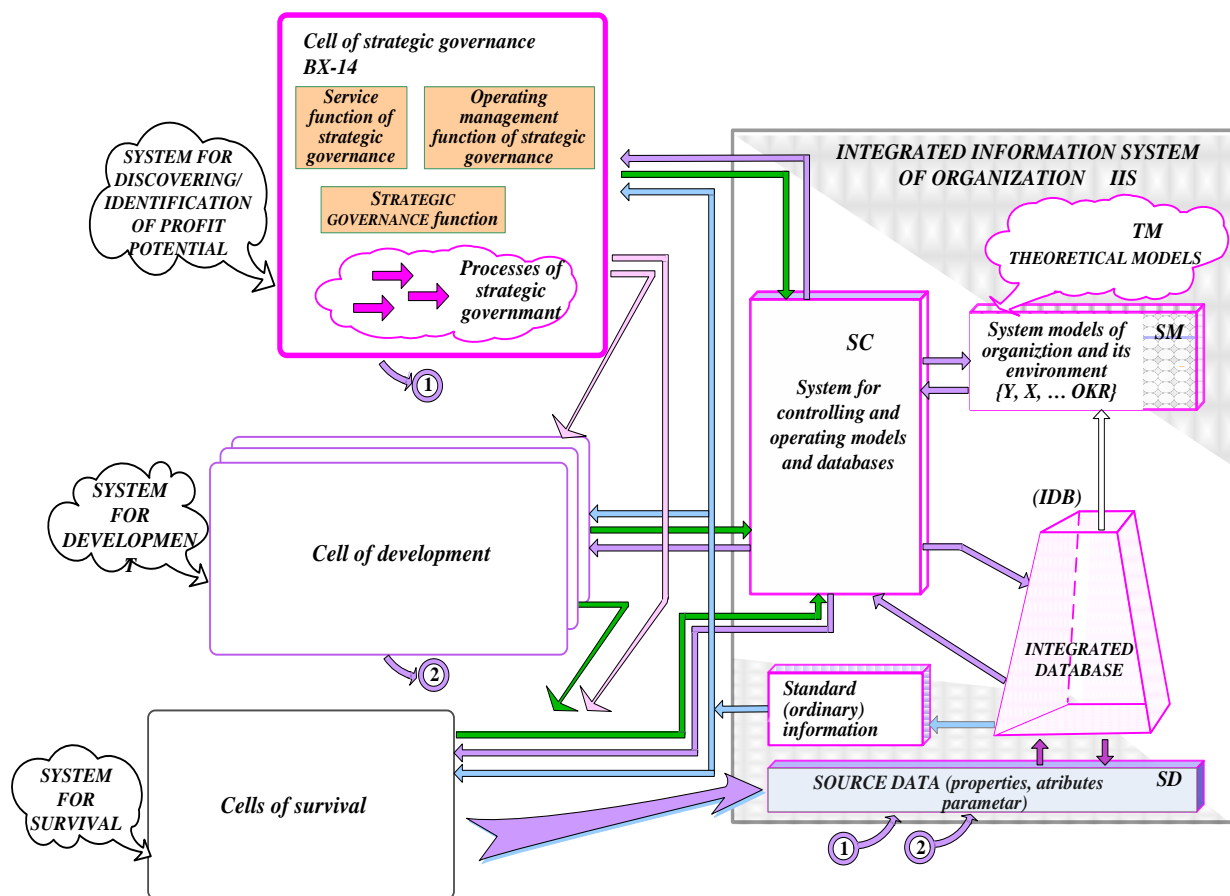


Figure 1.: Comprehensive model of organization

In each stage of development organizations have certain structures and functions, with appropriate governance. It is important to emphasize that any cell of organization consists of function of objective (or purpose), function of services and function of governance. These functions are related to one another in a way to create an integrated behavior of a cell.

Model in the Figur consists of four systems: system for survival, system for development, system of strategic governance and integrated information system. The first two systems are presented as a “black box”, the others with their principal functions. In the paper the objective of interest is the system of strategic governance – system for discovering and identification of profit potential.

## 2. RESULTS OF STRATEGIC GOVERNANCE RESEARCH

System of strategic governance as a component of organization is also an organism, which in first place integrates organization into functional whole under turbulent changing environment. At the same time it is oriented toward future, searching, discovering and identifying chances for lasting survival and development, by discovering and identifying problems of society, which solutions have certain profit potential. While doing all this, it is necessary that strategic governance take care about itself and the whole organization and implement new generated knowledge created by the whole society.

According to the results of research ([1],[6]) strategic governance of organization may have the following function:

- Function of conception of purpose,
- Function of conception of organization creation,
- Function of foresighting and future orientation,
- Function of harmony creation in organization,
- ***Function of mastering development of organization,***
- ***Function of mastering survival of organization,***
- Function of extraordinary circumstances,
- Function of mastering competencies.

In this paper the function of mastering development and survival of organization is presented.

### **3. RESULTS OF “DEVELOPMENT FUNCTION “ RESEARCH**

Cell of development is a living organism which essential function is to create new cell of survival, which is able to create value for the human society. In the research of the essential function of this cell, the following complex processes are identified:

- $\alpha$ : Creation of new products and services;
- $\beta$ : Design of new survival system (new cell of survival);
- $\gamma$ : Creation (building) of new survival system according to the design;
- $\delta$ : Activation and support of the new survival system until it functions smoothly.

Although each of these complex processes is unique, they have some common properties. First of all they are stochastic in respect of time, resources, and investments. They require different management approach, support and control.

- In the process  $\alpha$ , where new products and services are creating, appear research, design and experimentation processes, then prototype creation and testing. All these process need different kind of competencies, equipment, tools, instruments, etc. which should be supplied on time in required quality and quantity. The rate of risk of this complex process is very high.
- The process  $\beta$ , where the new survival system (cell of survival) is designed, consists of four processes, where the basic, service and governance function are designed. The same time also the appropriate information system is created. Theoretical solution of the new system has essential influence on the quality and costs of production and services of the outcome of the new system.
- By the process  $\gamma$ , theoretical solutions of the new system are transformed into reality. This process requires comprehensive planning and organization by which processes of transformation are performed smoothly and optimally. In this process time and investments are the most sensitive category for management.
- In the process  $\delta$ , the new system is activated and supported until it runs smoothly. After having activated, the new system needs certain period to function smoothly and to develop the necessary communication between carriers of processes. This period is also necessary to correct all malfunctions, faults and errors.

As the described processes  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$  significantly differ from one another, they require different performers, processes and activities and should be organized and managed differently. It is a great challenge for every organization to identify the most convenient organization and governance for each part of the complex development process.

#### 4. RESULTS OF “SURVIVAL FUNCTION” RESEARCH

Essential function of a cell survival is to create value for the human society. This cell is also a living organism in which, by research, the following complex functions are identified:

- Basic function which consists of:
  - input function,
  - production/service function,
  - output function.
- Set of service functions
- Governance function

These functions are realized by specific processes, which consist of great number of activities. In the research, systems models of processes and activities are created.

#### 5. CREATION OF AUTOCATALITHIC PROCESSES FOR MASTERING DEVELOPMENT AND SURVIVAL OF ORGANIZATION

Comprehensive development of organization is accomplished on several levels in an organization. Fundamental development takes place on the level of each employees of the organization. Next level is attained on each field of specialization. Then comes the level of each cell, and finally there is the level of cell's population. Among other things, strategic governance responsibilities is the development of cell's population, this comprises population of development cells and population of the cells of survival. For the other levels of development cells are responsible, respecting the requirement of value processes. Objective of mastering the development of the whole organization is to *maintain* the population of the development cells on the level which enable a long existence of organization. It is possible if the number of cells of development  $n_d$  satisfy the next relations:

$$(n_{dmin} \leq n_d \leq n_{dmax})$$

$n_{dmin}$  – the number of development cells which enable survival of the whole organization at the present level.

$n_{dmax}$  – the number of development cells which the whole organization can to bear without extra strain.

Each cell of survival has its own length of existence (duration), which varies from one cell to other. It is vital when one cell of survival ceases its existence, the new begins its life time. Actually, the population of cells of organization is considered in a certain period of time. In each of this period it is necessary to create at least as many cells of survival, as many cells of survival ceased to exist.

Essential role of each cell of development is to create new cell of survival. As the new cell of survival can't be created overnight, it is important to start creation of a new one during the life time of an existing cells of survival. Each process of creation a new cell of survival consists of four complex processes  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$ , which are stochastic by nature. These circumstances require ingenious methods of planning.

Time relation between strategic and development processes are presented by Figure 2. in creating a new cell of survival, before an existing one ceased to exist. On the top, a life cycle of an existing cell of survival is presented which duration is  $t_e$ . In the middle part of the Figur a strategic process (SP) is presented which comprise environment research, problems identification, goal setting and activating a new cell of development. At the bottom, the development process is presented, which exists  $t_d$ .



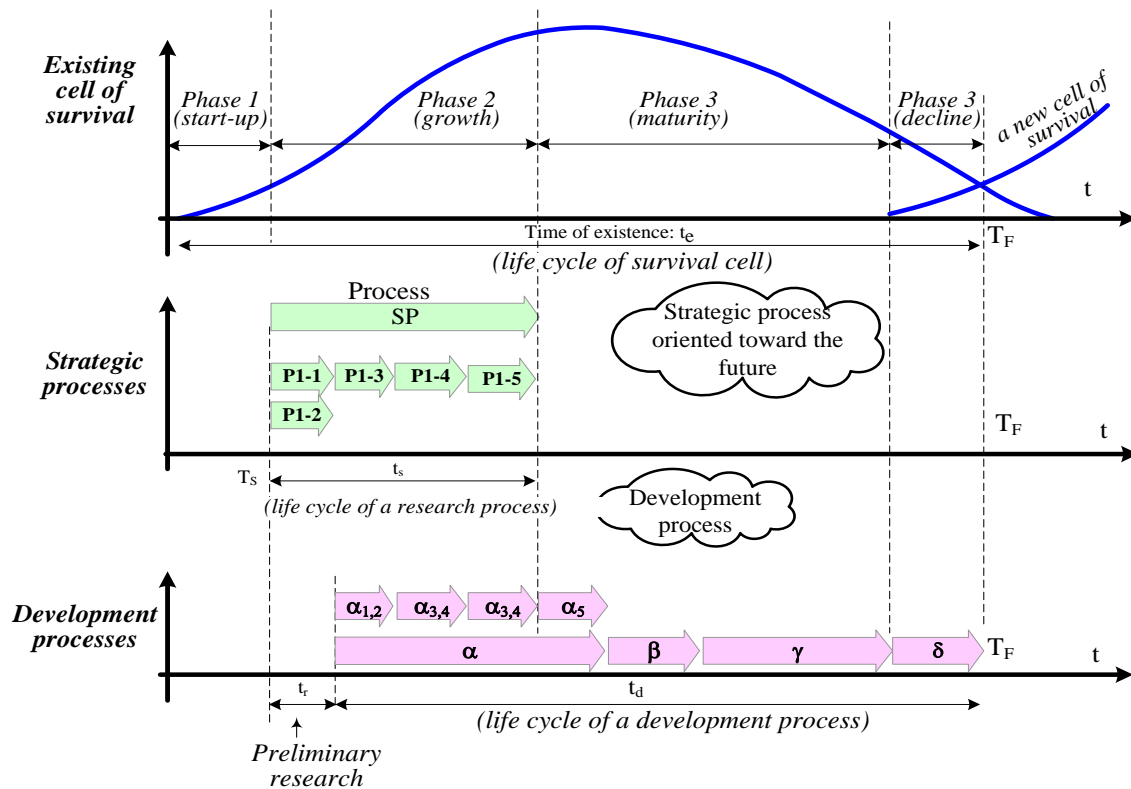


Figure 2.: Time relation between strategic, development and survival processes

When a development process ought to be activated it depends on the life cycle of existing cell of survival ( $t_e$ ), duration of preliminary research ( $t_r$ ) and duration of the whole development process ( $t_d$ ). All these processes are stochastic by nature, so there is always a certain risk in governing these processes.

Besides maintaining the population of cells of development, and cells of survival on a required level, the strategic governance activate new cells of development when an attractive profit potential is identified and the whole organization is capable to create the required competency for realising it.

Research and development processes are essentially investment processes for the future of organization. Number of these investment processes depends on the financial capabilities of the whole organization, especially on the created value which the whole organization is capable to create. In some circumstances it needn't be confined only to own resources when attractive chances appear.

Although population of the cells of development have an important role in the life of organization, population of survival cells assure existence of the whole organization. It is vital for the whole organization that the population of the cells of survival create more value, then it is invested into the processes of research and development, and all costs of reproductions of each cell of organization. Successful mastering survival and development of the whole organization requires that governance are well equipped with knowledge about the behaviour of these cells and the way by which these cells are managed. Above all it is important that the governance knows how the cells behave in each part of their life time. On the comprehensive

level it is enough to divide the life time of any cell into four parts. For each of these parts it is necessary to identify the required resources, expected behaviours and outcome.

Life cycle curve of a cell of survival is presented by Figure 3. with significant parts of the life time of a cell: start-up, growth, maturity and decline, and in the lower part of 3 is the illustration of a portfolio of the population of survival cells.

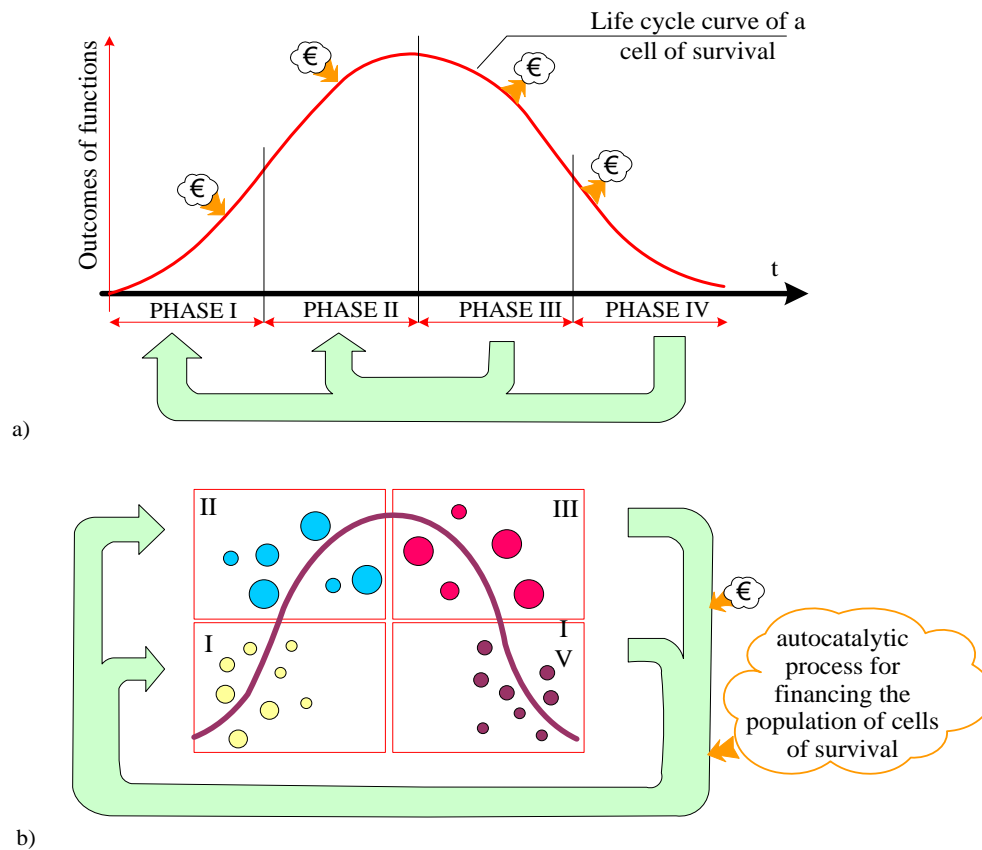


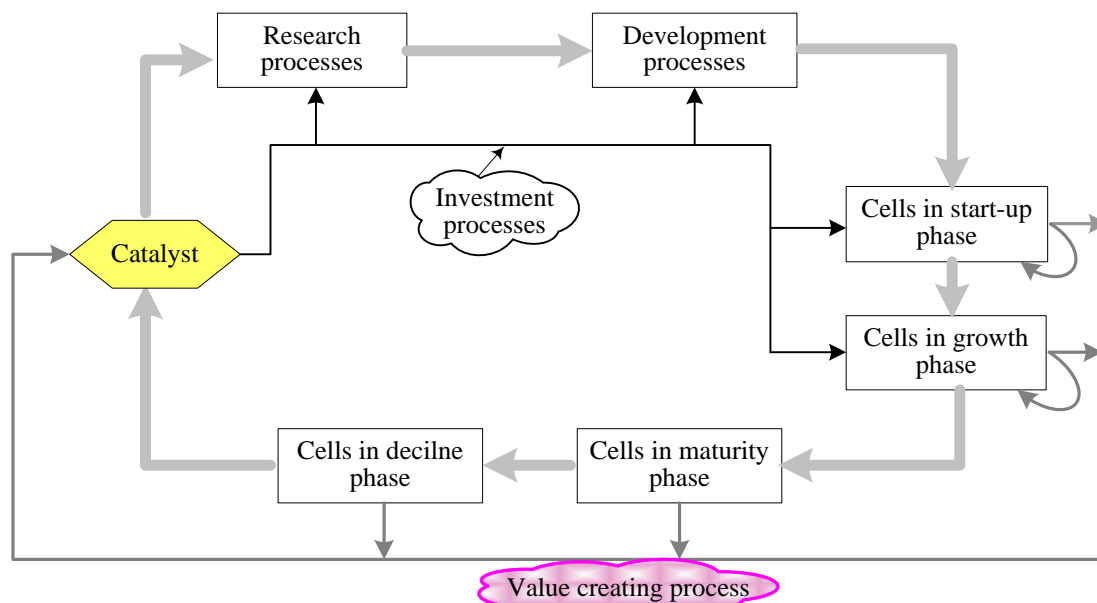
Figure 3.: Life cycle curve of a cell of survival

When one survival cell is considered in respect of financing, it is necessary to identify required inputs and outputs in each part of the life cycle of the survival cell.

- In start-up phase significant amount of financial resources are needed much more than a cell is able to create.
- In the growth phase a cell still needs extra financial resources, although it creates important amounts of these resources.
- In the maturity phase, financial resources are not needed for growth, a cell creates important amount of financial resources.
- The decline phase is similar to the maturity phase, but the created financial resources are much smaller.

The simplest case of portfolio is when an organization has four survival cells, and in each phase of life cycle there is only one survival cell. Then the cells in the third and fourth phase are able to finance not only the research and development, but the cells in the first and the second phase.

When this case is applied to the whole population of organization, then governance can activate an autocatalytic process for mastering survival and development of organization presented by Figure 4.



*Figure 4.: Comprehensive model of autocatalytic portfolio for mastering survival and development of organization*

The autocatalytic process comprises population of the cells of development in two phases: research and development, and the population of cells of survival in four phases: start-ups, growth, maturity and decline.

In the autocatalytic processes investment processes and value creation processes are maintained in harmony. Basic function of catalyst is to create such portfolio of survival and development by which this harmony is created and maintained.

## 6. CONCLUSION

In recent research of complex organizations new functions of strategic governance are identified. In this paper mastering development and survival are presented in respect of harmonization by autocatalytic portfolio.

In the research of complex organization, new discoveries on organizations are applied, by which organization are complex organisms. These organisms are outcome of genetic, memetic and monetic co-evolution. This requires introduction of new terminology and ideas which are appropriate to organisms.

In the research of complex organization, systems approach and new subject of complexity theory have been applied which resulted in several systems models of organization.

In this paper is presented the results of strategic governance, development function and survival function research, then creation of autocatalytic processes for mastering development and survival of organization, and finally, the comprehensive model of autocatalytic portfolio for mastering survival and development (Figure 4.Figur).

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## BE INNOVATIVE AT INNOVATING: AN INTERDISCIPLINARY COMPARISON OF INNOVATION PROCESSES

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### **ABSTRACT**

*Innovation processes are of tremendous importance for economic development as they transform new ideas into products and services from which society can benefit. Different industries developed and further-developed unique innovation processes optimally fitting their specific demands. However, several aspects are relevant to other industries, too, and their imitation could enable innovation process improvements. In this paper we perform an interdisciplinary comparison of innovation processes to identify such general tendencies as well as novel aspects that could spill over to other industries' innovation processes.*

**Keywords:** *Innovation, Innovation Process, Interdisciplinary Comparison*

### **1. INTRODUCTION**

Innovation is of tremendous importance for the prosperity and economic development of companies and society likewise. Unless new ideas and inventions are transformed into products and services that better fulfil customer requirements, they generate no benefits for the society. New inputs and processes applied in production improve efficiency and sustainability of companies and likely also yield positive externalities to society and environment.

Innovation processes receive great attention in many industries – like the building industry, software engineering or mechanical engineering. What is surprising, however, is that these different industries further-develop innovation processes without much exchange. This exchange between different industries concerning their approaches to transform ideas into products can be expected to be highly valuable. It can provide innovative inputs and advantageous process characteristics from related processes of different industries that are similar enough to learn from them but at the same time different enough to gain novel insights.

In this research we make a first attempt to address this lack of interdisciplinary comparison of innovation processes. We evaluate the innovation processes in new product development of mechanical engineering, building planning and software engineering based on existent literature and models. This endeavour is undertaken to address the research questions whether innovation processes exhibit common developments and allow imitation of advantageous characteristics.

The remainder of this paper is structured as follows: Section 2 discusses innovation processes of different disciplines, Sections 3 and 4 focus on similar developments in different industries, i.e. the integration of activities (Section 3) as well as the opening of the innovation process (Section 4). Section 5 concludes the paper and discusses areas of future research.

## 2. INNOVATION PROCESSES

There is no common understanding of the new product development process in general but several models explain its phases, activities and succession of the later (e.g. Thom 1980; Witt 1996; Pleschak and Sabisch 1996; Brockhoff 1998). Figure 1 provides an overview in form of a compendium of the relevant literature. In general the new product development process can be separated in three distinct phases: (i) the creative phase, (ii) the planning phase, and (iii) the realization phase.

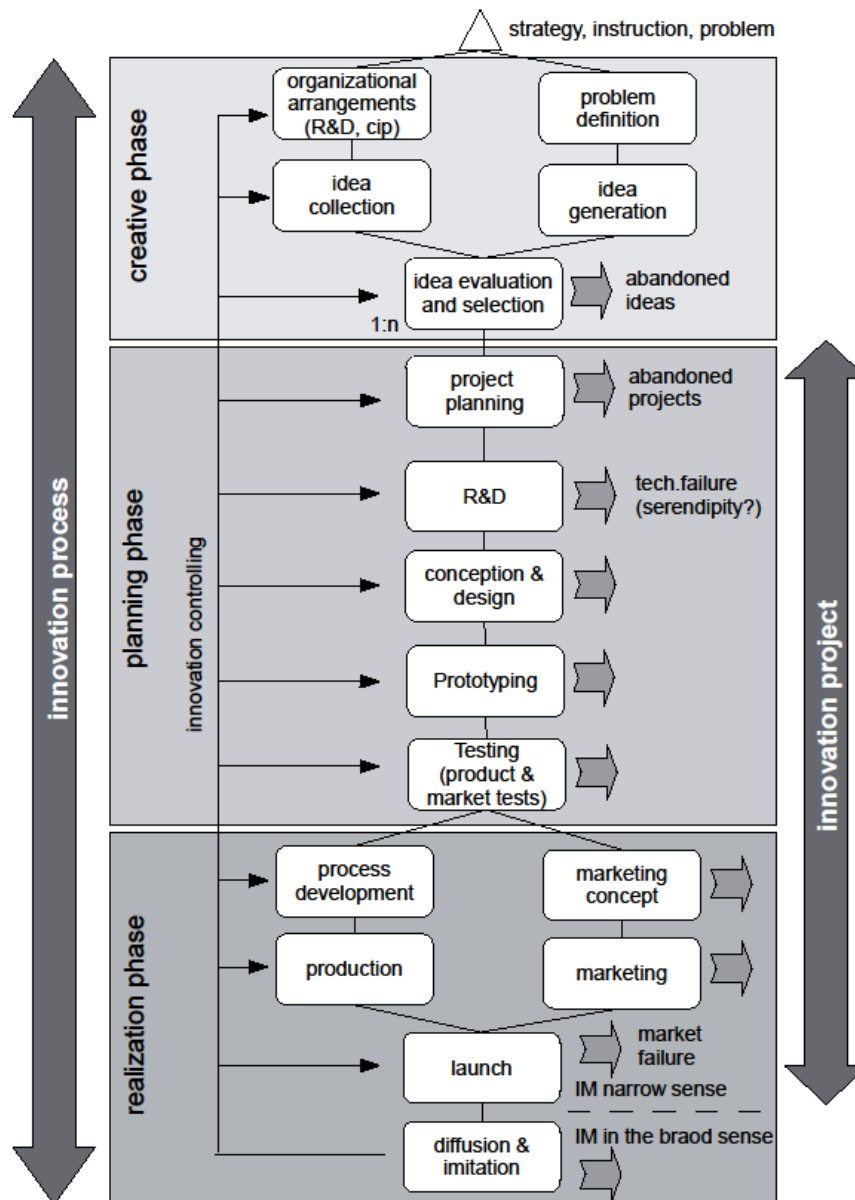


Figure 1: Generic innovation process

The innovation process is triggered by some existing problem or based on an order. The creative phase involves gathering ideas and idea evaluation. Idea gathering can take the form of collecting existing ideas – provided the organizational arrangements like internal suggestion systems, quality cycles etc. are established – or the installation of creative teams to solve the problem at hand. Both variants together or on their own will result in a set of ideas

that have to be evaluated. From this evaluation one or several competing innovation projects might emerge, which constitutes the end of the creative phase. In the planning phase the project management for a specific innovation project is accomplished (goals setting, scheduling, etc.) followed by R & D and conceptual and detailed design. The resulting design is realized in form of prototypes and tested concerning feasibility, efficient producibility and market acceptance. A successful prototype testing initiates the realization phase which involves the development of production processes and marketing strategies as well as their execution and the launch of the product or service at the market – in some cases at test markets followed by a roll-out in case of success.

The market launch of a product ends the innovation project. Innovation management in a broader sense, however, also includes the diffusion and the determination of confrontation strategies for activities of competitors – like attempts to imitate the launched products or services. Of course along this innovation process there are exit points for ideas. The innovation process can be seen as a funnel and only a small fraction of initial ideas will result in successfully launched products, some ideas will be abandoned if negatively evaluated and never lead to innovation projects, some projects will be abandoned in the planning phase as not time- or cost-efficient, furthermore there might be technical failures or market failures. Therefore it is necessary that the innovation process as a selection process is organized as efficient as possible to avoid unnecessary efforts on the one hand and enable the transformation of ideas to products for the benefit of the company and society on the other hand.

The above described generic innovation process, in this form, fits of a very relevant but also specific type of new product development, i.e. the technology-driven push innovations rather than the market-driven pull innovation (von Hippel 1978). Market-driven innovations, but also architecture and construction, have a different sequence of basically the same activities. In these disciplines market research and requirements engineering would be the initial steps. Software engineering on the other hand develops immaterial products the production process development and production scheduling would be redundant activities. Though there are many similarities one can observe discipline specific differences in the innovation processes that result from the specific characteristics of the underlying products and services. However, we are on the one hand interested in those differences which cannot be assigned to differences in product characteristics but result from myopic path dependent historical developments and therefore could be, informed by characteristics from other disciplines, altered to further develop innovation processes. On the other hand we are looking for common characteristics in innovation processes that could be integrated in the processes of other disciplines. The subsequent sections will address two such common phenomena, i.e. the integration of innovation activities and the opening of the innovation process.

### **3. INTEGRATION OF ACTIVITIES**

One phenomenon which especially can be observed in new product development is the integration of innovation process activities. The development was a stepwise first from sequential processes, where subsequent activities start only after previous activities have been finished, to more simultaneous processes with overlapping and interconnected activities as illustrated in Figure 2 (Rothwell 1995; Yazdani and Holmes 1999).

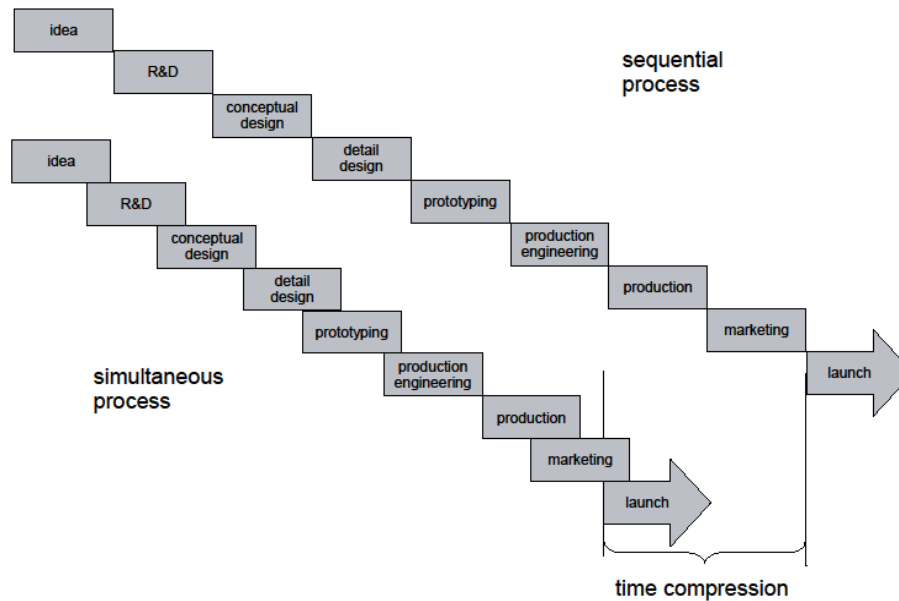


Figure 2: Sequential and simultaneous process (Yazdani & Holmes 1999)

This change enabled a time compression of the new product development process as well as a better information exchange between different process workers and therefore a considerable improvement in one of the key performance indicators of innovation processes i.e. the time-to-market. The Stage-Gate process (Cooper 1990) is an example of a sequential innovation processes while concurrent engineering is a simultaneous process. Integrated innovation processes are performed by cross functional teams that cooperate throughout the entire product development process (see Figure 3). This allows for better information exchange between the participants of the different disciplines and avoids time consuming rework loops if later input necessitates adoptions of work undertaken in previous phases, e.g. if customer requirements provided by marketing experts are not considered in the design phase of product development.

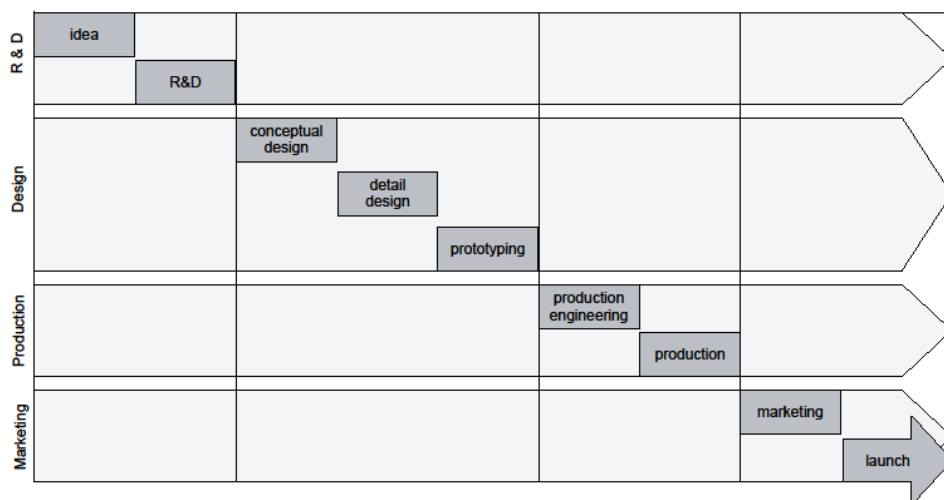


Figure 3: Integrated innovation process



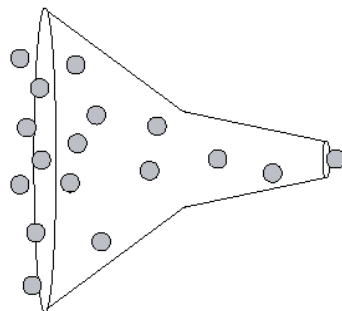
But the integration of activities in the innovation process can also be observed in recent developments of the building planning processes. In building planning this change is performed by a close cooperation of architecture – responsible for the architectural design –, civil engineering – responsible for statics and construction – and building technology – responsible for heating, ventilation and air conditioning HVAC. These roles traditionally worked together in building planning in a sequential manner. The building technology was only considered after civil engineers performed their tasks based on the architectural design provided by architects. Building requirements in terms of energy efficiency, life-cycle costs etc. make building planning much more complex and demand an integrated planning process (Kovacic et. al. 2001). This integrated planning is often accompanied by work on a common building model – building information modelling BIM) – with interoperable design software which is also a relatively new development and recent challenge in this discipline.

Similar developments can be observed in software engineering where traditional sequential software development model like the waterfall-model or the V-model where replaced by iterative models like SCRUM.

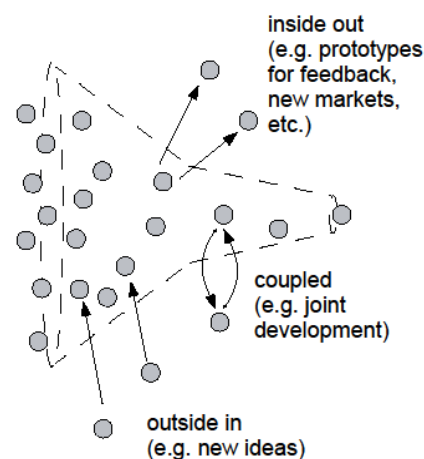
#### 4. OPENING THE PROCESS

Besides the integration of activities in innovation processes the opening of these processes to participants outside the focal company is another observable development. This phenomenon can be observed in open source software development processes and also in product development, where for instance the users can be integrated in the innovation processes by lead user methods (von Hippel 1989) or participatory design techniques, but is still missing to a large extent in building planning.

**Closed innovation process**



**Open innovation process**



*Figure 4: Open Innovation*

Such an open innovation process (Chesbrough, 2006) can have multiple forms depending on which actors are integrated at which phases of the innovation process (see Figure 4). New ideas can come from outside the company, for example by means of idea crowdsourcing platforms but also from inside the company and innovation process out for example to receive feedback on prototypes or test new markets. A further possibility is the interactive cooperation with actors outside the company like lead users or even competitors in joint development projects.

## 5. CONSLUSION

In this paper we performed a first interdisciplinary comparison of innovation processes. This research was inspired by the idea to enable companies to improve their procedures by imitating superior designs from other industries. This in turn should allow companies be more successful in diffusing novel ideas and technological invention to society.

Despite the disciplinary differences the general innovation processes have many aspects, like central activities and their succession, in common and observe – though with different intensity and at different points in time – very similar developments. The parallelization of activities or the opening of the process to external participants – like suppliers, customers, or even competitors – being only two examples of such shared developments. The reasons for these developments can be found in the increasing complexity of products and changes of the competitive environment of innovating companies. Increased complexity of goods and services leads to reciprocal rather than pooled or sequential interdependencies of activities (Thompson, 1976) which calls for integrated innovation processes to cope with this complexity.

The golden triangle of project and process performance, i.e. costs, quality and time, can be operationalized for innovation processes as: (i) development costs, (ii) product quality, i.e. the fulfilment of user requirements and (iii) time-to-market. In the present innovation competition (Cooper, 2001) time-to-market and product quality become the major issues so that higher cost innovation processes based on integrated or simultaneous activities are preferable alternatives as they have the potential to reduce time-to-market and increase the quality of the outcome of innovation processes. This emphasize of high quality of developed products in innovation processes by means of optimally fitting user requirements to a large extend also explains the opening of innovation processes, besides the novel ideas open innovation approaches can result in.

However, these similar developments are not observed in all industries, i.e. the opening of the innovation process is something more often found in software engineering and new product development processes in mechanical engineering but not in building development processes. Furthermore, the integration of activities of different participants in the innovation process were considered in building engineering – by the development of integrated building planning and building information modelling – only recently and are a current topic in this discipline, while they more established in other disciplines like product development or software engineering. Therefore, there seems to be considerable potential to imitate innovation process characteristics across industries in attempt to learn from each other. To enable exchange and further-development of innovation processes it is necessary that future research systematically compares them across the different disciplines. This requires in a first step to identify innovation processes of different industries. In this context it would be interesting to include industries less involved in engineering and manufacturing, like industries from the service sector, to gain an even broader understanding of innovation activities. These innovation processes in a second step have to be modelled uniformly to enable interdisciplinary comparisons. Based on these models we could examine commonalities and domain specific differences. Moreover from the development of innovation processes in different industries over time, general tendencies that affect them can be observed, as well as novel aspects that could spill over to other industries' innovation processes.

Another promising area of future research is the application to general process theory to improve innovation processes (Harrington 1991; Kettinger et. Al. 1997; Österle 1995) and to analyse and imitate other operative business processes to derive improvements for innovation processes (Haradon, 2003).

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## **PROBLEMS AND CHALLENGES FACING ALBANIAN WOMEN ENTREPRENEURS**

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### **ABSTRACT**

*Entrepreneurs are key driving force of modern economies. Women entrepreneurs are one of the fastest growing populations of entrepreneurs in the world. According to the 2012 Global Entrepreneurship Monitor (GEM) Women's Report, in 2012, an estimated 126 million women were starting or running new businesses in 67 economies around the world. Women run businesses across all sectors of industry. In Albania, a woman in business is a phenomenon that began after 1990 with the major changes that have taken place in Albania during its transition from a centrally planned to market-oriented economy. Since 1991, the number of businesses create and run by women continue to grow. Firms owned by women continue to diversify into all industries. Yet, women-owned firms still have a long way to go to achieve parity with men-owned firms. This paper aims to assess the intensity of women as entrepreneurs in Albania. The paper includes problems and challenges faced by women entrepreneurs in the Albanian socio-economic context and their prospects for future development. The picture that emerges of the finding is that the women entrepreneurs face gender-related challenges, an unfavorable business environment, which is characterized by infrastructural deficiencies, corruption, low access and high cost of finance and weak institutions, which prevent them from realizing their full potential as entrepreneurs.*

**Keywords:** *Albania, Challenges, Socio-economic development, Women entrepreneurs.*

### **1. INTRODUCTION**

Entrepreneurs are key driving force of modern economies. The entrepreneurial spirit may manifest itself in the development of new markets, new products, new methods of production and management, the discovery of new inputs and the establishment of new businesses and even new organisational forms (Harper, 2003). Women entrepreneurs are one of the fastest growing entrepreneurial populations in the world, but they remain one understudied group of entrepreneurs (Brush and Cooper, 2012). Women entrepreneurs have an important impact on the economy. According to the 2012 Global Entrepreneurship Monitor (GEM) Women's Report, in 2012, an estimated 126 million women were starting or running new businesses in 67 economies around the world. The firms owned by women are distributed across all sectors of industry. But,

top sectors for women include: health care (doctors and dentists), education services, social assistance (residential care facilities and child care providers), personal care services (beauty salons and dry cleaners), professional/technical/scientific services (accountants, public relations and human resources development consulting) and retail trade. Studies on women entrepreneurs show that number of women entrepreneurs in sectors such as manufacturing and ICT sector is low compared to other sectors (European Commission, 2013; Niethammer, 2013). The industries (primarily retail, education and other service industries) chosen by women are often perceived as being less important to economic development and growth than high-technology and manufacturing (OECD, 2004).

According to Verheul et al. (2006), entrepreneurship is related to the level of economic development and is embedded in a specific national economic context. In Albania, a woman in business is a phenomenon that began after 1990 with the major changes that have taken place in Albania during its transition from a centrally planned to market-oriented economy. Since 1991, the number of businesses create and run by women continue to grow. Firms owned by women continue to diversify into all industries. Yet, women-owned firms still have a long way to go to achieve parity with men-owned firms.

The aim of this paper is to assess the intensity of women as entrepreneurs in Albania. The paper includes problems and challenges faced by women entrepreneurs in the Albanian socio-economic context and their prospects for future development. The analysis is based on data collected through literature survey, statistics come mainly from Institute of Statistics (INSTAT), national surveys on women entrepreneurs in Albania and some empirical studies.

The paper is organized as following: Section 2 explores the questions: why do women become entrepreneurs? Section 3 provides an overview of the Albanian women and their role in national economy. In section 4 highlights the problems and challenges faced by women entrepreneurs in Albania. Finally, this paper will end up with the conclusion.

## **2. WHY DO WOMEN BECOME ENTREPRENEURS?**

The existing literature on entrepreneurial motivations has predominantly focused on ‘push’ versus ‘pull’ factors (Stevenson, 1986; Orhan and Scott, 2001; Schjoedt and Shaver, 2007). Push factors refer to factors that relate to necessity-based entrepreneurship such as unemployment, glass ceiling, redundancy, recession, inadequate family income, dissatisfaction with current job, the need to accommodate work home roles simultaneously. The pull factors are opportunity-based. They may result from need for independence, need for a challenge, improved financial opportunity, need of fulfilling the desire, flexibility for balancing family and work, potential to develop a hobby, personal achievement, and role models and other people’s influence (friends and family).

GEM (2013) analysis of women’s entrepreneurial motivation, comparing “necessity” and “opportunity” entrepreneurship, is presented in Figure 1. Necessity-driven entrepreneurship, particularly in less developed regions or those experiencing job losses, can help an economy benefit from self-employment initiatives and, in some cases, job creation for others. On the other hand, developed economies typically offer more employment options to attract those that might otherwise become entrepreneurs. Consequently, there are fewer individuals venturing into

entrepreneurship, particularly because of necessity motives; those that do start business, though, are more likely motivated by opportunity.

The opportunity motivation is generally more in all regions, indicating that entrepreneurs around the world primarily choose to enter this activity. Opportunity motivation is even more prevalent in the developed economies. Economies with the highest levels of opportunity motivations can be found in Developed Europe. Necessity motivation is relatively more dominant in less developed and developing economies.

The figure 1 reveals gender differences between groups of countries. The Sub-Saharan Africa and Latin America/Caribbean regions show large gender gaps, where necessity motives are higher than they are for men in their own economies. On average, women and men were equally likely to be motivated by necessity in the Developing Europe region and in the U.S.

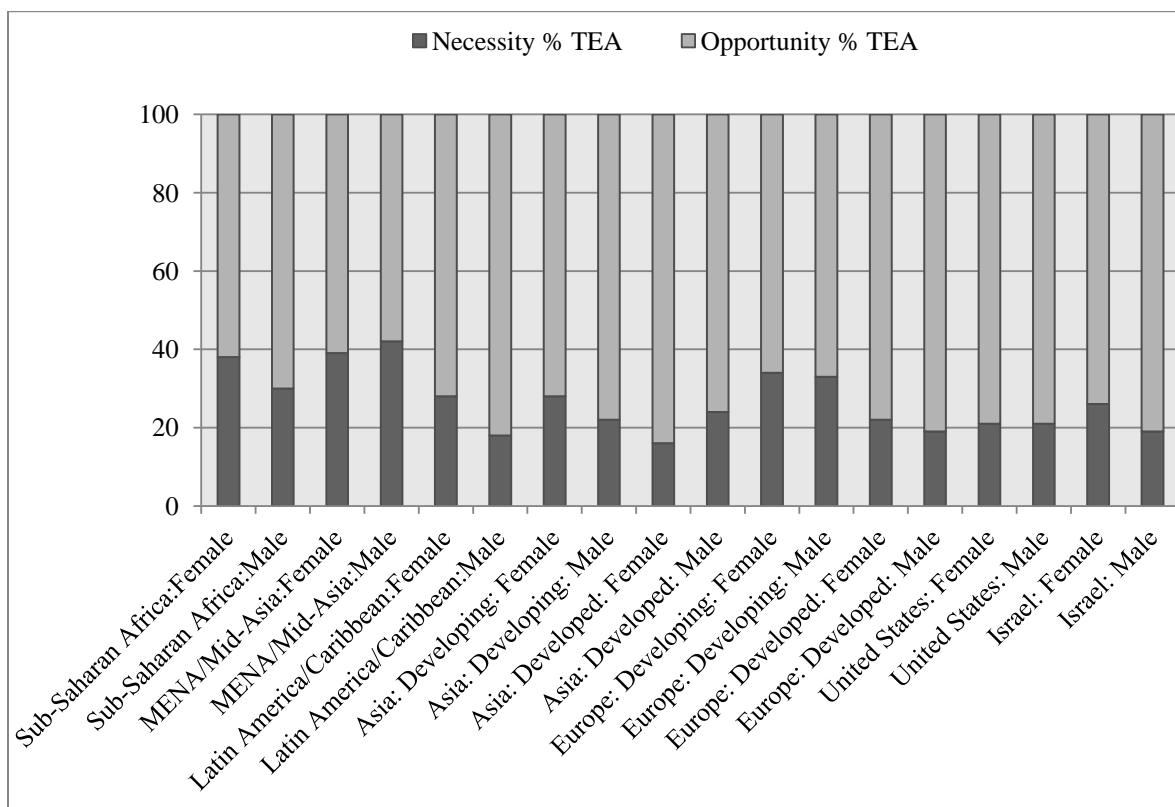


Figure 1: Necessity and opportunity motives for female and male TEA<sup>95</sup> by Region (GEM, 2013, p.28).

### 3. WOMEN IN THE ALBANIAN ECONOMY

In the end of 1989, employment rates were high for women and men (94 per cent for men and 85 per cent for women). The women and men were under the communist regime, supposedly equal in all aspect of society. With the fall of the communist regime structural inequalities between men and women became evident coupled with the challenge to rediscover and learn the function

<sup>95</sup> Total Entrepreneurial Activity (TEA)

of the market economy (OECD, 2004). During early years of the transition period employment rates changed (50 per cent for men and 60 per cent for women). It was a direct consequence of major changes that have taken place in Albania during its transition from a centrally planned to market-oriented economy in 1991-1992. In the end of 2012, employment rates were 49.6 per cent for women and 63.2 per cent for men (INSTAT<sup>96</sup>, 2013).

In the year 1993-1994, it started the privatisation of the state enterprises which gave an impetus to the creation of the private sectors. However, the participation of women in the private sector stands at even lower levels. The national surveys show that female unemployment is characterized by greater difficulty in finding new jobs (Cucillari et al. 2010). On the other hand, many women are not seeking gainful work in waged employment outside the home because of the increase in unemployment that has accompanied the transition period. Another obstacle to the involvement of women is male emigration. Many men, in fact, have gone abroad leaving their womenfolk to look after their families. Women in this position obviously have little or no time for running business, and some may not need another source of income due to the income received from “emigrants’ remittances” (Bezhani, 2001).

#### 4. ALBANIAN WOMEN IN THE BUSINESS WORLD

According to official data obtained by the INSTAT (2013), Albania had 106,837 active enterprises at the end of 2012. The economy of Albania is dominated by micro and small enterprises. Active enterprises run by women constituted 27.4 per cent of the total compared with 72.6 per cent conducted by men. In 2012, 30.1 percent of new enterprises are created and managed from woman. Trade activity is more favourites in decision for a new activity. The distribution of the enterprises run by women according to their economic activity and the number of their employees are as it appears bellow (Table 1).

*Table 1: Active enterprises with ownership / administrator woman by economic activity and size, 2012 (INSTAT, Business Register 2012, 2013)*

Economic Activity	Total	% on total enterprises			
		By the number of employed			
		1-4	5-9	10-49	50+
<b>Total</b>	<b>27.4</b>	<b>28.8</b>	<b>15.9</b>	<b>15.7</b>	<b>14.5</b>
<b>Producers of goods</b>	<b>14.9</b>	<b>16.3</b>	<b>9.9</b>	<b>10.6</b>	<b>14.0</b>
Agriculture & Fishing	6.5	6.6	0.0	4.9	9.1
Industry	19.7	21.3	13.1	12.7	16.0
Construction	7.7	7.6	6.5	8.8	9.4
<b>Producers of services</b>	<b>29.6</b>	<b>30.7</b>	<b>18.6</b>	<b>18.6</b>	<b>14.7</b>
Trade	33.4	34.6	13.5	11.4	12.2
Hotels, Coffee, Restaurants	27.8	28.2	23.3	17.9	18.2
Transport & Communication	8.5	8.4	10.5	15.5	13.6
Other Services	34.0	36.9	24.3	22.6	15.1

<sup>96</sup> Institute of Statistics of Albania

The above figure indicates that 28.8 per cent of total enterprises run by women are with 1-4 employed, while for the enterprises with 50+ employed the percentage is 14.5. Most women are self-employed. The studies show that women entrepreneurs employ very few workers for two main reasons:

1. High social security contribution rates;
2. Low levels of vocational training attained by job seekers.

Trade and other services activities represent the largest sectors, in terms of number of enterprises.

The following table (Table 2) illustrates the percentage participation of women in six business sectors in eight years (2005 and 2012).

These data show that the structure of women's entrepreneurship tends to change little over the course of time. Women's enterprises can thus be said to be typically in three sectors: trade (wholesalers and retailers); services (dentists, dispensing chemists, lawyers, public notaries, hairdressers, etc.) and industry (this sector mainly comprises women engaged in the processing of milk, publishing houses, textile operations, dressmaking and craftwork).

*Table 2: Active enterprises with ownership / administrator woman by economic activity, 2005-2012 (INSTAT, Business Register 2012, 2013)*

% on total enterprises								
<b>Economic activity</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
<b>Total</b>	<b>22.9</b>	<b>23.7</b>	<b>24.2</b>	<b>24.8</b>	<b>25.1</b>	<b>26.5</b>	<b>26.9</b>	<b>27.4</b>
<b>Producers of goods</b>	<b>12.2</b>	<b>12.7</b>	<b>12.7</b>	<b>12.9</b>	<b>13.3</b>	<b>14.8</b>	<b>14.7</b>	<b>14.9</b>
Agriculture & Fishing	4.9	5.5	5.2	5.3	5.4	6.4	6.3	6.5
Industry	15.2	16.4	16.8	17.0	17.4	19.5	19.5	19.7
Construction	6.3	6.2	6.1	6.3	6.9	7.2	7.2	7.7
<b>Producers of services</b>	<b>25.0</b>	<b>25.8</b>	<b>26.3</b>	<b>27.0</b>	<b>27.2</b>	<b>28.6</b>	<b>29.2</b>	<b>29.6</b>
Trade	27.4	28.0	28.9	29.8	30.2	32.1	32.9	33.4
Hotels, Coffee, Restaurants	26.7	26.6	26.7	26.8	26.8	27.4	27.5	27.8
Transport & Communication	3.8	4.0	4.4	5.1	5.6	6.9	7.8	8.5
Other Services	30.2	31.7	31.9	32.1	32.3	33.7	34.1	34.0

The data set out in Table 3 illustrate the distribution of active enterprises run by woman according to counties and economic activity.



*Table 3: Active enterprises with ownership / administrator woman by counties and economic activity, 2012 (INSTAT, Business Register 2012, 2013)*

% on total enterprises										
Counties	Total	Producers of goods	Agriculture & Fishing	Industry	Construction	Producers of services	Trade	Hotels, Coffee, Restaurants	Transport & Communication	Other Services
<b>Total</b>	<b>27.4</b>	<b>14.9</b>	<b>6.5</b>	<b>19.7</b>	<b>7.7</b>	<b>29.6</b>	<b>33.4</b>	<b>27.8</b>	<b>8.5</b>	<b>34.0</b>
Berat	27.9	16.3	5.0	19.5	6.3	30.2	34.8	29.8	5.0	34.1
Dibër	17.5	8.3	3.0	8.5	9.9	19.6	23.9	22.5	6.2	21.0
Durrës	26.8	14.6	5.5	21.5	5.3	29.4	33.1	23.8	12.4	37.2
Elbasan	24.9	14.7	10.2	17.5	5.9	26.6	31.9	29.7	4.1	28.9
Fier	26.5	13.5	8.9	17.3	5.3	29.0	33.1	30.1	4.5	33.5
Gjirokastrë	23.2	13.2	15.0	15.3	6.4	25.4	28.1	30.8	5.1	25.4
Korçë	25.2	14.6	6.8	17.8	9.6	27.3	32.7	26.2	5.5	30.6
Kukës	14.2	6.6	0.0	8.4	6.5	15.8	19.8	14.2	3.5	13.7
Lezhë	24.7	14.7	10.4	17.1	11.8	27.1	30.1	29.0	5.6	30.7
Shkodër	25.1	14.3	7.5	19.7	7.1	27.2	32.8	19.7	7.9	33.5
Tiranë	30.2	17.7	7.2	23.1	8.9	32.0	34.4	29.7	12.4	36.0
Vlorë	26.6	10.8	3.3	16.8	7.2	30.5	37.1	28.1	6.4	32.7

The largest single county, in terms of number of enterprises is Tirana (30.2 per cent are managed from women) while the lowest level is in county Kukes (14.2 per cent are managed from women). Domination of producers of services is an occurrence in all counties.

There are many factors why the percentage of women who manage a business is so low. Some of these factors are:

- Gender division of labour leaves women with less time to engage in business;
- Women have less likely to find relevant information;
- Women have less business experience;
- Women have less freedom to do what they want to do;
- Women are at risk for being exposed to violence (including sexual violence);
- Women have difficulty developing self-confidence;
- Lack of male confidence in women's capabilities;
- Lack of women's willingness to deal with administrative issues of business management.

The importance of each factor is unknown. It is more likely that they act in combination to create a hostile atmosphere in an environment that is mainly dominated by men and unfavourable to women wishing to start a business.

The studies on women entrepreneurs in Albania show that initial capital required to start a business is usually obtained from personal or family savings, or those of relatives. Few women have applied for bank loans (mostly those in the building, manufacturing and wholesale sectors) and only a small proportion have been successful. One of the main obstacles encountered by

women entrepreneurs is the lack of financial support both from State and private banks, and from institutions and funding foundations as a whole. It is noted that about 50 per cent of women entrepreneurs wish to receive financial backing to expand their firms. Several obstacles facing women in their relationship with the financial system operating in Albania are:

- High interest rates by banks;
- Absence of special loan schemes for women-owned businesses;
- Corruption, low competence levels, and lack of willingness by bank officers to track business progress;
- Women tend to be technically unprepared in their approach to a lending institution.

Problems (related to water, electricity and telephone) and the general consequences of a weak infrastructure, which tends to hamper the growth of their business.

Examination of the reasons why businesses close down throws light on the difficulties facing Albanian women. Among these are:

- Lack of funding;
- External factors, such as divorce, marriage and family life;
- Collapse of finance companies (some firms lost part of their venture capital);
- Women entrepreneurs tend to lack of the self-confidence needed to make new investments decisions;
- Lack of appropriate support and expertise;
- Political and economic instability; etc.

From the brief review of problems for women entrepreneurs, it is clear that women entrepreneurs in Albania are subject to a number of socio-economic and operational barriers that limit their ability and capacity to take their enterprises to the next stage of development. In this respect, for women entrepreneurs who run businesses the main challenges are in dealing with access to term finance and sufficient working capital to meet their needs, high taxes, lack of the self-confidence, need to strengthen their entrepreneurial capabilities, etc.

## **5. CONCLUSION**

Women entrepreneurs have an important impact on the economy. The firms owned by women are distributed across all sectors of industry. World over for women the choice to start a new business is often linked to necessities or opportunities. In Albania, a woman in business is a phenomenon that began after 1990 with the major changes that have taken place in Albania during its transition from a centrally planned to market-oriented economy. Since 1991, the number of businesses create and run by women continue to grow. But, women entrepreneurs are still an untapped source of business and job, creation. A substantial gap exists between male and female entrepreneurship. Women entrepreneur have always been characterized by small company size. The percentage of women who manage a business is low. From the brief review of problems for women entrepreneurs, can be concluded that women entrepreneurs in Albania are subject to a number of barriers that limit their ability and capacity to take their enterprises to the next stage of development. Lack of access to capital is one of the biggest problems, which women entrepreneurs face in Albania. Other main problems included gender-related problems. Finally, challenge for the future development is to create the opportunities to facilitate business creation and operation for women entrepreneurs in Albania.

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# **CAPM AND FINANCIAL MARKET ANOMALIES: A CASE OF KARACHI STOCK EXCHANGE PAKISTAN**

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## **ABSTRACT**

*In this study we tried to examine if capital asset pricing model can explain the variations of returns in the presence of market anomalies in a developing economy like Pakistan. The daily stock prices were obtained from Ksestocks.Com and Brencoder.Com from Dec 31, 2003 to Dec 31, 2010. We used cross sectional and panel data analysis to know the impact of beta on returns. The results clearly showed that jewel model of standard finance, the capital asset pricing model, failed to explain the anomalies in return. This clearly indicates the fact that there are other factors, mainly behavioral, that may be incorporated in an asset pricing model to enable it to explain the variation in returns. These return anomalies may be better explained if we see them in the context of behavioral issues such as investors Biases, Irrationality etc.*

**Keywords:** *Capital Asset Pricing Model, Financial Market*

## **1. INTRODUCTION**

The main aspect in asset pricing is evaluating its returns with its associated risks (Galagedera, 2007). Harry Markowitz (1952) was of the opinion that risk can be diversified by adding those securities in portfolio that are negatively correlated with each other. However in this risk return measurement he talked of overall risk of the portfolio.

William Sharpe (1964) and John Linter (1965) gave the idea that investor should only be compensated for systematic risk and unsystematic risk can be diversified to zero. Thus giving rise to the most studied model in history of Finance called Capital Asset Pricing Model.

In CAPM the returns depend on the risk free rate and the risk premium for systematic risk. The model soon came under sever criticism. The main accusation was the use of single factor as a yard stick to measure returns. This disadvantage led Reinganum, 1981; Breeden et al., 1989; Fama and French, 1992 etc to indicate that CAPM cannot expaling variation in securities' return.

Further Basu (1977) indicated that firms with low P/E ratios earned higher returns as compared to firms with high P/E ratios. Similarly the work of Banz (1981) indicated that firms with low market capitalization earned more returns as compared to firms with higher capitalization. The studies conducted in developed economies indicated that CAPM was helpless to explain the variation in returns due to these market anomalies.

The failure of CAPM led Breeden (1979) to develop Consumption Based Asset pricing model. The risk was measured as covariance of securities returns with marginal utility of consumption. But soon this model was criticized on the ground that in short run, this model fails to explain market anomalies and further its assumption of stationarity in prices made it vulnerable to market

fluctuations (see Hansen and Singleton, 1983); Mankiw et al., 1985; Grossman et al., 1987; Ferson and Merrick, 1987). Further Mankiw and Shapiro (1986) in their study indicated that CAPM explained variation in cross sectional returns of U.S. assets from the mean, better than CCAPM. The empirical failure of CCAPM led academicians to come up with different versions of CAPM. Campbell (1993, 1996) gave idea of dynamic capital asset pricing model, in which anything that qualifies to be a risk is co-varied with asset's returns. Some gave the idea of Conditional CAPM and indicated that conditional Betas can explain market anomalies (Jagannathan and Wang, 1996).

In this study we tried to examine if capital asset pricing model can explain the variations of returns in the presence of market anomalies in a developing economy like Pakistan.

### **Significance of Study**

This study is significant as it will study CAPM to predict variation in returns in a developing economy context. Further, if CAPM failed, this will indicate that returns will be better explained by also studying behavioral aspects associated with markets.

### **Literature Review**

The main aspect of security pricing is evaluating its returns with its associated risks (Galagedera, 2007). In this regard the work of Markowitz (1952) and Tobin (1958) provided the foundation for asset pricing models. Markowitz's Mean Variance theory indicated that risk associated with securities added to the portfolio do not cause additional risk provided that they are not positively correlated with each other but rather minimizes it if they are negatively correlated with one another. His model created an efficient frontier on which the return of the security was maximum in accordance with its associated risk. Tobin (1958) suggested methods to identify appropriate portfolios among the efficient set.

Based on the work of Markowitz (1952), the capital asset pricing model (CAPM) of William Sharpe (1964) and John Linter (1965) is the most studied model in finance literature. The underlying assumption of CAPM is that the expected return of the portfolio is determined by market premium along with risk free rate. Instead of using overall risk associated with the portfolio, they used that portion of risk which is associated with market or systematic risk.

The power of CAPM is in its simplicity and logic. However, the assumption of single factor as yard stick for expected return came under severe criticism. Several empirical studies indicated that CAPM's market beta was unable to explain variations in portfolio returns (Reinganum, 1981; Breeden et al., 1989; Fama and French, 1992). The findings of Basu (1977) indicated that stocks with low price to earnings ratios (P/E ratio) exhibited greater returns as compared to the one with high P/E ratios. Although it didn't considered variation in beta but yet it indicated that P/E ratio has power to explain returns. Further the work of Banz (1981) indicated that stocks with low capitalization experienced higher returns as compared to stocks with higher capitalization. Although, the low capitalized stocks had higher betas as compared to highly capitalized stocks, yet the returns were more than they would have been explained by beta.

The failure of CAPM to explain returns led Breeden (1979) to develop Consumption based asset pricing model (CCAPM). He indicated that the asset risk premium depends on the covariance of

asset returns with aggregate consumption in continuous time dynamic optimization models. The empirical test for CCAPM was developed by Hansen and Singleton (1982). By using Euler equation, they indicated that assets risk premium depends on the covariance of asset returns with marginal utility of consumption. The CCAPM was an improvement over CAPM in two ways. Firstly, return on market portfolios of risky assets is difficult to ascertain because investors have investments in non-tradable assets such as human resource. In CCAPM the growth rate of consumption is an excellent measure for these assets. Secondly, CCAPM fully accommodate the intertemporal nature of portfolio choices (Evans and Hasan, 1998). However, Hansen and Singleton (1983); Mankiw et al. (1985); and Grossman et al. (1987) in their studies indicated that CCAPM is inefficient to explain assets' returns as they rejected it's over identifying restrictions at very small significance levels. The study of Ferson and Merrick (1987) indicated that the pricing relationship implied by CCAPM is non stationary and is prone to business cycle fluctuations. Further, Mankiw and Shapiro (1986) in their study indicated that CAPM explained variation in cross sectional returns of U.S. assets from the mean, better than CCAPM. Mankiw and Zeldes (1991); and Haliassos and Bertaut (1995) indicated that few U.S. citizens have investments in equities hallmarked by tendency of high risk aversion, irrational decision making or involvement of high transaction costs. The empirical failure of CCAPM led academia to come up with new versions of capital asset pricing models. Campbell (1993, 1996) developed dynamic asset pricing model in which expected return asset depends on covariance of assets' returns with market portfolio and with the present value of future market returns. In this model anything that predicts market returns qualifies as factor of risk for asset's returns. Jagannathan and Wang (1996) indicated that predictive power of CAPM can be improved if we use conditional betas. The present day study has mixed reactions to conditional asset pricing model. Avramov and Chordia (2006) indicated that conditional CAPM was successful to explain the market anomalies while unconditional CAPM was unable to explain them. The similar study conducted by Ho et al. (2005) indicated that conditional asset pricing model has better power to explain market anomalies. However, Lewellen and Nagel (2005) were of the opinion that in short horizons (monthly, quarterly, semiannually) the conditional alpha (pricing error) was positive and highly significant indicating that conditional CAPM failed to explain financial market anomalies. Anomaly means "irregularity, deviation from the common order, exceptional condition or circumstance" (Oxford English Dictionary, 1989). Financial market anomalies refer to "statistically significant difference between the realized average returns associated with certain characteristics of securities or on portfolios of securities formed on the basis of those characteristics, and the returns that are predicted by a particular asset pricing model." (Brennan and Xia, 2001). Three financial market anomalies include size effect (Market capitalization), Value effect (Market to book ratio) and Momentum effect (Effect of past returns) (Beaulieu et al., 2010). The momentum effect entails the evidence of the studies that the stocks that performed well in past continue to perform well in future too and the securities that under performed continue to underperform in the future also (Jegadeesh and Titman, 1993, 2001). As discussed in the out set, the recent research of Avramov and Chordia (2006); Ho et al. (2005) indicated that the unconditional F & F and CAPM failed to incorporate these anomalies. However the conditional version of these models with time varying beta explained the return of assets with respect to these anomalies. The study will proceed by testing unconditional CAPM model to see whether it can explain these market anomalies in a developing economy setting.

## Methodology:

### Sample

A sample of 30 manufacturing firms traded on Karachi stock Exchange was taken for the purpose of this study from 2003 to 2010.

### Data

The daily stock prices were obtained from Ksestocks.Com and Brencoder.Com from Dec 31, 2003 to Dec 31, 2010. The daily risk free rate was obtained from the web site of State Bank of Pakistan. The analysis was done from Year 2004-2009 while 2003 and 2010 was taken to calculate the lag and lead of different variables.

### Variables and Measurement

Since this study aimed to explain variation in returns by CAPM, we used the following model;

$$R_{i,t} = R_f + \beta (R_m - R_f) \text{----- eq.1}$$

Or

$$R_{i,t} - R_f = \alpha_0 + \alpha_1 \beta_t \text{----- eq.2}$$

Where;

$R_{i,t}$  = Yearly Market return derived from monthly market returns that were derived from daily market returns using  $\ln(P_n/P_o)$ . Where “ $P_n$ ” is stock index on current day, “ $P_o$ ” is stock index on previous day while “ $\ln$ ” is the natural log.

Bata is calculated as follows;

$$\beta_t = \frac{\text{Covariance}(s,m)}{\text{Variance}_m}$$

Beta measured by the covariance of security returns with market divided by variance of market returns.

$R_f$  = is the risk free rate

Eq. 2 was our main regression equation in Cross sectional analysis. A significant co-efficient of Beta ( $\beta$ ) would indicate that unconditional Beta better explain the variation in securities returns and vice versa.

Since panel data has advantage over time series and cross sectional data, we used the above regression equation for panel data analyses. The equation used for it is;

$$R_{i,t} - R_f = \alpha_0 + \alpha_1 \beta_{i,t} + e_{i,t} \text{----- eq.3}$$

Where;

$R_{i,t}$  = Yearly Market return derived from monthly market returns that were derived from daily market returns using  $\ln(P_n/P_o)$ . Where “ $P_n$ ” is stock index on current day, “ $P_o$ ” is stock index on previous day while “ $\ln$ ” is the natural log.

Bata is calculated as follows;

$$\beta_{i,t} = \frac{\text{Covariance}(s,m)}{\text{Variance}_m}$$

Beta measured by the covariance of security returns with market divided by variance of market returns.

$R_f$  = is the risk free Rate

## ANALYTICAL MODEL

### Cross Sectional Analysis:

Eq.2 will be used from cross sectional analysis in year 2004, 2005, 2006, 2007, 2008 and 2009. The OLS regression will indicate, whether Beta has significant impact on returns or not.

### Panel Data Analysis

The following model were used for panel data analysis;

#### Common Effect Model

It's the Standard OLS regression model with standard errors to determine the impact of Beta on returns. However, if our data had hetroskedacity, we used common effect model with robust standard errors (Gujrati, 2003).

$$R_{i,t} - R_f = \alpha_0 + \alpha_1 \beta_{i,t} + e_{i,t}$$

#### Hetroskedacity Test

In order to find hetroskedacity, we used Bausch-Pagan test to measure Hetroskedacity.

Where, H1= Data has hetroskedacity and H2= Data has no hetroskedacity. If the test result in p-value is less than .05, we will accept H1 and use all models with robust standard errors.

#### Fixed Effect Model

Its panel data analytical model that removes the biases of omitted variables. Its results are superior than common effect model. In case of hetroskedacity, we will use this model with robust standard errors. Its equation is given by;

$$R_{i,t} - R_f = \alpha_0 + \alpha_1 \beta_{i,t} + e_{i,t}$$



### Random Effect Model

Its panel data analytical model that removes the biases in results caused by error term. Equal in robustness to Random effect model, it too is superior to common effect model. In case of heteroskedasticity, we will use this model with robust standard errors. Its equation is given by;

$$R_{i,t} - R_t = \alpha_0 + \alpha_1 \beta_{i,t} + e_{i,t}$$

### Haussmann Specification test

When fixed and random effect models are used for limited periods of large data sets then there is a high probability that both fixed and random effect models may give partially or entirely different interpretations (Gujrati, 2003). The problem of choice arises here that which result has to be accepted. In this situation, Haussmann test is used to test the hypothesis as to which model best explain the situation.

H0 = Fixed effect model is accepted

H1 = Random effect model is accepted

If the p-value in Haussmann test is greater than .05, we will select random effect models however if it is less than .05, we will select fixed effect model.

### Result and Discussions

*Table 1.: Table showing summary statistics*

Variable	Obs	Mean	Std. Dev.	Min	Max
beta	180	.7343388	.4611884	-.1435766	2.148063
returns	180	-.0013171	.0079215	-.0481511	.0040234

A total of 30 companies selected and analyzed, we obtained 180 two year moving beta i-e (6 \*30) and correspondingly 180 yearly lead returns (6 \* 30). The minimum value in returns and Beta were -.05 and -.14 respectively while maximum returns and beta were .004 and 2.14. This is a rough indicator that despite of higher beta, returns are less.

### Cross sectional Analysis Results

Table 2 displays the results for cross sectional analysis carried from 2004 to 2009. The results support the literature argued at the outset. Except for year 2007, where beta has significantly explained the variations in returns, all the remaining years the impact is insignificant. This indicates that CAPM has failed to explain the cross section of returns.

*Table 2: Cross sectional regression analysis results.*

	<b>2004 Beta</b>	<b>Intercept</b>	<b>2005Beta</b>	<b>Intercept</b>	<b>2006Beta</b>	<b>Intercept</b>
<i>Coefficients</i>	-0.0047	-0.0564	0.0007	-0.0825	-0.0003	-0.0751
<i>Standard Error</i>	0.0032	0.0024	0.0014	0.0009	0.0011	0.0008
<i>t Stat</i>	<b>-1.4625</b>	-23.1695	<b>0.4551</b>	-88.4553	<b>-0.2813</b>	-93.1741
<i>P-value</i>	<b>0.1547</b>	0.0000	0.6525	0.0000	<b>0.7805</b>	0.0000
	<b>2007Beta</b>	<b>Intercept</b>	<b>2008Beta</b>	<b>Intercept</b>	<b>2009Beta</b>	<b>Intercept</b>
<i>Coefficients</i>	0.1301	-0.3701	0.0563	-0.1629	-0.0019	-0.1092
<i>Standard Error</i>	0.0441	0.0388	0.0301	0.0263	0.0010	0.0012
<i>t Stat</i>	<b>2.9538</b>	-9.5345	<b>1.8676</b>	-6.1932	<b>-1.9514</b>	-94.8611
<i>P-value</i>	<b>0.0063</b>	0.0000	<b>0.0723</b>	0.0000	<b>0.0611</b>	0.0000

## Panel Data Analysis

### Heteroskedasticity Test

After common effect model with standard errors (see Appendix 1), we checked our data for heteroskedasticity and the results displayed below (p-value= 0.000) clearly indicated that we accept  $H_1$  i.e. our data had outliers that impact our results. Thus after this test, we will use all panel data models with robust standard errors.

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity  
Ho: Constant variance  
Variables: fitted values of rtrfr

chi2( 1) = 49.80  
Prob > chi2 = 0.0000

*Figure 5*

### Panel Data Analytic Models

Table 3 summarizes the results of panel data analytic models. These tests were carried out with robust standard errors at 95 percent confidence interval. The results indicate that all models are unanimous on the fact that Beta has failed in explaining the variation in returns. This indicates that unconditional CAPM has no power to explain the returns of stocks traded in Pakistan.

*Table 3: Table summarizing the results of Panel Data Analytic Models*

<b>Common Effect Model</b>				
	<b>t</b>	<b>P&gt;t</b>	<b>Coef.</b>	<b>Std. Err.</b>
<b>Beta</b>	<b>0.9000</b>	<b>0.3710</b>	0.0155	0.0173
	-			
<b>Constant</b>	7.3600	0.0000	-0.1314	0.0178
<b>Fixed Effect Model</b>				
	<b>t</b>	<b>P&gt;t</b>	<b>Coef.</b>	<b>Std. Err.</b>
<b>Beta</b>	<b>0.6400</b>	<b>0.5210</b>	0.0150	0.0234
	-			
<b>Constant</b>	6.0000	0.0000	-0.1311	0.0219
<b>Random Effect Model</b>				
	<b>z</b>	<b>P&gt;z</b>	<b>Coef.</b>	<b>Std. Err.</b>
<b>Beta</b>	<b>0.9000</b>	<b>0.3700</b>	0.0155	0.0173
	-			
<b>Constant</b>	7.3600	0.0000	-0.1314	0.0178

## 2. CONCLUSION

The results clearly shows that jewel model of standard finance, the capital asset pricing model, failed to explain the anomalies in return. This clearly indicates the fact that there are other factors, mainly behavioral, that may be incorporated in an asset pricing model to enable it to explain the variation in returns. These return anomalies may be better explained if we see them in the context of behavioral issues such as investors Biases, Irrationality etc.

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## APPENDIX

### 1. Common Effect Model with Standard Errors

Source	SS	df	MS	Number of obs =	180
Model	.009142055	1	.009142055	F( 1, 178) =	1.09
Residual	1.49436174	178	.008395291	Prob > F =	0.2981
Total	1.5035038	179	.008399463	R-squared =	0.0061
				Adj R-squared =	0.0005
				Root MSE =	.09163

rtrfr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
beta	.0154959	.0148495	1.04	0.298	-.0138079 .0447997
_cons	-.1314394	.0128666	-10.22	0.000	-.1568302 -.1060486

Chart 2: Common Effect Model with Standard Errors

### 2. Graphical Representation Of Heteroskedasticity

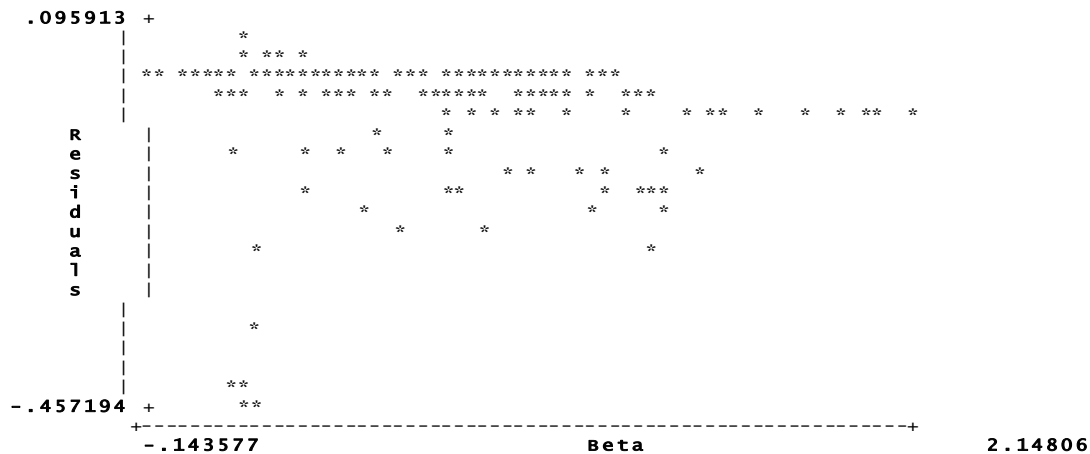
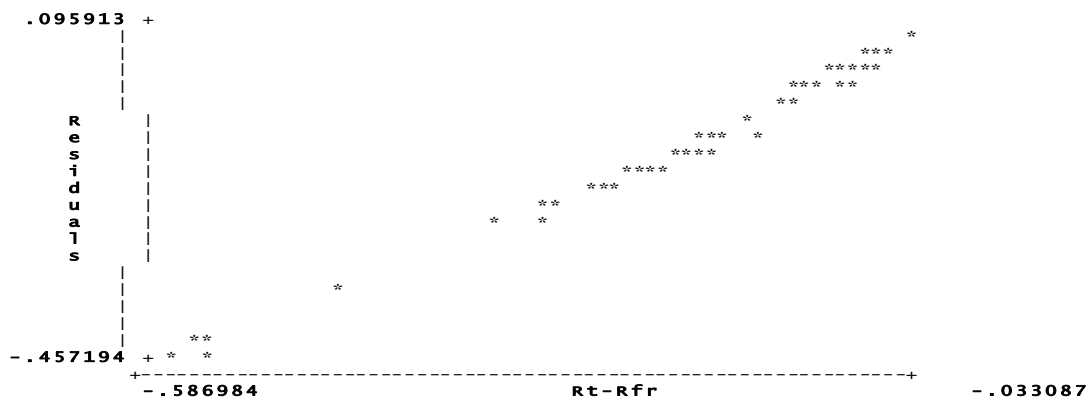


Chart 3: Beta



*Chart 4: Returns- Risk Free Rate*

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## **IT INFLUENCED CSR IN DE-STABILIZED ECONOMY WITH COMPARATIVE ANALYSIS OF VARIOUS EUROPEAN COUNTRIES**

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### **ABSTRACT**

*Corporations around the world are struggling with a new role, which is to meet the needs of the present generation without compromising the ability of the next generations to meet their own needs. Organizations are being called upon to take responsibility for the ways their operations impact societies and the natural environment. They are also being asked to apply sustainability principles to the ways in which they conduct their business. Sustainability refers to an organization's activities, typically considered voluntary, that demonstrate the inclusion of social and environmental concerns in the business operations and in interactions with stakeholders (van Marrewijk & Verre, 2003). It is no longer acceptable for a corporation to experience economic prosperity in isolation from those agents impacted by its actions. A firm must now focus its attention on both increasing its bottom line and being a good corporate citizen. Corporate Social Responsibility (CSR) refers to the company's efforts to go beyond what may be required by the regulators, it is the corporate initiative to assess and take responsibility for the company's effect on the environment and impact on social welfare. Information Technology (IT) is also an enabler of business functions. It plays a great role as the benefits gained from it are of great use but corporate social responsibility (CSR) puts limitations on its usage.*

**Keywords:** *Corporate Social Responsibility, Information Technology, Sustainability*

### **1. INTRODUCTION**

The market transition has passed around twenty years from the beginning. Central and East European countries joined the EU, and their economies have been deeply integrated into the European business society. As far as Corporate Social Responsibility (CSR) is based on the composition of stakeholders and the corporate governance structure, it plays an effective tool for understanding specificities of corporate society and social changes. Although there is broad consensus that CSR has a business driven approach and that the main focus of CSR

developments is the business sector, attention must also be paid to the development and application of CSR within the framework of other stakeholders, such as governments, from a relational perspective.

## **2. NEW BUSINESS MODEL APPROACH FOR EFFECTIVE CSR WITH REFERENCE TO IT INFLUENCED CSR**

### **2.1. New Business Model Approach**

A Business Model describes the rationale of how an organization creates, delivers, and captures value (economic, social, cultural, or other forms of value). The process of business model construction is part of business strategy. In theory and practice, the term business model is used for a broad range of informal and formal descriptions to represent core aspects of a business.

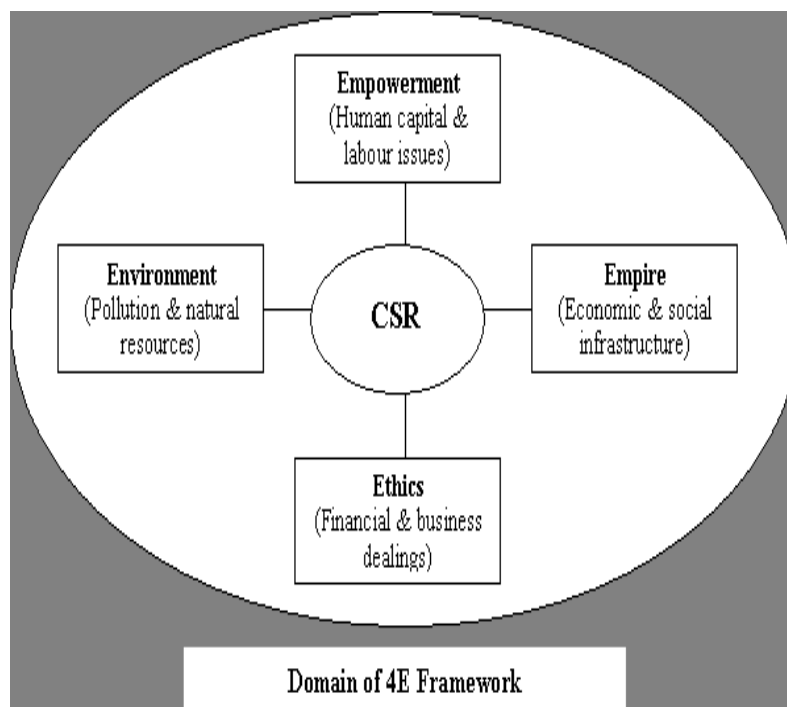
### **2.2. Integrating CSR in New Business Approach Model**

The necessity of a socially responsible business performance is obvious; CSR literature appears predominantly as a prescription of moral considerations to businesses. It reflects the idealism of scholars who wish companies to do more for social prosperity (Wood, p. 2000).

### **2.3. CSR in New Business Model and IT**

Availability of accurate, relevant, and timely information is crucial to establishing and maintaining all mechanisms as well as to ensure their efficacy. Because the availability of information plays such a major role, the increased use of (IT) in information management has made a considerable impact on these corporate governance and management mechanisms.

### **2.4. Impact of IT on CSR**



*Figure 1: Domain of 4E Framework (Beth Kytle, 2005)*



#### **2.4.1. Changes in Information Management**

The increased use of IT in information management has had a direct impact on the duties of directors, the responsibilities of auditors, the interests of investors, and the role of regulators in establishing and maintaining satisfactory corporate governance practices as storing, processing and disseminating information has undergone a lot of changes due to IT and advent of E-mail has made dissemination even more easy.

#### **2.4.2. Directors Duties**

To make effective decisions, directors need information to be passed on to them accurately and speedily. Thus, the potential IT offers in terms of efficient and effective information management should not be ignored by the prudent director. Corporations are forced to place emphasis on IT related investments such as computer hardware, software, and personnel. Nevertheless, this growing dependence on IT has raised several issues that those self-same directors should consider in the performance of their duties.

#### **2.4.3. Duty of Care**

First, the increased ease of compiling, copying, and transferring information means that information may in turn be easily misused or stolen. Secrecy and confidentiality of data is very crucial.

Second, aside from being physically destroyed, information stored in computers may be corrupted because of computer viruses, or accidentally deleted, or become irretrievable due to system problems.

Finally, computers are increasingly being used to perform more critical functions. From the factory assembly line to the launching and control of satellites, growing dependence is being placed on the information systems installed to discharge a corporation's operations. Consequently, any computer error or system breakdown may prove extremely costly to the company.

#### **2.4.4. Monitoring the Affairs of the Company**

Changes in the way information is managed will result in changes in the way that information is collated and presented. Computer systems may be set up to capture information at the point of transaction and transmit it directly to a centralized database for storage and processing. Bar code devices, electronic data interchanges, and internet transactions are increasingly being used by companies in their business processes.

#### **2.4.5. Reliance on Experts**

It is commonly accepted that directors are permitted to base their decisions on expert advice and will be absolved from liability if their reliance is reasonable and justifiable, although thus far, such cases have involved financial advisors, accountants, and auditors rather than company directors. In the same vein, directors should also be permitted to rely on the advice of IT specialists as regards the integrity and efficacy of a company's IT system unless he or she has been put on inquiry.

#### **2.4.6. Changes in Auditing Responsibilities**

The role of an auditor in corporate governance is essentially to provide an independent opinion on the integrity of the financial information provided by management to a company's owners. Because information is now being stored differently, auditors must adapt to these changes to properly perform their roles. It is necessary to control and audit the use of computers in capturing and storing information for a variety of reasons.

#### **2.4.7. Investor Involvement**

Investors also play an important role in corporate governance. Ownership of shares gives them the right to assess the performance of directors through the appointment and remuneration process. They are also in a position to introduce good corporate governance practices in the operating framework of the company themselves.

#### **2.4.8. Disclosure**

P and accurate disclosure of information is a key control in management practices. This enables quicker disclosure. In recent years, there has also been a growing trend for companies to contact and communicate directly with their shareholders instead of going through brokers. The ability to provide up-to date information directly to shareholders through the internet will empower investors to inquire into specific areas of the company's operations. At the same time, it provides the company with the means to explain investment decisions and policies directly to shareholders. Gap between the time management receives the information and the time it is disclosed to the public.

#### **2.4.9. Minority Protection**

By giving equal access to information to all shareholders, minority shareholders would be more protected against abuse as they would be better able to obtain the necessary data and evidence to support any derivative action.

#### **2.4.10. Impact on Regulatory Bodies**

Various bodies are involved in regulating the operating of companies. Such entities usually have a record keeping function and are empowered to investigate the affairs of companies. These entities are increasingly using IT to facilitate the collection, storage, collation, and provision of information.

#### **2.4.11. Determination of Control**

To ensure that controlling authorities act not in their own interests only, but for the benefit of the owners of the company their activities need to be monitored. In order to do this, one must first be able to determine who controls the company and how this control is achieved. It is also necessary to monitor their interests in other companies to keep an eye on potential conflicts of interests.

#### **2.4.12. Other Potential Applications**

With the increased efficiency with which information may be managed, a similar system of central data management may be thus, information pertaining to transactions involving directors, related party transactions, preferences etc may all be tracked and traced. Likewise, a company's financial performance may also be tracked and made readily available.

## **2.5. Major Hurdles in Using I.T for C.S.R.**

There are significant hurdles to the implementation of a regulatory system with latest advancement of Information Technology.

First, there is the question of cost. The potential beneficiaries of improved corporate governance standards are the companies themselves, those who have an interest in the performance of the company and, at a macro level, the state. One must weigh the economic and social cost of setting up such a network and at the same time, determine how this price tag should be borne by the various interested parties. However, as IT continues to get gradually cheaper and more companies embrace its use, cost will doubtless become less of a concern.

Second, all parties must agree on the appropriate IT protocols and standards to adopt. Over the years, individual companies may have developed their own standards according to their specific internal IT needs.

Finally, an issue attracting much debate relates to fears of loss of privacy. Exactly how much information should be provided? Will the availability of information increase vulnerability to takeovers or unnecessarily expose companies' weaknesses to competitors? How does one achieve a balance between protecting public investors and preserving the privacy of major shareholders and individual directors? While there have been calls for developing markets to move towards a more disclosure based regime, these concerns must be addressed in any attempt to encourage or compel companies to support and adhere to such a regime.

## **3. ECONOMIC CRISIS IN EUROPE**

The European economy is in the midst of the deepest recession since the 1930s, with real GDP projected to shrink by some 4% in 2009, the sharpest contraction in the history of the European Union. Although signs of improvement have appeared recently, recovery remains uncertain and insubstantial. (Carroll and Archie B., 1991)

### **3.1. Effective CSR inflation in Europe**

In Europe, as well as in other parts of the world, the CSR movement has traditionally been led by large companies. Yet 99% of European companies are small and medium-sized enterprises (SMEs), and about two-thirds of jobs in the private sector are in SMEs. Many small companies are by nature adapted to the values of their founder or owner as well as to the needs of their local communities, but today increasing attention is being paid to the implementation of a more structured CSR approach in European SMEs. As a relatively wealthy, stable region with a developed economic and societal structure, the current CSR issues and challenges in Europe naturally differ to some extent from those faced by the less developed regions in the world. (<http://www.slideshare.net/thegaragegroup/new-approaches-to-business-model-innovation>, 2010).

### **3.2. Competitive Effects of CSR at micro-economic level**

This section examines the effects of CSR on 6 determinants and indicators of firm-level competitiveness which are mentioned as follows:

### **3.2.1. Cost structure (The evidence that CSR reduces costs is mixed)**

The question of cost savings resulting from CSR has often been at the center of the debate on the business case for CSR. Advocator of CSR has tended to argue that responsible business behavior can lead to cost savings. The benefits of pursuing sustainable practices outweigh the costs, although changes to profits are estimated to be small. It depends on the nature of the CSR measure taken, as well as on the cost of that investment and the time period considered. Let's see the effect of the environmental dimension of CSR on cost structure. To reduce energy consumption and material inputs are frequently cited as an aspect of CSR that can lead to cost savings. However, academic studies of the cost-saving effects of the environmental dimension of CSR give mixed results. CSR-related environmental expenditures constitute investments that pay off due to cost savings from, for example, continuous improvements, low potential litigation expenditures, lower insurance and lower energy costs.

### **3.2.2. Human resources**

Management theory suggests that CSR can have a positive impact on human resource performance. The evidence suggests an important positive relationship between CSR and competitiveness in terms of human resource management, although for some companies the additional costs might still outweigh the benefits at least in the short term. CSR activities in general and the workplace dimension of CSR in particular have proved to be an attractive feature of a company's presentation when recruiting and retaining employees. Companies that favor a diverse workforce can benefit from a wider pool of talent. The link between CSR practice and human capital seems to be relevant for enterprises of all sizes, and is likely to grow as a result of the knowledge economy.

### **3.2.3. Customer perspective**

The extent to which CSR can help to drive customer loyalty and demand remains a matter of considerable debate. Typically, consumers have tended to respond positively when asked if they are willing to pay a price premium for products with good social and environmental credentials, but have then failed to act on this when actually making their purchases. The competitive benefits of CSR from a customer perspective appear to be strengthening as a result of growing demand from consumers, enterprises and public authorities. It is possible that rising prices could have negative effect on this demand, however. The extent to which CSR can drive competitiveness from a customer perspective depends on the competitive strategy of enterprises. Enterprises whose appeal to customers is based on low costs may have less to gain from CSR, even some cost-cutting retailers believe that a certain level of commitment to CSR is now necessary.

### **3.2.4. Innovation**

Based on an analysis of innovative SMEs in Spain, Italy and the United Kingdom, we find that there is a positive link between innovation performance and CSR, even if the cause and effect relationship is not entirely clear. Some academics have questioned the positive CSR innovation link, suggesting that some aspects of CSR could be incompatible with certain types of innovation. It may be difficult to combine competitiveness and CSR objectives. There would appear to be three main ways in which CSR can contribute to innovation capacity and performance firstly innovation resulting from engagement with other stakeholders, secondly identifying business opportunities through addressing societal challenges, lastly creating work

places that are more conducive to innovation. The positive relationship between CSR and innovation is strengthened by innovation, and by the trend towards the generation of new business value from innovations that address societal problems.

### **3.2.5. Risk and reputation management**

CSR is an essential component of risk and reputation management for many companies. The business case for CSR in terms of risk and reputation management is strengthened by the fact that enterprises are more exposed to public scrutiny and criticism than in the past. This also means that there is greater pressure on companies to insert CSR deeply within their values and operations, rather than to assume it can be used as a simple public relations tool. Dealing with CSR issues such as transparency, human rights, and supply-chain requirements from a risk management perspective have lead some companies to discover additional positive impacts of CSR.

### **3.2.6. Financial markets**

Stock market effects are strongly related to all other economic effects of CSR. Since stock prices are an indicator for the general economic performance of corporations, they should, under the assumption of efficient capital markets, also reflect the discounted value of CSR practices. Research indicates conclusively that there is a positive but small correlation between CSR and financial performance. There is also evidence that mainstream investors and analysts are paying greater attention to CSR-related issues and more generally to intangible assets and intellectual capital. This is likely to increase the profile of CSR issues in the financial valuation of enterprises.

## **3.3. Competitiveness effects of CSR at macro and sector level**

European businesses are more socially and environmentally responsible, this should help Europe as a whole to meet its objectives under the growth and jobs strategy. These objectives include making Europe more competitive, as well as objectives such as social inclusion. A greater commitment from European enterprises to CSR can also help Europe to better combine competitiveness objectives with the overarching goal of sustainable development. One of the main ways in which CSR could contribute to national and regional competitiveness in the EU is by generating higher levels of trust in business on the part of society. help to address the trust gap between enterprises and other stakeholders in society. It has also examined possible links between CSR and competitiveness at macro-level and at the level of individual industrial sectors.

The following conclusions can be drawn:

- CSR can have a positive impact on firm-level competitiveness in the case. The business case for CSR is specific to different sectors, sizes and circumstances of companies.
- Positive links between CSR and competitiveness also exist but appear less strong or not so generally applicable in the case of cost structure, the customer perspective, and financial markets.
- The business case for CSR is not static and is getting stronger. Many of the factors affecting the business case for CSR are themselves dynamic and are intensifying. This is true of employee expectations, consumer awareness, trends in private and public procurement, expectations of future regulation, the nature of innovation processes, and the importance that financial markets attribute to social and environmental issues

- The business case for CSR is increasingly based on value creation. While the origins of the current attention to CSR lie in value protection (primarily risk and reputation management), leading businesses have found that it can also lead to opportunities for new value creation.
- The strength of the business case for CSR in any given enterprise is still dependent on the competitive positioning of the company. There are enterprises with competitive strategies that require no more than legal compliance in social and environmental fields, and where exceeding legal compliance might incur costs that undermine competitiveness.
- However, for an increasing number of enterprises in a growing number of industries, CSR is becoming a competitive necessity – it is something that they cannot afford not to do.
- CSR needs to be part of core business strategy if it is to be a competitive differentiator. The factors affecting the link between CSR and competitiveness are many-sided and themselves reflect fundamental shifts in the environment in which business operates
- There are strong reasons for believing that CSR can have a positive impact on competitiveness at European, national, regional and sector level. More research is required, however, in order to measure and analyze the ways in which CSR might enhance competitiveness at the macro-level and sector levels.
- CSR can make a valuable contribution to the goals of the European Growth and Jobs Strategy, and should encourage people in cooperation with other stakeholders including employers' organizations, to promote CSR as part of their national reform strategies. (Baseline Study on CSR Practices in the New EU Member States and Candidate Countries, 2007; European Competitiveness Report 2008; Transforming Identities: Defining Corporate Social Responsibility in the European Union; Omri Preiss, University College Utrecht)

#### **4. CSR IN EUROPEAN COUNTRIES**

CSR Europe is an international not-for-profit organization under Belgian law (AISBL). It is a membership network with two types of members - corporate members and national partner organizations - who are represented in the organization's governing bodies. Currently there are around members and 37 national partner organizations.

##### **4.1. Services of CSR**

###### **4.1.1. Facilitation of cooperation and partnerships**

We believe that change will come not from isolated practices, but rather from collaboration and joint initiatives, only way to scale-up successful processes and reach greater results.

###### **4.1.2. EU services for members**

Be the first to know about the latest EU initiatives which might influence or impact your company strategy on CSR. CSR Europe is the lead partner of the EU institutions in defining Europe's CSR agenda and also a key partner for other stakeholders on CSR/Sustainability. CSR Europe is at the forefront of engaging with the European Union for smart policy dialogue.

#### 4.1.3. Consultancy and member specific advices

Based on an individual gap and risk assessment of our client's core CSR and business strategies, we provide tailored advices on how to respond to remaining issues, thus supporting our clients in growing their business.

*(Assessment of the 2013 national reform programme and stability programme for ITALY)*

#### 4.1.4. CSR in Europe within SME's

The interesting detail to point out is the fact that the CSR movement has traditionally been led by large companies. There is a change needed because a large number of European companies are small and medium-sized enterprises (SMEs), which include about two-thirds of jobs in the private sector. While individually their contributions and impacts on surrounding communities and the environment may be small, collectively these impacts are large.

*(Small but significant opportunity, Redazione West - 05.11.2012)*

### 4.2. CSR in Greece

#### 4.2.1 Extent of Implementation of CSR Practices

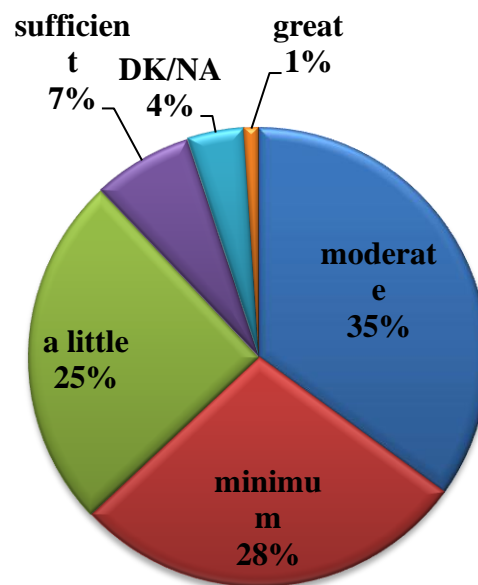


Figure 2: Extent of CSR usage

With regards to the degree to which CSR practices are adopted by SMEs in Greece, 35% believe that such practices are adapted to an average degree, while 25% and 28% believe that such practices are adapted to small and minimal degrees respectively. They recognize, therefore, that the total degree to which good practices are adopted is low, but they do display an interest on the issue, and ask for additional information and examples from other similar enterprises that have already implemented similar activities. *(Managing change, Restructuring, Corporate social responsibility, Université Européenne du Travail (UET), European Foundation for the Improvement of Living and Working Conditions, 2003. Published on 01.12.12)*

#### **4.4. CSR in Spain**

In Spain, as in many other European countries, there is a growing movement in favor of corporate social responsibility (CSR). Spanish companies consider corporate reputation, competitive advantage and industry trends to be the major driving forces of CSR. However, these factors are closely related to other cultural, social and political influences. Initiatives undertaken by the EU and international organizations have influenced companies' decision to implement CSR. Associations and forums that bring together the heads of leading corporations, business schools and other academic institutions, NGOs and the media are actively promoting CSR in Spain. Although the degree of implementation of CSR in Spain is still moderate, initiatives in this field from some of the country's most respected companies augur promising developments in CSR in the near future. (*Birgit Riess, The Bertelsmann Stiftung Gütersloh, Germany, 2006 Bertelsmann Stiftung*)

Spanish Association of United Nations Global Compact (ASEPAM), which was created in 2004, has more than 200 Spanish companies that subscribe to the ten principles of respect to the human rights. The United Nations Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labor, environment and anti-corruption.

Many businesses recognize the need to collaborate with international actors in the current global context where social, political and economic challenges (and opportunities) — whether occurring at home or in other regions — affect companies as never before.

##### **4.3.1. Tourism and SME's**

If we focus at the international level, we can see that Spain has a market share of nearly 8% of world tourism, which represents nearly a tenth of the wealth generated in the world from this sector.

Tourism activity is driven by SMES in Spain and most of them try to do it in a responsible manner. It is important to underline that despite the number of different initiatives in respect to suitable development, they are not well adapted to the SMEs. One example is the ISO 9000 and 14000 which are very useful for large companies but not for small and medium ones.

There also are some sustainable issues and environmental practices that are very useful, but that cannot be adapted by the SMES because they do not have enough human resources.

##### **4.3.2. Implementation of CSR activities by Spanish companies**

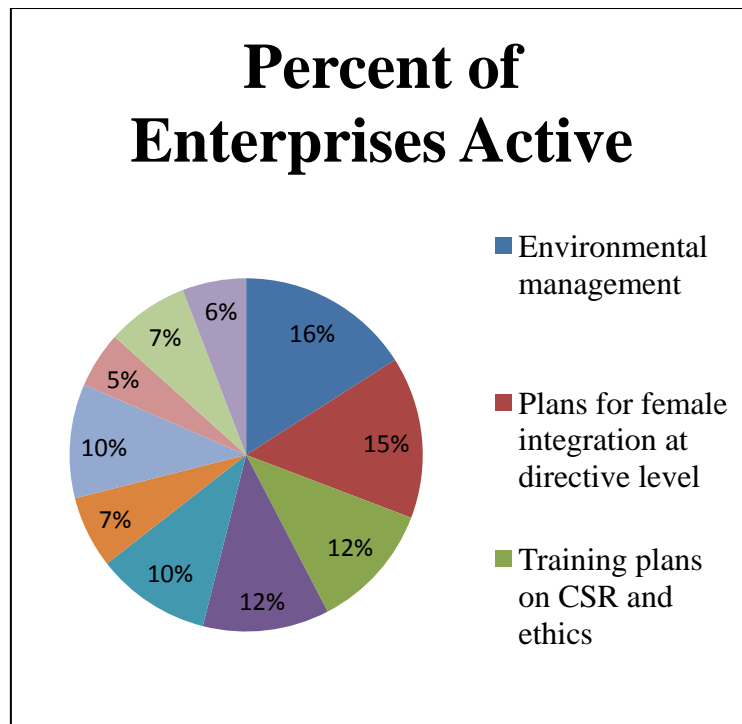
Spanish companies implement Corporate Social Responsibility within in their organization with respect to the following activities:



*Table 1.: MAIN AREAS of CSR action by Spanish companies*  
*Source: Foretica Report, 2006*

Areas of action	% of enterprises active
Environmental management	69.7%
Plans for female integration at directive level	64.8%
Training plans on CSR and ethics	50.6%
Plans for work and personal life conciliation	50.6%
Support to socially excluded groups	45.9%
Plans for the integration of immigrants on the workforce	28.8%
Collaboration with NGOs in development projects	45.7%
Integration of handicapped people	22.5%
Educational projects	32.8%
Cultural projects	25.5%

(IESE Research Papers)



*Figure 3: Pie chart of AREAS of CSR action by Spanish companies (Foretica report)*

#### 4.4. CSR in Italy

Italy is undergoing a protracted recession. Italy's real GDP contracted by 2.4% in 2012, on the back of negative domestic demand driven by tight financing conditions and declining disposable incomes. Economic activity is expected to decline further in 2013, before starting to recover mildly in the second half of 2013. The unemployment rate is projected to continue increasing and to reach 12.2% in 2014, affecting young people in particular. Italy's capacity to withstand the impact of the crisis is hampered by long-standing structural weaknesses. However, implementation of the measures taken remains challenging and the reform agenda needs to be taken forward. (Small but significant opportunity, 2012)

#### **4.4.1. Environment is a business priority in northern Italy**

In Milan, almost 59,000 businesses are engaged in **environmental protection**. Among the most social responsible actions undertaken, measures aimed at **energy conservation** (in 53.3% of cases), development of **eco-friendly** products and services (11.2%) and the use of **renewable resource** (4.6 %). This is what emerges from a survey of the Chamber of Commerce of Milan on a sample of 400 entrepreneurs in the Province of Milan.

#### **4.4.2. CSR, women at the top**

In Italy, women are 56.8% of the **corporate social responsibility** (or **sustainability**) **managers**. For the most part with high qualifications. This is a professional who is responsible for coordinating and managing **environmental and social policies** of an organization, the number of which, in the last five years, has more than quadrupled. Passing from 90 to 373 full-time employees, only considering the listed companies. This is what emerges from the first national census carried out by *CSR Manager Network*.

#### **4.4.3. Ethical entrepreneurs**

€120 million per year is the expenditure of the more than 20 thousand companies of Milan, which make **environmental initiatives**. A positive figure which indicates that, following the economic crisis, the investments on **C.S.R** have not decreased. In particular, 87.2% of entrepreneurs pay particular attention to waste disposal, 65.9% of them opt for a responsible use of energy, while 23.2% is careful with water consumption. This was revealed by the Chamber of Commerce of Milan. (Small but significant opportunity, 2012)

#### **4.5. CSR in France**

The overall picture in France is one of moderate development of CSR due to the presence of a system of state regulations and agreements governing labor relations. There is, however, evidence of initiatives going beyond legal requirements in some areas. Issues of social responsibility relate mainly to the restructuring and subcontracting activities that resulted in redundancies following a period of economic crisis. (Assesment of the 2013 national reform programme and stability programme for ITALY, 2013).

##### **4.5.1. United Nations Global Compact**

The United Nations Global Compact, launched by the UN Secretary General in 2000 asks companies to "embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labor standards, the environment and anti-corruption". (Presidency note on Employment, Economic Reforms and Social Cohesion Towards a Europe based on Innovation and Knowledge)

The French government regulates CSR; French companies are reserved in their engagement. Labor Ministry and Ministry for Sustainability are responsible agencies.

#### 4.5.2. France: Mandating CSR by law

CSR facts:

- France was the first country in the world to require its publicly listed companies to release annual reports on environmental and social impact.
- The country's national strategy for sustainable development makes direct reference to CSR.
- The Forum des Amis du PacteMondial, a national corporate network, is the globe's largest network of UN Global Compact members. (Corporate social responsibility in Spain: An overview")

#### 4.6. CSR in UK

In the UK is one of restricted development of CSR to date, but there are signs of recent activity in this area.

Good practice examples at Tesco, a major food retailer, came about as a result of a partnership agreement with the trade union in 1998, which in turn led to the creation of health and safety measures, employment initiatives for unemployed local people and, most significantly, a workplace forum for the discussion of store issues of concern to staff.

Issues of social responsibility at the steel manufacturing company Corus are mainly concerned with the environment (relating to the decommissioning of Corus sites affected by restructuring), educational projects, such as producing curriculum support materials in schools, and the health and safety of its workforce. (Small but significant opportunity, 2012)

#### 5. CONCLUSION

There is no doubt that the next few years will be formative ones for the corporate responsibility debate. With trust in companies possibly at all time there is a strong need to evaluate issues such as governance, including the role of investment markets and remuneration in perpetuating a focus on short-termism. Fundamental cultural change amongst corporate leaders is required if we are to define a new business as usual.

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## **CORPORATE GOVERNANCE FROM THE PERSPECTIVE OF EXPATRIATES MULTINATIONALS COMPANIES – A STUDY FROM CZECH REPUBLIC**

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### **ABSTRACT**

*The problems of corporate governance are currently an important topic within the academic community. Importance of this issue is highlighted in connection with business success in global market conditions. As the most fundamental assumptions associated with successful corporate governance of subsidiaries of multinational enterprises is being considered the casting of statutory bodies expatriates from central multinationals. The main objective of the research was to describe and analyze the representation of expatriates in performance of corporate governance in subsidiaries of multinational companies operating in the country. The Czech Republic is currently in the post transition phase of development of the market economy with a significant presence of multinational companies in the country's economy. The article is presenting an empirical study with the description of expatriates representation in the statutory bodies of subsidiaries of multinational companies in the country. The results obtained refer specifically to the number of branches with the presence of expatriates and their representation in administrative and executive authority, or at other positions respectively. The sample on which is the issue of corporate governance has been examined included 332 subsidiaries of multinational companies from the most important sectors of the economy of the Czech Republic. Also the company size and ownership structure in subsidiaries of multinational companies with regard to the representation of expatriates has been the subject of the research. The results comprises of the headquarters analysis based on the financial performance indicators achieved by the multinational company branches with regard to the representation of expatriates as well.*

**Keywords:** *Expatriates, Multinational Companies, Corporate Governance*

### **1. INTRODUCTION**

The exercise of corporate governance of multinational companies in the post-transformation period of many CEE countries is the subject of discussions related to the success of not only the subsidiary, but also of the headquarters of the multinational company. The lessons learned so far from the transformation of economies of the CEE countries (Filatotchev at al., 2001, p. 203) highlight the importance of corporate governance both in terms of transformation of centrally planned economies to market economies and the very substance of the exercise of ownership and managerial rights (Hashi, 2003). In relation to how the transformation was carried out - by privatization (sale to strategic foreign investors, buyouts by local management, and etc.) - it has shown that the exercise of corporate governance may be associated with different performance of administration and management by the organization, which may not match the concept of corporate governance in highly developed market environments (Wright at al. 2005). Multinational companies (hereinafter MNCs) must deal with a number of issues associated with the exercise of effective corporate governance at the level of the subsidiary a multinational company (Král and al., 2012). We can often encounter a situation when the management takes on also the function of monitoring (Boyd, 1994)

associated with the reporting to owners at the MNC headquarters. This often leads to the disruption of a control link between the owner and the management (Monem, 2011). In many cases, there is also considerable centralization when the owner takes over all activities related to the administration and management of the company (Harris and Helfat, 1998), with consequent negative impacts on the market potential in the host country. As some facts indicate, these phenomena can be influenced by the type of an owner in post-transformation countries (Peng and al, 2009) or by the composition of administrative and executive bodies (Muller-Kahle and Lewellyn, 2011).

To ensure effective corporate governance at the branches of MNCs, the services of expatriates are used. Expatriation is the secondment of employees of the headquarters to the MNC subsidiary operating outside the country of the headquarters (the host country). The process of expatriation is mainly related to the secondment of the headquarters staff to the managerial or administrative position in order to represent the headquarters at the MNC subsidiary. It means that an expatriate is an employee performing work abroad, or - in other words - outside his/her home country in a subsidiary, which is the branch of a multinational company (Štrach, 2009). The headquarters of MNCs use the services of expatriates in the branch of a host country mainly because they exercise a supervisory and coordinating role, including the transfer of knowledge across the whole MNC (Gooderham and Nordhaug, 2003). The main function of the expatriates at the branch is to arrange for filling the positions in terms of the branch staff, related management development and the overall development of the organization (Edström and Galbraith, 1977). Of these functions, the most important one includes the filling of the positions in the initial phase of establishing an MNC subsidiary in the host country (Harzing, 2000); over time the priority is taken over by the development of management (Adler and Bartholomew, 1992). To ensure the expatriation of the headquarters staff to the MNC subsidiaries, special programmes are created that support the success of the acceptance and work performance. This mainly depends on each stage of the expatriation cycle, when most important are the phases of choosing a person, his/her training, secondment, adaptation and performance of work, and the return associated with repatriation (Black and Mendenhall, 1991). In addition, the issue of expatriation is connected with an intercultural influence that stems from the diversity of the country of the headquarters and the host country of the MNC subsidiaries (Black and Gregersen, 1991). All these findings are linked to the discussion concerning the selection of appropriate staff of the headquarters to be sent to the MNC subsidiaries (Mendenhall and Oddou, 1985), possibly with a comprehensive view of the influences affecting international MNC management (Bonache et al., 2001).

The aim of this paper is to demonstrate the influence of expatriates on corporate governance of MNC subsidiaries, and to determine impacts on financial performance associated with the representation of expatriates in MNCs branches operating in the host country on the example of the Czech Republic.

## **2. RESEARCH METHODOLOGY**

The methods of qualitative and quantitative research were used, which included 3 sets of subsidiaries of companies - a population, a sample in which a survey by questionnaire was conducted, and a sample associated with the elaboration of an empirical study. The population contained 2,509 subsidiaries of multinational companies operating in the CR and meeting the parameters of size (50 and more employees), legal form (joint-stock companies and limited liability companies) and the origin of registered capital (full or partial share of foreign capital in the registered capital). The subject of the paper was a sample of 335 MNC subsidiaries

arising from the population by self-selection. The said companies participated in the survey by questionnaire, which covered issues related to the formation and implementation of the code of ethics from the head office to the subsidiary and the effect of the national culture on the culture of the MNC subsidiary. The results obtained were verified through a set of 10 MNC subsidiaries, where empirical enquiries were conducted including a controlled interview with a senior manager of the subsidiary and the processing of received internal materials.

Given the primary role of the survey by questionnaire in the presentation of the results obtained, it is necessary to briefly introduce the method and realization of this research. Four hundred and three MNC subsidiaries participated in the survey; however, 68 of them did not meet the basic conditions of the multinational company's subsidiary (size, legal form), or were in the stage of bankruptcy or liquidation. These companies were not included in the sample. The sample consisted of 335 MNC subsidiaries, which represented 13.35% of the population introduced. From an industry point of view, most represented were MNC subsidiaries in industry sector C - processing industry (59%), G - wholesale and retail; repairs and maintenance of motor vehicles (13%), M - professional, scientific and technical activities (6%), and sector J - information and communication activities (4%). Eighty-two percent of the surveyed MNC subsidiaries fell within the said most important industry sectors of the sample. In brief presentation of the sample we can state that the proportion of the size of the subsidiaries by the number of employees was as follows: from 50 to 99 employees - 24.2%; from 100 to 249 employees - 39.7%; more than 250 employees - 36.1%. In terms of the legal form, the sample was composed of 20% of joint-stock companies and 80% of limited liability companies. In the sample presented, subsidiaries with the registered capital comprising of 100% of foreign capital prevailed (85.1% of MNC subsidiaries) over the subsidiaries with the majority share of foreign capital - over 50% of foreign capital in the registered capital (13.4% of MNC subsidiaries), and subsidiaries with the minority share of foreign capital - less than 50% of foreign capital in the registered capital (1.5% of MNC subsidiaries). Financial performance parameters of the surveyed MNC subsidiaries were also monitored; nevertheless, it needs to be stated that the presented sample was not comprehensive due to the lack of information (missing financial indicators in 68 subsidiaries). On the basis of the comparison of key parameters, the sample can be considered relevant in relation to the population. Financial performance was established by indicators return on assets and growth of assets. With regard to a possible short-term influence on the indicators and the requirement for sufficient informative value concerning the long-term situation of the company, a five-year arithmetic average of selected financial indicators was used (Blažek et al., 2011). With regard to the required determination of the success of individual companies and the related competitiveness (Pokorná and Částek, 2013), a breakdown into three groups was carried out. Group A represents companies with above-average financial performance, and groups B and C stand for the companies with below-average financial performance. An imaginary boundary between the companies with above-average and below-average performance consists of the product of the medians of five-year averages of ROA and growth of assets of all companies included in the sample (Blažek, 2011). Statistical processing of the survey by questionnaire was conducted after the data collection, which took place in cooperation with an external company specialized in the collection of questionnaire data (addressing, data acquisition, processing in a data matrix). After checking the data, they were coded and subjected to a univariate analysis determining the frequency of the occurrence of individual responses.

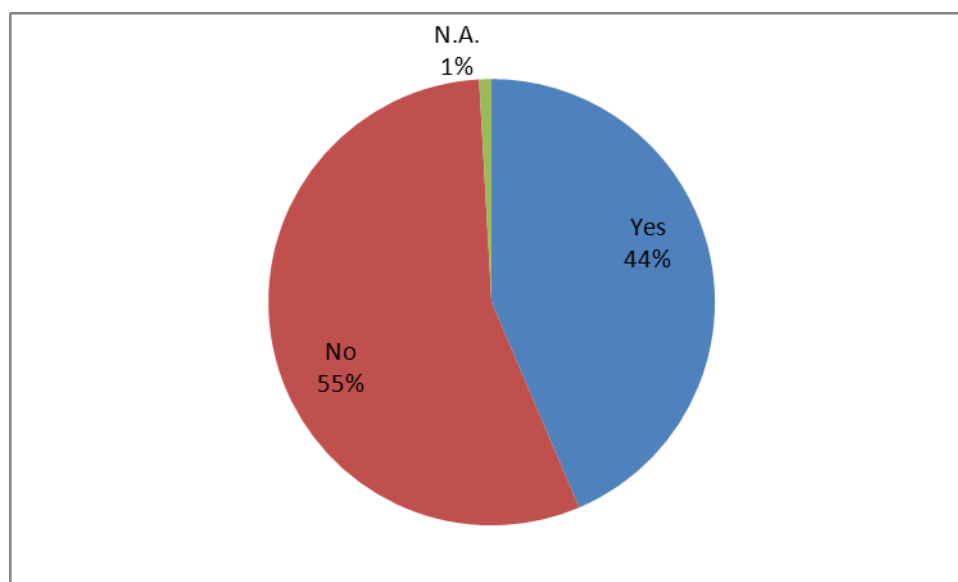
### 3. RESULTS

The results demonstrate some features that are associated with the employment of the headquarters staff - expatriates in the branch of a multinational company. An empirical survey showed that many MNCs have their representative - an expatriate - in their subsidiary operating in the CR. Despite the above theoretical framework, it shows that the number of subsidiaries with the presence of expatriates is 146, which is less than 50% of the sample companies.

*Table 1: Number of expatriates in MNC subsidiary company*  
(Author)

Yes	No	NA	Total
146	186	3	335

In the remaining cases there are no expatriates in the subsidiary of a multinational company (186 companies) or the question about the presence of the expatriates was not answered (3 companies).



*Figure 16: Share of expatriates in MNC subsidiaries*

Of the total of 335 companies participating in the empirical research, we can consider the number of subsidiaries with an active operation of expatriates as important, and the issue of expatriation as playing an important role in the management of MNC subsidiaries in the Czech Republic. The highest numbers of expatriates employed by MNCs working in Czech subsidiaries are from companies with headquarters in Germany - with expatriates in 45 subsidiaries, Austria and the Netherlands - expatriates in 17 subsidiaries. Other MNCs having expatriates working in Czech subsidiaries have their headquarters in the following countries: Japan - expatriates in 9 subsidiaries, Spain - in 8, France and Italy - in 6, Great Britain, the USA and Luxembourg - in 5 subsidiaries. Other countries of the headquarters (Denmark, Switzerland, Slovakia, Poland, Slovenia, Russia, Sweden, Cyprus, Australia) were represented in the remaining 23 subsidiaries. The distribution of the MNCs headquarters shown corresponds - in principle - to the position of the main investors in the Czech economy



(only Slovakia and Russia do not have adequate representation corresponding to their higher investment position).

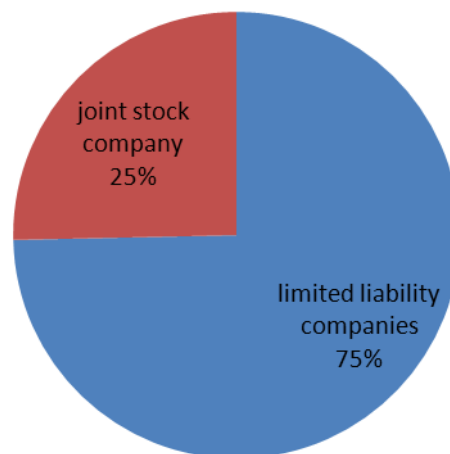
In terms of the size of the subsidiary of the multinational company measured by the indicator of the number of employees, the companies with more than 250 employees prevail, followed by a number from 100 to 250 employees and smaller companies with up to 100 employees.

*Table 2: Number of employees in MNC subsidiaries  
(Author)*

up to 100 employees	100 to 250 employees	more than 250	Total
32	51	63	146

With regard to the size structure it can be said that the monitored research sample with the representation of expatriates included medium sized companies.

The results of the empirical survey also showed that the most widely used legal form of the subsidiaries of multinational companies is a limited liability company, which is represented in 75% cases, as shown in Figure No. 2.



*Figure 2.: Legal forms represented in MNC subsidiaries*

From the interviews with managers of the subsidiaries of multinational companies, it was ascertained that the legal form of the limited liability company was chosen because of the time flexibility in establishing and lower administrative costs. An appointment of authorized bodies does not pose a significant problem with respect to the choice of the legal form and to the presence of expatriates in MNC branches. However, in some cases a standard form associated with more effective corporate governance in the form of a joint-stock company was chosen - having regard to the size and importance of activities performed.

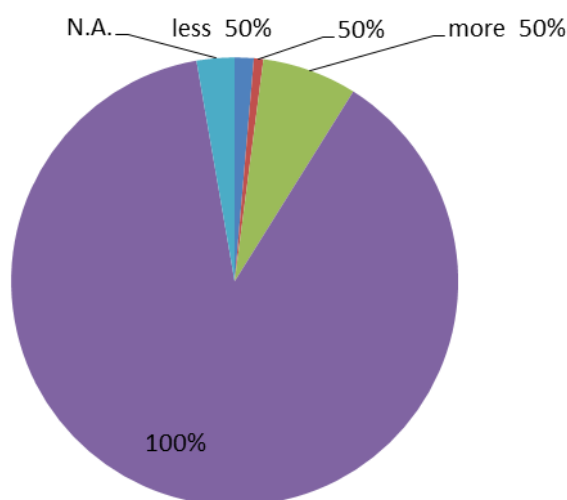
In relation to the legal form, diverse presence was found in MNC subsidiaries as to the positions and bodies in which expatriates work. The results demonstrate that the function of an expatriate is associated with top management of the subsidiary and is used in the positions of members of supervisory board or the board of directors in the joint-stock company, and an managing director in the limited liability company, or the company director or head of a business unit in the MNC subsidiaries - Table No. 3.

*Table 3: Representation of expatriates in MNC subsidiaries*  
(Author)

Supervisory Board	Board of Directors	Managing Director	Company Director	Head of Units
38	31	75	37	64

In many cases, expatriates were present in more positions of the MNC subsidiary (supervisory board and executives in the form of the board of directors or managing directors). The assumption that the expatriates are present in administrative or executive positions was proven, but surprising is their significant presence in the positions of head of business units. The explanation why also these positions are taken - as they are outside the administrative and/or executive bodies - could be associated with the transfer of knowledge in relation to the production realized in the MNC subsidiary.

Most of the companies in which administrative and/or executive positions are represented rely on their 100% ownership of the headquarters in the subsidiary of a multinational company. In 129 branches, a 100% ownership interest prevails, which is an interesting result that shows a clear priority of the MNCs headquarters policy in establishing subsidiaries in the Czech Republic.



*Figure 7: Ownership share in MNC subsidiaries*

The majority (over 50%) share of the headquarters in an MNC subsidiary was ascertained in 10 companies, and in one case only it was a parity (50%) representation of a foreign and domestic company. In two cases a minority (less than 50%) share was ascertained, which was related to the business activity of a domestic company with the participation of foreign partner's resources.

The financial performance of the MNC subsidiaries examined by various groups was performed on a set of companies that provide economic results. In the survey conducted, this applied to 267 branches of the MNCs, of which 117 subsidiaries reported the presence of expatriates, and in the remaining 150 subsidiaries there was no position of an expatriate. A detailed breakdown showing the presence of expatriates in subsidiaries and the comparison with companies in which the expatriates are not present is given in Tab. No. 4.

*Table 4: Groups of financial performance versus expatriates*  
(Author)

The financial performance of the MNC subsidiaries	group A	group B	group C
Expat yes	41	31	45
Expat no	62	39	49
Total	103	70	94

The obtained results show that the monitored groups of financial performance (A, B, C) are represented in all groups depending on the frequency of occurrence. In the case of MNC subsidiaries with the presence of expatriates, groups B and C with below-average financial performance prevail. In subsidiaries with no expatriate, there is the highest number of companies with above-average financial performance A, but a group with below-average performance C is also significantly present. The results indicate that there is no significant influence on the economic results given by the presence of an expatriate in the MNC subsidiary. Here it should be noted that this could also be due to the policy of the MNC headquarters with regard to making profits or tax operations throughout the MNC.

#### 4. CONCLUSIONS

All the partial results show that expatriation is significantly present in MNCs subsidiaries operating in the Czech Republic. Expatriation is not associated with a particular country of the headquarters; it occurs in all MNCs which have a significant share in foreign investments in the CR. It has also shown that the number of expatriates employed is associated with the size of an MNC subsidiary. It can be assumed that the use of work of expatriates in MNC subsidiaries increases with an increasing size. For the work of expatriates, the legal form of a limited liability company is more widely used, which is due to its flexibility during the subsidiary establishment in the legal system of the Czech Republic. An important reason is also less administrative burden of this legal form. This is also associated with the presence of expatriates in the position of the company managing director, which frequently occurs in the subsidiaries of MNCs having this legal form. If we take a deeper view of the administrative and executive bodies, it shows that the MNCs headquarters in the MNC subsidiaries in the host country occupy both the administrative (supervisory board) and executive bodies (managing director or a board of directors; company director) of the chosen legal form of the MNC subsidiary. Surprisingly, also lower hierarchical positions are taken, which are primarily related to professional activities at the MNC subsidiary. The ownership structure quite clearly shows that MNC headquarters establish the subsidiaries in host countries mostly with 100% ownership contribution. A lower ownership interest is an exception. The financial performance of the subsidiaries is not directly related to the work performance of expatriates. The results obtained do not explicitly show it. When comparing subsidiaries with no expatriate, there is no higher financial performance in spite of the fact that in this case, according to the frequency of occurrence, there are more financially better performing MNC subsidiaries. This is mainly due to the uniform policy of cost control and fiscal operations on part of the MNC headquarters, which is binding for all subsidiaries. Direct interviews with MNC subsidiary managers showed that the economic results and tax operations adapt to the requirements of the headquarters, and in this regard have a limited informative value. But in the case of subsidiaries in which there are no expatriates and which are only managed by the managers from the host country, there is a greater tendency to achieve better economic results of the subsidiary in the host country, including the associated tax liability.

The results presented bring some new and interesting findings from the area of expatriation in the subsidiaries of MNCs. Despite possible limitations of the research (the set of companies surveyed, the number of respondents, the way of controlling costs and taxation in the host country, etc.), some findings clearly deserve closer examination. In the future research based on the results achieved, more attention can be focused on the causality which brings new knowledge to the field of expatriation. Related to this is also a deeper understanding of the interconnection between the MNC headquarters and their subsidiaries in host countries, which are in the post-transformation phase of the market system.

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## **SUBCONTRACTING AS THE STRATEGY FOR SLOWING DOWN THE FALL OF CROATIAN LEATHER PROCESSING AND MANUFACTURE OF FOOTWEAR AND LEATHERWEAR**

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### **ABSTRACT**

*The changing industry dynamics, competition from the Far East, and ever-changing fashion trends of leather processing and manufacture of footwear and leatherwear necessitate the implementation of new strategic approaches. Leather manufacturing and processing industry companies in developed and developing countries have recognized the opportunities of the development of subcontracting relationships as a specific form of outsourcing that involves close relations and information exchange between companies. The purpose of this paper is to present subcontracting as the one of the most important strategies for the recovery of the Croatian leather processing and manufacture of footwear. In understanding benefits and limitations of subcontracting, the qualitative study on the sample of companies operating in the Croatian leather manufacturing and processing industry was conducted. The results suggest that the Croatian footwear and leather manufacturing companies have seen the benefits of subcontracting in the form of guaranteed markets, secured raw materials, and technical assistance. As this industry operates in a very inconsistent market, investigated companies agree that subcontracting is the strategy for bridging over the actual crisis, but they also suggest that the future of subcontracting is entering into business with higher added values.*

**Keywords:** *Croatia, leather processing and manufacture of footwear and leatherwear, subcontracting*

### **1. INTRODUCTION**

The era of intense competition in all spheres of the global economy, as well as the complexity and riskiness of the current economic situation, have forced companies to spare no effort to modify the way in which production is organized and in which manufacturing companies relate to the market. This is particularly evident in the manufacturing industry which is one of the most important sectors of the economy.

Buxey (2009) investigates what strategies companies in the textiles, clothing, and foot wear industry use in adapting to the pressures of globalisation. He concludes that the production in the textile, clothing, and footwear industry is transferred to cheap offshore locations, generally via subcontracting, and that in order to survive, local factories should focus on quality and customer service. The fact is that in labour intensive industries, subcontracting has been regarded as an important source of efficiency and competitiveness (Kimura, 2002).

Watanabe (1971) and Taymaz and Kilicaslan (2005) consider it as an instrument of industrial and economic development and employment creation in developed and developing countries.

There are some other researches who agree that subcontracting is the most important type of industrial redeployment in some industries, such as textile-clothing (Andreff, 2009; Graziani, 1998). Within the new environmental context the subcontracting strategy could leave subcontractors to the vagaries of the environment (Kooli et al., 2010, pp. 381).

As patterns of subcontracting vary from country to country and among industries, as well, Kongmanila and Takahashi (2010) found difficult to conclude what factors determine subcontracting behaviours generally. Roses (2005) found subcontracting predominant in phases of production and distribution in the cotton industry where transaction costs appeared to be less important. Subcontracting is an opportunity for firms in developing countries to participate in the international market (Ghauri et al., 2008, p. 741).

Although literature emphasizes the growing interest to examine subcontracting as the special form of co-operation among companies (Furlan et al., 2007) or as a specific form of outsourcing (Heshmati, 2003), there has been little academic investigation into the area of subcontracting in the Republic of Croatia. There is only worth mentioning work of Anić et al. (2008), which compares subcontracting and full manufacturing business models employed by the Croatian textile and clothing manufacturers. To the best of our knowledge, this is the first study that analyses the determinants of subcontracting in the Croatian leather manufacturing and processing industry.

The paper begins with the theoretical framework where the concept of subcontracting with its benefits and limitations as well as literature review is presented. Then, the insights into the situation in the Croatian leather manufacturing and processing industry is given. This is followed by the methodology adopted and then an analysis of the research findings. For the purpose of this paper, a qualitative research was conducted using in-depth interviews carried out with a sample of 17 companies operating in the Croatian leather manufacturing and processing industry. The research is guided by the following research question: do leather manufacturing and processing industry companies in Croatia consider subcontracting as the main source of efficiency and competitiveness? Research question is followed by the following research objectives: (1) to explore all benefits of subcontracting and outsourcing from the companies' point of view; (2) to define and propose business strategy that could contribute to the sustainability of the Croatian leather processing and manufacture of footwear. Finally, an integrated conclusion, summarising the results, developing managerial implications and providing suggestions for future research is provided.

## **2. THEORETICAL BACKGROUND**

Usually, subcontracting is defined as a situation where the firm offering the subcontract requests another independent enterprise to undertake the production or carry out the processing of a material, component, part or subassembly for it according to specializations or plans provided by the firm offering the subcontract (Taymaz and Kilicaslan, 2005). Heshmati (2003) considers it as a specific form of outsourcing that involves intimate relations and information exchange between firms.

According to the UN official definition (UNECE, 1995), subcontracting relationship exists whenever a business (subcontractor) acts for the account of another (main contractor)

undertaking in the process of working and making a specific product to plans and technical specifications supplied by the main contractor, who has final economic responsibility.

One of the leading researchers of subcontracting, Watanabe (1971) claimed that subcontracting was supposed to play an important role in policies designed to promote small enterprises.

As subcontracting was considered by many researchers and international organizations as a tool for modernization and employment generation, in the 1970s and 1980s international organizations, like the World Bank and the United Nations Industrial Development Organization (UNIDO) called for the promotion of it.

Kongmanila and Takahashi (2010, p. 98) suggest that there are three different theories in analysing subcontracting: a) dualistic approach theory; b) development approach theory; and c) networking and clustering approach theory.

“Dualistic approach” theory is based on the concept of “dualistic economy” and includes two different groups of enterprises, large and small companies. As basic assumption is that large contractors realize benefits at the expense of small contractors, this theory considers subcontracting as unequal power relationship. According to “development approach” theory, subcontracting is a relationship between large and small companies which emphasizes a positive role of it in a way that it enhances small companies to grow and makes them a suitable tool for mass employment generation in developing countries (Watanabe, 1971). The third theory, “networking and clustering approach”, supports networking initiatives and development of industrial cluster, either through horizontal or vertical cooperation, or networking among enterprises.

Taymaz and Kilicaslan (2002, p.2) consider subcontracting as a form of domination of large firms over small ones where large firms benefited from low wages and flexible work arrangements in small firms.

Subcontracting is usually defined as a form of relationship between firms mostly depending upon complete or partial production of goods and services. Holmes (1986, p. 84) gave a more formal definition of subcontracting as “a situation where the firm offering the subcontract requests another independent enterprise to undertake the production or carry out the processing of a material, component, part or subassembly for it according to specifications or plans provided by the firm offering the subcontract”.

There are differences between traditional and new approaches to subcontracting (Taymaz and Kilicaslan, 2002, p. 7):

- traditional approaches consider subcontracting as a relationship between two firms, the parent and the subcontractor (the unit of analysis is a specific subcontracting relationship between two particular firms),
- new approaches consider the network and cluster approaches, and look at a group of firms cooperating (and competing) within a complex web of supportive institutions.

Taking subcontracting as the business model in textile and clothing industry, Anić et al. (2008) compare its characteristics with those of the full manufacturing model on the sample



of two groups of companies: manufacturers and subcontractors operating in the textile and clothing industry.

There are three major types of production subcontracting identified by some authors (Chaillou, 1977; Holmes, 1986; Watanabe, 1971) as follows: 1) capacity subcontracting, 2) specialization subcontracting, and 3) supplier subcontracting.

- 1) *capacity subcontracting or horizontal subcontracting* – the form of production subcontracting in which only the fabrication of the subcontracted part is carried out by the subcontractor taking into account plans and specifications set down by the contractor (the parent firm). The reason the parent firm subcontracts a proportion of its requirements is the capacity limit (Taymaz and Kilicaslan, 2002, p.4). Accordingly, it arises as a result of excess demand for the products produced by the parent firm, but in some cases (Spiegel, 1993) companies can use horizontal subcontracting to allocate production more efficiently even if the capacity limit is not binding.
- 2) *specialization or complementary subcontracting* - the form of production subcontracting in which the decision about the method of production is usually taken by the subcontractor. As this form represents vertical disintegration of production and arises when two companies have (vertically related) complementary assets or technologies (Taymaz and Kilicaslan, 2002, p.4) it is considered as vertical subcontracting.
- 3) *supplier subcontracting* – the form of production subcontracting very similar to specialization subcontracting, in which the subcontractor is an independent supplier with full control over the development, design and the method of production, but is willing to enter a subcontracting arrangement in order to supply a dedicated or licensed part to the parent firm.

There are different factors that lead companies to subcontract a part of their components and/or production activities to other firms, such as (Taymaz and Kilicaslan, 2002):

- the subcontracting relationships between companies may be due to the structure and temporal stability of product markets (for example, the parent firm is engaged in manufacturing a product for which demand is uncertain or irregular because of cyclical or seasonal variations in demand),
- production technology and labour-process organization may favour resort to production subcontracting due to specific technical characteristics and fixed capital costs of the production technology used in the production process,
- the development of subcontracting relations would be the structure and nature of labour markets where the parent firm may seek to subcontract a portion of its (unskilled labour-intensive) production operations to take advantage of lower wages in smaller firms.

In the case of the clothing industry, Da Villa and Panizzolo (1996, p. 55) note that the buyer-subcontractor relationship is undergoing a drastic evolution, which is not solely connected to the reduction of costs, to the search for flexibility and to the exploitation of specific resources and capabilities. Indeed, companies in this industry have recognized the strategic importance of an „integrated production system“. Adler (2004, p. 314) adds that important benefits or reasons besides cost reduction are enlargement of the scope of company, relieving of company resources and the use of capacities on an international level.

Kongmanila and Takahashi (2010, p. 99) pointed out two main reasons why large companies prefer to outsource production process through subcontractors: to enjoy flexibility by utilizing production capacity of subcontractors, and because of cost reduction. Subcontracting networks occur when a manufacturer sells products to a specific buyer for a considerable period of time, while the latter specifies the design of the products and supervises the production process (Ghauri et al., 2008, p. 741).

There are empirical evidences that large companies are more likely to offer subcontracting to small companies. Moreover, companies with high wages subcontract a large part of their production to companies that pay lower wage (Kimura, 2002; Taymaz and Kilicaslan, 2005).

Taymaz and Kilicaslan (2005) also note that companies with more skilled labour can specialize in non-production activities (such as marketing), and tend to subcontract out a large part of the production process.

Small and medium enterprises can have multiple benefits from the subcontracting relationship with large firms (Bala Subrahmanya, 2008, p.25; NASEP, 1997):

- subcontracting enterprises can produce multiple items in small quantities effectively taking advantage of the small size of the organization,
- subcontracting enterprises let their parent enterprise develop products, cultivate markets and sell products. This allows them to concentrate on manufacturing activities alone and specialize in specific engineering fields.
- subcontracting enterprises can ask their parent enterprise to instruct or advice on technologies and production management, lend facilities, train human resources, and provide with information.

Burki and Terrell (1998) argue that, in the case of developing countries, small companies engaged in production subcontracting appear more efficient in terms of productivity.

Ghauri et al. (2008, p. 744) argue that the benefits to the subcontractor are rarely considered explicitly, but as subcontractors are usually small or medium sized companies, the benefits tend to relate to business generation and organisational survival. Anić et al. (2008, p. 331) specify advantages and disadvantages of employing subcontracting business model. They suggest (Anić et al., 2008, p. 331) that the main idea behind advocating the development of subcontracting was based on the benefits a small subcontractor derives from a large parent company in the form of guaranteed markets, secured raw materials, and technical assistance. Taking advantage of the small size, subcontractors can produce multiple items in small quantities. On the other hand, large companies (parent companies), start with subcontracting model for the following purposes (Watanabe, 1971): to economize capital and labour, to take advantage of lower wages in small companies, to take advantage of the subcontractor's specialised technology, and to serve as a buffer against business fluctuations.

According to Anić et al. (2008), main disadvantages of employing subcontracting business model are as follows:

- subcontractor would be released if it does not meet the exact predefined standards,
- subcontractors are vulnerable to the competition from low-wage countries,
- most subcontractors work almost exclusively for either one or a few customers, with little or no possibility to differentiate their offer.

### 3. ECONOMIC POSITION OF FOOTWEAR AND LEATHER INDUSTRY

In the world, the 18<sup>th</sup> century is considered as the birth century of footwear industry. Footwear was handmade, but in series. In the 19<sup>th</sup> century, machines production started. In the Republic of Croatia, footwear and leather industry is related to the town Varaždin, because in 1801. there were already 451 sole traders (65 boot makers, 61 Croatian shoemakers, 13 German shoemakers and 4 leatherworkers) (Akalovic, 2009.). Today, 75% of the footwear and leather sector in the Republic of Croatia is concentrated in the North-western Croatia (near the town Varaždin).

According to the Croatian Chamber of Economy (2012.), main characteristics of footwear and leather sector in Republic of Croatia are: employment of significant number of workers, export character, insufficient investment in technologies and high regional concentration (as already mentioned, 75% in the North-western Croatia).

To get better insight in the current situation in the previously mentioned sector, some main indicators are presented.

Footwear and leather industry in the Republic of Croatia participates in the Croatian manufacturing industry with 1,22% companies, 3,89% employees and 1,84% revenue (CCE, 2012.). More detailed review is shown in Table 1.

*Table 1.: Number of companies, employees and total revenue of Croatian footwear and leather industry according to companies' size, 2012. (CCE, 2012)*

Footwear and leather manufacturing	Size of the company			
	Small (less than 50 employees)	Medium (50-250 employees)	Large (more than 250 employees)	Total
Nr of companies	122	7	1	130
Nr of employees	3.395	2.285	2.867	8.547
Total revenue	575.811.103	392.744.980	2.032.196.073	3.000.752.156

As it is presented in Table 1, small companies dominate in the Croatian footwear and leather industry. Although there are only eight medium and big size companies, their revenue is significant.

Observing the number of companies, employees and total revenue from 2008 to 2012, it can be concluded, as shown in Table 2., that there is a slight increase in the number of companies and in total revenue, too.

*Table 2.: Number of companies, employees and total revenue of Croatian footwear and leather industry 2008 - 2012. (CCE, 2012)*

Indicator	2008.	2009.	2010.	2011.	2012.
Nr of companies	124	124	127	129	130
Nr of employees	8.538	7.692	8.781	9.026	8.547
Total revenue	2.364.973.135	2.182.539.018	2.556.027.748	2.957.739.973	3.000.752.156

Based on facts presented in table 2, it can be concluded that there was total revenue increase of 21% from year 2008 to year 2012. That increase is significant, because in last few years Croatian manufacturing industry showed overall decrease.

Increase in industrial production of shoes from year 2010 to 2012 is presented in Table 3.

*Table 3.: Shoes production, 000 pairs (CCE, 2012)*

Activity	2010.	2011.	2012.
Shoes production	4.922	4.796	5.408

According to the data in table 3, after decrease of 2,56% in a year 2011, in a year 2012 there was increase of 12,76% in shoes production measured in thousands pairs of shoes. This fact confirms positive trend in footwear industry.

Footwear and leather industry employees are mostly socially sensitive and non-flexible labour force. More than 82% are women, mostly unskilled and older than 45 years). Average salaries are lowest in overall manufacturing industry. The average net monthly salary in footwear and leather industry in 2012 was 378 EUR, or 2.2 EUR per hour. It is less than average in manufacturing industry (average net monthly salary in overall manufacturing industry is 642,7 EUR, 3.7 EUR net per hour).

Import and export of Croatian footwear and leather industry and its comparison to manufacturing industry is presented in table 4.

*Table 4.: Import and export of Croatian footwear and leather industry (CCE, 2012)*

Activity	export		import	
	2011.	2012.	2011.	2012.
Footwear and leather industry	255.442	251.779	261.799	249.508
Manufacturing industry	8.683.934	8.607.886	13.193.423	12.965.680

Table 4 shows that there is a slight increase in export of footwear and leather products, as well as decrease in its import. This positive trend can be noticed also in overall manufacturing industry.

#### 4. RESEARCH METHOD

For the purpose of this paper, a research study on the sample of 17 companies operating in the Croatian leather manufacturing and processing industry was conducted. 10 companies are working as subcontractors and 4 companies are involved in green fields. Only 3 of investigated companies are not relying on subcontracting in their business operations. At the methodological level, the research was carried out by means of a qualitative study among 17 companies. Information was gathered using a questionnaire, specially developed for this specific industry, which was followed up with direct interviews with the owners. Pre-survey telephone calls were made at each company to identify whether they would be prepared to participate in the survey. The questionnaire design is based on the discussion pointed out in the theoretical part of the paper, and it includes questions concerning reasons for employing subcontracting business model, organizational changes derived from starting with subcontracting, the internal relationships which appeared after starting with subcontracting. The last set of questions included respondents' perception of the way of future development of subcontracting in the footwear and leather manufacturing industry.

## 5. RESULTS

According to the share in the Croatian footwear and leather industry, the sample presents 93.5% (7991 employees) of the total number of employees (8547 employees) in this industry.

Almost half of the sample (47%) consisted of large companies with more than 250 employees. Their main business activities are: footwear manufacturing (88,2% of the sample), and leather manufacturing (11,8% of the sample). The analysis of the markets of the parents firms suggested that they are mostly from Germany (59%), Italy (35%), Austria (29%), and France (24%).

The analysis of the number of employees before and after the employing subcontracting business model shows that they mostly could not answer this question as they still have been involved in subcontracting. The rest of the sample (29%) confirmed that the number of employees decreased when they decided to switch to their own production.

Concerning the relationships in the companies, subcontracting has brought significant financial stability and improved internal relationships as well. On the other hand, companies which left subcontracting have experienced increase of responsibilities and obligations in the case of sale department, research and development departments, and management as well. They suggested that the organizational schema was adjusted to subcontracting business model. There were rationalizations in all departments that are not directly related to production, while their business volume was enlarged. It is very important to note that subcontracting business model resulted in the increase of education level. Namely, after introducing subcontracting, companies (subcontractors) have continually experienced internal education programmes in order to increase their efficiency. Also, education has been conducted to coordinate subcontractors' processes to those of the parent firm.

According to the respondents' answers, the main reason for employing subcontracting business model is the lack of working capital and impossibility to independently participate in the international market. Also, there are companies (36% of the sample) that are established just for the purpose of subcontracting due to the lack of labour force in the market of parent firms.

When the respondents were asked about the indicators used for monitoring efficiency, they pointed out 100 % fulfilment of capacity and in 100% exceeding the quota.

At the end of the interviews, respondents outlined their plans for the future. It is interesting that 41% of investigated companies do not think about their own production and brand, while 24% of companies put their own brand development as their future strategic direction.

In general, their perceptions about the future of subcontracting business model in the Republic of Croatia are slightly different. The largest percentage of companies (76.5%) suggests that the future of subcontracting is entering into business with higher added values in the area of subcontracting. The rest of companies point out that added value from contracting business model is not enough for the future development and that it should be added by companies' own brand development. Moreover, there are some thoughts about subcontracting as the means of bridging over the actual crisis, while own brand development is neglected for the period of higher purchasing power.

## **6. LIMITATIONS AND FURTHER RESEARCH**

A number of potential limitations of this study need to be acknowledged. First, the study restricts to only leather manufacturing and processing industry which might have been improved by investigating other industries or manufacturing sector as a whole in order to obtain more generalized findings of the study.

Second, limitation of the study lies in relatively small number of companies, included in the study. Finally, the present study may also suffer all shortcomings associated with single country data analysis; further study may extend the scope to other Southeast European countries in order to get better insight into the similarities and differences of subcontracting business model applications in some of neighbouring markets.

The present paper has certainly acknowledged limitations that need to be taken into account when considering the results of the study and its contributions. More generally, as with any academic work, it is hoped that the present paper will stimulate other researchers to find out what are the perspectives of subcontracting in the future, especially in the period of the Croatian economic recovery. More extensive research is certainly needed in this important area.

## **7. CONCLUSION**

This paper contributes to a better understanding of the theoretical and operational implications of subcontracting for small and medium companies in leather processing and manufacture of footwear and leatherwear. The main idea behind advocating the development of subcontracting was based on the “benefits” a small subcontractor derives from a large parent firm in the form of guaranteed markets, secured raw materials, and technical assistance. Therefore, subcontracting is considered as an instrument of industrial and economic development and employment creation in developed and developing countries.

For the purpose of finding out whether leather manufacturing and processing industry companies in Croatia consider subcontracting as the main source of efficiency and competitiveness, a qualitative research among companies operating in the Croatian leather manufacturing and processing industry was conducted. The findings of the research suggest that subcontracting business model has brought significant financial stability and improved internal relationships. Also, after introducing subcontracting, companies (subcontractors) have continually experienced internal education programmes in order to increase their efficiency and to increase the education level of their employees. In such a way the quality of their products as well as their overall business processes are improved too. Several managerial implications for the Croatian leather manufacturing and processing industry might be derived from the findings of this paper. Firstly, the study shows that the main reason for employing subcontracting business model is the lack of working capital and impossibility to independently participate in the international market. There is an area for taking initiatives by the Croatian Chamber of Economy's Leather Processing Industries Association in order to promote work and business of the Croatian manufacturers' interests in Croatia and abroad. Secondly, the findings of the research suggest that majority of investigated companies does not think about their own production and brand, but the strategy for the further development of the Croatian leather manufacturing and processing industry presumes switching from current job of processing for foreign partners to complete manufacturing cycles and own brand collections.

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## MULTI-SIDED PLATFORM STRATEGIES FOR BUSINESS INCUBATOR ECOSYSTEM MANAGEMENT

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### ABSTRACT

*The purpose of this paper is to study the issues relevant to the business incubator ecosystem platforms likely to be used for hosting startups through the convergence of different groups of actors and services. It is shown that business incubator could be a multi-sided platform (MP): an organization that creates value primarily by enabling direct interactions between many distinct types of affiliated customers. The preliminary business incubator ecosystem MP's groups/sides are startups, universities, businesses, public corporations, leading technology companies, service providers, media companies, other accelerators, angel/seed investors, incubators, R&D labs, venture capitalists, institutional investors, government agencies, mentors etc. A MP mediates the relationship between startups and the universe of other sides' groups of business incubator ecosystem. The successful business incubator MP provides infrastructure and rules that facilitate the groups' transactions and can take many guises. The groups are attracted to each other and form a phenomenon that economists call the network effects. With many-sided network effects, the MP's value to any given user largely depends on the number of users on the network's other sides. Value grows as the platform matches demand from the platform sides. The taxonomy of business incubator ecosystem and main performance indicators are developed. The main business incubator ecosystem MP's governance strategies are discussed. Two factors stand out as favoring proprietary models of business incubator ecosystem: the big investments in centralized infrastructure (usually government) or user subsidies (including crowd funding and crowdsourcing); and the appeal of the shared approach to all the parties involved when the industrial market is likely to be served by a single incubator platform over the long term. The results of a research project on business incubator ecosystem management strategies, covering Global and Northwest Russian incubators and techno parks, are summarized to reveal the nature of the factors governing proprietary versus shared models when designing business incubator ecosystem platforms.*

**Keywords:** *Clusters of innovation (COI), Business Incubator Ecosystem; Multi-sided Platform Governance; Innovation strategy*

### 1. INTRODUCTION

Incubators are viewed as a tool for promoting the development of technology-based growth firms. Considering the large faith and the considerable amounts of money invested in incubators, the identification of best practice incubator business models is of importance. Despite the relative maturity of Business Incubators (BIs) both as a practice and as a research field, a consensual definition for BIs is yet to be found (Bruneel, Ratinho, Clarysse, Groen, 2012). We found that the definition of the European Commission is most closely to our understanding of IB's function: A *business incubator* is an organization that accelerates and systematizes the process of creating successful enterprises by providing them with a comprehensive and integrated range of support, including: incubator space, business support services, and clustering and networking opportunities. By providing their clients with services on a 'one-stop-shop' basis and enabling overheads to be reduced by sharing costs, business

incubators significantly improve the survival and growth prospects of new start-ups. A successful business incubator will generate a steady flow of new businesses with above average job and wealth creation potential. Differences in stakeholder objectives for incubators, admission and exit criteria, the knowledge intensity of projects, and the precise configuration of facilities and services, will distinguish one type of business incubator from another (EC, 2002, p.9).

In this paper, we argue that best practice identification requires a holistic approach, where the goals of the incubators are taken into account and the performance of different incubators are put in relation to their incubator business models. In this context, the aim of this paper is to develop strategies that can serve as a basis for identifying best practice incubator multi-sided platform models and for more rigorous evaluations of incubator performance. The data for this paper was collected in exploring US and European BIs' best practices (Bergek, Norrman, 2008; Mercedes, Porter, and Stern, 2010; Chatterji, Glaeser, Kerr, 2013) and Russian incubators and techno parks (Mac, 2012; List of Incubators, 2010; RusBase: Russian Startups Going Global - All Incubators, 2014; Forbes Russian BI Survey, 2010). The results of a research on business incubator ecosystem management strategies, are summarized to reveal the nature of the factors governing MP business models when designing business incubator ecosystem platforms. All example BIs were self-selected, denoting a willingness to improve incubation practices as well as to learn with peers.

## **2. INCUBATION MODELS**

As it is stated in (Scaramuzzi, 2002) the first business incubators generally characterized by a strong real estate component and proximity to research institutes or technical university environments, this type of incubator is generally created by building new facilities, such as science, technology parks, or technopoles, or by readapting abandoned buildings (e.g. industrial complexes). Its real estate component often implies considerable public investments, sometimes supported by national or local programs for innovation, job creation and economic development. Sustainability is considered a major challenge of these initiatives, which always require considerable fixed investments, have long development life-cycles and can suffer from inadequate financing and exit mechanisms for graduating companies. The last generation of BIs including Virtual Incubators (VI) emerged during the 1990s with an emphasis on providing access to services via external networks (EC, 2002; Scaramuzzi, 2002). Virtual Incubators (VI) are usually non-property-based ventures which require lower fixed investments and frequently operate as "incubators without walls" and serve newly created firms without hosting them within the incubator's facilities (Scaramuzzi, 2002). They usually generate externalities among firms linked via computer and telecommunications networks. Most virtual incubators are technology oriented, and are aimed at transforming research into marketable products. The offering of preincubation and postincubation services are considered a natural evolution of this model. Examples of incubators without walls exist in several countries, including in US, EU, Brazil, Russia and Australia. Network exploitation by BIs provides tenants with preferential access to potential customers, suppliers, technology partners and investors (Hansen et al., 2000; Scillitoe and Chakrabarti, 2010). It is stated that networking is the most important factor in successful BI programmes (Hansen et al., 2000), and empirical evidence suggests that access to networks is critical for BIs tenant companies development (McAdam and McAdam, 2008). In essence, facilitating access to external networks by BIs eases the acquisition of resources and specialized expertise, provides learning opportunities, and allows new firms to build up legitimacy faster (Bruneel, Ratinho, Clarysse, Groen, 2012). In providing access to networks, BIs are contributing to helping new

firms overcome their inherent resource scarcity. The lack of financial capital, experienced management teams, and capabilities hinders start-up companies' development and subsequent growth. BIs build networks with early stage investors such as business angel networks and venture capitalists, which reduce the search costs for tenants companies. Similarly, new firms can seldom access established networks for hiring specialized advice on highly specific topics such as technology development via linkages with academic institutions (Schwartz and Hornyh, 2010; (Bruneel, Ratinho, Clarysse, Groen, 2012), strategy consulting (Lee and Osteryoung, 2004; (Bruneel, Ratinho, Clarysse, Groen, 2012) or patent attorneys (Rice, 2002; (Bruneel, Ratinho, Clarysse, Groen, 2012). Further development of the idea of network innovation and integration has led to the emergence of Clusters of innovation (COI). COI are frequently observed as concentrations of interconnected organizations - including suppliers, service providers, universities, trade associations (Porter, 1998). In clusters of innovation other agglomeration benefits dominate, defined not by industry specialization, but by the stage of development and innovation. COI are characterized by mobile assets— such as money, people, and information, including know-how and intellectual property (IP). This culture of innovation and new venture development, based on mobility of resources, gives rise to business practices whereby mobile assets frequently cross regional boundaries in order to foster international collaborations far earlier in the venture development cycle than the historical norm. So in COI new startup ventures are said to be “born global,” taking advantage of international markets and resources extraordinarily early in their development (Delgado, Porter, Stern, 2010 ab). As a result, new and complementary industry clusters have emerged in different regions around the world, and a network of formal and informal collaborations among their entrepreneurial firms has been created. This multidimensional web of interrelationships includes weak ties, durable bonds, and covalent bonds, and constitutes the global Network of Clusters of Innovation (NCOI) (Delgado, Porter, Stern, 2010 ab; Porter, 1998; Porter, 2000; Porter, 2007). The empirical work (Mercedes, Porter, and Stern, 2010) focuses on early stage entrepreneurship, which is measured using two related indicators of start-up activity: the number of new establishments of new firms in a region within a given traded industry (which is referred to as the level of start-up establishments); and the employment in these new firms (which is referred to as the level of start-up employment). Authors have empirically proved the hypothesis that strong clusters facilitate growth in entrepreneurship. Industry clustering in science parks, industrial zones, and export processing zones can reinforce corporate knowledge creation and acquisition. Industrial clusters can help introduce innovative techniques of knowledge management to enhance core competitiveness.

Policies to increase the local supply of entrepreneurs (Chatterji, Glaeser and Kerr, 2013) include:

- a) entrepreneurial education programs, science and technology education initiatives, and high-skilled immigration policy.
- b) direct subsidies and targeted tax breaks to promote entrepreneurship that policymakers at all levels of government, particularly at the state level, have to provide.
- c) regional clusters policies to promote entrepreneurship. Silicon Valley, Boston's Route 128, and Research Triangle Park are three of the most well-known clusters in the United States and among those most often associated with entrepreneurship and innovation.

However, the role of public policy in creating and sustaining these regions as attractive locations for entrepreneurship is complex. For example, the recent US federal initiatives one of the highest-profile Obama Administration efforts was Startup America, an umbrella

initiative encompassing several related efforts to promote high-growth entrepreneurship (Chatterji, Glaeser, Kerr, 2013). It includes proposals to increase access to capital, enhance entrepreneurial education and mentorship, limit regulatory barriers to starting and growing companies, spur technology commercialization efforts from universities, and open up entrepreneurial opportunities in key industries like healthcare, energy and education. Various parts of the Startup America agenda have been enacted through legislation, while other parts have not required legislative approval and have been implemented by the relevant agencies (Chatterji, Glaeser, Kerr, 2013). Today US government at all levels (along with numerous private and non-profit organizations) craft policies in the hopes of creating the next Silicon Valley.

*Table 1: Dimensions of government policy (Chatterji, Glaeser, Kerr, 2013, p.37)*

Degree of specificity towards locations	Degree of specificity towards industries and firms		
	General	Industries/sectors	Firms
National and state	Overall tax code Patent policy Non-compete clauses	Industry-specific tax provisions, e.g. film industry subsidies Research subsidies	National and state loan guarantees for specific firms, e.g. Solyndra
City and country	Citywide taxes and business regulations	New York City industrial support for life science or fashion industries, tax breaks for finance industry	City-level tax breaks for million-dollar plants Contracts tied to local firms
Neighborhood	Inter-urban transportation	<b>Innovation clusters</b> <b>Industry-specific local infrastructure</b>	<b>Firm-specific infrastructure</b>

But as it is mentioned by (Chatterji, Glaeser, Kerr, 2013): it would be ideal to conclude that paths towards better entrepreneurship policies are clear, but they are not.

Porter argues that regional cluster policy operates below – macro-level policies to improve the general business environment for all firms through, and above - micro-level policies that aid individual firms (Porter 2007). We then describe the multi-sided platform business model of BI taking in consideration the the firm-specific network infrastructure and innovation cluster network structure (table 1).

### 3. MULTI-SIDED BI PLATFORM MODEL

Terms two-sided market, multi-sided market, and platform-based market are used sometime inter-changeably.

We shall use such definition (Evans et al, 2008; Hagiu, and Wright, 2011): a multi-sided market exists, when at any point in time there are

- two or more distinct groups of customers;
- the value obtained by one kind of customers increases with the number of the other kind of customers; and
- an intermediary is necessary for internalizing the externalities created by one group for the other group.

It is suitable to think about multi-sided platforms (MPs) as businesses which are both platforms and market intermediaries. Platforms are products, services or technologies that serve as foundations upon which other parties can build complementary products, services and technologies. Platforms are defined (Gawer, 2009) as building blocks (products, technologies or services) that act as a foundation upon which an array of firms (a business ecosystem) develop complementary products, technologies or services, proposing such requirements for a platform:

- it should perform a critical function of the overall system or should solve a crucial technological issue of an industry,
- it should be easy to connect to, “build upon” and provide space for new and unplanned usage.

Platforms enable new services due to the reuse of platform components. They have lower fixed costs and enable shorter time to market for service providers. Market intermediaries are firms that reduce search and transactions costs for interactions among two or more distinct groups of customers (e.g. suppliers and consumers for 7-Eleven; sellers and buyers for eBay).

Economists use the terms “two-sided market”, “two-sided platform” or “multi-sided platform” to refer to the mediating role of service platforms between two or more groups of agents (Evans et al., 2008; Rochet and Tirole, 2003).

Multi-sided platform (MP) is an organization that creates value primarily by enabling direct interactions between two (or more) distinct types of affiliated customers.

In two-sided and many-sided markets the value creation and appropriation logic is different (fig. 1), the linear and transitive value chain and value creation thinking is outdated. Often this duality of both sides representing cost and revenue is neglected and the other side is treated as a profit on and the other either as loss or financially neutral (Hagiu, and Wright, 2011). Figure 1 represents in a simple way the key distinctions between MSPs and input suppliers on the one hand and between MSPs and re-sellers on the other hand (Hagiu, and Wright, 2011).

The study of MSPs is important because it is a large and growing share of global economy and MPs' firms face distinctive management challenges: familiar rules such as value-based pricing may fail and traditional barriers to entry may no longer hold. Due to network effects, platform intermediaries often enjoy increasing returns to scale and their industries have room for only a few players (Parker, Van Alstyne, 2005). In many MPs, network effects are so strong that a single platform prevails. With increasing shifts and changes of business landscapes, firms in both developed and emerging economies are challenged by how to manage and to innovate through MPs (Eisenmann, Parker, Van Alstyne, 2006). When winners take most, little is left for losers, as evidenced by the spectacular success of some platform providers.

We clarify the definition of MPs (Hagiu, and Wright, 2011) for Multi-sided Business Incubation Platforms (MBIPs) in context of our paper by requiring that they enable direct interactions between the multiple customer types which are affiliated to them:

Multi-sided Business Incubation Platform (MBIP) is a interpreneurial organization that creates value primarily by enabling direct interactions between many distinct types of affiliated customers that are using products and/or services for interpreneurship.

So we argue that business incubator could be a multi-sided platform (MP): an organization that creates value primarily by enabling direct interactions between many distinct types of affiliated customers. The preliminary MBIP's ecosystem groups/sides are startups, universities, businesses, public corporations, leading technology companies, service providers, media companies, other accelerators, angel/seed investors, incubators, R&D labs, venture capitalists, institutional investors, government agencies, legal and patent agencies, mentors etc (fig.1). A MP mediates the relationship between startups and the universe of other sides' groups of business incubator ecosystem. The successful MBIP provides infrastructure and rules that facilitate the groups' transactions and can take many guises. The groups are attracted to each other and form a phenomenon that economists call the network effects. With many-sided network effects, the MBIP's value to any given user largely depends on the number of users on the network's other sides. Value grows as the platform matches demand from the platform sides.

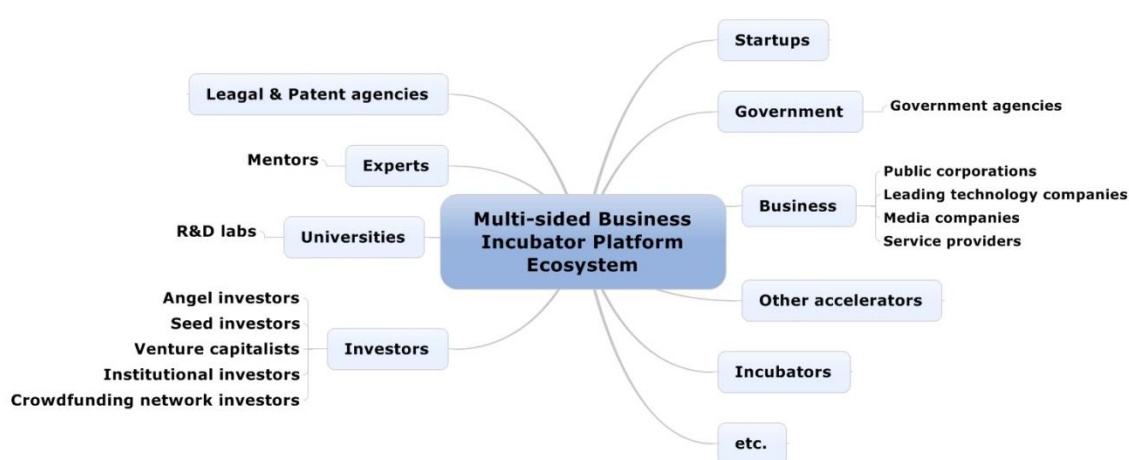


Figure 1: MBIP ecosystem categorization (simplified).

The role of finance intermediaries MBIPs is to:

- minimize transaction costs through matchmaking and audience making.
- minimize costs through the elimination of duplication.
- permit value-creating exchanges that would not take place otherwise.
- enforce innovation.

#### 4. MBIP GOVERNANCE

The concept of governance as the system by which business corporations are directed and controlled (Chambers, 2003), has long been seen as shareholder rights, transparency and board accountability. MBIP governance framework – including an IT governance framework – must identify the role of an organization's governing body, and align that with the governing body's role as described in the OECD Principles of Corporate Governance, revised in 2004, and as originally described in the Cadbury Report on Corporate Governance of 1992 (Calder, 2009). MBIP governance is a framework for the leadership, organizational structures and business processes, standards and compliance to these standards, which ensure that the BI supports and enables the achievement of its strategies and objectives (Calder, 2009). Any effective governance framework is likely to encompass and include a number of management systems, standards, methodologies, and frameworks, starting with ISO/IEC 38500 and the Calder-Moir IT Governance Framework that helps organisations to implement ISO/IEC 38500, Control Objectives for Information Technology (COBIT), the IT Infrastructure



Library (ITIL), ISO/IEC 27001, the Zachman Framework, the Open Group Architecture Framework (TOGAF), PRINCE2<sup>TM</sup>, and some other (Calder, 2009).

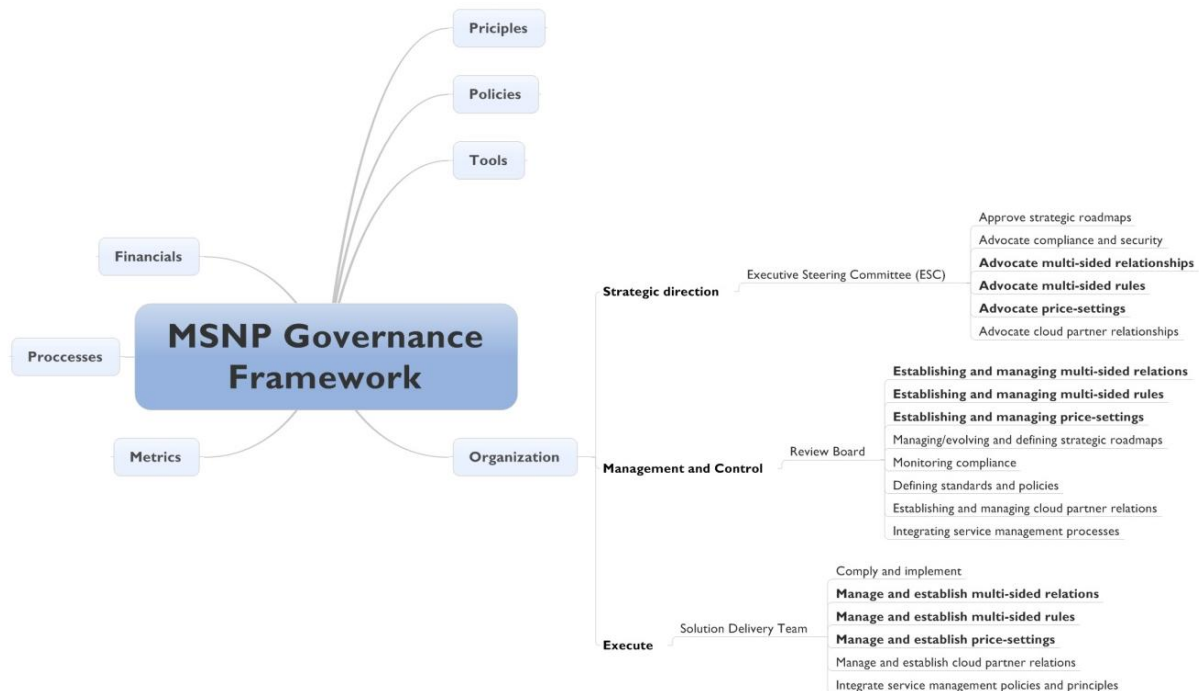


Figure 2: MBIP Governance Framework (simplified).

The main MBIP ecosystem governance strategies are discussed (fig.2). Two factors stand out as favoring proprietary models of business incubator ecosystem: the big investments in centralized infrastructure (usually government) or user subsidies (including crowd funding and crowdsourcing); and the appeal of the shared approach to all the parties involved when the industrial market is likely to be served by a single incubator platform over the long term.

The results of a research project on business incubator ecosystem management strategies, covering Global and Northwest Russian incubators and techno parks, are summarized to reveal the nature of the factors governing proprietary versus shared models when designing business incubator ecosystem platforms.

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## DEVELOPING ETHICAL ORGANISATION: VALUES, IMPLEMENTATION AND GOVERNANCE

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### ABSTRACT

*In the last few decades, business ethics has emerged as an important issue in society and it is became critical to business success in the long term. Business ethics deals with good vs. bad or right vs. wrong behaviour and practices occurring in business context. In order to regulate these issues, the majority of U.S. companies introduced ethics codes during the mid-1980s to mid-1990s, first in the USA, Europe and then through local subsidiaries overseas. Today, more than 50% of the 200 biggest companies in the world have one of the forms of ethics code. According to the Institute of Business Ethics in UK, most firms (85 of the FTSE100) have codes of ethics. However, nowadays it is considered that ethics code is not the only factor impacting ethical organisation i.e. it does not necessarily mean that all companies that have ethics code are ethical in their business operations. Also, it is established that merely having an ethics code is not enough to ensure ethical behaviour, e.g. Enron had ethical code in place, but the company lacked organisational culture. This coincides with numerous studies proving the fact that existence of ethical code is not enough and that a company should establish ethical operations comprising ethical leadership and ethical organisational culture. Leadership is the key source of ethical guidelines within an organisation and it impacts many positive results as well as implementation of ethical organisational culture. Therefore, in a life of an organisation it is especially important to develop both - ethical leadership and organisational culture – which together protect from unethical behaviour whilst promoting ethical behaviour.*

**Keywords:** *Business ethics, Ethics, Ethical Leadership, Ethical organisational culture, Organisational culture*

### 1. INTRODUCTION

After numerous scandals (Enron, Tyco, WorldCom in the USA, Parmalat in Italy, Royal Ahold in the Netherlands and etc.) we have witnessed throughout our not so distant history, organisational ethics are considered to be one of the most important ingredients that affect not only organisational effectiveness but also survival (Bartels et al., 1998; Buller and McEvoy, 1999; Hunt et al., 1989, referenced by Choi et al., 2013, p. 1250).

The roots of today's ethical principles can be found in holy books and documents of all the world religions that include concern for morality in business and for humanistic values rather than materialistic ones. Also, even in the 13<sup>th</sup> century in Europe, there were ordinances (The Vinodol Codex - "The good old customs", medieval legal acts from 1288) which regulated business activities of feudalists, and referred to ethics as an important component of ordered society. Ferrell states that until 1960, ethical issues related to business were often discusses within the domain of theology or philosophy. In 1970s, business ethics began to develop as a field of study, business professors began to teach and write about corporate social responsibility and philosophers applied ethical theory to business ethics. Companies become more concerned with their public images and they realized that they had to address ethical issues more directly (Ferrell et al., 2013, pp. 12-13). In 1980s, business ethics were

institutionalized. Organisation (The Caux Round Table, 1986; The European Business Ethics Network, 1987 and etc.) grew to include thousands of members and centres for ethics provided publications, courses, conferences, and seminars. Business ethics was also a prominent concern within such leading companies as General Electric, General Motors, Caterpillar and S. C. Johnson & Son, Inc. that established ethics and social policy committees to address ethical issues (Ferrell et al., 2013, p. 13). According to the survey conducted by Weaver, Trevino and Cochran (1999) the majority of U.S. companies adopted their code in the mid-1980s to mid-1990s (Weaver, Trevino and Cochran, 1999, p. 286). They found that 98 percent of these large firms reported addressing ethics and conduct issues in formal documents. Of those 98 percent, 78 percent had codes of ethics (Trevino and Nelson, 2011, p. 169). Today almost all globally present companies have a code of ethics. According to the data of the Institute of Business Ethics in UK, 85 out of 100 companies listed on the London Stock Exchange (FTSE 100) have some form of code of ethics (Ugoji et al., 2006). According to those data, code of ethics is not the only prerequisite affecting ethical organisational culture nowadays i.e. it does not mean that companies which have a code are also ethical in their business activities. Verschoor (2002) also claims that established code of ethics is not enough by itself to ensure ethical behaviour. He states that Enron, for example, had a code of ethics, however, the company lacked ethical organisational culture (Peppas S. C., 2003, p. 79).

## **2. DEVELOPING ETHICAL ORGANISATION**

It is difficult to define business ethics and ethical organisation without defining the terms like ethics and morals beforehand. Johnson (2012) defines that ethics involves judgments about the rightness or wrongness of human behaviour. According to Klaic ethics comes from the Greek term *ethos*, meaning “custom”, “habit”, “values” or “character”. Moral is derived from the Latin *mos* or *moris*, meaning “conduct” or “usage”. From this perspective, ethics has the task not only to introduce us to what is moral, what are its basic components, but also to take a critical perspective on existing moral practice. The task of ethics is not simply to point out all the different perspectives of people, but also to assess the value and point to the real and true value. Morality is a set of rules of a particular society and the social class of the content and manner of mutual relations of people and human communities. It is accuracy, honesty, integrity, virtue, and virtue ethics in general (Klaic, 1978, p. 395-396). Organizational ethics applies moral standards and principles to the organizational context (Johnson, 2012, pp. 11-12). Ethical behaviour in business is “behaviour that is consistent with the principles, norms, and standards of business practice that have been agreed upon by society (Trevino and Nelson, 2011, p. 19). Organizational ethics means identifying the unique characteristics of organizations and determining what sets ethical choices and actions apart from other forms of decision making and behaviour (Johnson, 2012, p. 10). According to Nordström and Ridderstråle, ethics should permeate everyone and everything in an organisation. It needs to be applied everywhere and constantly. You cannot be a bit ethical or ethical only when it suits you. Ethics is absolute. At times of appeal and abundance, ethics serves as a strong competitiveness tool. It can ensure means of differentiation – hardly entirely utilised by the competition. Ethics can be used in order to attract new buyers and employees (Nordström and Ridderstråle, 2002, p. 282). Following Crane and Matten (2007), Bageac, Furrer and Reynaud (2011) define business ethics as scientific studying of business situations, activities and decisions dealing with issues of right and wrong. This definition is, to a relative extent, similar to the definition suggested by Carroll and Buchholtz (2008) which states that business ethics deals with good and bad or right and wrong behaviour and practices occurring in business context (Bageac et al., 2011, p. 392).

### **3. VALUES, IMPLEMENTATION, GOVERNANCE**

Ethics in the workplace can be managed through implementing an ethics code of conduct, obtaining top management commitment and support, the appointment of an ethics officer, ethics training, reward systems, a system to report unethical behaviour and the auditing of ethical performance (Emiliani, 2000, p. 2; Goosen & Van Vuuren, 2005, p. 61; McNamara, 1999, p. 4; Rossouw, 2002, p. 405; Spangenberg & Theron, 2005, p. 1; Van Vuuren, 2002, p. 22; referenced by Lloyd and Mey, 2010, p. 2). Numerous authors have created constructs and models that differ in their criteria, but all have an aim to establish an ethical organization.

Trevino, Butterfield and McCabe (1998) were the first to develop and test a construct of the ethical culture of organization. The construct used fourteen items: six items for the sanctions for ethical and unethical conduct, three items for role modelling of top management, three items for the implementation of an ethics code, and one item for whether ethical behaviour is the norm in the organisation (Kaptein, 2007, p. 3). Trevino and Nelson argue that ethical culture is created and maintained through a complex interplay of formal and informal organisational systems. Formally, executive leader communications, selection systems, orientation and training programs, rules, policies and codes, performance management systems, organisational structures, and formal decision-making process all contributes to creating and maintaining ethical culture. Informally, heroes and role models, norms of daily behaviour, rituals, myths, stories and language indicate whether the formal ethics-related systems represent reality or façade (Trevino and Nelson, 2011, pp. 153-154).

Kaptein (1998, 1999) developed the Corporate Ethical Virtues Model (abbreviated as CEV Model) that comprises multiple normative dimensions for the ethical culture of organisations. The CEV Model comprises seven virtues (the organisational virtue of clarity, the organisational virtue of congruency, the organisational virtue of feasibility, the organisational virtue of supportability, the organisational virtue of transparency, the organisational virtue of discussability, the organisational virtue of sanctionability) which should be embedded in the culture of organisations and which represents the ethical quality of the organisational culture (Kaptein, 2007, pp. 4-10).

Lloyd and Mey developed an Ethics Interventions Model that distinguishes between critical interventions (top management commitment, code of ethics, ethics training, reward structures) and optional interventions (ethics audit, whistle-blower protection, hotline, ethics committee) (Lloyd and Mey, 2010, pp. 3-5).

Berrone, Surroca and Tribo identify two different dimensions that define the Corporate Ethical Identity CEI). The first dimension refers to Corporate Revealed Ethics (CRE), and deals with the communication of the ethical identity of the firm, typically, through the corporate statement. The second component refers to Corporate Applied Ethics (CAE). This concept deals with all the actions and policies that can be considered as ethical and exceeded the simple communication of ethical values, like training programs or profit sharing scheme to employees, ethical actions refer to processes, activities, and events conducted on ethical basis and go beyond firm's daily functions (Berrone, et al., 2005, pp. 6-7).

Verbos et al. developed the living code that results from the harmonious interaction of authentic leadership, five key organisational processes (attraction-selection-attrition, socialization, reward systems, decision-making and organisational learning), and an ethical

organisational culture (characterized by heightened levels of ethical awareness and a positive climate regarding ethics) (Verbos et al., 2007, p. 17).

Organisations differ precisely depending on the values prevalent in an organisation and the kind of ethical environment created inside it and towards others. When employees are faced with an ethical dilemma, i.e. an issue how to act in a certain situation, they will behave according to the system of values dominant in an organisation (Aleksic, 2007, p. 422). To develop a model that will assist in establishing an ethical organisation with determined criteria of business ethics (emphasizing values and mission of business; code of ethics and ordinances of ethical behaviour; determining ethics officer; programmes of ethical education and trainings; a check of candidate's ethics prior to employment; hot-line, motivation and policies ethical behaviour and reactions to unethical behaviour; standards of informal behaviour and communication within an organisation; leader as an example of ethical behaviour for employees) it is necessary to explore and discuss **values, implementation and governance** of such an organisation.

### **Values**

Values are relevant to individuals, to organizations, and to societies. For individuals, values can be defined as "one's core belief about what is important, what is valued, and how one should behave across a wide variety of situation (Trevino and Nelson, 2011, p. 29). Krizmanic states that values are a collection of general beliefs, opinions and viewpoints on what is right, good and desirable, that are shaped throughout the process of socialisation. There are individual values that can differ from person to person to a certain extent; however, there are general values common for all people in a community. Such general values, for example, comprise justice, freedom and equality under law. Values cannot be directly perceived, instead, we make our conclusions about them based on the goals that an individual is trying to achieve or deems important in his or her life (Krizmanic, 2009, p. 13). In the same way individuals have their own values, companies also exhibit their values to all their stakeholders through values and mission statement, code of ethics and ordinance on ethical behaviour.

### **Emphasising company's values and mission statements**

Trevino and Nelson define values and mission statements and credos as general statements of guiding beliefs. According to their assertions it is important that values and mission statement be closely aligned with other dimensions of the culture (Trevino and Nelson, 2011, p. 168). They compare values with the glue that holds the ethics and social responsibility enterprise together (Trevino and Nelson, 2011, P. 322). Collins (1996) states that core values serve as enduring, guiding principles. Most organisations have between three to five such values, which are central to their collective identities (Johnson, 2012, p. 306). Whilst a value statement answers the question "how we do it" and represents a codification of essential corporate behaviour through "Ten Commandments" for an organisation, a mission statement is a short description of the organisation's reason for existence and answers the question "what we do." (Trevino and Nelson, 2011, p. 224). The importance of emphasising company's values is confirmed by Nordström and Ridderstråle, authors of the book *Funky Business* who state that „nowadays values determine loyalty “ (Nordström and Ridderstråle, 2002, p. 244).

### **Codes of ethics and ordinances of ethical behaviour**

Ferrell defines codes of conduct as formal statements that describe what an organisation expects of its employees. A code of conduct in a written document that may contain some inspirational statements but mainly specifies acceptable and unacceptable types of behaviour.

A code of ethics is the most comprehensive and consists of general statements, sometimes altruistic or inspirational, that serve as principles and as the basis for rules of conduct (Ferrell et al, 2013, p. 223). Codes of conduct, ethical codes, or guidelines for behaviour appear to be a clearly visible sign that an organisation is aware of the need for ethical behaviour and requires a commitment to such behaviour from workforce (Dwyer and Madden, 2006, p. 218). Wood (2002) states that codes of ethics not only encourage staff to examine the ethical precepts upon which the business for which they work is predicated, but they are also a signal to the general public that a code exists within a company (Whyatt et al., 2012, p. 332).

### **Implementation**

In order to have a certain mechanism and ethical principles, ethical maxims that will streamline ethical behaviour within an organisation towards good, it is necessary to develop a system and standards of ethical activities in an organisation (Aleksic, 2007, p. 425). The implementation consists of criteria (determining ethics officer, programmes of ethical education and training, hot line, policy of awarding ethical behaviour and reacting to unethical behaviour, standards of informal behaviour and communication within an organisation) that allow the organization to establish an ethical organizational culture.

### **Determining ethics officer**

Lloyd and Mey (2010) point out that the ethics officer plays a pivotal role in driving the ethical environment within the organisation. According to DiPiazza (2001, p. 717) the ethics officer needs to identify the ethical issues and mobilise resources and persons around these issues (Lloyd and Mey, 2010, p. 2). Di Piazza (2001, p. 717) believes that the position of an ethics officer should be independent of management and of the business operations and should not be seen as a member of the management team, but as an individual who is positioned across the organisation and who reports to the board of Directors (Lloyd and Mey, 2010, p. 2). Hoffman and Rowe (2007) state that ethics officer charged with making sure that their organisations comply with the law and engage in ethical conduct. They “provide strategic and operational leadership to the ethics and compliance program (Johnson, 2012, p. 314). What is relevant is that ethics officers are persons that respect legal and ethical standards and are responsible for managing their organisations’ ethics and legal compliance program (Ferrell et al., 2013, p. 224) and they should have direct reporting relationship to the CEO (Trevino and Nelson, 2011, p. 214).

### **Programmes of ethical education and training**

Lloyd and Mey (2010) state that organisations attempting to implement ethics must adopt some form of ethical learning and training (Costa, 1998, p. 93). McDonald and Pak (1996, p. 974) are convinced that the promotion of business ethics cannot be successful without the implementation of ethics training (Lloyd and Mey, 2010, p. 2). Johnson stresses out that ethical training should be part of the socialization process. Ongoing training can play an important role in creating and maintaining ethical environment. Training sessions can increase moral sensitivity and moral judgment, make it easier to use moral values, and integrate ethical considerations into the fabric of organisational life (Johnson, 2012, p. 328). Apart from employees, higher level management should also participate in ethical trainings in order for ethical initiative to begin at the top of the organisation and descend downwards in an organisation, level by level, using cascading technique (Trevino and Nelson, 2011, p. 232).

### **Check of candidate's ethics prior to employment**

Selection systems are the formal system that are in place for recruiting and hiring new employees. Selection systems are vital to hiring people who fit the culture of the firm (Trevino and Nelson, 2011, p. 166). Organization tends to perpetuate current cultural components by hiring people who fit into the current system (Johnson, 2012, p. 326). It attempts to hire and recruit those employees that share their beliefs and values with those of the company they wish to work for. People may have choices that are based on their own values (Covey, 2009, p. 51).

### **Hot line**

Johnson states that ethics hotline (telephone, Web based, or e-mail) are the most common reporting tool. Employees use the hotline to ask for advice and to report ethical problem. Members should also be able to contact ethics staff in person for advice and to report problems. To be effective, a reporting system must have the support of top management, protect whistleblowers, and promptly follow up on allegations of wrongdoing (Johnson, 2012, p. 314). If organisations are expecting ethical behaviour from their staff, then the act of whistle-blowing (someone who reports wrongdoing by the organisation) should be considered, or even encouraged, by the organisation (Grace and Cogen, 1998; Grant, 2002; McLain and Keenan, 1999; Miceli et al., 1991; referenced by Whyatt et al., 2012, p. 338). As reported by various authors the most common whistle-blowing mechanism is a hotline (Carroll and Buchholtz, 2003, p. 233; Malan and Smit, 2001, p. 157; Rossouw, 2002, p. 143; Trevino and Nelson, 1999, p. 71; Wixley and Everingham, 2002, p. 83; referenced by Lloyd and Mey, 2010, p. 5).

### **Policy of awarding ethical behaviour and reacting to unethical behaviour**

An organisation's reward system is a critical component of the ethical organisation and it contributes to the alignment or misalignment of systems (Trevino and Nelson, 1995, p. 207; referenced by Lloyd and Mey, 2010, p. 3). An ethics-focused reward system is a formal reward system that will promote measure and reward the ethical behaviour of employees (Lindsay et al., 1996, p. 394; referenced by Lloyd and Mey, 2010, p. 3). Trevino and Nelson (1995, p. 207; referenced by Lloyd and Mey, 2010, p. 3) believe that in order to comprehend the ethical conduct of individuals in the organisation, it is important to investigate the behaviours that are rewarded and punished. It is also important that management ensures that the concern with the financial bottom line does not conflict with the ethical goals of the organisation (Lloyd and Mey, 2010, p. 3). Organisational member determine what actions are measured and rewarded and Trevino (1990) mention the possibility to appear a sociological term *anomie* to refer to a sense of normlessness and unease that results when rules lose their force if actions are not measured and rewarded properly (Johnson, 2012, p. 313).

### **Standards of informal behaviour and communication within an organisation**

Standards of informal behaviour and communication within an organisation comprise informal language, rituals, storytelling and norms of behaviour within an organisation. Trevino and Nelson state that heroes and role models; norms of daily behaviour; rituals, myths, and stories; and language indicate whether the formal ethics-related systems represent reality or facade (Trevino and Nelson, 2011, p. 154). Informal language is the type of talk in daily organisational conversations (Johnson, 2012, p. 316). Cultures develop and use language to communicate values to employees. In strong ethical cultures, ethics becomes a natural part of a daily conversation in the organization. Employees feel comfortable talking ethics with each other and with their managers (Trevino and Nelson, 2011, p. 185). People tell

stories to give meaning to their world and life (Mitroff and Kilmann, 1976; referenced by Trevino and Nelson, 2011, p. 183). A tale qualifies as an organisational story when (1) many people know it, not just a few individuals, (2) the narrative focuses on one sequence of events rather than an extended history of a person or organisation, (3) central characters are organisation members, and (4) the story is supposedly true (Johnson, 2012, p. 320). Organisational myth and stories explain and give meaning to the organisational culture (Trevino and Nelson, 2011, p. 183). The story's characters are employees. Perhaps company heroes, and the moral of the story expresses the organisational values (Martin and Siehl, 1983; referenced by Trevino and Nelson, 2011, p. 183). Norms are standards of daily behaviour that are accepted as appropriate by members of a group. They exert a powerful influence on individual behaviour in organisation, and they can serve to support an ethical or unethical culture (Trevino and Nelson, 2011, p. 182). Rituals are an important part of an ethical culture. They tell people symbolically what the organisation wants them to do and how it expects them to do it (Deal and Kennedy, 1982, referenced by Trevino and Nelson, 2011, p. 182). Rituals are way of affirming and communicating culture in a very tangible way (Beyer and Trice, 1987; referenced by Trevino and Nelson, 2011, p. 182).

### **Governance**

Governance refers to the system by which organizations are directed and controlled. It is a mechanism for guidance and monitoring the actions, policies and decisions. Leadership should be a key source of ethical guidance for an organisation (Kanungo and Mendonca, 1996; Ciulla, 1998, Mendonca 2001; Brown et al., 2005; referenced by Huhtala et al., 2011, p. 250). Trevino and Nelson (1995, p. 202) and Schein (1995) believe that leadership is critical in creating, establishing and maintaining an ethical organisation (Lloyd and Mey, 2010, p. 2). Therefore ethical behaviour to establish an ethical environment will begin with leaders within the organisation as integrity, or the lack of it, flows from the top down (Emiliani, 2000, p. 261; referenced by Lloyd and Mey, 2010, p. 2). Leadership behaviour can have effect on the organisational culture and organisation's member's behaviour. Ethical leadership has been, accordingly, found to be positively associated with employees' ethical decision making, prosocial behaviour, satisfaction, motivation and commitment to the organisation, and negatively associated with harmful behaviour (Podsakoff et al, 1990; Vitell and Davis, 1990; Brown and Trevino, 2006; referenced by Huhtala et al., 2011, p. 252). Ethical leadership also predict employee trust and satisfaction with the leader (Brown et al., 2005; McMurray et al., 2010; Sendjaya and Pekerti, 2010) and increases employee commitment (Trevino et al., 1998) and their willingness to report problems to management (Brown et al., 2005, referenced by Huhtala et al., 2011, p. 252). Covey stated that leadership means telling people about their true values and potential in a way they start to find those values inside of them, "encourage others to find their voice". The biggest challenges in organisations are to organise and lead them in a way that everyone recognizes their innate values and potential and contributes with their talents and passion. In other words, everyone needs to contribute with their own voice in order to achieve objectives and priorities of an organisation in line with the principles (Covey, 2009, p. 96-97). Furthermore Covey argue that leadership happens only after people feel that the person – led by conscience – is a role model for finding the way, harmony and empowerment. People then have the opportunity to discover just how appreciated they are and what their worth is, they are asked for their opinion, their contribution is respected, their experience is respected, they become a true part of the process of finding a way, they are participants, they have not only heard of the mission statement and strategic plan and at the end they have helped in their development and they possess them. If the mission statement was adopted earlier, they recognize themselves in it because they have made conscious choice



before they started participating or because they admire the exemplar leader (Covey, 2009, p. 121). Ethical leadership is the demonstration of normatively appropriate conduct through personal actions and interpersonal relationship, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making (Brown et al., 2005, referenced by Xu et al., 2011, pp. 361-362). Communication is a logical starting point for any consideration of ethical relationship because organizational partnerships are created through verbal and nonverbal messages. If we want to establish and maintain healthy relationship, we must adopt moral stance toward our communication with others and master communication skills that foster ethical interactions and decisions (Johnson, 2012, p. 117). This coincides with Trevino and Nelson's definition of ethical leaders in which they argue that ethical leaders do right thing, showing concern for people and treat them with dignity and respect, they are open and listen, and live a personally moral life (Trevino and Nelson, 2011, p. 159). Also Nordström and Ridderstråle stated that "true leaders do not practice leadership – they live it" (Nordström and Ridderstråle, 2002, p. 257).

### **Role modelling**

Role modelling is an important part of ethical leadership. Johnson argues that acting as a role model is more than setting an example; it also means developing others. Become a coach and teacher to others, particularly to those who report directly to you (Johnson, 2012, p. 325). Furthermore, Trevino and Nelson state that the founder of a new organisation has a vision for what the new organisation should be. He or she often personifies the culture's values, providing a role model for others to observe and follow, and guides decision making at all organisational levels (Trevino and Nelson, 2011, p. 156). Nordström and Ridderstråle argue that a company functions similar to a fish. It spoils from the head towards the tail, therefore, they think if the top of the organisation does not provide good role models, why would the rest of the company behave like decent citizens (Nordström and Ridderstråle, 2002, p. 282).

## **4. CONSLUSION**

Business ethics represents moral expectations towards all actors of the economic system, whilst the focus of organisational ethics lies primarily on management and decision makers in the organisations (Homann and Blome-Drees, 1992, referenced by Rahimic and Podrug, 2013, p. 560). External organisational ethics deals with the issues of social responsibility of the company, but as internal organisational ethics depends on solid principles of ethical values and an organisational culture that supports doing the right thing. Those ethical principles need to become a part of every organisation primarily through ethical standards of the organisation itself manifesting by emphasising values and mission of the business; code of ethics and ordinances on ethical behaviour; determining ethics officer; programme of ethical education and training; check of candidate's ethics prior to employment; hot-line, motivation and policy of awarding ethical behaviour and reacting to unethical behaviour; standards of informal behaviour and communication within organisation; leader as an example of ethical behaviour for the employees become integral part of the ethical organisational culture, and together with established ethical leadership make developed ethical organisation. In a developed ethical organisation, it is important that ethical standards are incorporated through values, implementation and governance as a strategy of implementation and livening of business ethics which must be aligned, in balance i.e. equilibrium. In the system, harmony is achieved when all three components are mutually equal in their actions. On the other hand, balance does not imply standstill, on the contrary, it implies live activities even more so when a certain state of balance is more ethical, more stable and more developed which means more adaptable to contemporary business conditions.

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## KNOWLEDGE MANAGEMENT IN A MODERN HIGHER EDUCATIONAL INSTITUTION

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### **ABSTRACT**

*The need in new technologies, new methods of creation, transfer and usage of knowledge makes a problem of knowledge management crucial for a modern higher educational institution. The paper aims to discuss possibilities of using the concept of knowledge management in Universities, as their competitiveness depends on employment of innovative technologies of creation, transfer and usage of knowledge. In this connection, the basic elements of the process of knowledge management and strategy are considered, as well as conditions for the successful realisation of this concept are indicated. The global aim of knowledge management in a higher educational institution is to enhance competitiveness of educational services provided by the higher educational institution. Under market conditions, competitiveness of a higher educational institution depend on its readiness to adopt to a continuous innovation process, based on usage of the existing and generating new knowledge. Intensity of competition under such conditions makes higher educational institutions to use actively such means of competitive struggle, as lower prices; higher level of the provided educational services, wider range of provided disciplines, which are in demand on the market. Regardless of competitive struggle, each higher educational institution should elaborate a successful strategy, aimed at supporting its superiority over competitors and strengthening its market position. It is important to remember, that competition between higher educational institutions is a dynamic and changing process. But it is possible to monitor the situation on the market of educational services, to think the competitors' steps ahead, in order to win the competition. Another important constituent of the knowledge management process is creation and introduction of innovations and innovative forms of teaching. It is important and it requires creation of the relevant innovation environment at a higher educational institution. Higher educational institutions, as research institutions, should elaborate innovative research and methodological projects and implement their in their work, thus taking more successful position on the market of educational services. Efficiency of knowledge management in a higher educational institution depends on successful integration of qualifications, knowledge, experience, skills, and research potential of the teaching staff (faculty). It requires the relevant technologies and support provided by specialised and innovation units of the higher educational institution, thus ensuring structuring and systematisation of knowledge and its collective usage. Higher educational institutions, possessing such concept as knowledge management, have competitive advantages on the market of educational services.*

**Keywords:** *Knowledge Management, Knowledge Management Process, Knowledge Management Strategies, Knowledge Management System, Learning Organisation*

## **1. INTRODUCTION**

The main economic pre-condition for arising need in “knowledge management” was conversion of knowledge into a valuable resource, as well as desire of organisation to use it for strengthening its competitive advantages.

The modern stage of the society development is characterised by huge volumes of the knowledge accumulated. There is a controversial situation: on one side, an individual is unable to comprehend the whole mass of the existing knowledge, but on the other side, mankind is constantly adding new knowledge. These factors determine acute need to form special methods (methodology), which will make it possible to search for and to use new knowledge with lower heuristic costs and with simultaneous increase of probability to achieve the objective set. There is a need in managing creative potential of creators of new knowledge.

One of the reasons of high interest in knowledge management is also development of communication and information technologies. These technologies make it possible to exchange huge bodies of information, irrespective of geographic location of the process partners and irrespective of real time. The information flow is so large, that many people begin to doubt about necessity in creating new knowledge, because they do not cope with the management of the knowledge accumulated. That is why there is need in new technologies, new methods of creation, transfer and usage of knowledge. All these factors together predetermine not only relevance, but also the vital necessity in knowledge management.

## **2. SYSTEM OF KNOWLEDGE MANAGEMENT**

Knowledge and Knowledge Management aimed at creating competitive advantage become the main priority for any organisation under the modern economy.

Knowledge Management is a methodology directed to increase the level of competitiveness and protection of the organisation by means of using the completed set of instruments of protection, management and economics of intangible assets of the company.

Knowledge Management as a function of management and as a type of managerial activity means a practice of giving additional value to the existing information (be means of identification, selection, synthesis, generalisation, storage and dissemination of knowledge); giving consumer character to knowledge, in order knowledge representing important and accessible information for users; creation of an interactive educative environment, where people are continually exchanging information using the framework for digesting of new knowledge.

Knowledge Management implies two constituents: organisational and technological ones. The organisational part represents a policy of the organisation with respect to knowledge management, i. e. various managerial tools and procedures, developed to preserve, to structure and to analyse information, with the aim to use it more efficiently at the present time and in the future. Thus, for example, it is a question of motivation of employees to participate in knowledge sharing, their official functions connected with, etc. Technologies help to implement these managerial procedures.

Successful implementation of the above mentioned constituents, making efficient managerial decisions requires creation of a knowledge management system. Information and intellectual

assets of the organisation are kept in data bases, knowledge bases, documents depositories, e-mail messages, reports and, of course, by the staff. It is necessary to organise a quick access to these data and knowledge, by means of giving them handy form for usage and analysis. This is the main task for a knowledge management system.

A knowledge management system of the organisation creates a unified information space, organises joint work of employees aimed at knowledge acquisition, presentation and sharing, gives an access to the unified data base of knowledge, and creates conditions for efficient usage of knowledge by the staff in the common interests.

The interaction of all managerial systems of the organisation is the most efficient, when they all are consolidated by a knowledge management system, which ensures well-timed information delivery, as well as tools for information handling, analysis, and decision-making based on usage of systems of Business Intelligence.

Besides inner links, integration of corporate application is ensured also by usage of Internet technologies. For the time being, there is no a software product entitled «Knowledge Management System». The existing software products are subsidiary, but very efficient tools. Knowledge Management Systems, more likely, a strategy directed to creation conditions, necessary for efficient work of the employees, using knowledge presented in due time.

### **3. KNOWLEDGE MANAGEMENT STRATEGY**

Introduction of a knowledge management system implies complete change of the structure and philosophy of the business, as well as a role of an employee in a company. That is why it is important to choose a proper approach to the introduction, to form proper knowledge culture in the organisation. But its basic principles, nevertheless, are formed via strategic objectives, company's priorities, and via a knowledge management strategy.

The most popular and widely used knowledge management strategies are the following:

1. Strategy of knowledge as a business strategy foresees formation and usage of "best" knowledge in any job. Knowledge becomes the centre of the whole activities of a company, knowledge creates consumer value, and in some cases, knowledge is a final product. As a rule, this strategy is used by consulting companies.
2. Strategy of intellectual capital management supposes, that all general organisational knowledge and a system of their management are directed exclusively towards creation, support and development of intellectual assets: patents, technologies, know-how, etc.
3. Strategy of knowledge formation foresees deepening of the gained and generated principally new knowledge (research activities, introduction of innovation decisions and their permanent improvement), which contribute to increasing competitiveness of a company. This strategy may be recommended for active introduction by higher educational institutions.
4. Strategy of knowledge sharing pays special attention to systematic knowledge sharing — acquisition, structuring, storage, usage of knowledge with the aim of clear and well-timed distribution of knowledge among definite employees or their groups. This strategy is suitable for companies, elaborating new products.

#### **4. KNOWLEDGE MANAGEMENT AT A UNIVERSITY**

There are many tactical approaches towards implementation of the abovementioned strategies. The most widely spread and effective approaches are introduction of information systems (Internet network, navigation, knowledge data bases, filters, etc.), personnel development, intellectual capital creation. These approaches can be implemented either separately, or simultaneously. The most efficient implementation of the mentioned approaches may be carried out in the framework of a learning organisation, for which processes of creation, accumulation, usage and accumulation, usage and sharing of knowledge become key principles. The majority of researchers state, that higher educational institutions are closer to a learning organisation, than other institutions, because their basic functions are production, distribution, transfer and usage of knowledge.

Integral elements of the managerial process for such organisations are availability of organisational vision and strategy for development; interest of the leaders in radical changes in the activities of a higher educational institution; organisational knowledge management by means of information and communication technologies, innovations in educational and research activities; development of corporate culture, which initiates and supports university development in general and a personality of a manager, teacher-researcher, student in particular; formation of leadership culture of university managers; usage of such special methods and technologies of improvement, as, for example, project management, action learning, coaching; changing of nature of key competences of the personnel.

University becomes a centre of research activities and transfer of the results. The essence of research activities is individual and collective interaction of researchers aimed at enrichment and development of culture by means of accurate, objective and systemic knowledge about the world, human being and his/her activities. Peculiarity of research activities of universities is participation of professor and teachers in research studies.

In general, management of research activities can be considered as transforming activity, consisting of processes of creation of necessary conditions for carrying out researches, organisation of their efficient implementation and transfer of the produced results to consumers (customers) for further usage.

The following organisational structures of research activities management are widely used at present: discipline management; project management; matrix organisation; venture management. The matrix structure of management is widely spread, including Russia. The key figure of the matrix system of management is a manager of a research project (a project manager). His main task is coordination and operating control of research activities of all researchers in the framework of the research strategy, elaborated by the project manager. As a consequence, the university becomes a centre of production, processing and accumulation of knowledge.

The global aim of knowledge management in a higher educational institution is to enhance competitiveness of educational services provided by the higher educational institution.

At present, knowledge is a very important resource of modern organisations. Efficiency of their work depends on management of processes of creation, sharing and usage of knowledge. Knowledge is a fundamental element of the mankind evolution. Creation and usage of new knowledge means progress, optimisation of some spheres of human activities. But only in our

days, when quantity of information is exploding, knowledge becomes a separate object of study.

In order to survive in constantly complicating competitive environment, higher educational institutions need, first of all, highly qualified specialists, who are able to think inventively and to use their knowledge for solving tasks, directed to increase their competitiveness. Under market conditions, competitiveness of a higher educational institution depend on its readiness to adopt to a continuous innovation process, based on usage of the existing and generating new knowledge.

Intensity of competition under such conditions makes higher educational institutions to use actively such means of competitive struggle, as lower prices; higher level of the provided educational services, wider range of provided disciplines, which are in demand on the market.

Regardless of competitive struggle, each higher educational institution should elaborate a successful strategy, aimed at supporting its superiority over competitors and strengthening its market position. It is important to remember, that competition between higher educational institutions is a dynamic and changing process. But it is possible to monitor the situation on the market of educational services, while using the following factors.

Firstly, competition is intensifying with increase of number of higher educational institutions. At present, more than two dozens of higher educational institutions are acting on the market of educational services of the Novosibirsk City. Such number of competitors increases probability of new creative strategic initiatives appearance. When higher educational institutions are competitive and nearly equal in their size, the conditions are nearly equal for all competitors, so it is difficult for one or two institutions to win a competitive struggle and to take the leading position on the market.

Secondly, competition is strong, when demand for services grows slowly. There is enough place for everyone on the growth market. In this case, a higher educational institution may spend all its financial and managerial resources only to meet the growing demand. But when the growth is slowing down, or number of entrants reduces, higher educational institutions cannot raise prices often or groundlessly, or use other methods of competitive struggle. The resulting struggle for a market share may push out from the market weaker and less efficient higher educational institutions.

Thirdly, the more priorities, strategies, resources of higher educational institutions, as well as personal qualities of their leaders differ, the less competition development is predictable. Differences between higher educational institutions, acting on the market, reveals, that some of them try to «unsettle» the market, using non-typical methods and approaches. Opportunity to study abroad is another factor, which intensifies the competition.

Besides, competition is strengthening, when market conditions force a higher educational institution to reduce its prices or to use other methods aimed at increasing sales volume; when one or several higher educational institutions are not satisfied with their market shares.

Practical result of the carried out analysis of the competitive environment on the market of educational services shows, that taking into account the above mentioned factors would contribute to creation of an additional competitive advantage.



But taking into account permanent mobility of environment, it is important to monitor continuously competitors, in order to understand their strategies, to evaluate their activities, and to predict their further steps. A higher educational institution can win a victory over its competitors only, if it can predict their future steps.

It is obvious now, what higher educational institutions are leaders on the market of educational services. However, it does not mean, that they would keep their position in the future. Some of them are losing their market positions now, some of them won't be able to continue competitive struggle in the future. It is vitally important for a higher educational institution to foresee possible steps of its competitors in the future, in order to preserve its market position.

Thus, competitive intelligence on the market of educational services and responsiveness to changes of its trends are the first constituent of the process of knowledge management at the higher educational institution.

Another important constituent of this process is creation and introduction of innovations and innovative forms of teaching. It is important and it requires creation of the relevant innovation environment at a higher educational institution. In order to support its competitiveness on the market of educational services, higher educational institutions need new ideas, new methods, and new content of education. They should use knowledge management to coordinate of joint activities of research and teaching personnel, to generate new pedagogical ideas. Higher educational institutions, as research institutions, should elaborate innovative research and methodological projects and implement their in their work, thus taking more successful position on the market of educational services.

Efficiency of knowledge usage assumes simple and quick usage of the gained experience in everyday practice, search for necessary knowledge in external sources, exposure, fixation and storage of knowledge with the aim of its further usage. Exposure of knowledge may be in the form of fixation of training and methodological knowledge as training programmes, knowledge data bases. On-going skills improving of professors and teachers, including training, instructions, knowledge transfer from colleagues, becomes an integrated part of a modern higher educational institution.

Achievement of the set goals contributes to high quality of the specialists graduated from the higher educational institution. Every higher educational institution has its own methods of knowledge accumulation, taking into account its assets and strategic goals. Every higher educational institution elaborates its own basic principles to be used in order to achieve the set goals.

Efficiency of knowledge management in a higher educational institution depends on successful integration of qualifications, knowledge, experience, skills, research potential of the teaching staff (faculty). It requires the relevant technologies and support provided by specialised and innovation units of the higher educational institution, thus ensuring structuring and systematisation of knowledge and its collective usage. That is why it is important for a higher educational institution to create such conditions, which allow participants of knowledge management to possess the whole range of information, to analyse and take into consideration the organisational culture, to know all fundamental principles. They should

have possibility to express their opinions, to be heard, especially, when their point of view differs from the customary concepts.

The knowledge, that meets the strategic goals of the higher educational institution, are changing in the course of time, becoming out-of-date. The knowledge has its natural life cycle, that is why some elements of the knowledge should be constantly up-dated.

Monitoring and analysis of the results of activities aimed at creation, usage and development of knowledge are important. All the staff of the higher educational institution should be motivated and stimulated to use and change knowledge as one of the main values of the higher educational institution. The staff should know, that knowledge and experience are rewarded, only if they are brought to the notice of others and if they are used in educational activities.

One of the most important elements of knowledge management in a higher educational institution is transformation of knowledge into action. In general, it is reflected in creation of new knowledge and using them for innovation training and elaboration of research projects. Information technologies play important role in this process, because they provide programming and technical basis for implementation of the strategic goals of a higher educational institution.

Knowledge management creates conditions, when education becomes a kind of investment, when professional experience becomes a kind of assets, when loyalty of the staff to a company becomes a strategy of the company.

## **5. CONSLUSION**

Every modern higher educational institution should know, how to use all gained knowledge and expertise under constantly changing conditions in order to have competitive advantages on the market of educational services. Efficient usage of knowledge is impossible without creation of a knowledge management system.

As it was stated, higher educational institutions function under conditions of constantly growing competition. This competition has a complicated and global character, so higher educational institutions have less time and limited resources to react to changing conditions. Knowledge of the staff of a higher educational institution and of a higher educational institution in general becomes a valuable resource, now taking into account along with other tangible resources.

It is evident, that higher educational institutions, possessing such concept as knowledge management, have competitive advantages on the market of educational services.

Consequently, knowledge management in a modern higher educational institution is possible, because educational environment of a higher educational institution itself creates conditions for on-going discover, reproduction, usage and dissemination (extension) of various types of knowledge. Besides, a modern higher educational institution has possibilities to promote integration between science and education with the help of different research and educational structures; at the same time, the corporate culture of a higher educational institution as a rule contains existing and newly-gained knowledge as a basic value.

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## **ANALYSIS OF CORPORATE ENTREPRENEURSHIP EFFECT IN A PHARMACEUTICAL FIRM**

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### **ABSTRACT**

*This paper examines the impact and importance of management support as an aspect of corporate entrepreneurship in pharmaceutical companies. A primary research was done among employees of a pharmaceutical company PharmaSwiss through a questionnaire distributed by e-mail or the Internet. Primary data was collected through a survey questionnaire. A questionnaire will be distributed via e-mail or the Internet, employees of the pharmaceutical company PharmaSwiss Ltd. which is a central enterprise of this work. This work provided a theoretical overview of corporate entrepreneurship, its basic features, aspects of introducing. Primary research was conducted in order to ascertain the level of implementation of management support as corporate entrepreneurship in the pharmaceutical company, examining the attitudes of employees and ultimately determine the impact of implementation of one aspect of corporate entrepreneurship and that is management support, on the business results and success of pharmaceutical companies.*

**Keywords:** corporate entrepreneurship, innovation, management support, pharmaceutical industry

### **1. INTRODUCTION**

This paper examines the impact and importance of management support as an aspect of corporate entrepreneurship in pharmaceutical companies. A primary research was done among employees of a pharmaceutical company PharmaSwiss through a questionnaire distributed by e-mail or the Internet. The pharmaceutical industry is a highly competitive industry characterized by innovation. It is based on high technology and extremely high investments in research and development, and in accordance with the investment and exceptionally high profits. Since the association of corporate entrepreneurship and innovation have already been determined by a number of authors, the question that raises is of influence of corporate entrepreneurship on the success of pharmaceutical companies. If innovation is potentially crucial to the company corporate entrepreneurship unquestionably an important item of their business. Taking into account all aspects of corporate entrepreneurship is possible to assume that the proper application of corporate entrepreneurship could be a very big competitive advantage and success factor of pharmaceutical companies. We will show the influence on one aspect of corporate entrepreneurship and that is that is the support of management. The implementation of primary research survey questionnaire distributed by e-mail or the Internet, explores the level of management support as an aspect of corporate entrepreneurship in the pharmaceutical company and how do employees experience corporate entrepreneurship in the company. Based on this, conclusions will be made on how

management support is a direct impact of corporate entrepreneurship on innovation and business processes of the pharmaceutical companies. Based on primary research show current experience of employees of pharmaceutical companies with activities related to corporate entrepreneurship. Draw conclusions about the impact of management support on corporate entrepreneurship in innovative pharmaceutical companies as one of the main factors of business success. Primary data was collected through a survey questionnaire. A questionnaire will be distributed via e-mail or the Internet, employees of the pharmaceutical company PharmaSwiss Ltd. which is a central enterprise of this work.

## **2. LITERATURE REVIEW**

Entrepreneurship is considered an individual level behavioral phenomenon where organization formation and innovation differentiate entrepreneurship from management of existing activities. It can be seen as a process of starting a new venture, acquiring or bringing together necessary resources while pursuing opportunities. It can also be seen as a process of innovating or creating new combinations of resources, conducting risk-taking and profit seeking activities with the purpose of creating value. In the center of entrepreneurial process is an entrepreneur, a person who creates value where there was none before and whose traits are innovativeness, proactiveness and affinity towards risk taking. Therefore it can be said that entrepreneurship represents abilities to recognize new opportunities in the external environment, evaluate and prioritize these opportunities and then transform them into viable business concepts (Kolakovic 2006). While exploring phenomenon of entrepreneurship a question arose regarding could it be possible that even large companies could act in the manner of small and medium sized companies. That large company could be innovative, proactive, creative, fast reactive and with the sense of future market needs and wants. The answer came in the form of corporate entrepreneurship. Corporate entrepreneurship, as well as entrepreneurship, can be defined in various ways. Some authors define corporate entrepreneurship as a process by which individuals inside companies pursue opportunities independent of the resources they currently control (Stevenson and Jarillo, 1990), as doing new things and departing from the customary to pursue opportunities (Vesper, 1990), as an entrepreneurial spirit within the existing organization (Hisrich and Peters, 1998), and as creation of new organizations by an organization (Sharma and Chrisman, 1999). Zahra (1991) has observed that corporate entrepreneurship consists of formal or informal activities aimed at creating new businesses in established companies through product and process innovation and market developments. An innovation can be a new product or service, an administrative system, or a new plan or program pertaining to organizational members. These activities can occur at any level inside the company with the goal to improve company's competitive position and financial performance. Therefore, corporate entrepreneurship centers on enhancing the company's ability to acquire innovative skills and capabilities. Characteristic dimensions of corporate entrepreneurship are new business venturing, product/service innovation, process innovation, self-renewal, risk taking, proactiveness and competitive aggressiveness. New business venturing refers to a formation of autonomous or semi-autonomous units or companies where these newly created entities can abide within or outside existing organization. Innovation of products, services and processes involve development and innovation of technology. It can be seen as product development, product improvements and new production methods and procedures. Self-renewal dimension reflects the transformation of organizations through renewal of the key ideas on which organizations are built and includes a redefinition of business concept, reorganization and introduction of system-wide changes for innovation. Risk taking refers to the possibility of loss related to quickness in taking bold actions and committing resources in the pursuit of new opportunities.

It also means that a company is not afraid to break away from routine, safe, well known core business and venture, into the unknown. Proactiveness represents company's posture of constant seeking for new opportunities by anticipating and acting on future wants and needs in the market, involving introduction of new products or services before competitors. Competitive aggressiveness reflects the intensity of a company's efforts to outperform industry rivals. It is characterized by aggressive and forceful responses to competitor's actions (Lumpkin and Dess, 2001). Corporate entrepreneurship is defined as entrepreneurship within an existing company, referring to the emergent of behavioral intentions and behaviors of an enterprise, which deviate from the customary way of doing business. Corporate entrepreneurship processes go on inside an existing company and refer not only to creation of new business ventures, but also to other innovative activities such as development of new products, services, technologies, administrative techniques, strategies and competitive postures. Crucial role in achieving previously mentioned activities of transforming an organization into entrepreneurially oriented organization have creative and proactive employees with the vision of future trends. These entrepreneurial employees are better known as intrapreneurs. The intrapreneurs are the company's hands-on champions who transform ideas into added value. They do not need to be the source of an idea, though often they are. An intrapreneur's primary purpose is to identify the potential value in an idea and passionately support the idea within the company to capture the value. The intrapreneur is a visionary who is internally motivated by challenge and a strong sense of what is needed by the company, not by promotions. The intrapreneur exhibits many of the same traits that define a good leader: vision, strong intrinsic motivation, willingness to take risks, ability to rally resources, and history of producing results. The intrapreneur undertakes great personal risks in the form of forgone time or salary while working on how to overcome obstacles in the organization. Personal risk is necessary for success, as it serves to increase the intrapreneur's conviction and drive. Obstacles in the organization also challenge the intrapreneur and augment his conviction and internal drive. The risk and obstacles instill a sense of rationality in the intrapreneur. Without personal risk and obstacles, the intrapreneur might pursue ideas with little chance of adding value to the company. A system of risk and obstacles serves to reinforce the concepts of conviction, drive and focused innovation (Pinchot, 1985).

### **3. CORPORATE ENTREPRENEURSHIP AND PERFORMANCE**

Corporate entrepreneurship can be defined as the effort of promoting innovation in an uncertain environment. Innovation is a process that provides added value and novelty to the enterprise, its suppliers and customers through the development of new procedures, solutions, products and services as well as new methods of commercialization. Within this process the principal roles of entrepreneurial employee, better known as intrapreneur, are to challenge bureaucracy, to assess new opportunities, to align and exploit resources and to move the innovation process forward. The intrapreneur's management of the innovation process will lead to greater benefits for the enterprise. Companies that institute corporate entrepreneurship as a process that infiltrates and spreads throughout the entire organization tend to achieve positive results over time in the sense of improved internal efficiencies, higher employee morale and major improvements in financial performance. It takes considerable time to create a truly entrepreneurial company. Senior managers usually become frustrated with the lack of performance and try to implement some new management trend that will immediately bring them success. This is definitively not the case with implementing entrepreneurial behavior within a company. Therefore, implementing a process of corporate entrepreneurship that penetrates in the company's culture, structure and systems will show significant results over longer time period.

There have been many studies that link corporate entrepreneurship to the company's growth and profitability. Empirical evidence that corporate entrepreneurship improves performance by increasing company's proactiveness and willingness to take risks by pioneering the development of new products, processes and services can be found in the literature. A longitudinal study by Zahra and Covin (1995) in which they examined the longitudinal impact of corporate entrepreneurship on a financial performance index, composed of both growth and profitability indicators, provides the best evidence of a strong relationship between corporate entrepreneurship and the performance. Antoncic and Hisrich (2004) study demonstrate that corporate entrepreneurship makes a difference on the company's performance, observed by growth, profitability and new wealth creation. Moreover, Zahra and Garvis (2000) in their research showed that even international entrepreneurial efforts can enhance the growth and profitability of a company's performance. Although, it sounds like an easily comprehensive relationship it is actually much more complex. Literature also mentions that some empirical research have not found any relation between companies entrepreneurial orientation and the company's performance (Smart and Contatnt, 1994). Therefore, Lumpkin and Dess (1996) state that previously mentioned relationship is much more complex because it depends on the external as well on the internal organizational characteristics. Therefore, in this paper the authors will try to show a positive link between corporate entrepreneurship and company's performance in the context of Croatian's large companies, measured in the terms of value added.

#### **4. IMPLEMENTATIONS OF CORPORATE ENTREPRENEURSHIP AND ITS ASPECTS**

The introduction of corporate entrepreneurship in the enterprise is a complex and time-consuming process that requires customization of all aspects of the business in order to become a guiding principle for all employees. The term organizational structure can be defined as the easiest way to organize that company employees and tasks structure changes over periods of evolution and revolution. The initial structure is described as very informal, often without formal title or any kind of organizational hierarchy. After that comes the formal structure characterized by a central control. Then comes a decentralized and geographically organized structure built around profit centers. After it, the company adopted a matrix structure, cross-functional team's approaches, the reorganization of the team's head office in the consulting team and the integration process. But through their change at the end there is a need for new structural solutions. Organizational culture is there to encourage the generation of ideas and innovation within the company's organizational culture and determine in that direction. Compound entrepreneurial leadership and organizational culture is an incentive to employees for entrepreneurial behavior and tendency to develop new ideas and projects. Entrepreneurial Leadership - Although entrepreneurial effort led by all individuals separately in the company, for the implementation of corporate entrepreneurship is needed and their collective involvement. Implementation of corporate entrepreneurship, as well as all other large and important processes in companies, starting from the company's management. Leadership must encourage the implementation and an example for employees to be guided by the entrepreneurial behavior. Management Support shows us how to conduct successful corporate entrepreneurship and facilitate the necessary involvement of management and implementation and support corporate entrepreneurship by management. It is useful to managers with expertise in the innovation process because it may be the best guidance and assistance to employees of the company. Their task, in addition to leadership and employee assistance, and encourage the development of ideas and innovation. Compensation System I set in order to be productive employees and giving their best at work, it is necessary to have

the proper motivation. Rewards may be internal and external. Internal represent positive feelings that arise from an individual such as pride, accomplishment, fun, enjoyment, and the like. External awards represent what an individual receives from companies such as money, recognition, promotion, etc. The availability of resources and time - Weight conducting entrepreneurial behavior should not be underestimated. Identification of potential opportunities, finding innovative solutions and successful implementation of projects require a certain amount of time and resources Freedom in Business gives to employees of the company can effectively exercise their creative and innovative ideas they need a certain level of freedom To employees could successfully develop their ideas, they should be supported by management. Management must besides evaluating ideas to help in their implementation by ensuring sufficient resources and time for the realization of the idea. It is the availability of resources and time is a very important item in this process. It is necessary to ensure employees exactly as many resources and as much time as they need, making sure that they are not thereby deprive, but not to overdo it . As in any business, and here the motivation plays a very important role. The chances that employees will provide funds and time alone will be sufficient motivation for entrepreneurial and innovative behavior. How would they be better motivated by the need to develop a system of incentives the reason why we talk about the system of remuneration, and no system of reward and punishment lies in the fact that the organization needs to create an atmosphere in which people are not afraid of failure. Specifically, it is necessary to tolerate possible errors and failure because they are an inevitable part of entrepreneurial behavior. Of course, it is necessary to do so that potential errors and failures are metered. Adequate rewards for employees will be motivated to work best and will, surely, try to eliminate failures in order to achieve the best possible result and were rewarded in accordance with this result. In fact, with trust in their employees, they should be given the freedom to determine the course of realization of their ideas in order to really be their project. However, it is unrealistic to expect that only one employee, despite the right resources, time and adequate reward, I was able to realize the idea from beginning to end. He will often need the help and cooperation of other employees who are not necessarily at the same level or in the same department. Therefore, in order to project could be realized in the best possible way employees must be enabled communication and collaboration, and disregard or move organizational boundaries.

## **5. DISCUSSION AND POSSIBLE IMPLICATIONS OF REASEARCH**

Conducted research attempted to determine the degree of implementation of management support as an aspect of corporate entrepreneurship in the company PharmaSwiss implementation and impact on the business success of the company. The answers given were successfully collected with an extremely high response rate, and it did not constitute a limitation. The major obstacle arose in the interpretation of results; very high percentage of respondents opted for the neutral answer, " I do not know / to " a large number of issues making it difficult to assess the situation on the basis of answers. Despite the limitation, the answers of the respondents indicated a certain degree of implementation aspects of corporate entrepreneurship, but also to a number of problems or areas of business which are not in line with corporate entrepreneurship. At the same time, it was noted that the problem areas is essential for entrepreneurial behavior, and it is possible to conclude that the possibility of innovative behavior among employees of the company is largely limited. The biggest problem is evident in the area of management support corporate entrepreneurship through the provision of sufficient time employees in order to develop their ideas. Visible is the opinion of staff that are under constant time pressure and constraints, and to arrive given to activities outside of daily, large and small, work tasks . This statement was confirmed by analyzing



several questions dealing with this issue. The following tables show the best results through the presentation of statistical analysis to answer questions about the support of management and questions about the availability of time. Valeant Pharmaceuticals International, Inc. The company that operates throughout the world , and it is interesting that his focus areas and divided depending on the area in which it operates

*Table 1: Statistical analysis of respondents' answers to questions about support management*

<b>Management Support</b>	<b>completely disagree</b>				<b>Strongly agree</b>
My company is quick to use improved work methods	5,3	10,5	36,8	39,5	7,9
My company is quick to use improved methods developed by employees	2,6	21,1	36,8	34,2	5,3
In my company are encouraged to develop ideas for improving the company	5,3	10,5	26,3	36,8	21,1
Senior management is aware and very receptive to my ideas and suggestions	5,3	7,9	15,8	50,0	21,1
Improvement usually comes from the development of new and innovative ideas	2,6	5,3	39,5	39,5	13,2
Management often praised and encouraged employees to develop their own innovative ideas	2,6	13,2	26,3	39,5	18,4
The executors of the project are authorized to make decisions themselves without elaborate explanations and approval procedure.	7,9	31,6	39,5	13,2	7,9
Top management encourages innovators to circumvent the rules and rigid procedures in order to keep a promising idea on the right track	28,9	31,6	21,1	15,8	2,6
Many top managers are known for their experience with the innovation process	5,3	7,9	52,6	26,3	7,9
Money is often available to begin the implementation of new ideas.	10,5	28,9	39,5	15,8	5,3
Individuals responsible for successful innovative projects for their ideas and efforts receive additional remuneration and compensation beyond the standard reward system.	13,2	15,8	44,7	18,4	7,9
In the company there are several options to help individuals to get financial support for their innovative projects and ideas	7,9	44,7	36,8	7,9	2,6
Here, employees are encouraged to take risks weigh to the realization of their ideas.	5,3	21,1	39,5	28,9	5,3
Individuals prone to risk are recognized for their willingness to grapple with new projects, whether they are successful or unsuccessful.	2,6	10,5	47,4	39,5	0
Risk appetite is considered a positive attribute in my work environment.	13,2	15,8	47,4	23,7	0
The company supports many small and experimental projects knowing that many will undoubtedly fail..	31,6	42,1	21,1	5,3	0
Employee with a good idea often allow free time in order to develop the idea	34,2	34,2	26,3	5,3	0
Many employees within companies tend to generate new ideas , regardless of whether it involves crossing the boundaries of departments or functions	15,8	28,9	47,4	7,9	0
In our company encourages communication among employees from different departments related to their ideas for launching and developing new projects.	7,9	10,5	39,5	28,9	13,2

*Table 2: Statistical analysis of respondents' answers to questions about the availability of time*

<b>Management Support</b>	<b>completely disagree</b>				<b>Strongly agree</b>
During the last three months, workloads prevented me to dedicate myself to developing new ideas..	5,3	21,1	39,5	31,6	2,6
Always seems like I have enough time I would have done.	13,2	36,8	26,3	21,1	2,6
I have plenty of time and workloads to fairly successfully performed	7,9	18,4	34,2	34,2	5,3
My job is structured so that I have very little time to think about a wide range of problems in the organization.	2,6	23,7	34,2	31,6	7,9
It seems to me that I was always under time pressure / restriction at work.	10,5	13,2	18,4	39,5	18,4
My colleagues and I always find enough time to give ourselves to a long-term problem solving	5,3	13,2	34,2	36,8	10,5

The second problem area relates to the existence of rigid procedures and methods that respondents must follow when performing tasks. Although employees consider themselves to be determined by methods that will solve daily tasks, also believe that certain steps must follow and that there are procedures related to the approval. This is a very big limitation of corporate entrepreneurship as limiting the creativity of employees, these processes seem Prolonged waiting for approvals and other activities, and this time , employees will be able to spend on developing their own ideas.

Very big indicator that points to this aspect as limiting the fact that the leaders of the companies even do not encourage innovators to bypass some procedures than them every employee must follow, and really consider the fact that some activities, particularly innovative, not in line with procedures that have been set and that they cannot be executed following the procedure . It is evident that the structure is too rigid to corporate entrepreneurship was successfully implemented and the necessary corrections in case of desire for raising the level of innovation in the company. This assertion is corroborated by statistical analysis of answers shown in the two tables that follow.

*Table 3: Statistical analysis of respondents' answers to questions about freedom in business*

<b>Business freedom</b>	<b>completely disagree</b>				<b>Strongly agree</b>
I feel like I 'm my own boss and you do not need to check all their decisions with another person	5,3	18,4	28,9	34,2	13,2
The consequences for mistakes on the job are rough criticism and punishment ..	26,3	65,8	5,3	0	2,6
The organization provides me with the opportunity to engage in work that takes advantage of my ability ..	5,3	7,9	26,3	42,1	18,4
I have the freedom to conduct their own judgment prosudbom.	2,6	2,6	15,8	60,5	18,4
The organization provides me with the opportunity to engage in work that takes advantage of my ability.	5,3	5,3	7,9	60,5	21,1
I have the freedom to make decisions about what I want to do the job	2,6	7,9	34,2	42,1	13,2
The way you perform your tasks is my responsibility.	2,6	0	7,9	28,9	60,5
have enough autonomy on the job and left / and I am / and myself to do my job	2,6	10,5	39,5	26,3	21,1

I have enough autonomy on the job and left / and I am / and myself to do my job	2,6	2,6	21,1	52,6	21,1
Rarely have to keep track of certain methods or steps to perform major daily tasks..	5,3	36,8	31,6	23,7	2,6

Despite a few problem areas, it is evident that many areas of the business extremely well organized. The answers given to communicating with superiors as well as feedback from superiors about their business, indicating a very good set system. Employees communicate with their superiors about their work and receive their help in case of obstacles at work. In addition, they are encouraged to develop ideas to improve the company's business, then success and growth of the company includes the involvement of all employees of the company.

Communication with the master leads to the reward system. Respondents believe that their work and success noticed by his superiors and for their good work and praised the company communicated to key people. It was noted the use of non-financial motivators such as increasing accountability, praise and the like. Also, it is evident that the penalties for failure or errors there as one of the main features of corporate entrepreneurship. Rendered findings clearly corroborate answers of respondents, whose statistical analysis is shown in Table 4.5. that follows .

*Table 4: Statistical analysis of respondents' answers to questions about the system of remuneration*

<b>Compensation system</b>	<b>completely disagree</b>				<b>Strongly agree</b>
The superior helps me in carrying out the work solving obstacles	2,6	0	18,4	42,1	36,8
Received awards depend on the level of innovation at work	2,6	18,4	44,7	31,6	2,6
Supervisors will increase my responsibilities at work if I achieve good results	2,6	2,6	18,4	60,5	15,8
Supervisors will give me special recognition if very well do my	2,6	2,6	15,8	47,4	31,6
Supervisors will inform your boss if you achieve extraordinary results	2,6	2,6	10,5	50,0	34,2
My job is very challenging	5,3	7,9	7,9	47,4	31,6

Summing up all the results of research in the context of business enterprises can be concluded that corporate entrepreneurship is not implemented in this company. Although there is a behavior that is consistent with the basic aspects of corporate entrepreneurship concepts do not exist, and in this sense, entrepreneurial behavior is very limited . Looking at the business results of the company, it is evident that the company operates very well and every year its growth. Based on this it can be concluded that the implementation of corporate entrepreneurship is not the key to success and survival of the pharmaceutical companies. Restoring the start of the claim that aspects of corporate entrepreneurship in line with the dynamics of the pharmaceutical market, there is no question that the implementation of a positive impact on the business, but it is not possible to conclude that the key.

## 6. CONCLUSION

This work provided a theoretical overview of corporate entrepreneurship, its basic features, aspects of introducing. Primary research was conducted in order to ascertain the level of implementation of management support as corporate entrepreneurship in the pharmaceutical

company, examining the attitudes of employees and ultimately determine the impact of implementation of one aspect of corporate entrepreneurship and that is management support, on the business results and success of pharmaceutical companies.

Company PharmaSwiss Croatia which was conducted primary research is one of the most successful pharmaceutical companies with excellent operating results, and the company and the group in which it operates. Company, and the whole group, every year not only generate high profits, but also increase sales and profits. Primary research has shown that certain aspects of management support exist in the day to day operations of the company, but the company does not operate according to many, the key, aspects. On this basis, it was concluded that corporate entrepreneurship is not implemented in the respective enterprise. By watching the conclusion of the absence of implementation of corporate entrepreneurship in the company in the context of the business enterprise, it is evident that the implementation of corporate entrepreneurship is not critical to the successful operation of the pharmaceutical companies.

In order to be able to make conclusions about the impact of the implementation of corporate entrepreneurship in the business of pharmaceutical companies, not to survive, it is necessary to conduct a survey of business results of the company in which this concept has been successfully implemented. Only then could be carried out to compare the results of the business in terms of revenue growth and the like, as well as the level of innovation as the key characteristics of pharmaceutical companies. Although the company PharmaSwiss there is a certain level of innovation, based on just this study is not possible to conclude whether the implementation of corporate entrepreneurship influenced the level of innovation and thus on the business results of enterprises.

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## LEADER'S PERSONALITY AS FACTOR OF SUCCESS IN SMALL INNOVATIVE BUSINESS

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### ABSTRACT

*The problems of small innovative business development in regional economy are under discussion in this paper. Here small innovative business is analyzed from the point of view of the concept of Regional Innovation System. We analyze small innovative business of Novosibirsk region (Russia).*

*Small innovative business operates in the conditions of high risks and uncertainty that are attributes of any innovation activity. Then, finding key factors that will lead company to success becomes highly important.*

*In this paper factors that determine successful development of small innovative business are under study, with small innovation business activity being analyzed at different stages of its development (at the founding stage and at the stage of growth). It was obtained that according to representatives of small innovative business key factor of success lies in the sphere of human resources and management – and that is leader's role. Thus, the paper is focused on the role that company's leader plays in the development of small innovative business, on his contribution in bringing the company to success. The main attention of our analysis is paid to finding out reasons that make leader's personality one of the key factors of success in innovative business. The paper shows that significance of the leader's role is determined by the range of objective and subjective reasons. For example, it is influenced by the age of the company on the one hand and by the position of the manager on the other hand.*

*Though every business is unique, studying common patterns of development and considering other experiences can facilitate the thorny way to success for a small innovative company.*

**Keywords:** *Factors of Success, Innovation systems, Leader's personality, Small innovative business.*

### 1. INTRODUCTION

Every company strives to success when starting a new business. However this road is not easy and it's especially thorny for small innovative business taking into consideration high risks and uncertainty of innovation activity. Finding key factors that will lead company to success becomes highly important.

Success or failure is influenced by variety of factors from the technology used to decision making process, from market peculiarities to state of the economy (Feldman, 1996, Hii and Neely, 2000). Every combination of internal characteristic of the company and external environment creates for the company its own path of development and some of them become "success stories". Each "success story" is unique and yet common traits that have made stories successful can be found.

The main aim of the paper is to identify common patterns of successful development of small innovative business.

## **2. STUDY OF PECULIARITIES OF SMALL INNOVATIVE BUSINESS DEVELOPMENT IN NOVOSIBIRSK REGION**

This paper presents the results of one the parts of the research conducted in IEIE of SB RAS since 2009 (Kravchenko et al, 2011).

The data for the study was collected through the questionnaire of the small innovative companies in Novosibirsk region in 2009-2011. 88 managers of small innovative companies took part in the questionnaire.

In the questionnaire managers of small innovative companies were asked to rate factors that influence business development. We analyze the factors at different stages of the life cycle of business, the companies were asked to rate the factors at different stages of development: at the founding stage and at the stage of growth.

Let us give some characteristics of the sample of companies under study. 52% of the companies are young, they were founded less than ten years ago. Half of the respondents provide services and others produce goods. The companies operate mainly in B2B market. The novelty level is high: more than half of products are new for Russian and world market. Own ideas and results of own research and development (R&D) are the main source of innovative ideas. The majority of the companies (more than 80%) are financed mostly from the firm's resources.

The study of innovative business peculiarities is conducted in the view of 4 groups of factors (Feldman, 1996, Hii and Neely, 2000, Isom et al, 2009), they are: access to the market, competitive ability of the product, human resources and management, institutional environment.

Innovative business as any other business goes through various stages in its development, and at different stages different factors are of particular importance. Thus, in the framework of this analysis companies are studied at different stages of the life cycle of business, with the founding stage and the stage of growth emphasized.

In the paper factors that determine successful development of small innovative business are under study. Respondents were asked to rate with 6-point scale (5 stands for 'extremely important' and 0 stands for 'not at all important') what factors to their minds are key elements in success of the company. It was obtained that according to representatives of small innovative business key factor of success lies in the sphere of human resources and management – and that is leader's role. Average ratings of this factor at the founding stage and at the stage of growth are 4.30 and 4.06 correspondingly.

## **3. KEY ELEMENTS OF SUCCESS FOR SMALL INNOVATIVE BUSINESS DEVELOPMENT**

In the questionnaire managers of the companies were asked to rate factors that they think make small innovative business successful.

The development of innovation system contributes a lot to the success of small innovative business both at the founding stage and at the stage of growth. High demand at the domestic market is one of important success factors with average ratings being 3.53 and 3.52 correspondingly.

As for internal factors at the founding stage success comes from human resources and management and the product itself. Here the most important elements of success are leader's role (average rating is 4.31), personal connections (3.88), personnel qualification (3.76) and high technological level of the product (3.25). At the stage of growth the key factors are personnel qualification (4.14), leader's role (4.06), management efficiency (3.85), marketing (3.61) and high level of technology (3.51). Thus, at the stage of growth success is made of human resources and management, technology and efficiency.

The most important factors of success that are significant at every stage of development are leader's role, personnel qualification and high demand at the domestic market. We start more detailed analysis with estimating correlation between the three factors. Coefficients of correlation and their p-value (figure in the brackets) are given in the Table 1.

*Table 1: Correlation between key factors of success*

		<b>Leader's role</b>	<b>Personnel qualification</b>
Personnel qualification	<i>found</i>	0.49 (0.00)	
	<i>growth</i>	0.50 (0.00)	
High demand at the domestic market	<i>found</i>	0.21 (0.06)	0.33 (0.00)
	<i>growth</i>	0.34 (0.00)	0.31 (0.01)

As we can judge from the table the three key success factors are positively correlated with each other. Correlation of the factors with the factor leader's role is stronger than correlation of the other two factors with each other.

Going from statistics to reality it means that it is the leader who finds qualified personnel and builds the team. It is the leader who sees opportunities in high demand at the domestic market.

Thus, the key factor of success for small innovative business development is the leader's role.

#### **4. FACTORS DETERMINING LEADER'S ROLE AS THE KEY ELEMENT OF SUCCESS: PUTTING FORWARD HYPOTHESIS**

As shown above according to representatives of Russian small innovative business the key factor of success is leader's role. This paper is focused on the role that company's leader plays in the development of small innovative business, on his contribution in bringing the company to success. The main attention of our analysis is paid to finding out reasons that make leader's personality on the key factors of success in innovative business.

There is no doubt that the company's chief executive plays very important role in its development, he or she has the last word in decision making process. Chief executive is like the captain who navigates the ship in the chosen direction, it is chief executive who is responsible for the success of the undertaking. The significance of the leader's role is undeniable for any company, however for a small firm personality of the chief executive is especially important, first of all because of the very size of the company when manager can be more involved in the daily operations comparing to bigger enterprises.

Peter Drucker (Drucker, 2004) discusses the special role that manager plays in the new department of the company or in the new enterprise. He compares new project with the little baby who needs to be looked after.



Chief executive plays the special role not only in newly established innovative business but also in any innovative company. It is proved by high ratings of leader's personality as the key element of success which were observed.

High ratings observed can be caused by the influence of various factors. Let us try to define the factors that have the greatest influence.

In this research we put forwards the following hypothesis for testing:

1. *"Pride"*. Managers consider themselves to be the most important persons in the company, the key element that determines the existence and development of business. If this is the case then the ratings given by chief executives will be higher than by others.
2. *"Experience"*. Greater experience helps to see the broader picture and to rate influence of this or that factor adequately. Then, the longer time in employment (seniority) the lower must be the ratings.
3. *"Difficulty of formation"*. The younger the company is the less fixed structure it has with personal characteristics being extremely important. Then, the younger the company is the higher the leader's role ratings must be.

## 5. TESTING HYPOTHESIS

Two best linear prognoses were built up and estimated to test hypothesis that we put forward, they are: influence of the factors listed above on the rating of factor of success "leader's role" at the founding stage (equation 1) and at the stage of growth (equation 2).

Dependent variable in the model is the rating of factor of success "leader's role". Variables "age of the company", "seniority", "position" are taken as independent ones.

The first hypothesis is tested with the variable "position", the second – with the variable "seniority". The variable "age of the company" is used to test the third hypothesis.

The variable "position" is a dummy variable, it takes three values:

- 1) Director (Chief Executive),
- 2) Owner or Investor,
- 3) Deputy Director (we also include other managers into this category such as manager of the department, etc.).

In the sample under study 52% of managers are in the category "Director", 42% of managers are "Deputy Directors" and 6% are put into the category "Owner or Investor". 52% of the companies were founded less than ten years ago. At the same time 2/3 of the managers works for more than 10 years.

Thus, following equations were evaluated:

$$\begin{aligned} \text{president\_personality}_i^{\text{found}} &= a_1 \text{age}_i + a_2 \text{experience}_i + \\ &+ a_3 \text{position}_i^1 + a_4 \text{position}_i^2 + a_5 \text{position}_i^3 + e_i \end{aligned} \quad (1)$$

$$\begin{aligned} \text{president\_personality}_i^{\text{growth}} &= a_1 \text{age}_i + a_2 \text{experience}_i + \\ &+ a_3 \text{position}_i^1 + a_4 \text{position}_i^2 + a_5 \text{position}_i^3 + e_i \end{aligned} \quad (2)$$

Where:

$president\_personality_i^{found}$  – rating of factor of success “leader’s role” by the company  $i$  at the founding stage;

$president\_personality_i^{growth}$  – rating of factor of success “leader’s role” by the company  $i$  at the stage of growth;

$age_i$  – age of the company  $i$ ;

$experience_i$  – seniority of the manager of the company  $i$ ;

$position_i^1$  – position (dummy variable) – Director;

$position_i^2$  – position (dummy variable) – Owner or Investor;

$position_i^3$  – position (dummy variable) – Deputy Director.

For the hypothesis that we put forward to accepted, the following conditions should be met:

- 1) We accept the first hypothesis if the variable “position” is significant and coefficient of the variable “Director” is positive and higher than of the others, i.e.:

$$a_3 > 0$$

$$a_3 > a_4 \text{ and } a_3 > a_5$$

- 2) We accept the second hypothesis if the variable “seniority” is significant and coefficient of it is negative, i.e.:

$$a_2 < 0$$

- 3) We accept the third hypothesis if the variable “age of the company” is significant and coefficient of it is negative, i.e.:

$$a_1 < 0$$

Tables 2 and 3 show the results of the estimations of the equations.

*Table 2: Results of estimations of equation 1*

Dependent variable: <i>president_personality</i> <sup>found</sup>			
Least Squares Method			
Number of observations: 82			
Variable	Coefficient		P-value
<i>age</i>	$a_1$	-0.055	0.003
<i>experience</i>	$a_2$	0.011	0.555
<i>position</i> <sup>1</sup>	$a_3$	4.668	0.000
<i>position</i> <sup>2</sup>	$a_4$	5.248	0.000
<i>position</i> <sup>3</sup>	$a_5$	4.857	0.000
Variable Deletion Test – “position”:			
F-statistics (P-value): F(3.77) = 5.610 (0.000)			
Quality of equation: <sup>97</sup>			
$R^2=0.124$			
Fisher statistic (P-value): F(5.77) = 165.034 (0.000)			

*Table 3: Results of estimations of equation 2*

Dependent variable: <i>president_personality</i> <sup>growth</sup>			
Least Squares Method			
Number of observations: 85			
Variable	Coefficient		P-value
<i>age</i>	$a_1$	-0.016	0.437
<i>experience</i>	$a_2$	0.001	0.940
<i>position</i> <sup>1</sup>	$a_3$	4.085	0.000
<i>position</i> <sup>2</sup>	$a_4$	4.715	0.000
<i>position</i> <sup>3</sup>	$a_5$	4.067	0.000
Variable Deletion Test – “position”:			
F-statistics (P-value): F(3.80) = 5.064 (0.003)			
Quality of equation: <sup>98</sup>			
$R^2=0.019$			
Fisher statistic (P-value): F(5.80) = 101,560 (0,000)			

## 6. WHAT FORMS SIGNIFICANCE OF THE ROLE OF THE COMPANY'S LEADER'S

1) The results of the conducted estimations show that the position has influence on the ratings (variable “position” is statistically significant<sup>99</sup>). However, we cannot accept the first hypothesis since the relations between the coefficients don't hold true:

$$a_4 > a_5 > a_3 \text{ for the founding stage}$$

<sup>97</sup> Obtained value of the Fisher statistic indicates the high quality of the estimated equation. Further conclusions and interpretations are statistically correct.

<sup>98</sup> Obtained value of the Fisher statistic indicates the high quality of the estimated equation. Further conclusions and interpretations are statistically correct.

<sup>99</sup> Here and below we take 10% significance level for the purposes of this research.

$$a_4 > a_3 > a_5 \text{ for the stage of growth}$$

The highest ratings of factor of success “leader’s role” are given by the owner (investor), while the director, on the contrary, rates this factor lower than other managers. We assumed that chief executives possessed pride, that they saw themselves as the key factor of success. Our estimations didn’t prove suggested assumption. By contrast, chief executives are modest in giving ratings, they don’t tend to overestimate their own role the success of the company. Here we can talk about rationality of the chief executives of small innovative business. Rational evaluation of the situation and their contribution is the key to a stable and successful development.

2) The second hypothesis is rejected. In this case experience has no influence on the ratings that are given (variable “seniority” is insignificant). It is likely that obtained result is as presented due to the sample structure. One the one hand, almost two thirds of the managers have seniority of more than 10 years. And on the other hand, two thirds of the companies are younger than 10 years. In other words, working experience could be gained in other spheres and is not fully applicable in current activity.

3) As for difficulty of formation, here we observe dependence of the given ratings on the age of the company (variable “age of the company” is statistically significant). The results of the conducted estimations show that indeed the younger the company is the higher the leader’s role ratings are. The younger the company is the less bureaucratized it is, the relationship between employees of different levels are more informal and they all are equal. In this case personal characteristics become extremely important. However, we cannot fully accept the third hypothesis since the dependence that we obtained is true only for the founding stage.

The testing of the hypothesis that we put forward has shown some of elements that form one of the key factors of success of the small innovative business that is the leader’s personality. Even though obtained value of the Fisher statistic indicates the high quality of the estimated equation, rather low value of  $R^2$  means that the leader’s role is a very complex factor that depends on various elements that couldn’t all be included in one set of estimations. The significance of the leader’s role is determined by the range of objective and subjective reasons. Here we have analyzed some of them. For example, the leader’s role in the company is influenced by the age of the company one the one hand and by the position of the manager on the other hand.

There is no denying that each company has its own unique way of development, that every innovative business has its own unique peculiarities. However, turning to common patterns and considering other experiences can facilitate the thorny way to success.

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## **SMS'S MANUFACTURING STRATEGY FOR BUSINESS CONTINUITY AND CRISIS MANAGEMENT**

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### **ABSTRACT**

*At company level it's easily driven if the management has the will and sees the benefits. High tech companies both small and large are more likely to have this type of culture because of the people they employ and the fact they are always thinking to solve technical problems. Many continuous improvement management systems/techniques also involve getting the primary through to tertiary work groups to think of better and innovative methods of working or developing new techniques and technologies. SME's are commercial enterprises with ultimate objective of being profitable. A typical SME, especially nowadays, would suffer from lack of spare cash and wouldn't be willing to borrow, for any financial liabilities are detrimental. The guarantee on returns is perceived as a gamble, and thereby introduced uncertainty can be unacceptable for a small certainty and stability seeking company. In crisis conditions have resisted only SMS's that had a clear strategy of innovation, adapting to market demands, continuous reduction of production costs, following ensuring quality conditions. A analysis made on 20 SMS's showed that only companies that had a clear innovation strategy could minimize the effects of the crisis on consumption.*

**Keywords:** *Crisis, Innovation, Management, SMS's, Strategy*

### **1. INTRODUCTION**

Effective continuity management needs to be focused upon business processes and assets as means to an end. The growing reliance of organisation upon one another and upon technology and infrastructure has also been cited as supporting the view that business continuity (BC) and business continuity management (BCM ) matters more today at any other point in history.

The argument of this paper are founded upon what has been termed as a crisis and recession management approach; this assumes that soft and hard system elements must be considered together and that organisation themselves may incubate the potential for interruption. Managerial intervention plays a vital role in causing crisis or in mitigating their effects.

While no methodology can guarantee that interruption will be avoided, it is argued that adopting the broad methodology developed in this paper will assist organisation to be better prepared.

What are the advantages of applying a business community approach to strategic decision?

No organisation can have complete control over its business environment. It is therefore essential for companies to have a BCM and crisis management capability, in case of crisis or disaster.

Crisis management and business continuity are business concepts that revolve around the essential functionality of a company or corporation. Crisis management is a company strategy to deal with system-wide crises that threaten the business. Business continuity is an ongoing process that ensures a business is functional and accessible, both for workers and for customers. When a problem rears its ugly head, good crisis management and business continuity plans can prepare a business to deal with the issue and ensure that customer service and company functionality are impeded as little as possible.

BCM has evolved a long way in the last ten years but that evolution has not yet stopped. Expectations of BCM capabilities from the owners of businesses, auditors, regulators and other stakeholders are rising year by year. The large global organisations are slowly developing into distributed structures that support the concept of the fault tolerant enterprise, where no single point of failure exists and fallback redundancy is built into everything.

Crisis Management has usually been defined as the role that senior management have during a Business Continuity Incident. It includes the high level command and control aspects of:

- Identifying a crisis situation
- Deciding how and when to respond
- Communicating both internally and externally
- Leading and directing the recovery process

You need to analyse the probability and consequences of crises that could affect your business. This involves:

- assessing the likelihood of a particular crisis occurring - and its possible frequency
- determining its possible impact on your operations

This kind of analysis should help you to identify which business functions are essential to day-to-day business operations. You're likely to conclude that certain roles within the business - while necessary in normal circumstances - aren't absolutely critical in a disaster scenario.

It can help to grade the probability of a particular crisis occurring, perhaps on a numerical scale or as high, medium or low. This will help to decide „business attitude” towards each risk. You may decide to do nothing about a low-probability crisis - although remember that it could still be highly damaging to your business if it occurred. As for worldwide business strategies, innovation remains a priority, though the accelerated development generates tension between business leaders.

The balance between the desire to globalize innovation and the fear of protecting very expensive discoveries is definitely a hot issue on the EU executives' agenda.

We have arrived to the conclusion that the global business environment is subjected to a real “vertigo” caused by economic decrease and fast technologic development, not to mention competition from inside and outside the marketplaces.

This been said, the rhythm of innovation has become a challenge for local economies, putting business leaders into a conflicting position: on one hand, they want access to global markets in order to promote specific innovation, while in the same time, they are pretty much aware of the challenges imposed by global competition, from which they would like to be protected.

The collaboration between countries could become an engine of business success, by accessing new technologies and gaining the possibility to penetrate new markets.

According to an elaborated study, 90% of the respondents regard collaboration as an essential part of innovation development. However, the greatest challenges remain: the risk of intellectual theft, lack of trust and talent poaching.

One fact is for sure: the global trend of business models is undoubtedly, innovation. And a crucial role in its development is played by government and political support.

Politicians should seriously contribute to the education and accomplishment of experts. 76% of the executives would like politicians to encourage entrepreneurship, in order to create a stronger bond between companies and education, while fighting back bureaucracy and administrative routine, especially when it comes to accessing funds and incentives, as well as protecting the commercial secret and the intellectual property.

The companies' success accomplished through innovation can be achieved only with the support of political authorities and civil societies. It can also have a positive impact on the economy and general welfare of mankind.

## **2. INNOVATION AS MANUFACTURING STRATEGY FOR SME'S**

For many years, innovation was seen as the development of new products. However, creating new products is only one way to innovate. "Initially developed in 1998, the Ten Types of Innovation showed that companies that integrate multiple types of innovation will develop offerings that are more difficult to copy and that generate higher returns."

Most Innovation research is focused on *Product Performance*. We as consumers admire the latest gadget, and seek to attain the "next big thing". Innovation leaders and inventors often pursue innovations at the higher tiers of their markets because this is what has historically helped them succeed. However, there are more opportunities to create competitive advantage in the other types of innovation. In many cases these innovations may be more cost effective, and can even generate a higher rate of return.

Clayton Christensen, Professor of Business Administration at the Harvard Business School suggests another type of innovation as well; *disruptive Innovation*. According to Christensen, successful companies can put too much emphasis on customers' current needs, and fail to adopt new technology or business models that will meet customers' unstated or future needs.

A disruptive innovation is one that creates a new market by applying a different set of values, which ultimately (and unexpectedly) overtake an existing market. Disruptive innovation allows access to a product that was historically unattainable to the majority of consumers (usually because it was overly complicated, too expensive, or inconvenient). With disruptive innovation, access is given to a new and potentially larger population at the bottom of the market.

According to Innosight, "disruptive innovation isn't about winning a technology race, but about delivering innovations aimed at a set of customers whose needs are being ignored by industry leaders. A disruptive innovation trades off performance along one dimension for performance along another, such as simplicity, convenience, ability to customize, or price."



This arguably creates the innovators dilemma. Do you create better products that you can sell for more money to your current consumer, or do you create a disruptive innovation which targets those, who may not be your consumers yet, focusing on simpler products at lower price points?

### 3. OPTIMIZING INNOVATION

To optimize the **value creation** component of innovation, you must seek innovation veracity early on, identifying the fundamental truths upon which your potentially innovative solution will be built. During the value creation process you must prototype early and often to test and learn whether your insights are correct and resonating in their expression within the product or service as you expect. From the reactions to your prototypes you must evolve the solution to create more value.

To optimize the **value access** piece of innovation, you must seek to identify where friction is created in the delivery of your solution and seek to remove it. Carefully observe both where things are awkward or difficult for you to produce and scale the solution, and for your customer to consider and consume it. These friction points represent an opportunity to remove barriers to adoption and to increase potential innovation resonance through better production, purchase and consumption experiences.

To optimize the **value translation** piece of innovation, you must first identify the gaps in understanding and readiness among your target customers, your plan for working to close these gaps and prepare the market for your launch, and then you'll want to find your picture or image that communicates a thousand words. Most importantly, you must be aware that the more disruptive your potential innovation the more you may have to educate your potential customers before you even try to sell to them, and so you must build the appropriate amount of market preparation time into the launch plan for your potential innovation plan. Thought leadership marketing and innovation marketing strategies can be very powerful here to help customers understand how the new solution will fit into their lives and why they will want to abandon their existing solution – even if it is the 'do nothing' solution.

*Everywhere you look, people are talking about innovation. There are conferences and gurus, workshops and webinars, apostles and practitioners.*

*Everyone wants to innovate more, and many people don't know where to start. Which is weird, since we actually know quite a bit about how innovation works.*

But what is it, really? It's hard to go about the practice of innovation when there is so much confusion about what it actually is. Some have supposed frameworks (i.e. discovery/invention/innovation), but to be honest, I don't find them particularly helpful.

It seems obvious to me that a common sense definition of innovation is that it is a process of finding novel solutions to important problems. Unfortunately, in order to make innovation palatable to business organizations, many have tried to narrow the definition to make it more purpose driven. That's getting it backwards, after all it's businesses that need to adapt.

Martin Heidegger was the first person to seriously tackle the issue in his classic 1949 essay, *The Question Concerning Technology*, where he argues that technology both involves uncovering (i.e. bringing forth) and enframing (i.e. putting in context of a particular use).

The definition is extremely insightful and useful, not least because we tend to think of technology (including things like legal concepts and business processes) as something we create rather than uncover. As I pointed out in an earlier post about how technology evolves, we create technology by harnessing and then exploiting forces that were already there.

So, if we want to innovate by creating new technologies, we need to first discover things and then figure out how to put them to good use.

One popular way to frame the innovation process is to break it down into discovery (new knowledge), Invention (new technologies) and innovation (useful things like products and services). However, it doesn't take much thinking to realize that this isn't very useful because it confuses work products with work processes.

#### **4. POTENTIAL IMPACT OF A CRISIS AND BUSINESS CONTINUITY**

To determine the possible impact of a crisis on our business, it can be helpful to think of some of the worst possible scenarios and how they might prove debilitating for the business.

It's essential to look at risks from the perspective of our **customers**. Consider how they'd be affected by each potential crisis.

Business continuity management (BCM) is defined by the Business Continuity Institute(BCI) as 'an holistic management process that identifies potential impacts that threaten an organisation and provides a framework for building resilience and the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand andvalue creating activities'.

The BCI's use of the term 'business continuity management' rather than 'business continuity planning' is deliberate because 'planning' implies there is a start and end to the process and can lead to unwanted planningbureaucracy. BCM is, by necessity, a dynamic, proactive and ongoing process. It must bekept up-to-date and fit-for-purpose to be effective.

The key objectives of an effective BCM strategy should be to:

- ensure the safety of staff;maximise the defence of the organisation's reputation and brand image;
- minimise the impact of business continuity events (including crises) oncustomers/clients;
- limit/prevent impact beyond the organisation;
- demonstrate effective and efficient governance to the media, markets and stakeholders;
- protect the organisation's assets; and meet insurance, legal and regulatory requirements.

However, BCM is not only about disaster recovery. It should be a business-owned and driven process that unifies a broad spectrum of management disciplines. Changing the corporate culture. Ignoring business continuity issues can hapen for a number of reasons, ranging from denial through disavowal to rationalisation. A process of 'group think' can develop whereby an organisation genuinely starts to believe that their size, or some other feature, makes them immune to disaster. Or executives may firmly believe that insurance will cover them, without

realising that insurance can not indemnify against lost market share, loss of reputation or tarnished brands.

*Table 1.: Business Continuity Management in Historical Context. Old and New BCM approaches compared (adapted from Herbane et al.(1997))*

<b>„Standard apractice“</b>	<b>„Better practice“</b>
Old	New
<b>Dissaster recovery</b>	<b>Business Continuity Management</b>
IT focus	Value chain focus
IT staff	Multi-disciplinary team
Existing structure	New structures
Protect core operation	Protect entire organisation
Sustain current position	Create sustenable advantage
Parochial view	Open system view
Recovery emphasis	Prevention emphasis

*Table 2.: Exploring Assumption about BCM Prevision (adapted from Elliot,D., Swartz,E., Herbane,B.(2010)-Business Continuity Management,second edition)*

<b>Emerged during this decade</b>	<b>Mindset</b>	<b>Scope</b>	<b>Triggers</b>	<b>Process</b>
1970	Technology	Limited to technology;Focus upon on large corporate systems,e.g. main frames	External pysical triggers, flood, fire, boom	Contingency measures focused on hard systems
1980	Auditing	All facilities; All systems-both corporate and departamental office	As above and legal or regulatory pressuress	Contingenty measurements outsourced, compliance,driven
1990	Value-based	Mantain competitive advantage.Include costumers and supplaiers.Entier organisation including human, social issues.	Organisational stake-holders in value systems	BCM developed and business process focused on business managers
2000	Capability-based	Integrate CSR risk management and digital resilience	The desire to further embed well developed BCM practices	BCM is an angoing and continnous organisation-wide responsibility
2010	Innovation-based	Competitiveness,new market, new products,a bether life, a cleaner environment. Include all human resources.	The desir to do things better, more useful, well-managed resources. Good BCM practice.	BCM is organisation responsibility.

## 5. CASE STUDY

Case study was conducted on a sample of 20 SMEs from various industries activity, analyzing if:

1. there a strategies for: a. market, b. production, c. innovation, d.BCM, e. risk and f. crisis;
2. BC is part of the principles governing the organization;
3. Company strategies are focused towards business (if the business strategy is a goal of the organization itself);
4. BCM must provide organisational resilience to optimise product and service availability; as a value based management process BCM optimise cost efficiencies;
5. all BCM strategies, plans and solutions a business owned and driven;
6. all BCM strategies, plans and solutions a based upon the business mission critical activities, their dependencies and single points of failure identified by a business impact analysis;
7. all business impact analysis a conducted in respect of business products and services in an end-to-end production context;
8. the organisation and its component parts implement and maintain a robust exercising, rehearsal and testing programme to ensure that the business continuity capability is effective, up-to-date and fit-for-purpose;
9. the organisation and its component parts recognise and acknowledge that reputation, brand image, market share and shareholder value risk cannot be transferred or removed by internal sourcing and/or outsourcing;
10. 10.all third parties including joint venture companies and service providers, upon whom an organisation is critically dependent for the provision of products, services, support or data, a required to demonstrate an effective, proven and fit-for-purpose BCM capability.

In the table below (*Table 3*) we present the results obtained after evaluating the responses obtained from qualified persons of the management.

*Table 3.: Results obtained after evaluation*

Question		Answer		%	
		Yes	No	Yes	No
1	a	18	2	90	10
	b	15	5	75	25
	c	10	10	50	50
	d	5	15	25	75
	e	8	12	40	60
	f	5	15	25	75
2		5	15	25	75
3		15	5	75	25
4		5	15	25	75
5		5	15	25	75
6		4	16	20	80
7		5	15	25	75
8		10	10	50	50
9		11	9	55	45
10		5	15	25	75

During interviews were also obtained some information on how innovation has contributed to maintaining or increasing the company in times of crisis and recession. Correlating the results obtained with the economic results achieved by the companies analyzed in the last three years (2010-2012) we have seen that:

- BCM companies that had maintained their economic performance and market position with small negative variations even in times of crisis and recession;
- companies that have innovation strategy correlated with a BCP (Business Continuity Plan), have increased turnover and market share in this period;
- Although they had a business strategy and marketing strategy for the period indicated, firms which lacked innovation strategy have negligible losses or profits, losing significant percentage of the market share;

Also highlighted in the analysis of a case of innovative companies (companies that have had a plan for innovation) that:

1. Innovation it's not just about ideas. It's the process of idea management.
2. Innovation is the best way to bridge a gap between where you are and where you want to be.
3. Getting the great idea to spread is just as important as having it and making it work.
4. If every idea you try works you're not trying enough new ideas.
5. Make lots of little bets.
6. People are way more important than tools.
7. Innovations can be good or bad – make sure you're creating real value.
8. You need a deep understanding of the problem you're trying to solve.
9. Ask new questions. Make new mistakes. Learn.
10. A problem in need of a solution is worth lots more than a solution looking for a problem.
11. Anyone can innovate.
12. Connecting ideas is the fundamental creative act in innovation.
13. You need top-down commitment to create a culture of innovation.
14. Efficiency is often the enemy of innovation – you need slack!
15. Failing is good – try to fail as small as possible, and make sure you learn from it.
16. Innovation needs to support strategy, but every once in a while it can create it.
17. Innovation works best when you pursue a portfolio of innovative projects.

Innovation is not a black box. If you apply some of these ideas, you can make your organisation more effective at innovating.

## 6. CONCLUSION

- a. Companies that have innovation strategy correlated with a BCP (Business Continuity Plan), have increased turnover and market share in crisis period.
- b. To determine the possible impact of a crisis on our business, it can be helpful to think of some of the worst possible scenarios and how they might prove debilitating for the business.
- c. It's essential to look at risks from the perspective of our **customers**. Consider how they'd be affected by each potential crisis.
- d. If we want to innovate by creating new technologies, we need to first discover things and then figure out how to put them to good use even in crisis time.
- e. Innovation a the only solution that SMEs , and not only they, can overcome moments of crisis and recession.

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## **USING LINEAR PROGRAMMING MODEL FOR PRODUCTION OF EGGS (DESIGNED FOR REFLECTING VARIOUS FEEDSTUFF COMBINATION IN ERAQ – ERBIEL)**

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### **ABSTRACT**

*This study aimed to formulate a linear programming model for production of eggs at different stages of rearing and production periods using local feed ingredients, the main Goal of the study is to reduce the cost. We construct a mathematical model were designed to reflect various feedstuff combination used in the diet formulation by taking into consideration nutrient requirements and the variables of this model is the feed ingredients were used (protein, carbohydrate, fat, minerals, vitamins, soya oil, corn, barley, wheat brain, salt, limestone, phosphate, vitamin/mineral complex, and calcium). The objective function of the model was to minimize the total cost production of producing a particular diet after satisfying a set of constraints at market price we used Kurdistan region north of Iraq for this study, the result which found to reduce cost of feeding by as much as between (30 to 50) \$/ton than those imposed on the produced by the market. The variation in the cost is a result of the variation in the nutrient requirements of the laying hens according to the stage of production , each stage required a certain level of combined nutrients' in the feedstuff which it cause different quantities of feedstuff to be used in each ration.*

**Keywords:** *Egg Production, ERIBEL, Linear Programming Model*

### **1. INTRODUCTION**

Eggs production in layer is the major concern, as it constitutes bulk of total revenues generated, and which is reported by Chung et al 1983 and Farooqet 2001 that there is a significant and positive association of net profit with number of eggs production in layers production enterprise. Generally speaking, the major problem with poultry production can be streamlined to feeds in all its ramifications (David – West 1989 (2) reported that feed costs represent between 60% to 80% of total cost of producing various livestock product.

Feed formulation is the process of quantifying the amounts of feed ingredients that need to be put together to form a single uniform mixture for poultry that supplies all of their nutrient requirements. It is important that returns are maximized through use of adequate mixture .Feed formulation is a central operation in poultry production, ensuring that feed ingredients are economically used for optimum growth of chicken. It requires a good knowledge of poultry and feed ingredients. Most large scale poultry farmers depend on commercial feed mills for their feeds, to obviate the need to do their own formulation or feed preparation. It is therefore essential that formulation are accurate, to ensure a large number of swarms are not adversely affected (Chung et 1983).

The problem of least cost ration formulation in poultry can be effectively managed through using linear programming model technique. But least cost feed has been defined by (Patrick and Schaible, 1980) as the lowest – cost formula that contains all the nutritional elements needed for maximum performance.

Linear programming is a computational method of selecting, allocating and evaluating limited resources with linear, algebraic constraints to obtain an optimal solution for a linear, algebraic objective function. They are used in administrative and economic planning to maximize the linear functions of a large number of variables, subject to certain constraints. Patrick and Schaible (1980) stated that linear programming is technically a mathematical procedure for obtaining a value-weighting solution to a set of simultaneous equations.

Linear programming was first put into significant use during World War II when it was used to determine the most effective way of deploying troops, ammunitions, machineries which were all scarce resources. There are hundreds of applications of linear programming to subjects ranging from the familiar cases in industry, military, agriculture, economics... etc. Even reported that linear programming has been applied to marriage problem and the optimum solution show that monogamy is the best type of marriage (Hamday Taha). (Olorunfemi et, 2001) reviewed extensively the use of linear programming in least – cost ration formulation for aquaculture and he applied Linear Programming model into duckweed utilization in least cost feed formulation for broiler starter 2006.

Kuester and Mize (1973), reported that linear programming is a technique for optimization of a linear objective function, subject to linear equality and inequality constraints. Linear programming is the one of the most important technique to allocate the available feedstuffs in a least cost broiler ration formulation .The egg production in Kurdistan has been widely founded as a full – scale agribusiness there are more than 900 project for production of broiler in the region.

This study aimed at using the linear programming technique to formulate least cost balance ration for eggs layers at different stages of life period using local feed ingredients to minimize the total cost of production in Kurdistan.

## **2. SOURCES AND ANALYSIS OF DATA COLLECTION**

Egg production in the Kurdistan region is approaching the rate of (700) million eggs per year , the Ministry of Agriculture and Water Resources Regional Government of Kurdistan said the ministry has allocated nearly 3 billion dinars to support the poultry projects in the region, which has a number of projects poultry in it (983) projects for the production of chicken meat and (28) projects for hatching and others, and the preparation of these projects continues to increase and that of egg production , a rat more than the citizens of the region needs.

This study is concerned with feed formulation (Data collection for this study was based on raw material (feedstuffs) specification, constraints imposed on the selected raw materials and the dietary nutrient requirements in each stage of life of eggs laying flocks. The main sources for these data was the National Research Council, Nutrient Requirement of Poultry became available in March 1994. The objective of this publication is to provide a reference point for nutrient requirement of the various class of poultry and to provide authoritative information on nutrient content of feed ingredient. Cost of raw materials used in the diet formulation were obtained from the prevailing market prices of feedstuffs in Kurdistan through survey ,and some data sources to achieve the study objectives from the Ministry of Agriculture and Water Resources Regional Government of Kurdistan (department of statistics). Proximate constituents, limiting amino acids, calcium and phosphorus contents, minimum and maximum dietary inclusion levels of various feedstuffs used in diet formulation were obtained from standard tables and sources (Aletor, 1986; Aduku, 1993a; Tacon, 1993; NRC 1994).



The recommended nutritional and restriction levels of the Metabolizable Energy (ME) ,of feed stuffs for diets were calculated by converting the gross energy using the following equation as described by Miller and Payne (1959).

$$ME = (GE \text{ g}^{-1} \times 0.95) - (N\% \times 0.075)$$

Where : GE , gross energy

N% , Dietary Nitrogen Percent

We used linear programming model and techniques to analyse the data in this study. The objective function of this study was to minimize the cost ration of eggs, and the model designed to reflect various feedstuff combination used in the diet formulation at current price and range of inclusion to obtain a least cost ration for eggs layers according to the available raw material in Kurdistan /Iraq. The model were constructed according to the stage of hens' life period.

### 3. FEEDSTUFF AND NUTRIENT REQUIREMENT

Chicks require a diet that can provide the nutrient needed for rapid growth and feather development. Chicks are given relatively high levels of energy, protein, and Vitamins and Minerals for the starter period. Once the Chicks are fully feathered their energy requirement are reduced. Feeding management for layer pullets aim to maintain a growth rate that will lead to the pullet reaching sexual maturity at the desired age while avoiding obesity. The stage at which a pullet will start laying eggs is affected by age, bodyweight and day length.

The aim of layer diet is to optimize egg production, provide the nutrient required to safeguard health and maintain the desired bodyweight. This can be in term of egg number, egg size, or egg mass. As with layer pullet, different breeders recommend different feeding strategies for their birds, including the number of different diet fed during the laying stage .Calcium is increased in the ration for egg shell formation.

Feedstuffs is divided to two types:

1. Feed material source of energy: such as grain and the grain industry and waste fats and oils.
2. Feed material source of protein: such as plant - sources of animal protein - and yeast as well as minerals and vitamins

Poultry feed consists of: protein, carbohydrates, fats, minerals, vitamins and water, where different ratios of these elements in poultry feed depending on a variety of factors.

#### 1) Carbohydrates

carbohydrates found in yellow or white corn, sorghum, or in the remnants of racquets and grinders are very important for chickens to get them on energy and composition of the fat in the egg yolk and the worms movement of the intestines

#### 2) Mineral salts

important ingredients in poultry feed, especially laying hens, accounting for 3.4% of the weight of the bird and about 10% of the weight of the egg, as they represent 40% of the bone consisting mainly of calcium and phosphorus, and referred to the proportion of salt in the diet ashes

#### 3) yellow corn

Major component in the diets of poultry and up to 75% in diets containing 7.7 - 9% protein, the fat around 3.1%, fiber 2% and has prefixes vitamin A beta-carotene, which turns into

vitamin A in the body and in recent times have been developed strains of corn content of high-fat 6-7% and lysine and protein due to the large size of embryo corn.

### Analysing the model:

To analysis the linear programming model, (the objective of the models was to minimize cost production for a particular diet by satisfying a set of constraints), the variables in this model were the ingredients while the cost of each ingredient and the nutrient value of each ingredient was parameter.

Feed stuff used in ration formulation for local farms and feed factories and the following feedstuff (variables) which is used in this study are (wheat bran, cotton seeds, yellow corn, barley, soy bean, vitamin, mineral complex, concentrate, salt, limestone, methionine, di calcium , phosphate ) the model which is designed to reflect the feedstuff as follow:

- Objective function is to minimize the cost
- Subject to feedstuff as a constraints

$$\text{Minimum } Z = \sum_j C_j X_j$$

Subject to:

$$\sum a_{ij} X_j \leq \geq B_i$$

$i=1,2,\dots,m$

$X_1, X_2, \dots, X_n \geq 0$

Where:

$X_j$  ,  $j=1,2,\dots,13$  ( ingredient quantities )

$a_{ij}$  = technical coefficient of nutrient components in feed stuff

$b_i$  = the ration raw material availability (nutrient )

$C_j$  = ingredient cost

$Z_j$  = total cost of Ration

( $a_{ij}$ ,  $b_i$  and  $C_j$  are given constants and  $X_j$  are the decision variable). From the above format (Kuester and Mize, 1973), we are seeking the values of the  $X_j$  which will optimize (maximize or minimize) the objective function,  $Z$ .

The number of unknowns is usually greater than number of equations ( $n > m$ ). Taha, H (1987). Stated that by setting  $(n - m)$  variables to zero the unique solution are called basic solution, if a basic solution satisfies the nonnegative restrictions, it is called feasible basic solution. He also stated that variables set equal to zero are called non basic variables while the remaining ones are called basic variables. Each basic solution is usually associated with an iteration.

The following tables summarized the data on typical nutrient levels for layer diets for the growing and laying periods. As well the cost implications of raw material level of feed ingredients restrictions imposed on selected feed stuff by linear programming model for laying diets for growing and laying period (the weight is 1000 gk).

*Table 1.: Layer Nutrient Requirements for the growing and laying periods (NRC, 1994)*

<b>Age in weeks Weight Nutrient consumed gm/day</b>	<b>Unit</b>	<b>0 to 6 Weeks; 450 g<sup>a</sup>2,850<sup>b</sup></b>	<b>6 to 12 Weeks; 980 g<sup>a</sup>2,850<sup>b</sup></b>	<b>12 to 18 Weeks; 1,375 g<sup>a</sup>2,900<sup>b</sup></b>	<b>18 Weeks to First Egg; 1,475 g<sup>a</sup>2,900<sup>b</sup></b>
Crude protein <sup>c</sup>	%	18.00	16.00	15.00	17.00
Lysine	%	0.85	0.60	0.45	0.52
Methionine	%	0.30	0.25	0.20	0.22
Methionine + cysteine	%	0.62	0.52	0.42	0.47
Valine	%	0.62	0.52	0.41	0.46
Linoleic acid	%	1.00	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>
Calcium <sup>d</sup>	%	0.90	0.80	0.80	2.00
Nonphytate phosphorus	%	0.40	0.35	0.30	0.32
Potassium	%	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>	<b>0.25</b>
Sodium	%	0.15	0.15	0.15	0.15
Crude Fiber	%	4.000	5.000	5.500	4.500
Fat	%	<b>4.0</b>	<b>3.5</b>	<b>3.5</b>	<b>3.0</b>
NaCl	%	0.18	0.18	0.18	0.18

*Table 2.: Requirements of Laying Hens as Percentages or Units per Kilogram of Diet  
(NRC, 1994)*

( 80,100,120 ) gms/day

<b>Nutrient</b>	<b>Unit</b>	<b>80<sup>a,b</sup></b>	<b>100<sup>a,b</sup></b>	<b>120<sup>a,b</sup></b>
Crude protein	%	18.8	15.0	12.5
Leucine	%	1.03	0.82	0.68
Lysine	%	0.86	0.69	0.58
Methionine	%	0.38	0.30	0.25
Methionine + cysteine	%	0.73	0.58	0.48
Phenylalanine	%	0.59	0.47	0.39
Phenylalanine + tyrosine	%	1.04	0.83	0.69
Threonine	%	0.59	0.47	0.39
Valine	%	0.88	0.70	0.58
Linoleic acid	%	1.25	1.0	0.83
Calcium <sup>f</sup>	%	4.06	3.25	2.71
Potassium	%	0.19	0.15	0.13
Sodium	%	0.19	0.15	0.13
Crude fiber	%	4.5	4.5	5.5
Fat	%	3,750	3,000	2,500
NaCl	%	0.18	0.18	0.18

*Table 3.: Cost of raw materials and nutrient levels of feed ingredients for growing laying period*

Ingredient %	Cost	Cp	fat	crude	Ca	P	lysine	Meth	Linoleic acid	Me
								ID		Fibber
Yellow corn	660	8.8	4.0	2.0	0.01	0.09	0.25	0.09	.022	343
Soybean	820	44.	3.5	6.5	0.20	0.20	2.5	0.6	0.40	273
Wheat bran	375	15.9	0	10.5	0.04	1.15	0.6	0.24	1.74	186
Cotton seeds	300	45.	6.0	2.	0.2	0.16	0.90	.2		277
Fisher meal	1200	65.	4.5	1.	6.1	3.	4.5	1.8		2860
Concentrate	600	65	4.5	1	5.5	3.	4.5	1.5		1680
Premix (vit/mineral)					2500				0.5	0.7
Lysine						1500	60			1.
Limestone	1400	98						1000		38
Soy oil					6000	60				3430
Methionine							1600		21	1
Calcium										19
Phosphor										250
Salt										

1 US\$ =1200ID

*Table 4.: Constraints imposed on the selection of feedstuffs by computerized linear programming (maximum and minimum) for growing and laying periods and consumption (NRC, 1994; weights = 1000 kg)*

Nutrient	Maximum	Minimum
Crude protein	185	125
Fat	40	30
Crud Fibber	50	30
Calcium (kg)	9.5	3.5
Phosphor (kg)	4.0	3.5
Lysine	8.5	4.5
Methionine +	4.5	2.5
Cysteine	8.5	5.5
Linoleic acid	15	8.5
Mineral (kg)	2.5	2.5
Na Cl (kg)	3	3

1 kg of premix contains; 600,000 IU vitamin A 100,000 Iu , vitamin D3 1850 mg, vitamin E 160 mg, vitamin B1 480 mg, vitamin B2 500 mg, vitamin B6 2000 mg ,vitamin B12 200 mg, vitamin K3, 2800 mg, nicotinic acid 1000 mg Ca pantothenic. 60 mg folic acid, 10000 mg biotin, 80000 mg cholinchlorid,

The variables in these models were ingredients staff while the cost of each ingredient and the nutrient value of each ingredient was the parameter.

We define the variables as follows: X1= yellow corn, X2 = soybean, X3 = wheat bran, X4 =cottonseeds, X5 = fish meal, X6 = concentrate, X7 = premix (vitamin, X8 = lysine, X9 = Limestone, X10 = soy oil, X11 = Methionine, X12= Calcium Phosphor, X13 = salt

The mathematical model construction for birds in deferent stage (0-6, 6-12, 12-18, 18- ) and feed consumption (80 gm/day, 100 gm/day, 120 gm/day) as follow :

$$\text{Min } Z = 600X_1 + 820X_2 + 375X_3 + 300X_4 + 1200X_5 + 600X_6 + 2500X_7 + 1500X_8 + 1000X_9 + 1400X_{10} + 6000X_{11} + 1600X_{12} + 250X_{13}$$

Subject to:

$$X_1 + X_2 + X_3 + X_4 + X_5 + X_6 + X_7 + X_8 + X_9 + X_{10} + X_{11} + X_{12} + X_{13} = 1000$$

$$.088X_1 + .44X_2 + .159X_3 + .045X_4 + .065X_5 + .65X_6 + .60X_8 + .60X_{11} \geq 185 \text{ cp}$$

$$.04X_1 + .035X_2 + .06X_6 + .980X_{10} \leq 40 \text{ fat}$$

$$.02X_1 + .065X_2 + .105X_3 + .2X_4 + .001X_5 \leq 50 \text{ c f}$$

$$.0001X_1 + .002X_2 + .0004X_3 + .002X_4 + .061X_5 + 0.055X_6 + 0.38X_9 + .21X_{12} \geq 9.5 \text{ ca}$$

$$.0009X_1 + .002X_2 + .0115X_3 + .0014X_4 + .03X_5 + 0.03X_6 + 0.21X_{12} \geq 4.0 \text{ phosphor}$$

$$.0025X_1 + .025X_2 + .006X_3 + .009X_4 + .045X_5 + 0.045X_6 + .005X_7 \geq 8.5 \text{ lysin}$$

$$.0009X_1 + .006X_2 + .024X_3 + 0.002X_4 + .018X_5 + .07X_7 + X_8 \geq 4.5 \text{ methionine}$$

$$.0022X_1 + .004X_2 + .0174X_3 + X_{11} \geq 9.5$$

$$3.43X_1 + 2.73X_2 + 1.86X_3 + 1.97X_4 + 2.86X_5 + 3.43X_{11} \geq 2850 \text{ ME}$$

$$X_7 = 2.5 \text{ minerals}$$

$$X_{13} = 3 \text{ salt}$$

$$X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}, X_{13} \geq 0$$

The same model is been used for birds of age 6-12, 12-18, 18- pre lay with deferent wright hand side a cording to the availability of the ingredient. And with the deferent consumption level (80, 100, 120) gm which it mean we will repeat the model with deferent (R.H.S) six time again the results which is calculated by using linear programing technique as in the following table.

### 3. RESULTS AND DISCUSSION

The following Table 5. and Table 6. shows the result of the optimal solution obtained by using linear programming model for all growing and laying periods and the total cost for each period with their chemical composition. Table 7. and Table 8. shows the optimal solution for consumed feed gm/day (80 100 120) with their chemical composition.

*Table 5.: ingredient composition of least cost ration formulation produced by computerized linear programming for growing and laying periods of eggs laying hens and for consumed feed gram/day for production of eggs.*

Feed stuff	0-6	6-12	12-18	18- pre lay	80 gm	100 gm	120 gm
yellow corn	532.368	550.38	560.56	601.31	560	691.8	750
soy bean	240.17	233.7.	216	171.6	119	66.5	0
wheat bran	192.1	178.5	187	166.1	136	112.3	142.6
fish meal	0	0	0	26.6	37.6	47.77	21.73
premix	2.5	2.5	2.5	2.5	2.5	2.5	2.5
lysine	4.7	5.5	6	3.47	52.6	73.15	58.17
limestone	19.3	19.8	20.6	3.58	0.67	0	16.239
soy oil	2.2	4.2	3	4	6.5	6.5	7
methionine	3.23	3	3.2	3	3.2	3.5	3.5
ca	7.36	8.62	6.16	10.07	2.8	2.94	5.69
salt	3	3	3	3	3	3	3
Total cost	637874	630129	618489	652233	672254	690507	649197

*Table 6.: calculated chemical composition for age per week until laying production and calculated composition of basic ration us consumed feed (8, 100, 120 gm/day) and their nutrient Kg*

Nutrient	0-6	6-12	12-18	18-pre lay	80gm	100gm	120gm
Crude protein %	18.3	18.3	16.7	15.2	133.3	134.7	123.7
ME(Kcal kg)	2788	2788	2862	2900	2827	2829	2963
Fat %	29.8	29.1	30.6	29.0	29.6	29.3	28.7
Ca %	3.2	3.2	2.	4.3	3.2	3.7	6.8
P %	3.1	3.1	3.2	4.6	3.4.	3.9	2.9
Crude Fiber %	46.3	46.5	36.25	39.2	33.7	19.7	16.5
Lysine %	8.6	8.6	8.3	8.2	5.9	7.9	6.1
Methionine %	6.6	6.6	6.4	6.06	5.4	4.7	4.6

#### 4. CONCLUSION

The optimum solution for producing eggs layers at different stages for rearing and production periods by using the local feedstuff to get the minimum cost. We found that the linear programming techniques was the good model and method to be used in Iraq especially in Kurdistan. The results of least cost diet formulation starter ration consists of 65% yellow corn, 24.01 % soy bean, 20 % wheat bran .01% cotton seeds , 0.8% fish meal, 0.8%, Ca dephosphate, 0 .1%, lysine, 0.33% methionine , 0.3 limestone, 0.5 ready premix , 0.4 soy oil and 0.01 vitamin and mineral mix . the least cost ration for starter broilers according to local feedstuff availability and meets all the nutritional requirement needs the cost in US \$ according to the stage of rearing and production period (530, 510, 506, 535) and for consumed feed per grams (540, 570, 580) the ration meets all the requirement needs these cost lowered by 30 to 40 \$ per kilos than imposed on producers by the market price.

#### Problems and obstacles

Some problems they must conceder

- A lot of poultry products enters thoughtful and illegal and is not in conformity with the specifications and global health at his opponent, thus affecting the supply and demand and thus the inability of the domestic product of price competition and the local product losses incurred great.
- The lack of balance between imported and domestic production as the importer exceeds significantly the actual need
- Non-application of Law No. 4 of 2008, on the protection of domestic production issued by the Kurdistan Parliament

#### Proposals

1. controls for imports and coordination with the Ministry of Agriculture and representatives of the poultry industry in all provinces to determine the quantities imported per month and involve representatives of the poultry industry in all of the committees and the decisions that concern the industry with force all traders market rate of not less than 30% of the national product and inventory granting import licenses ministries agriculture and trade.
2. financial support for the poultry industry and increasing agricultural loan granted to enable companies and that implement the integrated system in poultry production in Kurdistan, more broadly , in order to improve production quality and lower prices.

3. The distribution of large quantities of wheat and barley stocks by the state working on projects and promotional prices as the federal government is working to distribute local maize and wheat bran on poultry projects.
4. by government departments such as the Ministry of Health and the Ministry of Interior and the army and other purchase and provide local chicken meals and force contractors to it.
5. by the Ministry of Agriculture to conduct a comprehensive field survey of endemic diseases in the region based on the technical expertise and resources of local and international hiring of foreigners and the introduction of modern technologies in the diagnosis of diseases.

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## STRATEGY OF INNOVATIONS: COMPARISON OF LARGE AND SMALL BUSINESS IN RUSSIA

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### ABSTRACT

*This paper is devoted to the comparative analysis of innovative strategies of large and small business in Russia. According to statistics innovative activity of Russian industry remained low: the number of enterprises that carried out innovations is in the range from 9.3 to 10.6% of the total number of enterprises, moreover the innovation activity of an enterprise directly depends on its size.*

*However, the innovative activity of small businesses in Russia is much lower than that of large ones, a number of recent studies had shown a positive dynamics of the share of small enterprises implementing technological innovation. In our research of small innovative entrepreneurship in Novosibirsk Scientific Centre, using two parameters (level of products' novelty and orientation to the national or international market) we distinguished a group of companies, which we call "leaders". For such companies, the predominant sources of technological innovation are a privatization of academic results and development of products and processes in rapidly growing sectors. The relatively high level of the novelty of the products of companies - leaders is accompanied by using a strategy "high quality at a high price". The typical behavior model for such companies is innovative entrepreneurship.*

*Innovative activity of large Russian companies is focused primarily on the acquisition of machinery and equipment of foreign manufactures. Even mega-companies employing over 10 thousands of people prefer importing key knowledge from abroad. So the dominant strategy is a passive technological borrowing. Although most researchers agree that the borrowing and adaptation could become the main sources of rapid catch-up technology development, the experience of the advanced innovative countries testifies, that borrowing must be accompanied by the creation of an additional new knowledge.*

**Keywords:** *business models, innovation, larges, small, and medium-sized companies, strategic priorities*

### 1. INTRODUCTION

National innovation systems competitiveness is determined by a wide range of unique factors including the ability to knowledge production and distribution, accessibility of financial resources, features of state policy, characteristics of technological and sectoral structure of the economy. Industrial companies create new technologies and develop technological competences, so their innovative activity is the key component of a national ability to compete in the global world. The analysis of profile of Russian innovation system shows that as far as the point "innovations in companies" is concerned, Russia ranks the very low position in comparison with OECD and BRIC.

During the first decade of the 21st century a number of enterprises, which carried out innovations, are in the range from 9.3 to 10.6% of the total number of enterprises. Causes of the low innovative activity of Russian companies are rooted in the sectoral structure of the economy as well as in a lack of sufficient incentives for innovations. A low level of competition in the dominant part of Russian markets reduces motivation for new product design and implementation. Deficiency of resources typical for Russian enterprises also has a



negative impact on their innovative activity. Russian companies are spending on innovations much less than their foreign competitors in relevant sectors. As a result, active enterprises never have enough resources for innovations.

Moreover according to statistics, the innovative activity of an enterprise directly depends on its size (see Table 1).<sup>100</sup> Thus, the innovative activity of small businesses in Russia is much lower than that of large ones.

*Table 1.: Innovative activity by the size of the business(adopted by author)*

<b>Number of personnel</b>	<b>Less than 50</b>	<b>From 50 to 100</b>	<b>From 100 to 200</b>	<b>From 250 to 500</b>	<b>From 1000 to 5000</b>	<b>From 5000 to 10000</b>	<b>More than 10000</b>
The share of innovative companies (%)	1,2	4,6	7,0	12,5	39	70	76,6

A large amount of research was conducted to discover the specific roles of the companies of different size and industry affiliation in innovation process. Economists and business experts have generated a long series of theoretical papers, econometric analyses, and case studies, examining the impact of scale on innovation. What enterprises possess the most powerful innovative potential?

The economic theory suggests a few approaches to estimation of small and large businesses roles in an innovation system. One of the most influential economists of the 20th century J. Schumpeter asserted that the agents that drive innovation and the economy are large companies which have the resources and capital to invest in research and development. This statement was later developed by a number of prominent economists such as J. Galbraith and A. Chandler, who wrote extensively about the scale and the management structures of modern corporations. There is the opposite position within which it's asserted that small and medium-sized companies are more effective in innovations (create more innovations per worker) than large ones. Nevertheless, after all this research, the problem remains debatable.

Large companies possess more significant material advantages such as superior financial, human, and technological resources in comparison with small and medium sized companies. On the other hand, growth of the enterprise scale is followed by bureaucratization of management systems reducing the rate of response to changes in market conditions.

Strong points of small business in the field of innovation are related to behavioral advantages including: flexibility, entrepreneur's culture, a lack of red tape, the capabilities to fast adaptation to changing market situation, the higher receptivity to innovative ideas and so on.

In the paper from the broad range of issues dealing with increasing of Russian business innovative activity we have focused our attention on the comparative analysis of innovative strategies of large and small business in Russia.

<sup>100</sup> Gohberg L. (ed.), 2011, *Russian Innovation Index*, HSE, Moscow

## 2. SMALL BUSINESSES: STRATEGIC PRIORITIES AND CHARACTERISTICS OF INNOVATIVE BEHAVIOR

Lately Russian researchers are paying growing attention to the problems of innovative entrepreneurship in small business. In our analysis of innovative behavior of small enterprises, we used first and foremost data collected through special study of small innovative firms located in Novosibirsk Scientific Centre.<sup>101</sup> In addition, data collected in the project “Competing for the Future Today: a New Innovation Policy for Russia”, comprising a survey of executives of more than two hundred of Russian small innovative companies, were used.

In our study of trajectories of small innovative firms we based on K. Pavitt’s research, where four types of small companies were identified on the basis of their models of innovative behavior – “superstars”, “start-ups”, “specialized suppliers”, “supplier dominated firms”.<sup>102</sup> *Superstars* are large companies arisen from scratch and rapidly grown due to a major invention or rich technological trajectory.

*Start-ups* are new companies, which had recently split off from large corporations or major research laboratories.

Category *specialized suppliers* comprises small companies contributing substantially to complex manufacturing systems in the form of equipment, components, tools or software.

*Supplier dominated firms* are small companies where suppliers appear to be the main source of innovative technologies.

Our analysis showed that the majority of small innovative firms of the sample belongs to the types of start-ups or specialized suppliers, while two IT companies (Center of Financial Technologies, Inc and Alawar Entertainment), which have managed to realize uncommon success business stories, might be classified as superstars.

Center of Financial Technologies, Inc. (CFT) is the group of innovative companies which has been operating in the Russian IT solutions market since 1991. CFT occupies the first position in the ranking of Russian IT companies operating in the field of developing IT-solutions for various financial institutions and is proud to have more than 250 financial institutions as its clients.

Alawar Entertainment, Inc engages in the development of casual games. The company was founded in 1999 in Novosibirsk and now it ranks among the top ten global companies in computer games market. Alawar Entertainment offers its products through its online game platforms, and online and CD distributors. Alawar has active partnerships with about 30 external game studios providing development, publication and distribution services (including financing, production and marketing assistance). Although based in Russia, Alawar now is a global company with a presence in the U.S. and Eastern Europe.

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<sup>101</sup> The study was conducted in 2009 – 2010 by the group of researchers with the participation of the author. The special questionnaire was worked out. The sample consists of 60 firms.

<sup>102</sup> Tidd J., Bessant J., Pavitt K. Managing Innovation. Second ed., John Wiley & Sons Ltd, England, 2003.

Our analysis of strategies of these two companies (CFT and Alawar) shows that their success factors are similar and include:

- emerging market opportunities,
- rapid advances in technological sphere providing a platform for new product development and continuous updating of product lines,
- appropriate business model transformations aiming to foster innovative activity,
- developing partnerships with key stakeholders.

Analysis of *start-ups* models of innovative behavior based on our sample revealed that scientific works and expert knowledge of academic institutes lie behind their core competencies. The majority of small innovative companies serve specialized niches which are characterized by the lack of synergy effects with other markets. For this reason, as world experience demonstrates, a very few of small companies has a chance to become a star. Characteristic behavior model for such companies is innovative entrepreneurship comprising a selection and pilot introduction of new scientific and technical ideas.

Growth perspectives of small innovative firms depend on broad range of factors such as:

- market potential,
- business founder's goals,
- abilities for fast product development based on available technology platform,
- - creating managerial skills.

As far as "*specialized suppliers*" are concerned, our analysis showed that development and production of special devices, apparatus, and software, as well as rendering of engineering services are the dominant sphere of companies fallen into this category. Innovative objectives and behavior models of specialized suppliers are mostly determined by their customer requirements – Russian and foreign industrial companies, scientific institutes, governments and security forces.

The main sources of competitive advantages and the key objectives of innovative strategy, revealed for the above types of innovative firms, are systemized in the table 2.

*Table 2: Types of innovative firms(adopted by author)*

	<b>Superstars</b>	<b>Start-ups</b>	<b>Specialized suppliers</b>
<b>Sources of competitive advantages</b>	Successful use of technological trajectories.	Commercialization of academic research.	Combination of technologies in accordance with the consumer requirements.
<b>Key objectives of innovative strategy</b>	Product and business model development, partnership.	A Star or Specialized supplier?	Connections with advanced consumers, development of technological competences.

In the framework of our survey we allocated a group of companies (30% of the sample) which we called "The leaders". These companies produce goods and services with the high level of novelty (new for domestic market or for the world market) and distribute their products for national or world market. The respondents assess the level of their products novelty as rather high (61.5% believe their products to be new for Russian market, and 50% – new for the world market). Our survey demonstrates that the leaders prefer to deliver high quality product or service at a high price.

### **3. THE COMPARISON OF INNOVATIVE BEHAVIOR OF LARGE AND SMALL BUSINESS IN RUSSIA**

In analyzing innovative strategies of large companies we relied on the information received by interviewing a number of top managers of Siberian companies coupled with a range of other analytical works including:

- rating agency “Expert RA” research
- inputs for the report of the RSPP “The Competitiveness of Russian Business and its Development in the Near Future”
- research of the New Economic School (NES)
- Analytical report of the Center of Technology and Innovation PriceWaterhouseCoopers.

The heterogeneity of data sets underlying this research as well as different approaches to data collection and analysis cause the illegitimacy of comparing numerical values of the specific parameters. Nevertheless, we were able to identify some general facts and trends.

To characterize the features of innovative behavior we have divided large businesses into two types: large and medium-sized companies with a traditional business model and major innovation-driven companies with integrated business models (companies with research and production units).

It's well-known that large companies with a traditional business model are in the basis of Russian industry; as a result the majority of Russian companies follow a conservative model of innovative behavior. Large companies with a traditional business model are characterized by the existing structure of commodity output and supply chain. Certainly, strategic focus of such companies on operational efficiency and financial performance affects their innovation priorities. Thus, characteristics of innovative behavior of large companies with a traditional business model include incremental product and process innovations.

Indeed, according to available data, only 5% of large innovation-active companies believe their product to be new on the world market, when the majority aims their product innovations to the Russian national market. Similar conclusions were made in the framework of the “Expert RA” agency research of innovative projects of large Russian companies. In the generated list the majority of projects aim to increase quality of traditional products or to upgrade them to higher price segments. Companies referred to less than 25% of innovative projects as exceeding the world level. The rest were estimated as matching the best world analogs or offering a better interrelation “price – value” while providing the similar quality characteristics.<sup>103</sup>

Thus, characteristics of innovative behavior of large companies with a traditional business model include incremental product and process innovations.

Major innovation-driven companies with an integrated business model have in their structure both traditional production units and innovative units, which are involved in the development of new high-tech areas. Unfortunately, there are very few businesses in Russia, which can be classified as large innovation-oriented companies with an integrated business model. The

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<sup>103</sup> Big Business Innovation. “Expert RA” researches, (2013)  
Available at: [http://www.raexpert.ru/researches/stimulate\\_innovation/part1](http://www.raexpert.ru/researches/stimulate_innovation/part1)

most vivid examples are Rosatom State Nuclear Energy Corporation, Russian Technologies State Corporation, Corporation (AFK) “System”, and Federal Grid Company UES. Innovation priorities of major innovation-oriented companies with integrated business models are consistent with the hybrid model of behavior, which combines the traditional model with innovative entrepreneurship.

As a whole, the innovative activity of Russian large companies is mostly related to purchase of machinery and equipment of foreign production. Even super large companies with a number of employees more than 10 thousand people prefer to import the key knowledge from abroad. This is due to a bunch of factors with the depth of technological gap determining an “overtaking” character of their strategies among the most important.

Data shows that a high proportion of companies (34.6%), within the group of innovation-active, did not perform any activity related to the creation of new knowledge (research, development, design), which indicates that their strategies belong to a passive technological adoption type. Notwithstanding that the majority of economists agree that namely adoption (borrowing) may become the main source of the fast catching technological development, the experience of advanced countries shows that adoption should be accompanied by additional knowledge creation.

According to the study of rating agency “Expert RA”, before the crisis the share of R&D expenditure in revenues of the largest Russian companies (rating “Expert-400”) was about 0.5%, so 4-6 times lower than that of foreign companies. In two last years, this index had fallen by more than a half - to 0.2% of total revenues. Leaders in terms of R&D investments in Russia are the machine building companies, but even among them, the ratio of R&D expenditures in relation to revenue does not exceed 2%. In less technologically advanced sectors of the economy the gap is even larger. For example, for Severstal Group the ratio of R&D expenditures to the company revenue in 2009 amounted to 0.06%, while the value of the same indicator of metallurgical corporation ArcelorMittal was to 10 times more. According to some estimates, corporate spending on R&D in Russia had been rapidly recovering in 2010. However, the return of innovative activity of large Russian companies to pre-crisis levels would only mean the conservation of the gap with the world's technological leaders.

Entrepreneurs themselves, consider underfunding as a leading cause of the sluggish innovative activity of enterprises. According to statistics, 74% of the total expenditure on innovation in the industry as a whole in 2009 were own funds of enterprises. Budget support provided only 3.4% of these costs. Our study confirms that this trend holds for small innovative firms. 98% of the respondents used own funds to finance innovation. Among other sources of funding, the majority of respondents pointed bank loans, public and partners money.

The typical characteristics of innovative behavior for the different groups of small and large companies are summarized in Table 3.

*Table 34: Models of innovative behavior (adopted by author)*

Type of company	Characteristics of innovative behavior
<b>Small innovative companies</b>	
-Spin-offs	Innovative entrepreneurship - selection and pilot exploration of scientific and technological ideas
- Specialized suppliers	Design and production of the specific components
<b>Large and medium-sized companies</b>	
Large/medium-sized companies with traditional business models	Incremental product and process innovations
Major innovation-driven companies with integrated business models	The hybrid model (traditional model + innovative entrepreneurship)

The above presented analysis allows us to draw the following conclusions. Although large business is in the center of Russian innovation system, the majority of biggest Russian companies focus their innovations on the national market, pursuing the strategy of passive technological borrowing. Innovation activity of small business as a whole is lower than the average in Russia and much lower than innovation activity of large corporations. However, the results of different surveys as well as noted success stories of small innovative firms show that there appears a cohort of small innovative companies, which produce goods and services matching the world standards of novelty and focus their activity on the global market.

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<sup>104</sup> Russian Union of Industrialists and Entrepreneurs

## **THE ADVANTAGES OF EXPLORING THE DYNAMICS OF PROFESSIONAL SOCIAL NETWORKS USING QUALITATIVE RESEARCH METHODOLOGY**

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### **ABSTRACT**

*This paper offers in depth arguments into why researchers should approach the issues relating of professional (managerial) social network dynamics using qualitative research methodology and methods. Even though many research endeavors have offered more understanding on how social networks affect various outcome variables such as firm, team or managerial performance, there is a dearth of research on understanding the underlying mechanism of (managerial) professional social network development, change, growth and decay. This is where qualitative research approach steps in, because of its ability to unravel the hidden processes behind pertinent social network research questions. In that light, this paper offers arguments into why qualitative research is applicable to the existing research problems in the field of managerial social networks.*

### **1. INTRODUCTION**

Much has been written on social networks in organizations, and the field has made great progress in terms of understanding what constitutes a social network (Brass, 2002; Borgatti & Halgin, 2011) and how the networks are structured (e.g. Krackhardt, 1994). A large number of studies have highlighted the importance of managerial network structure as a factor associated with the manager's superior performance or the performance of the organization they manage (Krackhardt and Porter, 1986; Burt, 1992, 2005; Poppo and Zenger, 2002; Mehra, Kilduff & Brass, 2001; Leavitt, 1951; Sparrowe, Liden, Wayne & Kraimer, 2001; Soda & Zaheer, 2012). Nevertheless, there is a dearth of research on understanding the underlying mechanisms of (managerial) social network development, as well as the creation, growth and evolution of social networks (Jack, 2005; Borgatti & Halgin, 2011). As Ahuja, Soda & Zaheer (2012) note, in order to understand network outcomes, we have to understand where networks come from and how they evolve. Hence, there is a lack of knowledge on how ties in social networks are used, which ties are sustained longer - ones residing more on affective or ones residing more on cognitive trust, or whether ties become dormant to perhaps be resurrected later. Additionally, research is needed on understanding how ties go into decay (Burt, 2000; Galunic, Jonczyk, Lee & Bensaou, 2013). The empirical research on these network phenomena assumes trust as the underlying mechanism behind tie creation (McAllister, 1995) and mechanism for cohesion and efficiency when it comes to tie dissolution (Galunic et. al, 2013).

Qualitative research methods, considering the rich and more nuanced data produced from this approach, have been suggested as a mechanism for understanding the development of ties in professional networks (Hoang & Antoncich, 2003; Oh, Chung & Labianca, 2004; Jack, 2005; Ahuja, Soda & Zaheer, 2012).

When using qualitative approach to understanding social network dynamics, researchers do not assume that it is known how the network comes about or what the motives behind network creation are. Using qualitative methods of data collection, researchers have an insight

into the respondent's perception of the examined concepts without suggesting answers, which happens to be the case in quantitative surveys. With interviews, researchers get a picture that is much less under the influence of researcher's prejudices and ideas of how the world "should be" (Cohen et al., 2007: 350; Patton, 2002: 20). The qualitative approach in investigating social networks and its change is beneficial in the sense that qualitative studies provide more insight in the process of network creation which can consequentially inform the hypotheses for a quantitative study. Taking into consideration the endogeneity problem of network outcome studies, using the interview method for the qualitative study, it can be better understood if managers approach their networks strategically and if they do, how they go about that process.

## **2. ON QUALITATIVE RESEARCH**

As a paradigmatic, epistemological research framework, researchers should use the epistemological approach which corresponds to the pertinent research design.

In the qualitative approach, with using the interview method, the research instrument is the researcher alone who asks respondents the questions and later interprets the collected narratives (Maxwell, 2012).

The perspective often used with qualitative research is social constructivism. This perspective rests on the fact that reality is a social construct where individuals who interpret the world around them construct the meanings (Crotty, 2007: 8). In this paradigm, everything has different meaning depending on the circumstances and context. In researching social networks qualitatively, the social network has a different meaning and a different significance for each interviewed respondent. The social network created by managers is largely determined by what they perceive as the value of each of the relationship that forms their social network.

According to the research questions that are based on the process of emergence and development and the dynamics within the manager's social network, and for answers to research questions that begin with why and how, researchers use qualitative research methods. Qualitative research is preferred when describing processes, content and dynamics of a phenomenon, in this case, the manager's professional social network creation and development. This method allows to seek meaning behind certain actions. Likewise, the goal of the research is to "understand" rather than "measure" the impact of the concepts described in the research objectives (Jack, 2005).

Qualitative studies on social networks assume that the dimensions of social networks that are investigated and that the respondents would describe are intimate and relevant to social network that manager builds. In addition, the characteristics of the dynamics of social networks such as tie creation and tie change is difficult, if not impossible to measure "objectively" by quantitative methods. Qualitative methods do not assume that we know how to create a social network, but instead, it is something that we as researchers we are trying to learn from our respondents.

## **3. WHICH APPROACH TO USE**

The qualitative approach that I suggest be used is called thematic analysis and grounded theory approach. The constructivist approach to grounded theory embodies the perspective of researcher, reveals the experience of embodied, hidden social structures such as informal social networks and relationships in them and makes visible the hierarchy of power and communication (Charmaz, 2006). In this approach, the theoretical contribution is being built simultaneously with the analysis of the research results. Analyzing the data is done through open coding, from which a number of categories emerge through a process of coding interview transcripts. In the open coding, one central category is selected around which a



theory is being developed. This is done by analyzing recognized open codes and choosing the one with the largest containing conceptual interest, which is often expressed in interviews with respondents, and thus is most saturated with information. The final result of the analysis of the qualitative data using method of the grounded theory is a diagram illustrating a process, flow or phase activities that were observed in the research. This diagram is actually a theoretical model that is built through the grounded theory approach. In this study case, the diagram will represent the stages of development of the manager's social network, together with the causal conditions for the development of the network, intervening conditions, strategies and consequences of the dynamics of relationships within the network (Creswell, 2012). Interviewed professionals (managers) should be chosen if their networks are estimated to serve as a good illustration of the process of networking. The goal of qualitative research is not to get a representative sample of responses that may be generalized to the level of the population; instead, the goal is to generalize conclusions at the level of concepts. One appropriate method by which the managers can be chosen is theoretical sampling. Theoretical sampling allows: first, to minimize the differences between the subjects to be able to identify the underlying categories and characteristics, and then, secondly, the method of maximum variation sample maximizes the differences among respondents so we can detect a wide variety of possible characteristics of the studied process, that then we group with the aim of construction of a new theoretical contribution (Jack, 2005). Once the answers to the questions in the interviews reach saturation with regard to the description and understanding of a specific mechanism or construct, there is no longer a need for expanding the sample. Described categories are saturated when the researcher cannot find more information that would contribute to the understanding of the chosen category. Saturation of responses is reached on average after about 25-30 interviews (Mason, 2010). Considering that the qualitative study on social network dynamics looks at a prolonged process of developing a social network in which potentially different actors and structures played a variety of roles, managers as active participants in their own socialization are best qualified for the reconstruction of the socialization process in the construction of their informal social networks. Such an approach can be called 'person-oriented' than the one more commonly used 'variable-oriented'. Approach focused on the variables is often criticized by qualitative researchers for focusing on an isolated, one-dimensional variable as an abstract social fact (Abbott, 1990; Cairns et al., 1998). 'Person-oriented' approach assumes that no social fact makes sense aside from the temporal and spatial context and, although the process is revealed through individual managerial experience, as well as the discovery, it can be applied to a larger population (Vuković-Brajdić, 2012, according to Hermanowicz 2007). The suggested research method would be open in-depth interview with the elements of life-history interview combined with thematic units on the basis of interview guide approach, by which questions were posed. Through the method of life-history interview researchers would be able to identify the typical phases in the history of the development of manager's social network. Using interviews in the research process indicates a shift from observing research subjects as a data, something outside to the research subjects, and moving towards knowledge that is created between the participants and researchers, through conversation. Inter-view literally means changes of views between two or more people on the topic of common interest, which sees the interaction between people as a central element required in the production of knowledge. It also emphasizes the social moment of the collected data (Cohen et al., 2007: 349). Interview allows those who participate in it, whether they are interviewed or they interview, to discuss their own interpretations of the world and to express how they see the situation from their perspective, without predetermination characterized by pre-selected categories, which are made in survey questionnaires (Cohen et al., 2007: 350; Patton, 2002:

20). The interview is a flexible tool for collecting data because it allows the use of multiple channels: verbal, non-verbal, spoken and listened. Data obtained in an interview with open-ended questions in qualitative research helps the researcher to understand the perceptions, feelings and knowledge of subjects through in-depth interviews. In this way one gains insight into the perception of the studied concepts of participants without having to suggest answers, thereby getting an image that is much less influenced by researcher's prejudices and perceptions of what and how things 'should be'. This openness best shows the difference between the closed questionnaires or surveys used in quantitative surveys and interviews or observations that are used in qualitative research. Closed instruments force participants to integrate their knowledge, experiences and feelings in the listed categories made by a researcher who compiled the questionnaire. The fundamental principle of qualitative interviews is to provide a framework in which participants can express their understanding in their own terms (Patton, 2002: 348). The subject is to determine everything that is essential for the investigated problem and all the characteristics of the observed phenomena. With quantitative research we assume that we know all the characteristics and factors of the observed process and we are trying to determine the extent to which those variables are represented, while in using the interview method, where respondents are asked how and what affects them, the danger of suggestiveness is minimized. There is more than one kind of interviews that can be used in a qualitative research.<sup>105</sup> Interview method used in this study goes through certain topics and schedule of topics and issues created through conversation. During the interview respondents were asked to offer their own definition of the concepts that are important for this study to test whether respondents have approximately the same definitions of the concepts that were discussed. Unstructured conversation sometimes causes a different response structure which reduces the comparability of responses, and thus the possibility of codifying and categorizing responses as the next important research task (Cohen et al., 2007: 353). Disadvantage in using the interview method is that it requires a lot of time, which it is influenced by the prejudices of researcher, that it can be unpleasant for the subjects and that there are a lot of circumstances that may affect the sincerity and willingness of respondents to answer truthfully.

#### **4. CONCLUSION**

Considering the ubiquitous issue of endogeneity present in quantitative research on professional (managerial) social network, I suggest more researchers start using the qualitative approach partly because the problem of reverse causality and partly because the underlying mechanisms are only revealed once we deconstruct the process behind them, which is possible to do more adequately and validly in qualitative research projects.

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<sup>105</sup> Along with interviews, qualitative researchers collect data through observation, content analysis, document analysis etc. (Patton, M.Q., 2002: 4).

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## **STUDY OF THE GOOD PRACTICES IN PERSONNEL MANAGEMENT IN WOODWORKING AND FURNITURE ENTERPRISES IN BULGARIA**

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### **ABSTRACT**

*Personnel management in contemporary organizations is an important part of the company management. A main prerequisite for business improvement is employee development, which is related to skills and competency enhancement. It provides company growth, financial success and competitiveness. Extremely important topics in the companies are issues like wages, motivation and staff training. Managers are looking for different options in personnel motivation in the organization, using both financial and non-financial motivators, and also various forms of training. This report aims to present basic theoretical and practical aspects of personnel management in Small and Medium Enterprises in Bulgaria, and in particular - good business practices in woodworking and furniture firms.*

**Keywords:** *Motivation, Personnel management, Small and Medium Enterprises, Training and staff development, Woodworking and furniture enterprises*

### **1. INTRODUCTION**

Today personnel management needs to be considered in the context of knowledge based economy and its changing role and importance for the development of the countries, sectors and industrial enterprises.

The knowledge development largely determines the directions and the practical issues for economic and company's development. (Drucker, Post-Capitalist Society, 1993). The new role of knowledge and innovations is indisputable. For the competitive success of industries and companies in addition to knowledge, important are also other factors such as: national structures of economy, values, institutions and culture. (Porter, Competitive Advantage of Nations, 2004). Several Bulgarian authors motivate the need of a new way of using the national resources, including knowledge as such a resource. (Chobanova, Innovativeness of National Economy, 2013).

Knowledge is also concerned with the documents of the Organization for Economic Cooperation and Development. The latter is focused to different forms of knowledge and to its role in the economic processes. Nations that develop and manage effectively their knowledge – perform better, and people with more knowledge get better paid work. Strategic role and importance of knowledge suppose an increase of investments in education and training.

Education, training and lifelong learning and also the spread and use of new technologies for communication and access to information are prerequisites for increasing national and

company knowledge resources and only as this is so meaning for the economic development of a country.

The above formulations justify the relevance and importance of the problem for the used in the practice approaches and specific methods in order to increase the company's knowledge resources and overall for the personnel management.

## **2. PERSONNEL MANAGEMENT IN SMALL AND MEDIUM ENTERPRISES (SMEs) IN WOODWORKING AND FURNITURE INDUSTRY IN BULGARIA.**

Personnel management in SMEs in woodworking and furniture industry in Bulgaria is considered for owners and managers as an important part of business management and development. Extremely important topics in the companies are issues like salary, motivation and staff qualifications. Specific research in this area (Ivanova, Stoenchev, Ivanov, Kostadinov, Competitiveness of the Furniture Industry, 2010) indicated a positive attitude of managers to the problems of human resources in these enterprises, resulting in the following areas:

First – elaboration of the staff motivating system – 100% of the researched SMEs have such a system.

Managers look for various possibilities to motivate the different staff categories in firms, applying both financial and non-financial motivators. Financial motivators most often are linked to quality and marketing of the product, respectively with the financial revenues and profit.

Recently, more interesting are the non-financial and indirect financial motivators, such as: various social benefits, better working conditions, clothing, food, transportation and more. The present interest acquired also motivators as pension and health insurance, life and accident insurance and others.

What specific packages of motivators will managers choose and use, depends on many factors like: size of the company, corporate strategy and policy in relation to human resources, but most of all it depends on the organizational culture and management style and competence.

Second – development system for improving staff qualifications – 2/3 of the studied enterprises use that kind of system. Apparently the positively answered respondents consider not a comprehensive system for personnel qualification, but separate aspects of this system.

In recent years, SMEs in woodworking and furniture industry have used different opportunities for training staff, which have been provided by various international projects and programs. Hot topics for training, that companies state as continuing education, most often are: company management, export, marketing, logistics, standardization and salaries, team work, project management and more.

An increasing popularity and applicability acquire the courses for internal company training. Their effectiveness is largely determined by the fact that topical issues are placed under the form of questions and discussions and are considered real case studies, occurred already in business management practice. Moreover, the management receives immediate feedback and can flexibly react to pressing problems.

### **3- METHOD OF STUDY THE GOOD PRACTICES IN PERSONNEL MANAGEMENT IN WOODWORKING AND FURNITURE ENTERPRISES IN BULGARIA**

Based on the aim of this report is designed questionnaire by which has held a specific research. The inquiry card includes the following group of questions:

- Questions about selection and hiring of personnel.
- Questions about approaches and methods of staff training.
- Questions about remuneration and motivation of staff.
- Questions about problems, achievements and capabilities of the company in personnel management.

The obtained information from the direct study of place – the company “Kastamonu Bulgaria” JSC - contains expert assessments of the functional specialists and managers about the surveyed range of problem issues.

“Kastamonu Bulgaria” JSC is a part of the Turkish company “Kastamonu Entegre”.

“Kastamonu Entegre” was established in Istanbul and operates since 1969 as a part from the Turkish Hayat Holding. The first complex began manufacturing in 1971 in Kastamonu with the production of particle boards.

“Kastamonu Entegre” develops its activity in the Woodworking and Furniture Industry. The company manufactures particle boards (Teknopan, Teknolam, Yongapan, Yongalam), MDF (Medepan, Medelam), laminate flooring (Floorpan, Artfloor), door panels (Doorpan) and related value-added products for the needs of the furniture, decoration and construction sector.

For the past ten years the company have been growing nonstop in the double digits. They have formed a senior management team that is based on consistency and trust. They have determined the right strategies and goals and prioritized customer oriented growth and always succeeded. Among the many features that make “Kastamonu Entegre” distinctive, in addition to its corporate structure, is fast, reliable, knowledgeable, innovative and qualified human resources.

The select human resources, who focus on customer satisfaction, understand the needs of customers and can respond to these needs with the correct products and services, is just one of the features that distinguishes “Kastamonu Entegre” from its competitors. The company sees every employee as a family member carrying responsibilities. “Kastamonu Entegre” believes that one of the most important factors in the way of achieving success is ensuring the continuous development of staff. In globalization of business their priority is achieving a future together with executives, managers and leaders, who observe changes and have knowledge and experience to move the company forward.

Today “Kastamonu Entegre” is rapidly moving forward towards their goal of making their market share of 30% according to products groups in Turkey even larger and becoming the regional leader. With the new investments that the company have made achieved a growth of 30% in 2012 to realize a turnover of 1.1 billion USD. As “Kastamonu Entegre” the management will continue to focus our future investments abroad in order to achieve sustainable growth and regional leadership. The market in Turkey having reached a certain level of saturation and the limited wood raw material have also been factors in our taking this direction. The goal of “Kastamonu” now will be to increase their market share in markets

outside of Turkey and to develop the production and sales geography of the sector in order to grow. In the next six years 800 million dollars will be invested in an MDF, particle board and OSB facility in Russia, an MDF facility in Romania, an MDF facility in the Antalya-Denizli region of Turkey and an OSB facility in Bulgaria. (<http://kastamonuentegre.com.tr/en/keas-corporate>).

#### **4. ANALYSIS OF THE INFORMATION OBTAINED FROM KASTAMONU BULGARIA**

The first question in the study focuses on obtaining information about the way of selecting staff in the company. It includes the following possible sources for recruiting new personnel (Vatchkova, Zhelyazova, Mladenova, Human Resource Management for Entrepreneurs in Forestry, 2007, p.121):

- Inner company staff selection, i.e. requalification or improving the qualification of staff raising to higher position the employees.
- Employment Agency and its territorial structures.
- Private consulting companies.
- Universities, colleges and specialized schools.
- Companies from the industry, competitors.
- Interpreted personal recommendations.
- Internet, media advertising.
- Job fairs.
- Trade unions, professional organizations and associations.

This question doesn't exhaust all possible ways to recruit new employees, but presents 10 main possibilities for this activity. The studied enterprise "Kastamonu" JSC stated that the selection of new staff in the company is implemented primarily through the Employment Agency in Bulgaria and its territorial structures as well as ads on the Internet and media advertising.

The company uses very limited the opportunities that the labor market offers in terms of sources of new personnel. "Kastamonu Bulgaria" has long-standing contacts with the University of Forestry-Sofia and this can be used as a positive direction in finding appropriate experts, because the university prepares good professionals in the field of woodworking and furniture manufacturing through the Faculty of Forest Industry.

Closely related to the staff selection is the next question in the survey, associated with the availability of a program for socializing newly recruited staff. Each organization must have such a program, because with it begins the adaption of the new personnel to the working environment and process, which helps to achieve full effectiveness within the shortest time and the establishment of effective working relations with clients, colleagues and managers. "Kastamonu" doesn't indicate the existence of such a program.

Perhaps the managers now prefer newly recruited personnel, on their own initiative, little by little to get known and to adapt to the working environment and working process in the company.

People are the most important resource in every company. It depends on them whether the workflow will be as efficient and the productivity – respectively the highest. For this reason it is often necessary the staff to be trained.

Education is an investment in human resources in order to be created opportunities for the employees to work better, to use their qualities and skills more complete, to create new ones and constantly to evolve themselves. (Vatchkova, Zhelyazova, Mladenova, Human Resource Management for Entrepreneurs in Forestry, 2007, p. 162) In this direction are the questions in the survey related to the approaches and methods of staff training.

The first question in this group is related to available system, which surveys periodically the needs of the staff from additional education. As well established company in the woodworking and furniture sector in Bulgaria, “Kastamonu” could boast with the existence of this kind of system.

In order to control the working process of the enterprise, it is necessarily the staff of each unit in the company to be trained for the specific work with modern technology, which is used in production. Each job position requires qualification and education, which professionals must comply. Therefore the management of “Kastamonu” is constantly working towards providing education to their personnel. The positive trend is that the needs of the staff of additional education are surveyed regularly. That means that the company management has evaluated the importance of the human resources as a major production factor and the need for its continuing development in order to enhance the efficiency of the working process.

The next question in the inquiry card is connected to the provide conditions for staff training. Emphasis is placed on whether employees pay themselves for training or if the company pays for it or uses subsidies as an opportunity for providing education to staff.

The respondents from “Kastamonu” indicated that the company provides conditions for staff training, assuming the entire costs. This highlights again that the personnel are highly esteemed and their improvement is very important for the company management.

In line with the staff training implementation is the next question in the survey about the availability of a program for employees’ qualification improvement in the company. Although it is not mentioned a particular answer to this question, we can assume that staff education and conditions provided for that training are used in practice for improving staff qualifications.

In connection to the used ways and methods for training and its financing, are the following three questions from the survey. The first of them is aimed to study the type of training, which is proposed to the employees. As opportunities for education have identified the next types:

- Inner company courses.
- External courses.
- Distance learning.
- Instructions.
- Career counseling.
- Collective interaction.
- Rotation.
- Other.

From the survey is clear that “Kastamonu” JSC focuses on four ways to carry out training of their personnel. First of all – inner company courses and external company courses – often they are provided in order to acquire new knowledge and skills beyond those applied to the activities in the company, but are required to achieve higher performance and even to raise the



employees in the hierarchy. These courses are extremely effective, because they generate direct questions and examine real case studies. Instructions are the next pointed response and not at least as a method of training is the collective interaction.

Regarding to the form of training are given options as group training, individual training and specialization. “Kastamonu” JSC states the three responses, which is consistent with the specifics of each education, which is held by the company staff.

One of the factors, that have an influence on the used methods of training, it's the form of its financing, which company will choose. In this regard, the question on the inquiry card is limited to 4 options:

- By funds of the company;
- Through financing of projects;
- Through subsidies;
- Other types, different from the specified.

On this question again it is not shown a definite answer from the respondent. The company “Kastamonu” JSC chooses the ways to finance the staff training by estimating its own specific opportunities at the moment. On one hand, financing training through projects or subsidies is an option that saves money for the company. On the other hand, that is a way to deal with economic crisis situations, when there are not enough resources available to provide education to personnel.

Staff training is not an end in itself. Most often aims are to acquire knowledge and skills in a particular area, improving the qualification of the personnel, or re-qualification. On this basis formulates the question in the survey related to the areas of training of the personnel in the company.

The studied enterprise “Kastamonu” JSC stated that employees need mainly to add their technical knowledge. This can be explained by the fact that recently among graduates in Bulgaria is insufficient of engineer specialist.

In order to control the work process of the enterprise, it is obligatory staffs of each unit in the company to be trained for the specific work with devices and techniques that are used in the production. Each job position requires education and qualification which professionals must comply. Therefore the management of “Kastamonu” JSC is constantly working towards providing training to their personnel.

The next part of the questionnaire focuses on remuneration and motivation of staff. These are key features in the management of human resources in every organization. (Ivanova, Management, 2010, p. 137) This group of questions covers the following aspects: requirements for determining wages, which are observed in the organization; commissioning of the payment system to the quantity and quality of the production; salary standard compared to the average for the industry; availability of a system for motivation of staff and approaches that are used to motivate personnel.

By the first question of this problematic group is emphasized on the requirements, which comply with the organization for determining the salary. Information is searched on whether wages are determined according to the existing legislation and agreements in this area,

whether they are sufficiently simple to facilitate their application; if they provide the necessary precision of the result; obtain recognition, comprehension and support; contribute to higher performance.

The surveyed enterprise “Kastamonu” JSC complies all these principles and that leads to achievement of better results in the working process of the company, because the relation between the results from the work of each employee and his salary is considered and it is associated with the personal involvement.

Next in the survey is the problematic issue of the commitment between the payment system with the quantity and quality of the production. “Kastamonu” JSC produces particle boards. With this type of production inevitably is used the pointed relation, because by the condition of the finished products depends whether the enterprise will meet the requirements and the needs of the market for high quality products. Through this relation is achieved effective implementation of the different type of work in the company. Salary, except remuneration, is a kind of motivator, but not the only one. The aim of motivating staff is to improve its performance in work through the implementation of a system with specific instruments for influence on staff.

Managers look for opportunities to motivate different staff categories in companies, using both financial and non-financial motivators. In this regard are the questions in the survey for the availability for staff motivation, its role and approaches for motivation, used in the organization. “Kastamonu” JSC has a system for staff motivation. With it is ensured work to all employees and are provided equal opportunities for professional and career growth. Also the system is used to establish compliance of remuneration with the work performance, to provide safe working conditions and not at least the systems help to maintain a favorable climate in the team.

Specific ways to motivate staff, which the management of “Kastamonu” JSC uses are: cash bonuses, mutual understanding and expressions of interest to the worker; provides opportunities for career growth, gives some kind of awards; provides mobile phone, transportation, participation in celebrations and additional payment for holidays.

## **5. SUGGESTIONS FOR IMPROVING THE SYSTEM FOR PERSONNEL MANAGEMENT IN “KASTAMONU BULGARIA” JSC**

From the implemented research and analysis of the results could be given concrete suggestions to the management of the “Kastamonu” JSC in the field of the personnel management:

- The company could enrich opportunities for staff recruitment, which the labor market offers, such as: private consulting companies; companies from the sector; media advertising; internet and others.
- The management could develop a contemporary program for improving the qualification/quality of the personnel, including various opportunities for training.
- “Kastamonu” JSC should use the established good contacts with wood branch organizations and educational institutions in particular with the Bulgarian Branch Chamber of Woodworking and Furniture Industry and the University of Forestry in Sofia. Also the company can use the opportunities that these two organizations provide for education and training in the field of woodworking and furniture industry

## **6. INSTANCE INNER COMPANY TRAINING PROGRAM FOR THE PERSONNEL OF “KASTAMONU BULGARIA” JSC**

The authors of this report suggest a specific program for inner company training for the personnel of “Kastamonu”.

Subject of the course: “Company management problems in woodworking and furniture enterprises in an economic crisis”

The Purpose of the course: The course is designed for specialist, managers and entrepreneurs from woodworking and furniture enterprises in order to improve corporate strategies in times of economic crisis.

The course contains the basic principles of company management, types of innovations carried out in organizations, types of risk and opportunities for their transfer and efficient management, contemporary marketing tools to increase sales efficiency.

The course is proposed to be organized into four modules:

- 1) Theoretical principles of organizational management
- 2) Corporate innovations
- 3) Risk management
- 4) Contemporary marketing instruments

Head of course: expert in company management.

A Team of three experts will be necessary. The first expert will lead the training in module 1 and 4, the second expert – module 2, the third expert – module 3. The team may include professors from universities and experts from practice.

Course horarium: 30 hours – 15 hours of lectures and 15 hours of exercise.

During the course will be used interactive learning methods such as case studies, tests, discussions and more.

## **7. CONCLUSION**

In globalization the relation between organization success and knowledge is increasingly strong. Today, organizations and business environment are constantly changing, which requires a change in company strategies and policies. If organizations want to exist and develop in the future, they should gradually become a “learning organizations” and to choose appropriate methods of working and dealing with massive flows of information.

“Learning organizations” inherently are “learning society” consisting of “learning members”, who complete each other and work to achieve company goals. Organizational values also change.

Traditional values for training, for a higher position in the professional hierarchy give the way to a new value – that of the learning organization, learning to belong to a new world. Competition shifts within the field of knowledge, learning becomes a determinant factor for individual, group and organizational realization in global.

Managers of the best organizations should take the role of sponsors in discovering and developing talents within the organization. Particularly important is the role of the human

resource managers, who should help the organization to develop sustainable and to handle with the competition.

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## STRATEGY VS. RESILIENCE – WHICH MATTERS MORE?

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### **ABSTRACT**

*Resilience, defined as an ability to bounce back or cope successfully despite substantial adversity (Rutter, 1985), is in focus of various researches. Organizations that operate in today's turbulent environment are aware that their ability to survive and develop sustainably largely depends on their resilience and capacity to adapt to the new situation - their resilience capacity (Coutu, 2002). Resilience is also a result of processes that help organization to maintain its resources in a form that copes positively with unexpected and manages to avoid negative trends (Sutcliffe and Vogus, 2003; Worline et al., 2004), and strategic management is, in its very essence, exactly that process. Relation between resilience and strategy is in the scope of this paper which aims to provide a comprehensive overview of their linkage. Also, this paper proposes that organizations building resilience in the way that it incorporates key processes, budgets and strategic plans, can make it competitive advantage over competitors who are dealing with the same concept only declaratively.*

**Keywords:** *organizational resilience, crisis management, strategic management*

### **1. INTRODUCTION**

The idea of a resilient company is a relatively new concept (Tompkins, 2007), but organizations that operate in today's turbulent environment are aware that their ability to survive and develop sustainably largely depends on their resilience and capacity to adapt to the new situation - their resilience capacity (Coutu, 2002).

Discontinuity is a term that denotes unforeseen events that can suddenly affect the position and state of the industry or company, and that requires immediate response in order to minimize losses in order to exploit opportunities. Drucker (1969) has identified four major sources of discontinuity: the emergence of new technologies, pluralism, globalization of the economy and the dissemination of knowledge. Most of the industries today are facing these discontinuities, in one way or another. For example, the pharmaceutical industry is subject to sudden withdrawals of drugs from the market and making important decisions regarding intellectual property. Car manufacturers are faced with regulations on environmental protection. Manufacturers of fast food are faced with numerous protests of activists.

The terrorist attack on the United States on 11 September, 2001, that had a serious impact on the position of one of the world's largest economies, the deepening global economic crisis, the bankruptcy of the world's leading companies and the need for restructuring of many industries, stress the interdependence of risk, as described previously, faced by modern organizations (Starr et al., 2003).

Inextricably linked to the globalization of trade, finance, telecommunications, corporate activities, and the deregulation and privatization of the supporting infrastructure, the risk of interdependence can be exemplified by the situation in which a seemingly isolated event, such as a small fire at the plant supplier or hacking into computer system starts a spiral of events that the company will lead to a deep and serious crisis.

Organization's protection from this kind of discontinuity imposes the need for effective integration of the concept of job security and corporate strategy. Through assimilation and security strategies, companies not only reduce their exposure to risk, but also find new

business opportunities ensuring business resilience, which in terms of business strategy, can be defined as a combination of business continuity and growth of the company (Shrader and McConnel, 2002).

## **2. ORGANIZATIONAL RESILIENCE**

There are several emerging definitions of resilience, but, the most widely accepted, organizational resilience means good organizational performance, regardless of the economic climate and the environment within which the organization operates (Tompkins, 2007).

Stephenson et al. (2010) in their study of organizational resilience identified two of its predominant dimension: 1) planning and 2) the capacity to adapt, and they clearly show the focus of scientific papers and research approaches in this area. Planning involves risk management strategy, scenario developing and strength building through the strengthening of external resources in anticipation of a crisis. Ability and capacity of the organization to adapt manifest through several indicators that focus on the features and capabilities of internal resources, such as strong leadership, effective management, responsible and quick decision-making, freedom of organizational cultural and behavioral barriers, and an awareness that creativity and innovation are key to future organizational performance (Stephenson et al., 2010).

Parsons (2010) lists eight key attributes to resilient organizations, namely: situational awareness, agility and flexibility, willingness to change, accountability, teamwork, culture, leadership and communication. With this in mind, building resilience has many advantages. They are primarily related to leadership, organizational performance and change management. In the context of leadership, business resilience ensures successful outcomes of strategic and operational planning, and enhanced leadership skills and capacities. Organizational performance includes reduction of costs related to business interruption, including reduced insurance from unexpected losses premiums, faster achievement of financial results of the pre-crisis levels, improved reputation among stakeholders (eg local communities, customers, regulators), increased productivity, employee morale and loyalty, an increased ability to attract quality employees, ability to create sustainable competitive advantage and market share growth. As far as change management, organizational resilience makes it easier to identify emerging threats from the environment, enhancing creativity and innovation, and improved ability to adapt to turbulences and turning them into business opportunities (REAG, 2011).

Significance of influence of owners and management on the development of resilient organizations is still not sufficiently explored area, but it is recognized that the level of resilience that organizations are trying to achieve can be seen through the creation of value. The duty of the organization and an effective feature of good governance is transparent communication between shareholders and other stakeholders in terms of organization's crisis plans and the problems that affect business continuity. At the same time it should be clear which approach will be used.

## **3. RESILIENCE AND STRATEGY**

The success of the corporation never in history rested on unstable foundations. Development of new technologies, regulatory upheavals and geopolitical shocks are just some of the forces that undermine existing business models. As the world becomes a more turbulent, even perennially successful companies such as Disney, Sony, Nordstrom and Hewlett-Packard had to give up parts of their business (Collins and Porass, 1994).

While building their resilience, organizations are faced with four major challenges: cognitive, strategic, political and ideological challenge (Hamel and Valikångas, 2003). Cognitive

challenge relates to the need for organizations to deliver change denial, arrogance and nostalgia for times past. Organizations must continuously monitor changes in their environment, and try to understand how these changes affect their business model. Strategic challenges related to the above described reasons degrade strategy and indicate the importance of permanent alternative strategies consideration. Political challenges are associated with the policy of organization and to its tendency to divert resources from yesterday's products and programs in innovative products and programs of the future, and thus diversification of its portfolio of products and services. Ideological challenge relates to the review of the doctrine of optimization and the fact that the investment in business models optimization that becomes irrelevant seriously undermines the future of business.

Hamel and Valikāngas (2003) emphasize that the company's strategy fails due to four main reasons, namely replication, supplantation, evisceration and exhaustion. Replication occurs when the strategy loses its distinctiveness, and thus the ability to achieve above-average returns. For example, Ford was a pioneer in the SUV category, and today most automakers from Nissan to Porsche also offer vehicles in the same category. Good strategy changes over time and at some point it is replaced with even better one. Whether it is on Dell's business model of computer orders and distribution, where customers themselves pick desired components of a computer and order them through the Internet or on Ikeas strategy of cost leadership through the sale of unassembled furniture, innovation often erodes the earning power of the traditional business model. Along with the market maturity and saturation, strategy easily becomes obsolete, whether it's about customers losing interest, or business optimization programs have reached the point of diminishing returns. Evisceration strategy is linked to the growing bargaining power of buyers, which significantly affects the reduction in profit margins of companies. An example of this is the travel industry, in which customers significantly affected the prices of products and services through the use of the internet for booking and purchasing airline tickets.

Hamel and Valikāngas (2003) define business resilience as a dynamic concept to reinvent business models and strategies in the context of the changed circumstances. So, it does not imply only a one-time response to a crisis situation or recover from failure, but it continuously anticipates and identifies trends that can permanently damage key business processes and affect the ability of conducting the same (Hamel and Valikāngas, 2003).

#### **4. CONCLUDING REMARKS**

Given the growing complexity of business and the growing number of interrelated risks that must be taken into account when defining business resilience, the author of this paper is prone to accept the following definition: Business resilience is the ability to quickly adapt and respond to risks and opportunities, both from organization's external and internal environment order to maintain business continuity, achieve sustainable development and the status of a good and reliable partner and community member.

For organizational resilience to build up, it is essential that its concept is implemented in a comprehensive, corporate strategy and that, at the level of strategic business unit, organization has so called resilience business strategies. Also, in the process of risk mitigation, organizations should focus on exploiting the potential opportunities to ensure, along with business continuity, future growth and development. In that way, resilience, created in the way that it incorporates key processes, budgets and strategic plans, can become a competitive advantage over competitors who are dealing with the same concept only declaratively.

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