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**Varazdin Development and  
Entrepreneurship Agency**

**Economic and Social Development**



**7<sup>th</sup> International Scientific Conference**  
**Book of Proceedings**

**Editors:**  
**Ivica Filipovic, Marina Klacmer Calopa and Fran Galetic**

**New York City**  
**24 October 2014**

**Varazdin Development and Entrepreneurship Agency**

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## Section 1

# Globalization and Challenges of the Modern World

## ANALYSIS OF TAX SYSTEMS IN SLOVAKIA AND HUNGARY

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### ABSTRACT

*Taxes are very important and significant economic and political tool in a market economy. Various definitions of taxes are known from the fiscal theory and practice. In general, the tax can be characterized as a mandatory, legally established, non-equivalent, usually recurring payment, which is paid by taxpayers to the State in a specified amount and within a specified period. Each country has its own tax system, which is the result of historical development. Tax systems have gradually changed, they have been adapted to the specificities and needs of each country. The aim of this paper is to examine the tax systems of two neighbouring Central European countries, namely Slovakia and Hungary, and to determine their position within the European Union. There will be made an analysis of tax revenues in these countries and also an analysis of trends in tax rates. The analyses will be focused mainly on personal income tax, corporate income tax and value added tax; a comparison of the tax burden will be made between Slovakia, Hungary and the European Union Member States. When examining the tax burden the indicator of the tax quota will be used, this is currently one of the most common indicators of measurement and comparison of the tax burden.*

**Keywords:** *tax burden, tax rate, tax system*

### 1. INTRODUCTION

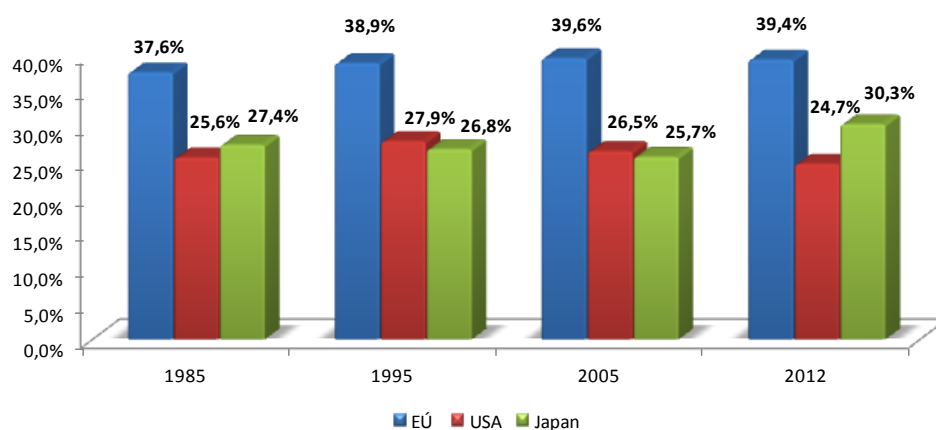
Taxes are an important economic, financial, social and political tool of the state. Each state uses taxes as one of the most important sources of public budgets' revenues. In the literature we can meet various definitions of tax. As Široký says (2012, p. 28) the tax is a compulsory amount, which is predetermined by law and which puts a strain on a part of the nominal income of an economic entity. Taxes belong to the group of indirect economic management tools; they are a tool of redistribution of the created product and they significantly influence the size of the disposable income of individual subjects (Schultzová, 2011, p. 12). Application of taxes and their use is the role of tax policy in each economy. Subject to tax policy (which is very closely linked with the fiscal policy and also with the entire economic policy of the state) is the application of tax principles and measures so that taxes serve to enforce economic, social and political objectives of the state. Through taxes the state influences many



microeconomic and macroeconomic variables such as unemployment, economic growth of the country, inflation, foreign investment, consumption of the population etc. (Korečko, Suhányiová, 2012, p. 20). Changes in taxes affect the behaviour and the decision making of every economic entity, whether positive or negative. Reducing the tax burden leads the business entities to an increase in economic activity, to a growth of the performance of the economy and it contributes to an increased rate of growth of the national economy. If the tax rates are decreasing, there is an increase in the after-tax disposable income, and that is what motivates them and encourages them to work, to create savings and to invest. Then, the positive result is the expanding production; there is an increase in the tax base and also an increase in the tax revenue for public budgets.

## 2. ANALYSIS OF THE TAX BURDEN OF THE MEMBER STATES OF THE EUROPEAN UNION

One of the crucial issues is the problem of the tax burden - from the macroeconomic point of view as well as from the microeconomic point of view. The tax burden reflects the extent to which the tax system (or more precisely the tax) affects the financial resources resulting from the profit of the taxpayer, based on the application of economic or fiscal policy (Schultzová, 2011, p. 23). The tax burden can be measured, respectively expressed by various macroeconomic indicators. One such indicator is the tax quota, which is expressed as a share of collected taxes on gross domestic product for the relevant tax period. To monitor the tax burden of individual EU member countries (28 Member States) the Statistical Office of the European Union - Eurostat (<http://ec.europa.eu/eurostat>) usually uses indicators of tax quota. In this study, the tax quota was determined as a proportion of total tax revenues (taxes and compulsory social contributions) and gross domestic product.



*Figure 1: Tax revenue (including social contributions) EU Aggregates and selected counties (% of GDP)*

*(Source: self elaboration based on "Taxation trends in the European Union" 2010 & 2014)*

According to the report of the European Commission issued in June 2014 (Taxation trends in the European Union, European Commission, Brussels, 2014), the European Union is a zone with high taxes. As highlighted in Figure 1, from the three most advanced industrial centres of the world the highest tax burden in the long term perspective is in the European Union. In 2012, the total share of taxes (that is the sum of taxes and compulsory social contributions) on the weighted average of GDP was represented by 39.4% in the 28 EU Member States. It is almost 15% higher than in the U.S.A. and approximately 10% above the level of Japan.

*Table 1: Total Taxes (including Social Security Contribution) as % of GDP (2003-2012)*  
*(Source: self elaboration based on "Taxation trends in the European Union", 2014)*

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Difference 2003 to 2012	Ranking 2012	Revenue 2012 (mil. €)
<b>EU-28 averages weighted</b>	<b>38,8</b>	<b>38,6</b>	<b>38,9</b>	<b>39,4</b>	<b>39,3</b>	<b>39,2</b>	<b>38,3</b>	<b>38,3</b>	<b>38,8</b>	<b>39,4</b>	<b>0,6</b>		<b>5 109 446</b>
Austria	43,4	43,0	42,1	41,5	41,7	42,7	42,4	42,1	42,2	43,1	-0,3	7	132 334
Belgium	44,7	44,8	44,8	44,4	43,9	44,2	43,4	43,8	44,2	45,4	0,7	2	170 619
Bulgaria	31,0	32,5	31,3	30,7	33,3	32,3	29,0	27,5	27,3	27,9	-3,1	27	11 070
Croatia	37,5	36,7	36,6	37,1	37,4	37,1	36,5	36,4	35,3	35,7	-1,8	13	15 684
Czech Republic	35,4	35,9	35,7	35,3	35,9	34,4	33,4	33,6	34,6	35,0	-0,4	16	53 540
Cyprus	32,2	33,0	35,0	35,8	40,1	38,6	35,3	35,6	35,3	35,3	3,1	15	6 250
Denmark	48,0	49,0	50,8	49,6	48,9	47,8	47,8	47,5	47,7	48,1	0,1	1	118 064
Estonia	30,8	30,6	30,6	30,7	31,4	31,9	35,3	34,0	32,3	32,5	1,7	21	5 659
Finland	44,1	43,5	43,9	43,8	43,0	42,9	42,8	42,5	43,7	44,1	=	5	84 878
France	43,1	43,3	43,8	44,1	43,4	43,2	42,1	42,5	43,7	45,0	1,9	3	913 542
Germany	39,1	38,3	38,3	38,6	38,7	38,9	39,4	38,4	38,5	39,1	=	10	1 042 990
Greece	32,1	31,3	32,2	31,7	32,5	32,1	30,5	31,7	32,4	33,7	1,6	17	65 348
<b>Hungary</b>	<b>38,0</b>	<b>37,7</b>	<b>37,4</b>	<b>37,3</b>	<b>40,4</b>	<b>40,3</b>	<b>40,1</b>	<b>38,1</b>	<b>37,3</b>	<b>39,2</b>	<b>1,2</b>	<b>9</b>	<b>38 008</b>
Ireland	38,8	30,1	30,6	32,1	31,5	39,5	38,1	28,0	28,2	28,7	-10,1	23	47 037
Italy	41,0	40,4	40,1	41,7	42,7	42,7	42,9	42,5	42,4	44,0	3,0	6	689 289
Latvia	28,6	28,6	29,2	30,6	30,6	29,2	26,6	27,2	27,6	27,9	-0,7	26	6 216
Lithuania	28,8	28,9	29,1	30,0	30,2	30,7	30,4	28,5	27,4	27,2	-1,6	28	8 962
Luxembourg	38,1	37,3	37,6	35,9	35,6	37,5	39,8	38,1	38,2	39,3	1,2	8	16 846
Malta	30,4	31,3	32,9	33,0	33,9	33,0	33,4	32,2	33,0	33,6	3,2	18	2 304
Netherlands	37,4	37,5	37,6	39,0	38,7	39,2	38,2	38,9	38,6	39,0	1,6	11	233 808
Poland	32,2	31,5	32,8	33,8	34,8	34,3	31,8	31,8	32,3	32,5	0,3	20	123 933
Portugal	31,6	30,5	31,4	32,1	32,8	32,8	31,0	31,5	33,2	32,4	0,8	22	53 433
Romania	27,7	27,2	27,8	28,5	29,0	28,0	26,9	26,8	28,4	28,3	0,6	25	37 297
Slovenia	38,0	38,1	38,6	38,3	37,7	37,3	37,2	37,7	37,2	37,6	-0,4	12	13 276
<b>Slovakia</b>	<b>32,9</b>	<b>31,5</b>	<b>31,3</b>	<b>29,3</b>	<b>29,3</b>	<b>29,1</b>	<b>28,7</b>	<b>28,1</b>	<b>28,6</b>	<b>28,3</b>	<b>-4,6</b>	<b>24</b>	<b>20 134</b>
Spain	33,9	34,8	35,9	36,8	37,1	32,9	30,7	32,2	31,8	32,5	-1,4	19	334 796
Sweden	47,8	48,0	48,9	48,3	47,3	46,4	46,5	45,4	44,4	44,2	-3,6	4	180 292
United Kingdom	34,4	34,9	35,4	36,1	35,7	37,1	34,3	35,0	35,8	35,4	1,0	14	683 841

Tax revenues and social security contributions expressed as a percentage of GDP reached a level of 38.8% in the reference year 2003 in the 28 countries that are now a part of the European Union. In the year 2012 it was 39.4%, it means that for the period 2003-2012 the average share of tax on GDP increased by 0.6%. The second most noticeable decrease of the tax burden was in Slovakia (it was -4.6%) immediately after Ireland (with a decrease -10.1%). The same increase in the tax burden of the EU countries can also be seen in 2012 compared to 2011, when it reached the same level as in 2003 (38.8%), thus the annual increase was 0.6%. There has been significant differences in the tax burden in the EU countries in 2012. The lowest tax burden (taxes and compulsory social contributions) has been in Lithuania (27.2%), in Bulgaria and Latvia (identically 27.9%), and in Slovakia and Romania (identically 28.3%). On the other side, the highest burden was in Denmark (48.1%), Belgium (45.4%), France (45%) and Sweden (44.2%). When evaluating the above data in the Table 1, we can say that in 2012 Slovakia had the third strongest decline compared to 2011 within the EU Member States, when the tax burden decreased more significantly only in Portugal and the UK. At the same time Slovakia had the fourth lowest tax burden across the EU (together with Romania). In Hungary can be seen an increase by 1.9% in 2012 compared to 2011. It was the most significant increase in the EU. Hungary was followed by Italy with an increase in the tax burden by 1.6%, and more than 1% of tax burden increase was experienced in other 5 countries. The tax burden increased in Italy from 42.4% to 44%; in Greece from 32.4% to 33.7%; in France from 43.7% to 45%; in Belgium from 44.2% to 45.4%; and in Luxemburg from 38.2% to 39.3%. The Hungarian tax burden is the 9th highest among the 28 EU Member States.

### 3. COMPARATIVE ANALYSIS OF THE TAX SYSTEM IN HUNGARY AND SLOVAKIA

The following text contains a brief analysis of the tax systems of the two neighbouring and historically close EU member states, namely Slovakia and Hungary. Data to compare the basic features of the tax systems and the development of the individual tax rates were drawn from the freely available Eurostat database and the tax laws of the countries analyzed.

**Hungary** is located in the Central Europe; it is a multiparty republic with a unicameral Parliament. The head of state is the president. The population is about 10 million inhabitants, the area of 93,030 km<sup>2</sup>. It has borders with Slovakia, Ukraine, Romania, Serbia, Croatia, Slovenia and Austria. The capital is Budapest. Hungary is a member of NATO, OECD and UNO (United Nations Organisation). It joined the European Union in 2004. The National Currency is the Hungarian Forint HUF (on 07/22/2014 the ECB exchange rate was: 1 EUR / 309.63 HUF). The International Code of Hungary is "HU". Hungarian tax system distinguishes many kinds of taxes, the exact number is not quantified, since one law provides more types of taxes. Hungarian tax system is divided into the State (Central) System and Local Subsystem. Among the State Taxes are the Direct Taxes (such as: personal income tax, corporate income tax, capital return tax, simplified entrepreneurial tax, special taxes and tax on the rent, vehicle tax), but also Social Security Contributions. The State Indirect Taxes are for example the VAT (value-added tax), excise tax, registration tax, energy tax. The Local Taxes are for example the building tax, land tax, tourist tax, and local business tax. For the Hungarian Tax System it is characteristic the strong concentration of so-called main taxes. The four main taxes (personal income tax, corporate income tax, VAT, excise taxes) represent more than two-thirds of the total revenues of the central budget.

*Table 2: Taxes in Hungary (2003-2012)*

*(Source: self elaboration based on "Taxation trends in the European Union", 2014)*

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Hungary: Taxes as % of Total Taxation</b>										
Direct Taxes	25,3	24,1	24,3	25,3	25,7	26,3	24,9	22,6	18,7	19,2
Indirect Taxes	41,5	43,3	42,2	41,0	40,2	39,7	42,1	45,5	45,8	47,1
Social Security	33,2	32,6	33,5	33,6	34,1	34,0	32,9	31,9	35,5	33,8
<b>Hungary: Structure by level of government (% of total taxation)</b>										
Central government	58,1	57,6	57,0	57,0	56,7	61,4	61,9	62,4	58,6	60,2
Local government	11,4	12,0	11,6	11,7	11,1	6,4	6,7	6,5	6,5	6,3
Social security funds	30,5	29,9	30,6	30,6	31,3	31,3	30,7	30,5	34,2	33,0
EU institutions*	n.a.	0,5	0,8	0,8	0,9	0,9	0,7	0,7	0,7	0,6

\* Note: Transfer of the part of the national VAT revenue (as determined by the methodology) to the common EU budget to cover the annual appropriations for payments and commitments.

**Slovakia** is located in the Central Europe; it is a multiparty state with a unicameral Parliament and the President. It has an area of 49 036 km<sup>2</sup>, and about 5.43 million inhabitants. It has borders with Czech Republic, Austria, Poland, Ukraine and Hungary. The capital is Bratislava. Slovakia is a member of NATO, OECD and UNO. It joined the EU in 2004. Since 2009 it is member of the European Monetary Union – Eurozone and the official currency became to be the Euro, which replaced the previous Slovak Crown. The International Code of Slovakia is "SK". The tax system of Slovakia is legislatively determined by the Law on Income Tax, Law on Value Added Tax, six Laws on Excise Taxes and the Law on Local Taxes and Local Fees for Municipal Waste and Minor Construction Waste. Important contributions with tax character include the Social Insurance and the Health Insurance. The Direct Taxes collected by the State are the personal income tax and the corporate income tax.

The Indirect Taxes collected by the State are the VAT and the six types of excise taxes. The Direct Taxes collected by the Local Self-Government are for example the real estate tax, tax on motor vehicles, tax on non-winning game machines, tax on the dog, tax on the use of public place, and so on.

Table 3: Taxes in Slovakia (2003-2012)

(Source: self elaboration based on "Taxation trends in the European Union", 2014)

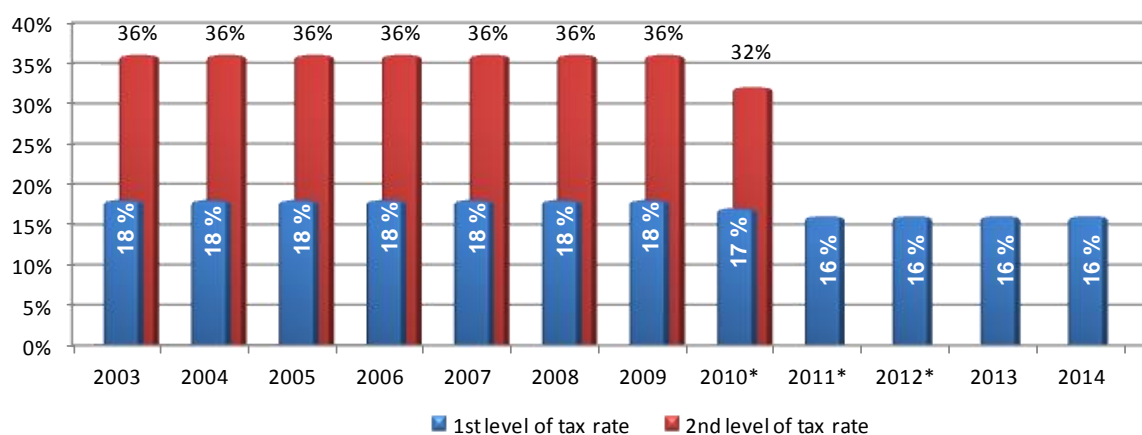
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Slovakia: Taxes as % of Total Taxation</b>										
Direct Taxes	21,7	19,4	19,2	20,7	21,0	22,3	19,2	19,1	19,2	19,7
Indirect Taxes	36,4	39,0	40,4	39,2	39,0	37,0	37,2	37,2	37,9	36,1
Social Security	42,0	41,6	40,4	40,1	39,9	40,7	43,6	43,7	42,9	44,2
<b>Slovakia: Structure by level of government (% of total taxation)</b>										
Central government	54,8	54,3	49,3	48,7	49,0	47,7	44,7	46,4	46,3	45,0
Local government	4,0	4,3	10,7	10,8	10,3	11,1	11,5	9,7	10,4	10,5
Social security funds	41,1	40,9	39,1	39,5	39,4	40,0	42,8	42,9	42,2	43,5
EU institutions*	n.a.	0,5	0,9	1,0	1,3	1,2	1,0	1,1	1,1	1,1

\* Note: Transfer of the part of the national VAT revenue (as determined by the methodology) to the common EU budget to cover the annual appropriations for payments and commitments.

### 3.1. Analysis of the personal income tax in Hungary and Slovakia

#### Hungary

By the year 2010 the personal income tax become to be progressive, there has been one tax rate of 18% and one rate of 36% (Figure 2). The so called "tax-free allowance" (a non-taxable part of the base) has been deducted from the tax base before determining the tax liability, approximately in the amount of the minimum wage. Since 2010, the tax rates were reduced to 17% respectively 32%, but the tax base was increased of the social security contributions 27% (the so called "super gross tax base"). In 2011, the progressive personal income tax system was replaced by a flat tax rate of 16%, but the tax was still calculated from the so called "super gross tax base" and therefore the real tax burden was actually at the level of 20%. Since 2012, it has been abolished the "tax-free allowance" (a non-taxable part of the base), but still it is possible to reduce the tax base by various deductions; for example families with one or two children, the disabled person etc. The determination of the tax base by the "super-gross methodology" was only applied when exceeded a certain level of income. The use of the so called "super gross tax base" was definitely discharged from the system in 2013. [Act. No. CXVII from 1995 on personal income tax, and subsequent amendments ]



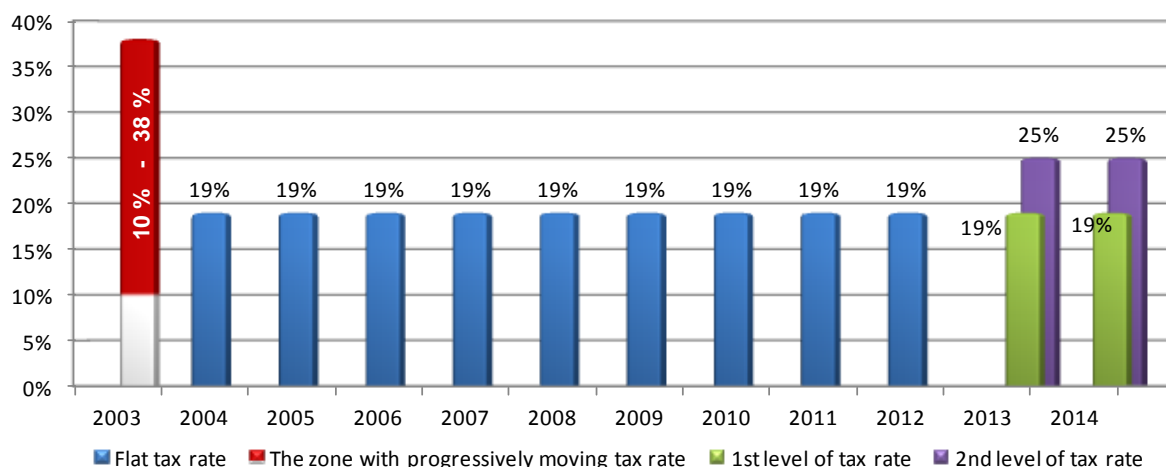
\* the use of the increased tax base (the so called "super gross tax base")

Figure 2: Development of the personal income tax rate in Hungary

(Source: Act. CXVII from 1995 on personal income tax, and subsequent amendments – HU)

### ***Slovakia***

Till 2004, the tax base of individuals in Slovakia was taxed by a progressively moving tax rate, which ranged from 10% to 38% (Figure 3). The reform of the Slovak tax system, in 2004, was a fundamental reform, which was launched in the year of Slovakia's accession into the European Union. Since 2004, the flat tax rate of 19% was applied in the personal income tax.



*Figure 3: Development of the personal income tax rate in Slovakia*

*(Source: Act. No. 286/1992 Coll. on the personal income tax; and Act. No. 595/2003 Coll. on personal income tax, and subsequent amendments)*

Since 2013, the flat personal income tax rate has been removed and actually the personal income tax rate is 19% of that part of the tax base, that do not exceed the amount of the current subsistence minimum 176.8 times; and from that part of the tax base, which exceeds the current subsistence minimum more than 176.8 times the tax rate is 25%. The tax base is adjusted by the “tax-free allowance” (a non-taxable part of the base), that by the amount which can reduce the basis for assessment of the tax itself. This amount is determined as 19.2 times the value of the subsistence minimum for that year. In 2009 and 2010, under the Government's measures to mitigate the impact of the global crisis, it was reduced the tax burden through the increase of the tax-free allowance (a non-taxable part of the base), which was changed to an amount equal to the subsistence minimum multiplied by 22.5. Since 2011 has been made another change in this field and the situation returned to the original state that of force before the year 2009. The tax-free allowance (a non-taxable part of the tax base per one taxpayer) for the year 2014 is equal to 3803 euro. [Act. No. 286/1992 Coll. on the personal income tax; and Act. No. 595/2003 Coll. on personal income tax, and subsequent amendments]

### **3.2. Analysis of the corporate income tax in Hungary and Slovakia**

#### ***Hungary***

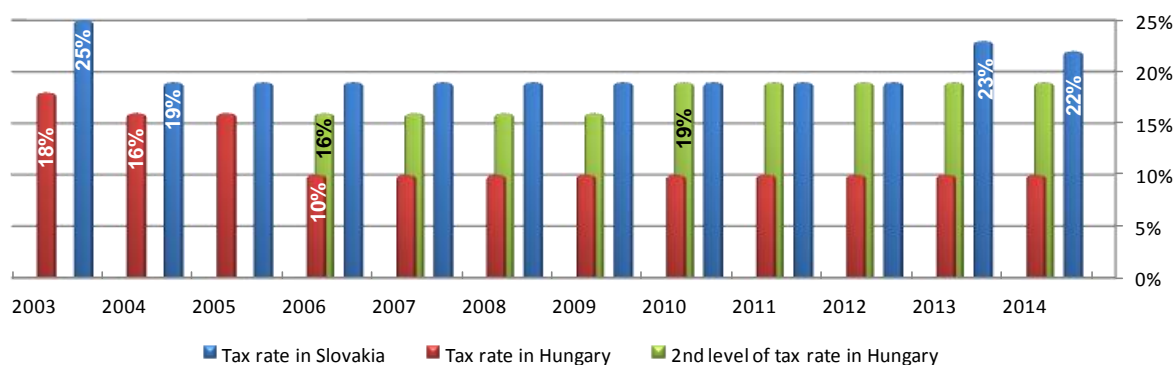
Till the year 2006 the corporate tax rate was flat in Hungary. By the year 2003 it was on the level of 18% and since 2004 it was of 16% (see Figure 5). Since 2006, the tax rate was 10% for the tax base lower than 5 million of Forints (Ft) and 16% for the tax base over 5 million of Ft. Another change has been done since 2008, when the tax rate was at the level of 10% for the tax base fewer than 50 million of Ft and above this limit it was of 16%. Since 2010, the tax rate of the tax base fewer than 500 million Forints (about 1.615 mil. Euros) was on the level of 10%, and above this amount remained of 19%. By the reduced tax rate the

government wanted to encourage the development of small and medium enterprises. However, the corporate tax base can be reduced by many ways and many tax reliefs in Hungary, this is why the real corporate tax burden is around 10%. [Act. No. LXXXI. from 1996 on corporate income tax, and subsequent amendments]

Small firms, whose total annual income does not exceed the threshold of 30 million of Forints (about 96,900 Euros), may apply the simplified business tax (flat tax rate of 37% of total revenue), if they so choose.

### ***Slovakia***

Till the year 2001 the corporate revenues were taxed by a flat tax rate of 29% of the tax base. In the years 2002 and 2003 it was a flat rate of 25%. The reform of the Slovak tax system in 2004 decreased the corporate income tax rate to the level of 19% (see Figure 5). Thus, it was introduced a general flat tax, which means that the same tax rate was applied on corporate income, on personal income, and the same rate was applied also for VAT. Since 2013, the general flat income tax rate was abolished. The tax rate on corporate income was set on the level of 23% for the year 2013; and, at the present, since January 2014, the tax rate on the taxable income (tax base) of the legal entity is 22%. [Act. No. 286/1992 Coll. on the income tax; Act. No. 595/2003 Coll. on the income tax, and their subsequent amendments]



**Figure 5: Development of the corporate income tax**  
(Source: Source: self elaboration based on the national legislation)

### ***Tax on income in both countries***

In the following Table 4 can be seen the comparison of the collected amount of tax on income (incl. personal and corporate) in the countries analyzed with regard to the EU.

**Table 4: Tax on income (in millions of euro)**  
(Source: self elaboration based on the data from Eurostat)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
EU 28 countries	1 238 787,5	1 329 101,9	1 473 946,4	1 586 134,2	1 564 354,9	1 366 456,4	1 415 054,4	1 484 416,9	1 553 704,6
Hungary	7 157,8	7 721,6	8 150,9	10 014,1	10 848,4	8 833,7	7 493,5	6 107,2	6 502,8
Slovakia	1 933,2	2 164,6	2 539,2	3 203,7	3 975,8	3 257,0	3 325,0	3 571,7	3 744,0

We can see that Hungary has collected more of income taxes than Slovakia, but we have to take into account that Hungary has approximately twice as many inhabitants as Slovakia. This is why it is much more useful to compare the collected amount of tax on income per inhabitant (Figure 4). Here we can see, that in the last years the income tax burden per inhabitant is higher in Slovakia, in spite of the fact that Hungary has collected higher amount of income taxes as a total.



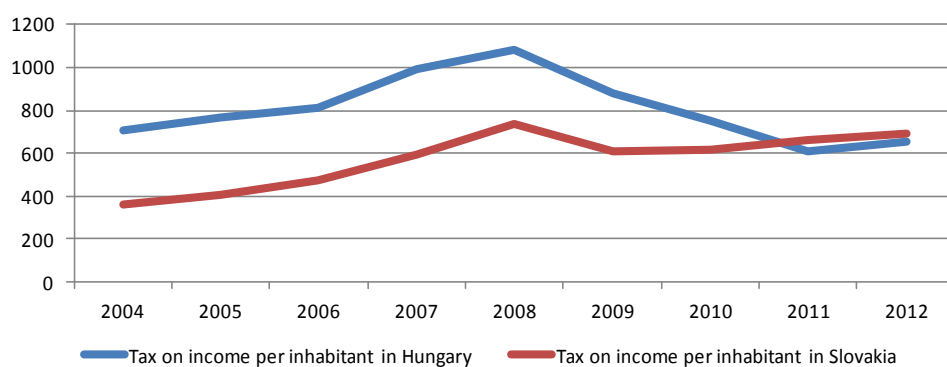


Figure 4: Collected tax on income per inhabitant (in €)

(Source: Source: self elaboration based on the data from Eurostat)

### 3.3. Analysis of the value added tax in Hungary and Slovakia

The Value Added Tax is used in the EU Member States since 1970. The legislative activities of the EU aim to coordinate and harmonize the legislation on VAT to ensure the proper functioning of the internal market (Nerudová, 2011, p. 42). The aim of the Council Directive 2006/112/EC (Directive on the common system of value added tax, and its subsequent amendments and adjustments) is to codify a measure that guides the introduction of a common system of VAT, which applies to the production and distribution of goods and services bought and sold for consumption in the European Union. The common system of VAT applies just to goods and services bought and sold for consumption within the EU. The amount of collection of VAT type taxes in the EU and in the analyzed countries can be seen in the Table 5.

Table 5: Value added type taxes (VAT) (in millions of euro)

(Source: self elaboration based on the data from Eurostat)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
EU 28 countries	723 764,8	769 985,7	821 013,5	879 079,4	868 247,6	789 058,4	867 253,0	908 729,0	926 909,0
Hungary	7 278,3	7 484,6	6 812,8	8 009,8	8 224,1	7 820,2	8 442,0	8 516,5	9 084,1
Slovakia	2 639,8	3 028,1	3 320,3	3 699,0	4 453,5	4 221,3	4 182,1	4 710,9	4 327,7

As mentioned, Hungary is bigger country than Slovakia; this is why we will once again compare the collected amount of VAT type taxes in regard to the number of inhabitants (Figure6).

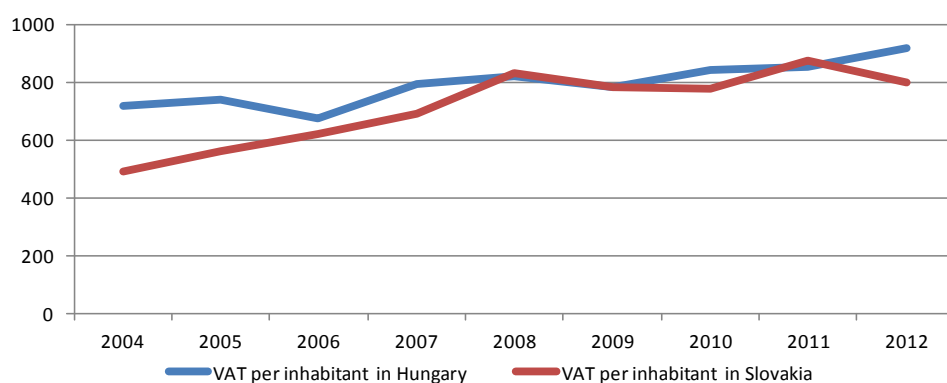


Figure 6: Collected VAT per inhabitant (in €)

(Source: Source: self elaboration based on the data from Eurostat)

In the Hungarian and Slovak central budget, the indirect taxes have a lot of weight. The most important tax between the indirect taxes is the value added tax. The year of introduction of VAT in Slovakia was 1993, and in Hungary it was introduced in 1988. The value added tax is a dominant tax also in terms of households, for two reasons. The first is that the VAT is a major source of revenue for the central budget, what means that it contributes the most to the tax burden of households by reducing their disposable income. The second reason is the versatility of the VAT, which in contrast to other duties is concerned to all of the households without exception, because it affects the final consumption.

*Table 6: Development of the VAT rates*

*(Source: self elaboration based on the data from "Taxation trends in the European Union 2014", p.26)*

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EU-28	Standard	19,6	19,5	19,6	19,5	19,6	19,5	19,9	20,5	20,8	21,1	21,5	21,5
HU	Standard	25	25	25	20	20	20	25	25	25	27	27	27
	Reduced	12	5; 15	5; 15	5; 15	5	5	5; 18	5; 18	5; 18	5; 18	5; 18	5; 18
SR	Standard	20	19	19	19	19	19	19	19	20	20	20	20
	Reduced	14	-	-	-	10	10	10	6, 10	10	10	10	10

### **Hungary**

Hungary applies a reduced tax rate of 18% and 5%. The standard tax rate was changed in 2009 from 20% to 25%. In 2012 the rate of the VAT increased from 25% to 27%, in fact we can say that in Hungary is the highest rate of VAT between the EU Member States. The obligation to register for VAT arises when the annual turnover exceeds 5 million of Hungarian Forints (approximately 16,200 Euros).

### **Slovakia**

Since the year 2011 has been reduced the number of VAT rates in Slovakia. From the original three rates (6%, 10% and 19%) in 2010, remained only two of them in the year 2011. In addition to reducing the number of rates from three to two, there was also changed the level of the basic rate, which increased from 19% to 20%. This rate increase was a result of the measures to reduce the government deficit and it was declared as a temporary solution, but nowadays it is still on this level. The increase in the basic VAT rate was planned only till the government deficit will fall below 3% of GDP. The VAT rate of 10% on selected medical goods and books will remain. The taxpayers are not obliged to register for VAT if their annual turnover does not exceed the amount of 49,790 Euros.

## **4. CONCLUSION**

Specificities and differences in the development of each country are also reflected in the large and small differences in their tax systems. This is obvious, because each state is built often on different social, economic, social or political principles; each society recognizes the diverse values and traditions and the development of taxes (tax systems) is necessarily conditioned by these factors. The tax burden of the EU countries - but also the amount and number of tax rates - shows strong differences. It can be concluded that the tax burdens in Slovakia and Hungary are below the European Union average. Tax revenues in Hungary - where the income tax calculated per capita - were significantly higher compared with the Slovak income tax revenues, but from 2011 are about the same level in both countries. It is surprising, that despite the higher VAT rate in Hungary, the revenue from the value added tax per capita in both countries is almost the same.

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## A NEW FRAMEWORK FOR OPTIMIZING PARTNERSHIP IN PPP PROJECTS

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### ABSTRACT

*The time we live in demands faster local development, yet, local entities dispose of severely limited resources. This drawback can be overcome by forming partnerships with the private sector (drawing on its knowledge, expertise, capital, material resources), making arrangements of collaboration between the public and private sectors – PPPs. A public private partnership is a form of collaboration between public and private partners to ensure the funding, construction, renewal, management or maintenance of the infrastructure, or to provide services. In this article we will show that successful PPP projects need the optimal cooperation of all the partners involved. We will present the results of a survey conducted on a sample of local authorities in the Republic of Croatia on the basis of which we developed a framework for the optimal success of the partnership in PPPs.*

**Keywords:** PPP, LED, partnership in PPP

### 1. INTRODUCTION

Public private partnership (further in the text: PPP) has existed in the Republic of Croatia since it gained independence and has played an especially important role in infrastructural development and in providing quality public services. Recent years have seen the introduction of more demanding PPP models, especially in education and science, technology-development centres, environmental protection, home construction, construction of public administration facilities, construction of the sports and urban infrastructure, and in health and social welfare. The development of the PPP model and PPP projects ran parallel with the development of accompanying economic activities, such as the professional approach to and expertise in preparing, assessing and evaluating PPP projects in both the public and private sector, and the advance of the institutional environment necessary for the success of PPPs in the Republic of Croatia. An important role was played by the *Guidelines for Models of Contracting Public Private Partnership* issued by the Government of the Republic of Croatia (NN, 2006), published at the end of 2006. Practice has shown that PPPs can play an important role in raising the level of public services,<sup>1</sup> accelerating economic development and public administration reform by transferring project management expertise in PPPs from the private to the public sector. The growing use of PPPs can lead to more efficient management and better use of public facilities and to the transfer of the professional knowledge the public

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<sup>1</sup> The public sector is especially important in every country, since it generates the consumption of many products and services. The public sector outlay in most EU countries is estimated at between 40% and 50% of the gross national product (Eurostat, 2010).

partners need to manage public resources in a better and more efficient way. The public sector ensures a stable political and legal framework, encourages, monitors, guides and develops the PPP, and the private sector ensures new management, commercial and financial discipline and new private resources for financing very large and complex projects important for the long-term development of various aspects of the Croatian society. However, founding a public private partnership is often not a simple process or task for either of the partners. In Croatia many projects encountered problems, although PPPs have great potential. The most outstanding example is probably the construction of the Arena Sports Centre in Zagreb, built using a PPP model for the needs of the World Handball Championship in 2009. Although the building is impressive in appearance and its use has a good perspective, very quickly serious problems appeared, especially between the public and private partners. Because, a public private partnership involves forms of collaboration between public and private partners whose objective is to finance, construct, renew, manage or maintain the infrastructure or to provide services. The starting assumption for this article was: for PPP projects to be successful, collaboration between all the partners in the project must be optimal. Our goal is to present the results of a survey conducted on a sample of local government entities in the Republic of Croatia, on the basis of which we developed a framework for the optimal success of PPPs.

## **2. ANALYSIS OF PPP POTENTIAL AS A POSSIBLE INCENTIVE FOR LED**

Many scholarly and expert works in the world, but also in Croatia, conceptually define local economic development (LED). Most of the definitions share the understanding of LED as a planned continuous process with the participation of local authorities, but also many other participants (the business sector, citizens, non-governmental organisations etc.), with the common aim of creating more favourable conditions for economic growth and development and improving living quality and standard in their local community. LED can also be defined as a process in which local government, which disposes of limited resources, creates new projects which preserve existing or open up new jobs, and at the same time encourage competition and sustainable development. According to the definition of the World Bank, local economic development is a process in which actors in small and large towns – “communities” – all work collectively, with partners from the public, business and non-governmental sectors, to create better conditions for economic growth and employment generation. Through this process they establish and maintain a dynamic entrepreneurial culture and create new community and business well-being with the aim of improving the quality of life for everyone in the community (World Bank, 2001). The purpose of LED is to develop the economic potentials of the local area so as to create a foundation for economic development and better quality of life for all. This is a process in which the public, business and non-profit sectors work together on creating better conditions for economic development and ensuring higher employment. The aim is to encourage competition and thus contribute to sustainable development (World Bank, 2001). Local economic development includes many sector fields such as, for example, physical planning and marketing. It also includes many roles shared by local government and the private sector, and civil society organisations can also play an important part. Today local economic development is considered the fastest growing application of economic disciplines, primarily in countries of central and eastern Europe.

### **2.1. Potential drivers of LED**

The desire for faster local development is constantly growing, but it is held back by the limited financial, material and personnel resources of the public sector (Plumer, 2002: 33). In other words, we live in a time when there is a need for faster local development, but demands

such as funding, providing material resources and, especially, knowledge and new approaches to management cannot always be satisfied because of the limited resources (not only monetary, but often “only” human resources) of local government entities. The experience of many countries, not just in the developed world, shows that the limited resources at the disposal of local authorities can be overcome by introducing the private sector (its knowledge, expertise, capital, material resources) in partnership, through arrangements of collaboration with the public sector – PPPs. The private sector’s entrepreneurial spirit can be harnessed to generate both the realisation of the PPP’s goals and overall public benefits (Montanheiro, 1998: 333). PPP programmes offer a long-term sustainable approach to the improvement of public services and public infrastructure, and also increase the variety of business activities on the local level. The growing needs of the population cannot be satisfied without further economic growth. Responding to the increased complexity of global economic development, the public sector can stimulate economic development on the local level, use a pro-active approach to the business community and apply any of the many models of PPP to advance the quality and variety of existing services, and provide new ones. In local development, whose primary aim is the more efficient satisfaction of citizens’ needs, the activities of local government aimed at increasing fiscal capacity are especially important, and this has implications on employment growth. All the factors mentioned greatly influence LED, so they can be seen as its potential drivers.

## **2.2. Public private partnership (PPP)**

By its nature PPP is the collaboration of the public and the private sectors with synergic effects, where the partners’ resources are joined so as to provide public services or develop the public infrastructure (Osborne, 2000: 11). Public private partnership (PPP) enables the efficient execution of infrastructural projects and provision of public services, and promotes an innovative approach to measures for economic recovery (EC COM, 2009). Recently PPP has awoken exceptional interest in Croatia on all levels of government, including local government, but interest has also grown in the private sector, which is becoming increasingly drawn by the new possibilities for investing in the public sector. Construction has always been closely linked to the public and economic activities of every country (Lovrenčić Butković & Katavić, 2014). There is no doubt that PPP is one of the most important instruments of good management. However, if this is to be achieved the complexity of its mechanism must be taken into account and the potentials and dangers that it incorporates, especially if it is understood in its reduced role – only as an instrument for private investment in a public need (Šeparović Perko, 2006). Under the PPP Act (*Zakon o JPP-u*), a PPP is a long-term contractual relationship between the public and the private partner whose subject is the construction and/or reconstruction and maintenance of a public facility which will provide the public services that are in the competence of the public partner. In implementing a PPP project, the private partner takes over from the public partner the obligations and risks connected to financing and the construction process, and at least one of the following two risks: the risk of the availability of the public facility and the risk of demand. A PPP has the following essential characteristics (Bult-Spiering & Dewulf, 2006):

- PPP is a management reform, it is an innovative tool that can advance the provision of public services,
- PPP is a way of solving problems of providing public services with the objective of increasing their quality and decreasing their price,
- PPP enables a manager from the public sector to be included in market competition,
- PPP contributes to a shift of risk (in accordance with the contracted allocation), but also of the distribution of power between the public and the private sectors.



Partnership between the public and private sectors, as indicated by the word *partnership*, is based on their collaboration in achieving common goals, especially in investing and risk factors, with the aim of making the public service more accessible, of higher quality and, hopefully, cheaper for the taxpayer (Kačer et al., 2008). In this sense, PPP is underpinned by a public and private relationship that lends itself to various models of partnership, only one of which is financing the public sector by including the private sector.

### **3. RESEARCH METHODS**

The survey was conducted on local government entities (LGE) because municipalities and towns are perceived as the most important actors of LED. LED, as a process, is characterised by the participation, within their self-governance competence, of all the actors interested in the welfare of a particular community.

The primary data were obtained from a questionnaire, submitted personally or by e-mail, on a sample of the financially most successful local government entities in the Republic of Croatia. According to data provided by Financial Agency (FINA, 2012), Croatia has 555 municipalities and towns.

The survey was conducted in one round from June to September 2012.

#### **3.1. Data collection**

The on-line questionnaire was sent to all the local government entities filtered according to the criterion of profit, while those that had worked at a loss, according to Fina data from 2011, were excluded. In 2011, of the 555 municipalities and towns, 289 had made a net profit and 266 a net loss. Because of this the questionnaire was sent to the 289 local entities that had made a net profit, which was the starting point for the survey. 128 filled-in questionnaires were returned, showing a response rate of 44.3% and making this sample representative for further analysis. A response rate of 30% is considered acceptable for this type of survey (Kish & Leslie, 1995). There were more municipalities (54.5%) than towns (45.5%) among the local entities that responded, and in structure half were municipalities and towns with fewer than 5,000 inhabitants. Smaller municipalities and towns are an especially interesting group for examination, since they are the most numerous among the LGEs in Croatia and should be the main actors and bearers of economic development according to the bottom-up<sup>2</sup> principle.

#### **3.2. Sample definition**

The sample was limited and was intentionally selected in accordance with data on the financial business results of entrepreneurs in municipalities/towns in 2011, and in accordance with the rank-list of the 289 most successful local government entities. The financially unsuccessful local government entities, which did not work at a profit, were excluded from the sample. FINA defines a local government entity as successful on the basis of several criteria defined by assigning points, according to about twenty criteria (FINA, 2012). The procedure was taken over by the globally recognised business magazine *Forbes* (2011), which drew up its own list of “successful” municipalities and towns according to the same methodology in which local government entities collected points according to their success. The principal database was two exhaustive analyses, conducted by the Financial Agency, of the business operations of all the entrepreneurs in towns, covering their income, profit and number of employees in 2010.

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<sup>2</sup> The bottom-up approach means that local factors participate in making strategy-linked decisions and selecting priorities to be implemented in their local area. European experience has shown that the bottom-up approach should not be considered an alternative to or opposite from the top-down approaches of national and/or regional authorities, but combine with them to achieve better overall results.

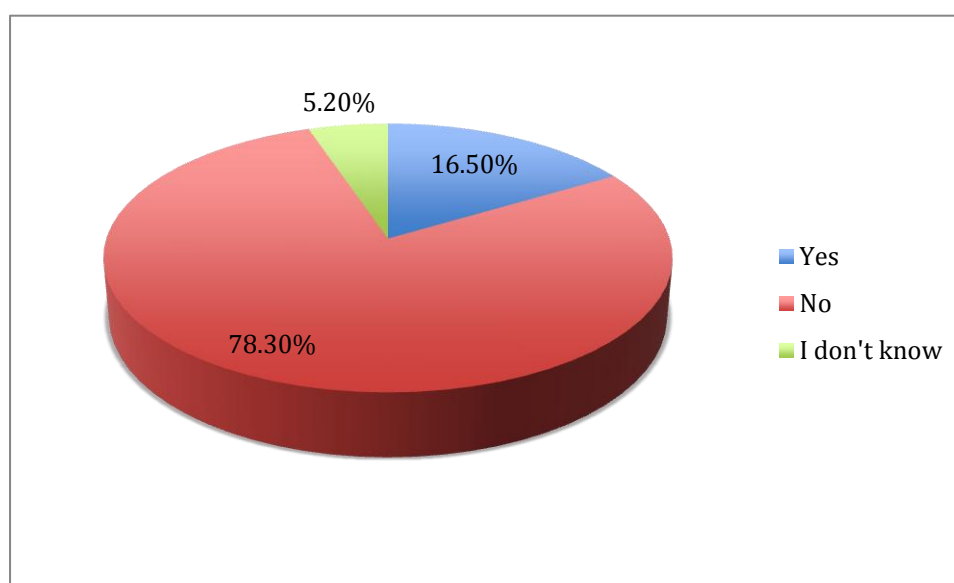
The criteria for defining local entities as “successful” were the following:

- profit made, in the period, by entrepreneurs liable to profit tax,
- net profit (profit minus losses in the period) made by entrepreneurs liable to profit tax.

#### 4. ANALYSIS AND RESULTS

The survey results showed the status of existing and potential PPP projects in the Republic of Croatia and the respondents’ degree of knowledge about and perception of PPP projects.

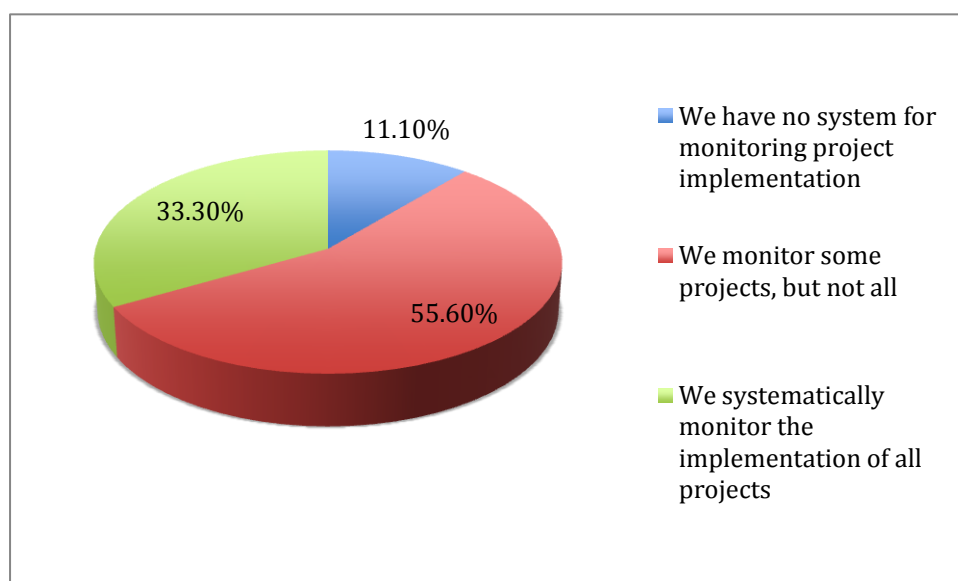
In 2012, in Croatia, a project according to the PPP model is being implemented or has been implemented on the territory of about 16.5% of the successful LGEs (Chart 1).



*Chart 1: Status of PPP projects currently being implemented in local government entities in Croatia*

The survey was also used to examine the structure of the projects being implemented in Croatia. Most of them are concession contracts for motorway construction in Istria and Dalmatia. The **build-operate-transfer (BOT)** model is an example of a PPP used in Croatia for other infrastructural projects, as well (e.g., for wastewater treatment in Zagreb). The schooling and health sectors are also strongly represented, with investment based on a contractual PPP model that is the most frequent in Croatia.

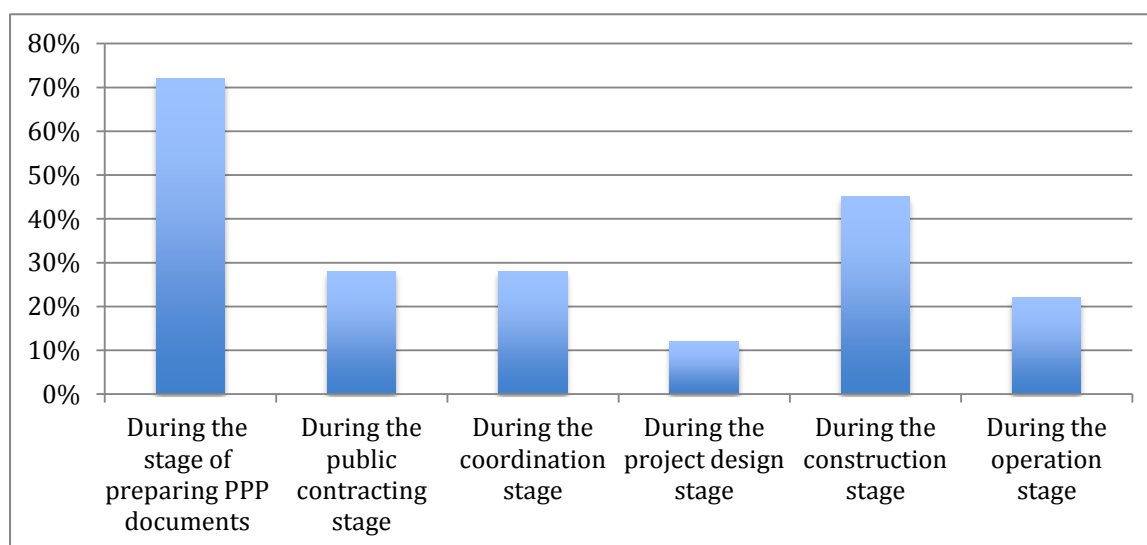
Another very important factor in the context of PPP is monitoring the implementation of the PPP project. The survey results show that LGEs monitor PPP projects very selectively (almost 56% answered that some projects are monitored, others not), and 11% LGEs do not monitor the implementation of their PPP projects at all, which is disastrous (Chart 2).



*Chart 2: LGE monitoring during the preparation or implementation of PPP projects.*

It is also interesting to show the problems that often appear in the preparation and implementation of PPP projects.

In Croatia most LGEs encounter these problems in the preparation stage of the project (almost 70%) and in the construction stage (over 40%) (**Error! Reference source not found.3**).



*Chart 3: Critical stages in the implementation of PPP projects*

There are least problems in the project design stage, which is as a rule looked on as the stage of least risk in the implementation of a PPP.

As we said in the preceding sections, PPP projects are a very important modern-age tool for local economic development and are characterised by the collaboration of partners from the public, business and non-governmental sectors. This is why optimising the success of this collaboration should contribute to the greater success of PPP projects and also increase their number.

### New Framework for Optimising Partnership in PPP Projects

For a PPP project, optimum success means achieving a win-win<sup>3</sup> situation in which both partners, public and the private, prosper. However, as a partnership of this kind is multidimensional and relative, it is difficult to define. Nonetheless, defining the relationship is of crucial importance for all organisational partnership initiatives, especially in local communities. When defining the success of a PPP it is important to bear in mind that the two partners do not define success in the same way. The final goal, i.e. success, looks different if examined at different points in time, in different dimensions or from different points of view. Success is often judged with respect to the uniform aims of the partner organisations. It is also relative with respect to the time in which it is assessed. In the organisation and implementation of a PPP the partners must define success as the best outcome that their organisation could achieve by making use of all the resources of the partners in the partnership. To do so, it is necessary to define and compare the business situation of the private and public partner, the project portfolio and the short-term and long-term systems of assessing business results.

Both sides in the PPP must consider four connected models that correspond with stages in the partnership business cycle. These are:

- founding the partnership,
- implementation stage,
- “facing reality” stage, and
- stabilisation stage.

It is important to bear these stages in mind because the outcome of one stage inevitably becomes the starting point for the next. Decisions and activities in one stage can lead to an increase or decrease of the potential for optimal success (Figure 1).

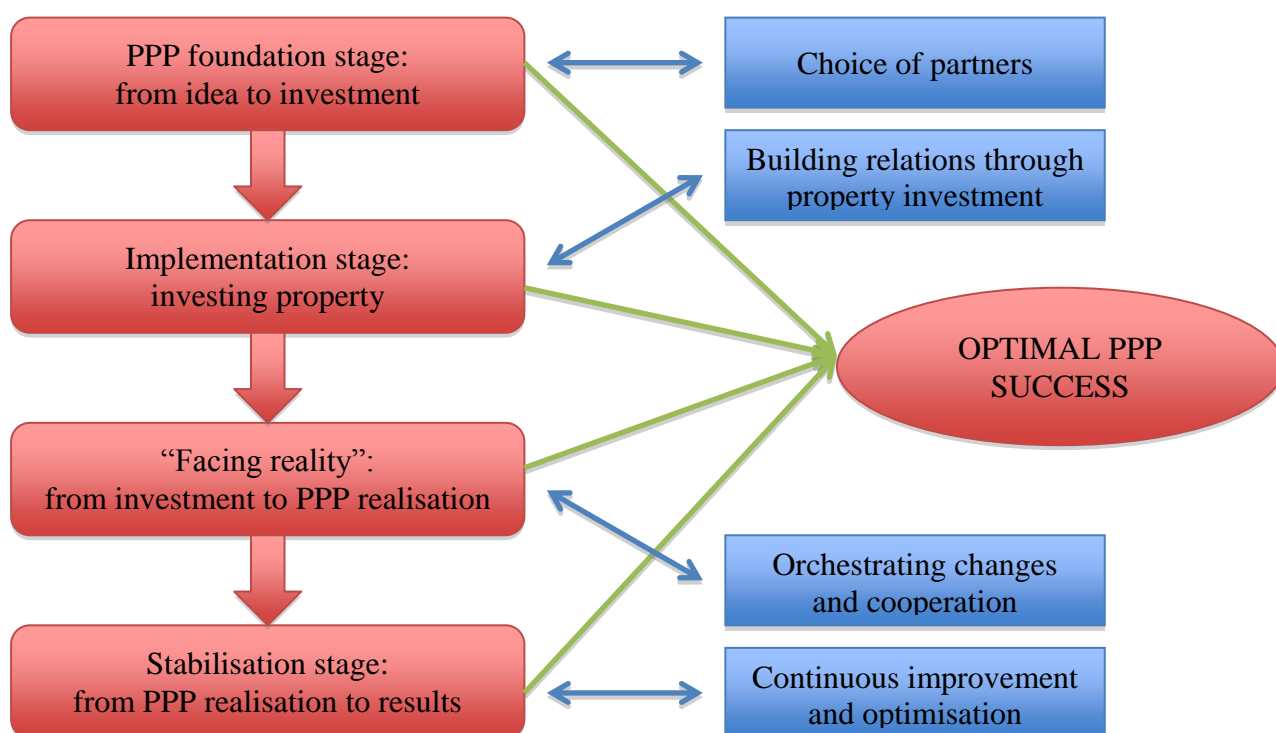


Figure 1: Framework for optimal success of the PPP

<sup>3</sup> When both sides win, i.e. gain.

Local authorities must also understand the importance of external influence because although the conditions for the successful outcome of the PPP are defined, meeting them is sometimes not enough to execute the project successfully. Attention must especially focus on the private partner's competitors and their potential response, and also on the economic and political environment. Since each of the above stages includes large groups of different people, there must be adequate communication among them because poor communication is usually the cause of most problems that could very easily have been avoided.

### *1. Founding the partnership stage*

The foundation of the PPP should be looked on as its basis. Although a good-quality foundation is necessary, this is not enough to achieve a successful partnership. In the initial stage of the PPP it is of crucial importance for local authorities to choose a good private partner. This choice is based on the following criteria:

- Determining suitability for partnership, and
- Determining feasibility for partnership.

All the organisational units in the PPP must be able to adapt to the conditions of the moment, because response to frequent changes is directly linked with feasibility for partnership.

### *2. Implementation stage*

If plans are to be successfully executed the implementation stage must be completed as well as possible. This is the stage in which the PPP partners build relationships, establish which physical property they are introducing in the project and lay down the basic rules of their cooperation. The key activities in this stage are constructing the physical infrastructure, redesign process and integration. In this stage organisations planning some form of PPP can encounter critical situations and problems, for example, in establishing the partner's property. This is why it is very important to build a relationship of trust. For the partners to trust one another, they should regularly meet their obligations, thus confirming their competence, act foreseeably, thus proving their reliability, and negotiate fairly and in good faith. For a PPP to succeed, confidence must be reciprocal. If local authorities had low-quality relations in the past, this step is a great challenge because a relationship of trust supports the partnership goals. Furthermore, all the sides in a PPP must work on reliability, because reliability will spark innovation, and this will lead to better competence.

### *3. "Facing reality" stage*

This stage is reached at the moment when all the organisations in the PPP face reality. The peak and the end of this stage is marked by "normal operation". The PPP partners must be well acquainted with the earlier stages and these stages must be well completed because "facing reality" involves collaboration that will bring differences to light. That is why we may call this stage critical. This is when both the public and the private partners must find ways to understand their differences and ways to solve them. The key activities in this stage compel the partners to work on detecting and solving problems to accomplish the partnership process successfully, and to find methods for resolving conflicts that appear during its stabilisation. Critical points primarily involve orchestrating changes and cooperation, and we propose only some:

- providing leadership
- managing asymmetry
- building partnership skills
- conflict management
- operations management

The partners must use a manifold-criteria method, such as the Balanced Scorecard,<sup>4</sup> which allows project heads in the public and private sectors to create a balance between strategic measures that focus on the partnership goals.

#### *4. Stabilisation stage*

This is the stage that starts after normal operability has been reached and continues to the end of the partnership. The key activities in this stage are constant business improvement, investment in developing additional skills and assessment of whether the implementation is cost-effective. When it is once stabilised, when normal operation has been achieved, local authorities as the public partner must focus on continuous improvement, because constant improvement and implementation are the critical points of this stage. Critical points in managing continuous improvement and innovations in the partnership after stabilisation include monitoring continuous relevance, building on the partnership experience and increasing the partnership capacities.

### **4. CONCLUSION**

The basic aim of this article was to show the status of PPPs in Croatia and to propose guidelines for optimising the positive effects of using PPPs in local government. The survey, whose results we show, was conducted on an intentional sample of “successful” LGEs in 2012 and the idea was, on the basis of actual PPP projects, to identify potentials and propose a framework that would help to optimise the success of such projects in the future, and which would lead to the faster economic development of those local communities.

The conclusion of the preceding sections was that local economic development is a continuous process in which participants from small and larger local government entities work together with partners from the public, business and non-governmental sectors to create better conditions for economic growth and generate new employment. One of the forms of this cooperation, which is a very important tool of modern times, is cooperation using the PPP model, since it is through PPPs that participants establish and maintain a dynamic entrepreneurial culture and create new wellbeing in the community and in businesses, with the aim of improving quality of life in the entire local community. PPP management is a difficult task which, depending on the geographical size of the project, becomes increasingly complicated.

Nevertheless, the actors included in a PPP should incorporate the knowledge gained in the partnership to improve the results of their activities. The goal of the partnership can be reached more quickly by focusing on improving partnership capabilities. If everyone involved in the PPP project is careful of the details described in the stages of the framework proposed, the partnership capabilities will in time improve. Local authorities, as the public partner, may improve partnership quality by constantly working to perfect the strategic, operative and cultural suitability between the partners.

And the experience that private partners, especially Croatian construction companies, gain as partners in PPP projects can definitely be a great advantage in the future. Some PPP models

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<sup>4</sup> The Balanced Scorecard is one of the most popular instruments for controlling, partly thanks to numerous examples of improved operation results after its implementation, but also partly thanks to its very successful world promotion. It is defined as a system of balanced goals. In every case the Balanced Scorecard represents a balanced view of the entire ecosystem in which companies operate. Today, when many companies are passing through the most difficult time of work in recession, this balance becomes a key factor for long-term and sustainable success. The Balanced Scorecard technique (BSC) was developed in 1992 by Robert S. Kaplan and David P. Norton, and is today implemented in thousands of companies, organisations and governmental institutions. It is estimated that 50% of the 1,000 largest companies (*Fortune 1,000 list*) applies the BSC technique.



can also be a way for Croatian construction companies to move into the conquest of the global market. Because emerging on foreign markets with a well-defined business and well-designed marketing strategy should be an essential factor in successful project management of Croatian construction companies on the great global market (Lovrenčić Butković & Katavić, 2014).

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## REGION AS A FACTOR CHANGES ON A GLOBAL SCALE

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### **ABSTRACT**

*The term "region" originating from a Latin word: regio, has two meanings in itself in terms of etymology – first, it is a movement in a fixed direction, and the second one denotes space. Combination of both results in: “movement in a fixed direction, which defines space”. The meaning generally relating to the area, has over time dominated the vernacular understanding of the whole word. Currently, the concept is in principle used to exclusively describe a given territory. However, nowadays, the return to the primeval meaning of the word seems to be more and more justified as well as there should be more attention paid to changes in the specific direction which result from transformations taking place within regions. For a long time, regions were most of all and exclusively treated as the largest units of administrative division of individual countries.*

*The most important subject within the pursued regional policy was a fast and efficient integration of areas indicating development inequalities. The particular attention was paid in this scope to equalize cultural distinctions and the level of their economic growth. Despite the multi-billion expenditure, the established goals have not been fully achieved. Progressing globalization have allowed local authorities to go beyond the narrow framework of inland structures. Currently, the regional authorities have become an essential factor and entity of policies in transnational dimension.*

*In many cases, it has become the cause to radicalize social attitudes. In extreme cases, increase in importance of regions has resulted in local disputes of economic and political nature, and in some situations it has even led to military conflicts. It is to be assumed that we are witnesses to a broader phenomenon which may disturb the fragile balance created on international arena still in the second half of the 20th century. Attempts of specific regions emphasizing their autonomy to achieve greater or even total independence, are currently taking place in nearly every corner of the world. In turn, the lack of flexibility of national authorities in the face of demands placed by local communities creates a dangerous situation of an outbreak of new conflicts on a larger than local scale. With interest in inciting unrest and with active engagement of some world powers, it may lead to geopolitical changes on a great scale. Regions, as a simple tool remaining in specific hands, may in this manner become a factor of serious and dangerous transformations in an international dimension.*

**Keywords:** *autonomy, change, factor, globalization, region.*

### **1. INTRODUCTION**

In recent years the dramatic increase in the importance of regions has been observed. This phenomenon has its place in many fields. However, it has become the most visible in extremely significant areas of life such as economy and politics. Regions by the definition constitute most frequently a component of some larger territory - mostly a country. Nevertheless, their impact has been for a longer period of time exceeding with its reach borders of one specific country. The "region" concept originating from a Latin word: *regio*, has two meanings in itself in terms of etymology – first, it is a movement in fixed direction, and the second one denotes space. Combination of both results in: “movement in fixed direction, which defines space”. The meaning generally relating to the area, has over time dominated the vernacular understanding of the whole word.

Currently, the concept is in principle used to exclusively describe a given territory. However, nowadays, the return to the primeval meaning of the word seems to be more and more justified as well as there should be more attention paid to the changes in the specific direction which result from transformations taking place within regions. As a rule, regions are treated most of all as the largest units of administrative division of individual countries. The progressing globalisation has allowed the described areas to go beyond the narrow framework of inland structures. They have become an essential entity of economic and social activity in the transnational dimension. A large role in this process is played by both radical social attitudes and actions of local authorities planned in perspective of many years.

## **2. FACTORS AFFECTING THE INCREASE IN THE IMPORTANCE OF REGIONS**

The noticeable increase in the role of regions on the international arena can be noticed since the second decade of the 20th century. The changes taking place in the world as the outcome of the World War I had influence on that condition. At the moment of finishing armed struggles in 1919, transformations on a then-unprecedented scale occurred. They were of extremely diverse nature. They were the effect of tumultuous revolutions on socio-political basis or also of planned transformations on the basis of international agreements entered into. Economic order different to one yet applicable was being formed, new borders were traced out, large superpowers were collapsing, state units were being created on the basis of integrated regions belonging until recently to parties fighting each other.

New players, who were to affect future events in the global scale, appeared on the stage. End of World War I definitively abolished the order established yet in 19th century. Another revolutionary moment, which changed configuration and significance of individual regions, was World War II. This conflict re-developed new administrative, territorial, political and economic structures. However, they had wider range and significance and they were carried out in much larger scale comparing to ones of the previous turbulences. In Europe, North America, South America and Australia shortly after 1945, there had been introduced the new political and economic order which survived only with some minor changes almost until the last decade of the previous century.

Whereas, exceptionally sudden and dynamic transformations took place after World War II in Asia, Africa and this part of America which is to be colloquially known as Central. Their particular escalation falls on 1950's and 1960's of the previous century and the end of the process of changes relates to the half of the 1970's. Mainly they were of the character of fighting with colonialism and of social revolutions. The important events: peaceful reunification of Germany, disintegration of the Soviet Union and civil war in Yugoslavia broke the existing status quo in Europe in the beginning of 1990's. Changed in terms of territory or entirely new state units appeared on the world map. It turned out that both independence secured by fighting as well as tracing out of new borders in Europe are still possible. Initially, it seemed that the changes would be of a limited character. But soon pro-independence tendencies of regions and striving for own statehood divided Czechoslovakia into two and were emphasized with increased intensity in Belgium, Spain and the United Kingdom. In these three countries, desire for independence of individual regions adopted a democratic character and took the path of peace. However, what happened in former Yugoslavia and the Soviet Union took the tragic course and resulted in thousands of unnecessary human victims. The dangerous memento for both described incidents were the latest events in the Ukraine. Annexation of Crimea by Russia and war in the Ukraine on the centenary of the outbreak of World War I call up bad associations for the upcoming future. One may suppose that currently we are witnesses of far-reaching changes which have their beginning on the regional level, however their impact will have transnational or even global

range. In here one should think of the cause of increase in the importance of regions, starting with the national level to transnational or even global scale. The following is to be included as main reasons for such state:

- the existing industrial and economic infrastructure,
- possession or discovery of rare or valuable resources,
- increase in economic potential of selected areas,
- historical conditions,
- investment attractiveness,
- international co-operation
- crucial location in geographical and strategic sense,
- growing awareness of citizens of a given territory,
- exhaustion of natural resources or their lack in some regions,
- increased international activity of local and self-government authorities,
- targeted actions of foreign institutions and entities on a specific territory,
- looming crisis within a given country or its loss of importance on the international arena,
- treatment of specific regions as a political tool with intention to conduct imperialistic policy by specific countries.

The above list does not include all potential causes of increase in the importance of regions to the level in which their impact start to relate to international scale. However, the listing is compliant with the so-called: "causal approach" which divides causes of formation of regions into natural and acquired factors (Przygoda M., 2013, p. 36). Analysing the list one can observe that the following acquired factors have a substantial preponderance:

- economic (industrial or agricultural)
- administrative (political),
- ethnic (cultural and social).

Whereas, the natural factors, consisting of climatic, zoogeographic and physico-geographical elements, lost in the 21st century much of their original significance.

### **3. CONSEQUENCES OF INCREASE IN THE ROLE OF REGIONS**

Change of the scope of impact of regions from the national to transnational and global scale, requires a formation of a new approach to the issue of their classification. Comparisons taking into consideration for example: level of regional GDP, local unemployment rate, amount of employees' remuneration, age structure, education level or scope and financial means for social aid, are being performed since many years for needs of national authorities and also international organizations. In many events institutions such as: the European Union (EU), North American Free Trade Agreement (NAFTA), Association of Southeast Asian Nations (ASEAN), World Bank (WB) or European Bank for Reconstruction and Development (EBRD), have created their own record systems or systems for processing of necessary for them data or information. However, in most cases they are of statistical nature. They base largely on records, numerical rankings and comparisons of graphic character which main task is to create a uniform model presenting the current or possibly the forecasted economic situation of given territorial structures. Within the aforementioned organizations, there are also being created financial funds and numerous programs which task it is to most of all achieve the established objectives of economic and social development. In that sense there is the lack of studies which in the foreground displays significance of important territories in relation to their role in international relations and possibilities of affecting the global situation. Such materials are being created but most frequently in a different depiction. They generally relate to problem areas within various countries. Their task is to present solutions aiming at

resolving the tense political situation on a given, limited area or also to define manners of aid in the case of natural disasters or catastrophes in humanitarian sense. Therefore the creation of a classification which takes into consideration importance of selected regions, as the factor of changes in the global scale, seems desirable. This type of study will allow to create a new approach model for the issue discussed. It will simultaneously pay attention to the essence and importance of the issue of increased role of regions in the current world.

#### **4. CLASSIFICATION OF REGIONS ACCORDING TO THE CRITERION OF THE FACTOR OF THEIR SIGNIFICANCE AND INFLUENCE ON CHANGES IN THE GLOBAL SCALE**

The below classification constitutes the attempt to list and compare exemplary regions according to the area of their impact on in the international scale. However one should be aware of the fact that not all separated areas exert such impact. The vast majority has not yet reach the level of impact on the transnational scale or it is not properly conditioned to ever reach such state. These regions which constitute the factor of changes on the global scale are in some sense territories of special importance and exceptional when it comes to the features they possess. However technical progress, in particular in the field of telecommunication and dynamically changing political situation of the entire planet, results in the constant increase of territories due to different reasons essential for the nature of today's world. The presented groups of regions have been arranged according to the list. It takes into consideration the possibilities of their potential influence on events in the global scale. At the beginning of the listing there are the regions which impact is the greatest. On further positions there have been introduced ones which role in the described phenomena is smaller. The presented list has been arranged on the basis of the assumption based on the deductive path of conduct. However, the premises for this activity are not a will to create a firm axiom. It was rather about sketching an elastic model of conduct taking into consideration current and future events. By the use of it, it would be possible to note the most important phenomena and subsequently to give them a value and range them in relation to the influence on the existing and future global situation.

##### Classification of regions according to factors: their significance and influence on changes in the global scale.

##### **Group 1: Limited, in geographical sense, areas in which there is an open war or armed, repeated clashes take place.**

Such situation relates to at least two antagonized countries. It may also relate to units aspiring to become an independent country but are not recognised by a wide international opinion. Examples:

- Conflict of a few decades between India and Pakistan fighting for the border area of Kashmir,
- Confrontation in the Gaza Strip between Israel and forces representing the Palestinian Autonomy,
- Golan Heights - the conflict area included in 1981 in the territory of Israel, for the return of which Syria and Liban fight. For many years at the moment of tension in the Near East, border incidents and exchange of fire between the conflicted parties take place.

**Consequences for the situation of the world:** In the majority of cases, behind the armed conflicts taking place there are interests of the largest superpowers and economic powers of the world. Acts of war polarize specific political and social forces, placing them on opposite poles. There occur cooling of international relations in the sphere of trade and limitations of all other forms of mutual contact between countries supporting the conflicted parties. A direct intervention into the armed conflict to support one of the fighting parties of a single country or

a group of countries may take place. The involvement may be of a direct nature or only limit to the sphere of logistics. Tension on the international arena is increasing. A real threat of a conflict expanding into neighboring countries. Military spending is increasing in the global scale. Less funds are being allocated for consumption, development and in favor of citizens. Taxes are increasing. Anti-war activists' demonstrations and numerous social protests are taking place. The described situation results in the biggest threat of destroying the existing world order.

**Group 2: Regions in which there is a severe political conflict and a threat of outbreak of military clashes.**

In the majority of cases, this issue relates only to two countries. Each of them manifests a desire to create their own zone of influence and aspirations for the role of a force leading in a given area. The examples may be:

- Conflict regarding the archipelago of islands located on the East China Sea, which Japan refers to as Senkaku and China - Diaoyu. The conflict relates to the Country of the Rising Sun and the Middle Kingdom.
- Kuril Islands located on the Pacific Ocean. The object of contention between Japan and Russia making it impossible to sign the peace treaty officially ending the World War II between these countries,
- The already ended conflict of many years related to Beagle Channel between Argentina and Chile. Beagle Channel is a narrow strait approx. 370 kilometres wide, between the islands which belong to Tierra del Fuego archipelago. It is located at the southern end of the South America's continent.
- Quemoy and Matsu Islands located in the Taiwan Strait constitute the conflict territory of Taiwan and the People's Republic of China since the end of the civil war in 1949 (Kerr G.H., 1992, p. 430)

**Consequences for the situation of the world:** The after-effect of the political conflict relating to head authority over a given area are dangerous demonstrations of military force of both conflicted parties. They may even transform into short military skirmishes. The reason for the conflict is most frequently a discovery in the described areas or, as in the event of the mentioned cases – on waters surrounding them, valuable natural resources such as petroleum and natural gas. For some time, trade between adversaries is limited or entirely discontinued and decline in mutual relations take place. As in the case of the second conflict of Taiwan, there may even exist a threat of outbreak of military actions on a global scale. Other countries, recognized international organizations and authorities engage in mediations aiming at resolution of the existing conflict.

**Group 3: Regions located within one or a few neighboring countries which with insurgent activities attempt to create their own statehood based on national criterion.**

Tribal or national community which pushes societies living in the specific area and belonging to the same ethnic group into armed struggle for liberation and independence, is decisive. The examples here are:

- Secession of Katanga in 1960 - 1963. The attempt of armed separation of this province from the Democratic Republic of the Congo.
- Aims of ETA group (to form independent Basque Country). Armed activities of this organization took place in Spain and to a lesser extent and with the use of peaceful methods in France.

- Fight of Kurdish Nation for formation of its own country. Military actions of Kurds aiming at independence are the activity mainly on the territory of Iraq and Turkey but also the areas of Syria and Iran (Wójcik L., 2014, p. 38 - 40).

**Consequences for the situation of the world:** Derivative of an armed struggle of ethnic groups for formation of their own country is always a military counteraction of a country to which a given region belongs. A country which most frequently, by the use of brutal methods, tries to maintain its territorial integrity is doomed to condemnation of international social opinion and is generally severely sanctioned in terms of economy. There are attempts to resolve the conflict with participation of authorities and international institutions. Mediations and efforts take place in order to create conditions to begin peace talks. Devastation or annihilation of material infrastructure have their place in the entire region in turmoil. Also humanitarian catastrophes, such as famine and diseases, occur frequently. Rapes of civilians and genocide happen repeatedly. Regions which lost their fight for independence become quite frequently problematic areas doomed to constant aid of other countries and specialized organizations. The derivative is an escape of population from areas of the fighting to neighboring countries. It creates a problem of providing safety and living conditions to thousands or refugees.

**Group 4: Regions seized with the use of political solutions and settlements by force by larger countries from smaller and weaker countries.**

The examples of such conduct:

- Occupation in 1938 by Third Reich of the so-called: "Sudetenland" belonging to Czechoslovakia.
- Annexation by India with the use of military action of colonial estates belonging to Portugal: Diu, Daman i Goa (so-called Portuguese India), located on the Indian subcontinent. The short-term war for these territories between India and colonial armies of Portugal took place in December 1961.
- Annexation of Crimea to Russia despite protests of the Ukraine and the majority of world's countries. This event was preceded by the outcome of the referendum of 16 March 2014 organized by the parliament of Crimea (Mucha W., 2014, p. 1)

**Consequences for the situation of the world:** Violation of the international law. Disturbance of the established world order and breach of principles of peaceful co-existence on the scale much larger than the region of dramatic events. Development and building of power of new empires in a specific part of the globe. The perspective of development of a dangerous situation in the direction of further aggressive moves, by the country annexing a foreign territory. Fears of countries neighboring with places of conflict, in terms of the upcoming future. Commencement of the weapon race and seeking alliances which may provide safety. Protests of international communities and attempts to counteract of eminent transnational organizations and institutions.

**Group 5: Territories which are of strategic and military importance for a specific area of the world.**

Favorable location of so defined areas, in view of the performed by them actions in strategic and military sense, comes to the fore. The examples here are:

- Gibraltar - British overseas territory located on the Iberian Peninsula at the entrance to the Mediterranean Sea.
- Guantanamo - American military base on Cuba for the entire region of the Caribbean.
- Kaliningrad Oblast for the whole zone of Baltic Sea.

- Diego Garcia is an island which belongs to the British Indian Ocean Territory, including Chagos Archipelago located in the middle part of the Indian Ocean. It is leased to the armed forces of the USA. It constitutes one of the most important American bases in the world.

**Consequences for the situation of the world:** Possession of military bases in critical regions of the world, provides the possibility to affect the course of events in accordance with interests of the countries which armies are stationed in them. The best example is Diego Garcia base which was used

in the time of two wars with Iraq (first and second war in the Persian Gulf) and in the time of American intervention in Afghanistan in 2001. Sometimes only the presence of a base of a specific country in a region may have impact on stability, or in the case of the need also on destabilization of the existing political situation.

#### **Group 6: Regions which indicate future expansion directions of specific, large countries.**

The examples here may be:

- Annexation of Hawaii as the 50th and last so far state to the USA in 1959.
- New war in Europe, between the Ukraine and units belonging to self-proclaimed and pro-Russian: Luhansk Oblast and the Donetsk People's Republic.
- The mass settlement campaign for citizens of the People's Republic of China on large areas of Russian Siberia.

**Consequences for the situation of the world:** Transformation of Hawaii - the territory dependent on the USA into one of its states, symbolized extension of the zone of influence of this country to the whole area of the Pacific Ocean, South East Asia and Australia. Clashes of separatists from Luhansk Oblast and from the Donetsk People's Republic with the armed forces of the Ukraine, indicate clearly the range of the Russian zone of influence in the South East Europe and the direction of expansion of the largest country in the world. However, the most interesting example is the progressive colonization of the Russian Siberia by Chinese. In the context of the mass immigration of citizens of the Middle Kingdom one is to pay attention to the fact that these areas are relatively sparsely populated and wait to be settled. The greatest asset of Siberia from the perspective of China are immense natural resources of this land. (Rožek T., 2013, p. 6). Currently it is difficult to estimate the number of Chinese in the discussed area. The official data states that there are a few hundred thousands of specialists, workers, entrepreneurs and farmers. However, taking into consideration families accompanying the immigrants, the number may even amount to 2 million people. In extreme cases, the number of 5 million is stated. China demands that Moscow returns 1.5 million square kilometres of the Russian Far East. The country of tzars, under the colonial treaty signed in Beijing in 1860, took the area of that size from the Chinese Empire. One may be certain that the government of the People's Republic of China will claim these areas in upcoming 20 - 30 years ( Różycki T., 2014, p. 12). One may wonder why authorities in Kremlin do not oppose to the visible expansion of their neighbor. There is an explanation for that. Recently, economic contacts between both countries have been strengthened. Its visible effect is at least signing of "the contract of the century" for supplies of Russian gas to China. This fact makes it almost certain that there has been made a far-reaching agreement between two superpowers, regulating their mutual economic, political relations and also territorial matters. Weakening Russia may in this arrangement, for the price of large or even painful sacrifices, count on alliance with China giving Russia large benefits in future. Including even building of the new world order.



**Group 7: Regions located within a specific country which by the use of mechanisms and democratic methods attempt to become independent and to create their own statehood according to the national key.**

This situation applies to countries of developed structure of democratic political system of many years. In conditions of a certain weakness or crisis of the statehood, there may occur, in some areas, devolutionary tendencies aiming to secure larger autonomy by fighting and in the favorable system even their own statehood. The expression of such process is:

- Separatist tendencies of French-speaking Quebec province in Canada which with different intensification can be observed from the half of the 20th century (Simard M., 2013, p. A3). In 1980 and subsequently in 1995, there took place referenda which outcome was however unfavorable for supporters of independence.
- The independence referendum in Scotland which conduct of was planned for 18 September 2014. Residents of Scotland, in a democratic manner, will decide this day on remaining or withdrawing from the United Kingdom.
- Idea of separating Catalonia from Spain. Despite the backlash of authorities in Madrid, prime minister of Catalonia, Artur Mas, declares that in October 2014 there will be organised a referendum on independence of this region (Stasiński M., 2014, p. 41).

**Consequences for the situation of the world:** Political and economic weakness of three out of twelve largest economies of the world. Potential decrease in the importance of each of them together and individually on the international arena. Loss of elements of important financial and economic associations within each country in the event of decrease in the previous territory. Possibility of losing a part of significant urban and industrial centers and their human capital by the Great Britain, Spain and Canada. Possible occurrence of domino effect, causing separation of other regions from weakened state units. Creation of a new political and economic order on European and North American continents. Formation of new countries aspiring to membership in international organisations such as: the European Union, NAFTA, UN, NATO, OECD, World Bank, European Bank for Reconstruction and Development etc.

**Group 8: Regions which in the result of natural disasters, unforeseen incidents or an outbreak of dangerous diseases require international aid.**

In the case of these territories, the aspect of humanitarian aid comes to the fore. Areas affected by natural disasters, incidents or epidemics need radical measures aiming to provide rescue to survivors and prevent danger of further unfavorable development of the situation. Examples:

- Nuclear power plant disaster in Chernobyl which resulted in radioactive contamination of the considerable area of Europe.
- Lethal epidemic of Ebola virus in Western Africa.
- Famine in Ethiopia in 1984 - 1985.

**Consequences for the situation of the world:** Such and similar events entail thousands of human victims. They are a tragedy especially for poor countries of Asia and Africa. However, rich countries such as Austria, Japan or the United States in the face of cataclysms ask for international aid. In the event of a disaster, the following organisations begin to act there: Red Cross and Red Crescent, World Health Organization, Food and Agriculture Organization of the United Nations, volunteers and institutions representing almost all countries of the world.

**Group 9: Regions which status of nationality changes on the basis of voluntary waiver of rights to possess them by previous old countries.**

The examples here may be:

- Sale of Alaska by the Russian Empire in favor of the United States of North America in 1867.

- Handing over to the People's Republic of China of the territory of Hong Kong (Bard S., 2002, p. 5) by the Great Britain in 1997.
- Formal acquisition by the Chinese government from Portugal of sovereignty over the special administrative region - Macau in 1999.

**Consequences for the situation of the world:** Such or similar events are symptoms of serious change in the balance of power on the global arena. In a symbolic manner, new and strong players get on the stage of politics and economy and previous, leading participants of the global show are put in the shade. The act of peaceful handing over of administration of a specific region to a new country frequently becomes a factor enabling a dynamic development of the said area. Position of a country expanding its territory is also being strengthened.

**Group 10: Regions which expected in the future attractiveness make them objects of a political game already in present times.**

In connection with the progressive global warming during past several dozen years, the polar and subpolar areas located around the poles of our planet have become interesting in terms of exploitation. The additional encouragement intensifying interest of large number of countries is a potential possibility of occurrence of deposits of natural resources in the described areas. Examples:

- Territorial claims for fragments of Antarctica and islands bordering on it, before the Antarctic Treaty entering into force in 1961, have been submitted by seven countries. These are: Argentina, Australia, Chile, France, Norway, New Zealand and Great Britain. Renewal of this international agreement signed in Madrid freezes all territorial claims until 2041.
- Legal status of Arctic has not yet been regulated by any international agreement. Claims for its area are submitted by five countries. These are: Russia, USA, Canada, Denmark (by sovereignty over Greenland) and Norway.
- Maintaining of uninhabited territories of the Southern Atlantic, near the Southern Arctic Circle by: the Great Britain (South Georgia and South Sandwich) and Norway (Bouvet Islands)

**Consequences for the situation of the world:** Beside measurable profits such as the possibility to exploit in the upcoming future deposits of natural gas and petroleum, new possibilities of cheaper transport of resources and goods over longer distances are emerging. It relates to northern shipping lanes, such as: the Northern Sea Route along the shores of Russia and the Northwest Passage along the sea-coast of Canada and the USA. In both cases, the previous sea routes are being shortened by a few thousand kilometers. For example, a journey from Europe to the Far East or a journey from the East Coast of the USA to the West Coast may be significantly reduced in time - from a few to a dozen or so days (Kubiak K., 2014, pp.10 – 15).

**Group 11: Regions which are remnants of colonialist past of some countries.**

The examples of such territories:

- overseas enclaves of Spain in the territory of Morocco: Ceuta and Melilla.
- Bermuda as the autonomous colony of the United Kingdom.
- French Polynesia.

**Consequences for the situation of the world:** Currently these territories are of minor importance in a global scale. However they remain a valued place for tourists from the whole world and the best card of a metropolis which they represent. They also promote in the surroundings a specific lifestyle and a civilization profile of specific cultural circles.

## 5. CONCLUSION

The presented classification of regions, based on the criterion of factors: their significance and influence on changes in the global scale, displays with itself a new value in reference to the previous comparisons and registers concentrating on numerical issues in statistical terms. It establishes 11 types of territories which ought to be taken into consideration in the context of the upcoming future. It enables to notice from another point of view the diversity that these regions represent. It gives a different, from the previous, possibility to take a look at the influence which events in these regions have on the world order. On the basis of several dozen selected examples, there has been demonstrated the increasing role of specific territories in the global politics and economy. In addition, this role is constantly expanding in view of the increasing economic potential, abundance of infrastructure and political significance of individual regions. Obviously not all the standing out areas are of crucial importance in the international scale. Only some of them leave their stamp on the course of events on our planet. However, their constantly increasing number is currently sufficient to change the nature of present relations. It is almost certain that the new order, which is as a matter of fact being created in front of our eyes, will begin on the level of regions and right from there it will spread on higher levels. Therefore it is so essential to look broadly at the issues relating to the described areas. The prepared classification is not a closed list. In the author's intention, it should serve as the basis for further considerations on this topic. Its structure allows to make changes and complete it as needed. Taking into account these conditions, it may be useful as an efficient tool enabling to track and analyse changes occurring in the modern world.

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## CYBER SECURITY IN THE GLOBALIZED WORLD: CHALLENGES FOR BANGLADESH

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### ABSTRACT

*With the rapid spread of information and communication technology worldwide, cyber crime appears to be a potential threat for confidential computer data and systems. Technologically advanced countries like the United States are also victim of this crime. Being a less developed country, Bangladesh is under risk of cyber crimes that threatens the national security of the country. The current government's agenda of making Digital Bangladesh attempts to ensure internet connection in all governmental institutions by 2021. Similarly, both national and multinational companies are now offering online services to consumers that facilitate online shopping, banking, and communication. However, criminals take their way in the digitalized world. They commit criminal activities through phishing, hacking and stealing of personal data. Thus governmental institutions and companies become under security threat for their secret data that can hamper the daily life of the entire population in the country.*

*Moreover, the country's 90 percent of the software is pirated that exacerbates the cyber security in the country. In addition, recent clash between Bangladeshi and Indian hackers influence the diplomatic relations between the two countries. More importantly, terrorist organizations conduct their financial and information transactions through using internet. In this circumstance, the existing acts and initiatives against cyber crime are very limited to combat the threat. The essay attempts to study the threat of cyber crime in the globalized world with an emphasis on Bangladesh. Finally, the article will offer policy options for ensuring cyber security in the country.*

**Keywords:** Bangladesh, Cyber Security, Globalization.

### 1. INTRODUCTION

*"Cyberspace is the realm of computer networks (and the users behind them) in which information is stored, shared, and communicated outline."*

(Singer and Friedman, 2014, pp. 13)

The age of globalization is marked by the rapid spread of information and communication technology. Secure cyberspace is a key element of protecting national security in the age of globalization. It plays significant role in achieving economic prosperity and credible defense of a country (Williams, 2013). These are important to build a strong, modern, powerful and industrial nation. With the rapid advancement of information and communication technology (ICT), cyber crime has become a considerable security concern in international area. States are now under security threat from both individual cyber criminals and state sponsored cyber crimes to protect their confidential data. These threats abysmally impact the economic progress and defense system of a country, and create diplomatic conflict in world order. Thus the issue of information technology hampers the international peace, security and development. The above international scenario exacerbates the cyber security of Bangladesh.

The country lacks modern information and communication technology that benefits criminals to commit phishing, hacking and stealing of secret private data. Criminals target personal and organizational data, in addition, digital facilities to the general people by government and non-government sectors.

Public and private organizations are providing digital facilities without ensuring proper security efforts. Moreover, the Information and Telecommunication Act of the country is ineffective to secure the cyberspace. This paper attempts to investigate the major challenges of Bangladesh for its volatile cyber security initiatives in the globalized world. In doing so, the paper examined effectiveness of current informational and telecommunication laws, and therefore suggests remedial measures for ensuring cyber security of Bangladesh. The paper concludes by uttering that it is high time for Bangladesh to secure its cyber space in order to emerge as a powerful state in the world.

## **2. CYBER SECURITY IN THE GLOBALIZED WORLD**

The whole world is now connected via internet which makes us virtually a global citizen. Cyber threat is not a national concern anymore rather a matter of global security. Cyber threat generally appears as a form of cybercrime that can harm individuals or specific target groups or organizations or even a state actor itself. The cyber criminals tend to look for scopes to attack at networks, systems, data and operators for financial gains. B. Williams described that criminals generally approach four types of cyber crimes.

First, who are just after the money. Such example of this occurred in April 2013 when U.S. stock market faced an amount of \$130 billion within minutes just because of a hacked Tweeter newsfeed propagated a false report of an explosion at the White House (Williams, 2013). Second ones are the competitors, searching for critical information or intellectual property that may provide them edge to other. It is equally concerning matter for both civilian and defense sectors. Recently, a Russian crime organization cumulated the largest known collection of stolen internet data consists of 1.2 billion user name and password combinations, more than 500 million email addresses (Perlroth, Gellesaug, 2014). Third is the threat posed from inside either from an insider de facto or lack of proper security precautionary measures.

Many of the websites of Bangladesh government use foreign servers and foreign vendors. As a result these are always in vulnerable position and at risk to be sabotaged by the insiders of the system (Alam, Md. Shah, personal communication, July 27, 2014). The fourth approach is potentially the greatest threat to our national security. This is regarding state-sponsored cyber attack to weaken a national security system such as critical infrastructure or essential national economic components to a certain level for gaining strategic advantages over that particularly affected country (Williams, 2013). In this case, the example of China can be mentioned. China always regarded as a potential candidate who posed cyber security threat to other influential countries such as U.S., U.K., France, Germany, India etc. for gaining strategic advantages. In 2007, it was claimed that China launched a series of network-based cyber attacks against the above mention countries. In fact, these countries have larger military ambitions as well to improve the country's ability to engage information or cyber warfare if needed in near future (Greenemeier, 2007). We can now easily comprehend the global vulnerability and complexity of cyber security matter around the globe. No one is safe from anyone and anyone can be affected from anybody.

## **3. CURRENT SCENARIO OF CYBER SECURITY IN BANGLADESH**

The world is becoming more and more globalized thanks to the rapid growth of information and communication technology especially due to internet. Bangladesh is also trying to be an active participant in this evolution. Due to lack of adequate natural resources, the country is

trying to achieve economic independence through the utilization of ICT industry. Moreover, Bangladesh intends to use ICT sector as boosting element for socio-economic development (Maruf, Islam, Ahamed, 2010, p. 118). The Awami League-led present government of Bangladesh has taken vision-2021. It's another interpretation is Digital Bangladesh vision. Bangladesh wants to be fully digitalized in every national sector such as educational institutes, hospitals, financial institutes, law-enforcement agencies, service sectors, etc. Private sectors are also coping with the pace as well such as offering online services to consumers, facilitating online shopping, e-commerce, e-banking, mobile banking etc. As like every thesis has an anti-thesis, vision for digitalized Bangladesh has its adverse effects also. With the increasing online activities in cyber space, criminals are using this space as well for their own criminal activities. In the process of becoming a digitalized country, phishing, hacking, and stealing of personal data are routine activities in Bangladesh (Bleyder, 2012). If we examine the nature of cyber crimes then we have a clear picture of cyber security condition in Bangladesh. We can see two broad categories of cyber crimes in Bangladesh, direct and indirect. Direct cyber crime nature in Bangladesh is almost similar to world context such as malicious mail to foreign diplomatic mission and other VIP personnel, pornography, use of e-mail for illegal activities, use of internet for transmitting false and malicious information, use of internet for prostitution (a lot of examples of illegal prostitution promotion web sites of Bangladesh), use of internet for women and child trafficking etc. (Alam, 2007). On the other hand, indirect cyber crimes are like pathways for traditional crimes such as kidnapping, robbing banks, committing murders, threatening and demanding money by using exclusive pornographic videos and pictures (photo-shopped in most cases) etc. According to Bangladesh Police, the traditional crime rate has decreased significantly compare to 80s and 90s but in reality the criminals are using new risk free methods to conduct the crimes and in these cases indirect use of cyber crimes are the most preferable methods. Cyber crimes may still not that much popular as replacement for traditional criminal activities in Bangladesh but these are using as medium of various kinds of organized crimes. In recent months, the rates of these indirect cyber crimes have increased rapidly. Bangladesh Police investigated such a crime where an interesting case came up. A consultancy agency gave advertisements in prominent national dailies such as Prothom Alo by saying that they can send Bangladesh citizens to Canada and interested candidates need to pay 16.5 Lac (1.65 million) taka for that. The case seemed unusual to police and they went to investigate to that particular company named 'BD Company.' Later on police found out it's a fraud company without adequate knowledge and government approval or license for manpower business. The company's Managing Director (MD) is a young person and never visited any country before. This seemed a regular crime at first but in reality it was part of an international organized crime and young MD was just a pawn of it. He was also played in the hand of an international organized crime network. At the time of investigation already 37 interested candidates paid 1 Lac (100 thousand) taka per each to that company just because of the lack of awareness, and the young MD sent 26.5 Lac (2.65 million) taka to his counterpart by using hundi (did not pay government tax using illegal means) to another Bangladesh citizen living in UK and he deposited it to the original suspect's bank account. This money laundering process used internet and online banking system very frequently and the prime criminal suspected to be a citizen of Nigeria who has international bank account in UK. In this case, we can clearly assume how cyber crime can be used in the process of traditional criminal activities (Alam, Md. Shah, personal communication, July 27, 2014).

#### 4. CHALLENGES TO BANGLADESH

When we start to think about cyber security in Bangladesh, the words stuck in our mind that are 'pirated software' and poor infrastructural system to protect cyber space in Bangladesh. In Bangladesh, around 90% of software is pirated (Bleyder, 2012). Using pirated software has become a culture and habit to Bangladesh people. This habit of using pirated software is leading us to more vulnerable position in the cyber security domain. We are not saying this is the only challenge that Bangladesh is facing right now in the quest of cyber security but we cannot ignore the impacts and consequences of it either. Apart from security concern regarding pirated software uses, there are some grave challenges as well regarding Bangladesh cyber security that we cannot deny anymore.

To understand the challenges of cyber security in Bangladesh, first we need to be aware of the nature of cyber crimes in Bangladesh that we are facing day to day life. We can divide it into four categories. First, cyber crimes that are targeting individuals, such as: hacking or cracking, illegal/unauthorized access, illegal interception, data interferences, E-mail spoofing, spamming, cheating and fraud, harassment and cyber stalking, defamation, drug trafficking, transmitting virus and worms, intellectual property crimes, computer and network resources vandalism, internet time and information thefts, forgery, denial of services, dissemination of obscene material etc. Second one is cyber crime against property such as: credit card fund stealing, intellectual property crimes, internet time theft etc. Third one is crime against organizations. Such crime examples are like unauthorized control/access over the network resources and websites, exposing indecent/obscene materials over the web pages, virus attack, E-mail bombing, logic bombing, Trojan horse, data diddling, blocking from access, theft of important possessions, terrorism against government organizations, vandalizing the infrastructure of the network etc. Fourth and last category of cyber crimes are happening against the society or social values of Bangladesh. Such crimes are like forgery, online gambling, trafficking, pornography (especially child pornography), financial crimes, polluting the youth through indecent exposure, web jacking etc (Maruf, Islam, Ahamed, 2010, pp. 114-118).

Discussing the major challenges for cyber security in Bangladesh, pornography is a concern for Bangladesh especially if we consider the social values, morals, ethics of Bangladeshi culture and society. We can now chat with anyone in the globalized world. We can share and exchange our cultural values. A very natural element of different country's culture may harm our culture heavily because of cultural diffusion. Spreading of pornography is such a bothersome element for Bangladeshi culture where not even adult education has not been accepted yet. According to Bangladesh Police, they are facing many cases where people are regularly demanded to give ransom money or conned by illegal pornographic use such as secret nude video footage, photo-shopped pornographic picture editing etc. Criminals are targeting victims' closed ones like parents, family members, relatives etc. Victims can be any woman or child even boy child as well but the frequency of teenage girls victims are higher than usual. In this regard, we must consider the 'duel criminality' as well. Duel criminality means that the crime has been acknowledged in both countries of victims and crime suspects and here lays another complexity to deal with pornography. Usually in many countries such as in U.S., adult pornography may not be a crime in every case but in Bangladesh it is so when the crime suspect is related to U.S. then Bangladesh cannot claim it as duel criminality and faces difficulties to deal with this crime as transnational crime itself is a complex issue. On the other hand, child pornography is a duel criminality, and we can work together through international cooperation. We can give an example in this case. In this year, a famous litterateur for writing child-literature in Bangladesh named Tipu Kibria had been caught in red hands of police for illegal child pornographic activities. He used street male children for

making child pornographic videos and photo shooting in his home and lab. At the time when he was caught by the police, he had already abused around 400-500 street children for his dirty ambition. He has two assistants to help him out in these illegal activities and police found 13 international buyer names from Tipu Kibria who regularly paid him for weekly supplies through international or online bank transactions. Bangladesh Police also suspects that maybe there are many more suppliers other than Tipu Kibria as well. So we can clearly say, pornography is a serious concern regarding Bangladesh cyber security concern (Alam, Md. Shah, personal communication, July 27, 2014).

Cyber security threat regarding financial transaction such as online banking, e-commerce, money laundering, financing to transnational organized crimes like drug trafficking, terrorism etc. are another major challenge to Bangladesh cyber security arena. Cyber threat can lead Bangladesh to serious economic downfall especially in banking sector. Bangladesh is a new customer of online financial transaction and lack proper maturity in this new field but a globalized world is making online banking and any kind of online transaction more frequent so Bangladesh cannot deny the inevitable consequences as well. As a result, it is going to become a major security concern in upcoming days. Widespread uses of credit cards and the rise of electronic payment methods are also putting a large number of customers' private information such as bank account name, bank account number, cell number, E-mail ID etc. in danger (Bleyder, 2012). In recent times, Bangladesh law-enforcement agencies are facing many cases regarding direct or indirect cyber threats to Bangladesh online banking sector or other online financial transactions. Bangladesh Police described one particular case where a single individual person held 125 credit cards in his name from 5-7 different banks. At the time of his capture, there had already been millions taka dealing through these credit cards. In these cases, internal employees of banks are also involved and they are promoting these activities for getting profit sharing. In the name of fake companies, millions of taka has been vanished from banks and online banking, credit cards are now the safest and preferable ways to do that. Banks are taking many security initiatives to restrict illegal transactions but internal sabotage and security dependency on others are making it more challenging. On top of that, after revealing money laundering or forgery, banks usually do not want to take proper responsibilities and try to hide the case for considering their age old reputation. The most troublesome condition in this case is that banking authority often tries to make their innocent customers as shadow victims by accusing them as a faultier for these financial misconduct and it turns into a cause of individual security concern. Apart from sabotaging online financial transaction, there are always threats of phishing as well. Phishing or pulling out confidential information from the bank/financial institutional account holders by using deceptive means or provocative e-mails, advertisements are affecting a large of victims in Bangladesh. In these cases, victims usually lose 100-500 USD per case and they hesitate to go to the police for complaining which again make the case more difficult to tackle for law-enforcers in Bangladesh (Alam, Md. Shah, personal communication, July 27, 2014).

Hacking or illegal intrusion into a computer system without the permission of owner or user (Maruf, Islam, Ahamed, 2010, p. 116) is another prime concern of Bangladesh cyber security especially for disrupting good diplomatic relations with other countries and creation of confusion among various parties. Hacking has become a routine security concern in Bangladesh nowadays. Usually government and important financial institution websites are the targets of hackers. In the name of ultra patriotism or ultra nationalism, a country's young hackers can attack another country's website and it may enter into a void of attack and counter attack collision. Lack of adequate cyber security knowhow, poor cyber infrastructural system such as dependency on outside server system provider companies etc. are putting Bangladesh in more difficult position to combat cyber hacking (Alam, Md. Shah, personal



communication, July 27, 2014). Another major challenge for Bangladesh cyber security is data stealing. Such recent example is the issue of leakage of partial verdict of Bangladesh War Crime Tribunal before having a formal court's decision. This was happened through Skype voice recording. It was a major backlash for Bangladesh government and exposed the vulnerability of Bangladesh cyber security arena (Alam, Md. Shah, personal communication, July 27, 2014).

Apart from above challenges, there are cyber security threats to individual level as well. A scene of personal insecurity is always working nowadays in Bangladesh because of the rapid growth of internet and social network such as Facebook. Anyone can be victim and feel insecurity of losing personal information or facing unwanted threats that can demolish his/her respect and social prestige within a matter of time. At the end, we cannot say cyber crime or internet based crime is not just a part of routine crime anymore in Bangladesh rather it is spreading to a more complex form of crime where traditional criminals are using cyber space in a more covert and smarter way to do their job.

## 5. EXISTING ACTS AND THEIR LIMITATIONS

In the context of cyber security, the only legal structure in Bangladesh is 'The Information & Communication Technology Act, 2006' or shortly known as ICT Act 2006 which was initiated on 08 October 2006 (ICT Act, 2006). Bangladesh Parliament amended this ICT Act on 06 October 2013 (ICJ, 2013). The law enforcement agencies are suggesting this is a good law to combat cyber crimes in Bangladesh as a victim of cyber crime can file a case against the criminals under this law no matter where the criminals are in the world. The victims can use this ICT Act at least to move as an starter though after that they definitely need good cooperation to progress from first, specific Bangladesh law enforcers who have expertise regarding cyber security such as CID (Criminal Investigation Department) and secondly, from international law enforcers such as Interpol (Alam, Md. Shah, personal communication, July 27, 2014). The amendments of ICT Act 2006 that have been initiated in 2013 created many ruckuses under the Act non-bailable and cognizable. 'The amendments also imposed a minimum prison sentence of seven years for offences under the Act and increased the maximum penalty for offences under the law from ten to 14 years' imprisonment.' The mentioned objective of the ICT Act is 'the legal recognition and security of information and communication technology' (ICJ, 2013). After the amendments with few significant changes, the main Act of 2006 remains unchanged with all its discrepancies and imposed unnecessary harsh punishments (Barua, 2014). However, after being amended, the ICT Act 2006 has become a tool of Bangladesh government to violate basic human rights such as freedom of opinion and expression. If we analyze the original ICT Act, it contains a number of vague imprecise and overboard provisions (ICJ, 2013) that may help to instigate cyber criminal acts further rather than containing. Section 57 (1) of the original Act stated as such, "If any person deliberately publishes or transmits or causes to be published or transmitted in the website or in electronic form any material which is fake and obscene or its effect is such as to tend to deprave and corrupt persons who are likely, having regard to all relevant circumstances, to read, see or hear the matter contained or embodied in it, or causes to deteriorate or creates possibility to deteriorate law and order, prejudice the image of the State or person or causes to hurt or may hurt religious belief or instigate against any person or organization, then this activity of his will be regarded as an offence" (ICT Act, 2006). According to ICJ, section 57 of original ICT Act is 'incompatible with Bangladesh's obligations under article 19 of the ICCPR: the offences prescribed are vague and overbroad; the restrictions imposed on freedom of opinion and expression go beyond what is permissible under Article 19(3) of the ICCPR' (ICJ, 2013). In this regard J. Barua said, "Section 57 is not specific and covers a wide area of

offences, there will be little chance to get acquittal from any charge” (Barua, 2014). After analyzing the ICT Act 2006 with its amendments, we can say that there should be law to contain crimes related to cyber space but the existing act is vague and need to be designed as modernistic legal framework in a permanent basis not just rely on ad-hoc framework (Editorial, The Daily Star, 2013).

## **6. POLICY OPTIONS**

In the above scenario, we can offer several remedial policy options regarding cyber security, cyber space protection and minimizing the cyber crime rates in Bangladesh. We are mainly recommending policy options for Bangladesh government but it also includes individual security domain as well. These options could be as such:

### **6.1. Reform of Legal Structure**

We are echoing ICJ’s policy recommendations to both Bangladesh Parliament and Bangladesh Government regarding ICT Act 2006 and its amendments. ICJ calls the Bangladesh Parliament as such, ‘Repeal the Information and Communication Technology Act (2006), as amended in 2013, or to modify the ICT Act to bring it in line with international law and standards, including Bangladesh’s legal obligations under the ICCPR. At a minimum, this would require that it, (1) Amend section 57 of the ICT Act so as ensure any contemplated restrictions on freedom of opinion and expression are consistent with international law and standards; (2) Amend section 57 of the ICT Act to ensure prohibited expression is clearly defined; (3) Amend the ICT Act to ensure that any restriction to freedom of expression and information, including any sanction provided for is necessary to a legitimate objective and proportionate to the harm caused by the expression’ (ICJ, 2013). ICJ also recommended policy options to Bangladesh Government in this regard. Such policy options are, (i) ‘Take steps to ensure that provisions of the ICT Act are not used to violate the right to freedom of expression, including to limit the legitimate exercise of comment on public matters which might contain criticism of the Government; (ii) Drop charges against bloggers for the legitimate exercise of their freedom of expression; (iii) Direct Government agencies to desist from filing politically motivated cases unlawfully restricting the exercise of expression, as well as and seeking penalties which are disproportionate to the gravity of the alleged offence’ (ICJ, 2013).

### **6.2. Maintaining Rules of Cyber Security**

In 2011, Eneken Tikk, the Legal Advisor at the NATO Cooperative Cyber Defense Centre of Excellence, Tallinn, Estonia, provided a conceptual framework of maintaining rules of cyber security considering both national security issues and individual liberty security concerns in his article ‘Ten Rules of Cyber Security.’ We are also agreeing with Eneken Tikk in many cases. He talked about ‘the territorial rule’ protecting cyber security as such, “Information infrastructure located within a state’s territory is subject to that state’s territorial sovereignty” (Tikk, 2011, p. 121). Tikk also talked about ‘the responsibility rule’ where he suggested to the states to act responsibly to protect their own territory. He also told about ‘the early warning rule’ as such, “There is an obligation to notify potential victims about known, upcoming cyber attacks” (Tikk, 2011, pp. 122-126). By analyzing Tikk’s above cyber security rules, we can recommend a strong national cyber intelligence agency for Bangladesh to combat current and upcoming potential cyber threats from anywhere of the world as prevention is better than cure. Secondly, according to Tikk, a state should protect its important national data implying ‘the data protection rule.’ He clearly stated, “Information infrastructure monitoring data are perceived as personal unless provided for otherwise.” In this regard we can also mention

Tikk's another rule, 'the duty to care rule.' He is suggesting everyone to take a minimum level of responsibility to secure any kind of information infrastructure (Tikk, 2011, p. 125). By echoing his thought, we can suggest Bangladesh Government to utilize our own resources, expertise and initiate advanced technology to protect our cyber space and national interest. Proper training to our cyber experts, developing own server systems and networks using our own resources and manpower, spending quality time to develop our cyber security safety net, recruiting promising young national hackers of Bangladesh etc. can be beneficiary in the long run rather than relying on foreign experts. Thirdly, we can agree with 'the cooperation rule' of Tikk. He stated that, "...cyber attack has been conducted via information systems located in a state's territory creates a duty to cooperate with the victim state" (Tikk, 2011, p. 123). We need a strong international cooperation to battle any kind of cyber security threat as most of the cases, these threats have been involved with transnational criminal activities where victim may be victimized in one country and criminals may run away by taking advantages of international border barriers. Bangladesh Government and Bangladesh Police have already been in touch with international law enforcer such as Interpol in this regard but Bangladesh needs more cooperation especially from the tech giants such as Microsoft, Google, Facebook, Yahoo and others. Lastly, we can refer Tikk's another two rules regarding 'the self-defense rule' and 'the access to information rule.' He said that, "everyone has the right to self defense" and "the public has a right to be informed about threats to their life, security and well-being" (Tikk, 2011, pp. 124-127). By quoting him, we are also suggesting that Bangladesh Government should consider about the personal information safety and precautionary measures taken for the well-being of Bangladeshi citizens along with protecting national cyber security.

### **6.3. Individual Awareness**

We cannot ignore the consequences of globalization anymore. Apart from our government it is also the duty of every individuals of Bangladesh to consider the safety of his/her personal data and information. In both public and private sectors, the top management, the middle management and ground level service providers, employees, employers, workers, students, customers, consumers etc. should have minimum level of education and expertise to handle the cyber technologies. They should be aware of cyber threats as well. Only proper education and awareness can rescue Bangladesh from falling into deep pitfall of cyber security threats (Alam, Md. Shah, personal communication, July 27, 2014).

## **7. CONCLUSION**

Overall, in the globalized world, cyber crime can pose potential threat for the national security of any country whereas Bangladesh is more vulnerable to this type of threats. Because of the lack of advanced cyber technologies and lack of awareness, the country can suffer extreme security threat produced by cyber crimes. Moreover, the existing acts regarding cyber space are not effective to safeguard the cyber space of the country. Bangladesh needs more international cooperation, technical knowhow and expertise and massive public awareness to deal with cyber security threat and its use in transnational organized crimes. Many of us can argue that the cyber threats may not be the possible near future scenario for Bangladesh but we cannot ignore the existing facts regarding the increase of cyber crimes in both Bangladesh and global world. Finally, it can be concluded that, it is high time for Bangladesh to initiate proper measures to combat any potential threat committed by cyber criminals. In this case, the government of Bangladesh and the general people can take into consideration the above suggestions provided in this paper respectively.

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# **ON TACKLING THE GLOBAL CHALLENGE OF YOUTH UNEMPLOYMENT THROUGH ENTREPRENEURSHIP EDUCATION – A CASE STUDY OF THE FEDERAL POLYTECHNIC, ILARO, NIGERIA**

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## **ABSTRACT**

*This paper is an attempt to assess the efficacy of curriculum design for Entrepreneurship Education at the Federal Polytechnic, Ilaro. A two-prong approach to the teaching and learning of Entrepreneurship Education consisting of two components has been adopted by the institution. They are namely: theory component and vocational skill acquisition component. A survey was conducted by means of questionnaires among the participants, the HND II and ND II students, who are in the graduating classes to assess their acceptance or otherwise of the curriculum. The data collected was subjected to a chi-square test and the result obtained showed that a relationship exists between gender and choice of vocational training.*

**Keywords:** *component, gender, skill acquisition.*

## **1. INTRODUCTION**

While assessing the unemployment situation in Nigeria, Dr. Christopher Kolade (2013) the former chairman of SURE-P (Subsidy Reinvestment and Employment Programme- an initiative of the Nigerian Government) said that 40 million Nigerians are without jobs. Hardly is there a family in Nigeria that does not cater for one or more unemployed youths. The socio-economic life in Nigeria lies prostrate to the plague of youth unemployment. The labour market cannot absorb thousands of graduates yearly churned out by the existing tertiary institutions. The consequent societal throw ups are internet fraudsters, armed robbers, cult gangs, oil theft and other economic saboteurs.

## **2. GOVERNMENT POLICY ON EDUCATION**

In an attempt to tackle youth unemployment, the Federal Government of Nigeria, in 2006, directed that Entrepreneurship Education should be incorporated in all the programmes offered in Higher Educational Institutions (HEIs) in Nigeria. The National Board for Technical Education (NBTE), the supervising agency for all the Polytechnics, swung into action organising seminars and workshops to train lecturers of these institutions and designed a curriculum for Entrepreneurship Education (EEd). Entrepreneurship Education, by definition is a learning directed at the youths to assist them develop skills, competencies and attributes needed to be innovative and to identify, create, initiate and successfully manage business and work establishments including working for themselves. The EEd delivery at the Federal Polytechnic, Ilaro has a measure of uniqueness. The EEd course is divided into two components namely (i) Theory Component and (ii) Vocational Skill Acquisition Component. The total score for the EEd course is shared as 30% for Theory and 70% for Vocational Skill Acquisition. The students are allowed to make a choice out of eight (8) available vocations namely (a) Soap Making (b) Venue Decoration (c) Bottled-Water Production (d) Block Moulding and Interlocking Stones Production (e) Cell-Phone Repairs (f) Barbering & Hairdressing (g) Shoe Making and (h) Fashion Designing. The Facilitators used for the skill

acquisition are artisans who are self-employed and live by the various trades . They are employed by the institution on a part-time basis.

### 3. LITERATURE REVIEW

Youth unemployment is a sore, a festering wound that covers the body of world nations. The impact is felt more in Africa a country that teems with youths. Demographic report says that more than 290 million people between the ages of 10-24 reside in Africa. Africa is the youngest continent in the world. (African Economist , 2013). The issue of Youth Unemployment was used to a political advantage in Senegal, when the opposition party denounced youth unemployment and thus mobilised youths to protest the policy of the then president, President Abdoulaye Wade. At least six people died in the protest but the incumbent president lost the elections in 2012 and was replaced by the opposition party leader, Macky Sall (Fair Observer, 2014). Sourcing fund to set up small scale enterprises is a great problem in Nigeria. Banks are reluctant to give loans to young graduates because of their past unpleasant experiences with insolvent debtors (African Outlook, 2011). No loans could be given without collaterals, a condition difficult for most young graduates to meet. To provide succour, the Federal Government launched the Youth Enterprise with Innovation in Nigeria (YouWin) Scheme. The idea is to give monetary awards to Youth Entrepreneurs who have promising and viable enterprises to present for funding. A panel of judges assesses the applicants and a grant of between N1-10 million is awarded. The programme was started in 2011 with over 1200 successful entrepreneurs winning the awards (YouWin, 2011). By and large, the effective delivery of Entrepreneurship Education (NBTE 2007) is a teaching that emphasises the teaching of skills and attitude rather than provide the general knowledge. The pedagogy should exploit Experiential Teaching Strategy (Gibbs 1987), that is, learning by doing. It is this strategy that is embraced and practised at the Federal Polytechnic, Ilaro.

### 4. METHODOLOGY

A survey was conducted by means of questionnaires distributed among the ND II and HND II students, who are the ones in graduating classes. Ninety-Six (96) respondents obtained from the four existing schools (or faculties) in the institution returned the duly filled questionnaires. The result obtained was subjected to a chi-square test to determine the influence of gender on the choice of vocational training.

### 5. RESULTS

*Table 1 - Choice of Vocation by Respondents*

VOCATION	NO OF RESPONDENTS	PERCENTAGE
Bottled Water Production	14	14.6
Barbing & Hairdressing	18	18.8
Shoe Making	10	10.4
Fashion Designing	12	12.5
Soap Production	13	13.5
Decoratation	14	14.6
Cell-Phone Repairs	6	6.2
Block Moulding & Interlocking Stones	9	9.4
Total	96	100%

*Table 2 - Choice of Vocation versus School (or Faculty) of respondents*

SCHOOL	BOTTLED WATER	BARBING & HAIRDRESSING	SHOE MAKING	FASHION DESIGNING	SOAP MAKING	DECORATION	PHONE REPAIR	BLOCK MAKING	TOTAL
ENGINEERING	1	4	5	2	2	1	5	4	24
ENVIROM. STUDIES	6	6	2	2	1	2	0	4	23
MANAGE-MENT STUDIES	3	7	1	5	5	3	1	1	26
APPLIED STUDIES	4	1	2	3	5	8	0	0	23
TOTAL	14	18	10	12	13	14	6	9	96

*Table 3 – Gender versus Choice of Vocation*

SEX	BOTTD WATER	BARBING & HAIRDRESSING	SHOE MAKING	FASHION DESIGN	SOAP MAKING	DECORATION	PHONE REPAIR	BLOCK & INTER	TOTAL
MALE	7	9	10	7	6	5	5	9	58
FEM	7	9	0	5	7	9	0	0	37
TOTAL	14	18	10	12	13	14	5	9	95

## 6. DISCUSSION OF RESULTS

Table 1 reflects the available vocational trades. They are vocations that require little start-up capital. This is reasonable because of the great difficulties young graduates encounter in sourcing bank loans. The most capital intensive of the trades is the bottled-water production. However, majority of the respondents chose Barbing & Hairdressing whose start-up capital is not be above N50,000 (i.e.\$310)

This amount can easily be raised through personal savings or financial support from relatives. In table 2 is a demonstrable evidence of the freedom of choice in vocational trades selection given the respondents. Since most graduates are not finding employment in their main discipline of specialization, allowing them choose a vocation to learn without any coercion will enhance their interest and ability to realize self-employment. For instance in the vocation of Venue Decoration, respondents from science based schools are in the majority with a percentage 78.6% (11/14). Table 3 shows an outlay of the choice of vocation across the male and female respondents.

## 7. TESTING OF HYPOTHESIS

Ho – Choice of vocation is not influenced by gender

H1 – Choice of vocation is influenced by gender

*Table 4 - Gender versus Choice of Vocation (observed frequencies)*

SEX	BOTTLED WATER PROD.	BARBING & HAIRDRESSING	SHOE MAKING	FASHION DESIGN	SOAP MAKING	DECORATION	PHONE REPAIRS	BLOCK MOULD	TOTAL
MALE	7	9	10	7	6	5	5	9	58
FEMALE	7	9	0	5	7	9	0	0	37
TOTAL	14	18	10	12	13	14	5	9	95

Table 5 – Gender versus Choice of Vocation (expected values)

SEX	BOTTLED WATER PROD.	BARBING & HAIRDRESSING	SHOE MAKING	FASHION DESIGN	SOAP MAKING	DECORATION	PHONE REPAIR	BLOCK MOULDING	TOTAL
MALE	8.6	11	6.1	7.3	7.9	8.6	3	5.5	58
FEMALE	5.4	7	3.9	4.7	5.1	5.4	2	3.5	37
TOTAL	14	18	10	12	13	14	5	9	95

OBSERVED VALUES (O)	EXPECTED VALUES (E)	O-E	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
7	8.6	-1.6	2.56	0.302
9	11	-2.0	4.0	0.364
10	6.1	3.9	15.21	2.493
7	7.3	-0.3	0.09	0.012
6	7.9	-1.9	3.61	0.457
5	8.6	-3.6	12.96	1.507
5	3	2	4	1.333
9	5.5	3.5	12.25	2.227
7	5.4	1.6	2.56	2.109
9	7	2.0	4.0	0.571
0	3.9	-3.9	15.21	3.900
5	4.7	0.3	0.09	0.019
7	5.1	1.9	3.61	0.708
9	5.4	3.6	12.96	2.4
0	2	-2.0	4.0	2.0
0	3.5	-3.5	12.25	3.5

$$\chi^2_{\text{cal}} = \sum (O-E)^2/E = 23.9$$

At 7 degrees of freedom and 5% upper-critical value, the table value is 14.07. The calculated measure of fit, 23.9, is larger than the table value i.e.  $\chi^2_{\text{tab}} = 14.07$

Since  $\chi^2_{\text{cal}} > \chi^2_{\text{tab}}$ ;  $23.902 > 14.07$  we reject the null hypothesis. This implies that gender has influence on the choice of vocational trade

## 8. CONCLUSION AND RECOMMENDATIONS

Youth unemployment is a global scourge, though occurring at varying percentages among world nations. The better for the youths to take up the gauntlet against unemployment by embracing entrepreneurship skills. White collar jobs are fast disappearing, self-employment is the practice gaining currency. This paper recommends the re-engineering of banking operations in Nigeria, to ease access to bank loans for young graduate entrepreneurs. Also, the model of Entrepreneurship Education that embraces experiential training, hands-on-training delivered by artisans who are self-employed and who live by the trades. This coupled with theoretical instructions on business plans, feasibility studies and financial management will propel the young graduates into becoming successful entrepreneurs.



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## **THE INFLUENCE OF PEDAGOGICAL SUPPORT ON THE USEFULNESS OF SPSS FOR STUDENTS OF ECONOMICS AND BUSINESS**

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### **ABSTRACT**

*Statistical software solutions are playing an increasingly important role in business, by increasing the importance of several databases which are used as a support to business decision making. Because of that the economics and business faculties endeavor to provide students with knowledge of different statistical software solutions. However, achieving the high level of understanding of statistical software is a challenge for the majority of students. Therefore the adequate level of educational support for students is vital in order for students themselves to understand the usefulness of statistical software.*

*This understanding is important, because it helps motivating them to use and apply statistical software solutions in their future applications, whether during their further learning or at the workplace. To this end, we have developed a conceptual model of the usefulness of statistical software solutions SPSS (Statistical Package for the Social Sciences) for students at economics and business programs. The conceptual model is based on the TAM model (Technology Acceptance Model), which includes constructs such as usefulness, purpose, and ease of use of SPSS. The conceptual model incorporates the influence of "pedagogical support" as a construct that is additional to the TAM model.*

*Our research question was whether there are any statistically significant differences between undergraduate and postgraduate students regarding relationships among constructs in the conceptual model. Therefore we have developed two conceptual models, namely for undergraduate and graduate level.*

*The study involved 300 students in undergraduate and postgraduate programs at the University of Maribor, Faculty of Economics and Business. The findings were obtained by using the structural equation modeling (SEM), partial least squares method and corresponding t-value that allowed the authors to confirm the hypothesized relations and differences, as well as to validate the conceptual mode using the data analysis program SmartPLS. We have found that there are no statistically significant differences between students at undergraduate and postgraduate studies regarding relationships among constructs. This means that the conceptual models designed for undergraduate and graduate students do not differ significantly.*

*However, we have also found that there are statistically significant differences between students in undergraduate and postgraduate studies regarding the usefulness of SPSS. Undergraduate students perceive the usefulness of SPSS as being of lesser value than this is the case with the students of postgraduate studies. The difference is expected, due to the nature of postgraduate studies, which requires advanced research skills and master thesis is usually already a contribution to economic science, as well as to society as a whole. At the*

*same time, postgraduate students acquire additional methodological and theoretical knowledge, which helps them understand and perceive the usefulness of SPSS.*

**Keywords:** *pedagogical support, Technology Acceptance Model, usefulness SPSS, statistics, students*

## 1. INTRODUCTION

Students of economics and business studies acquire a differentiated knowledge in the field of statistics, the importance of which is growing in the world (Mondéjar-Jiménez & Vargas-Vargas, 2010). With the development of technology and software support students learn about the use of statistics and other quantitative methodological approaches, including the use of SPSS statistical software support. SPSS is among the most commonly used statistical software support, including with SAS, STAT, R ... (Cui et al., 2011), through which teacher wants the students to acquire the knowledge of statistical concepts and methods, as well as the ability to use this method. To achieve these goals, a teacher usually has to rely on several pedagogical approaches, emphasizing the need of statistical thinking, to incorporate data, and to emphasize concepts using less theory and fewer “recipes”, and foster active learning (Mills & Johnson, 2004), while providing the students with pedagogical support in the form of motivation, additional explanations, availability ... SPSS statistical software support enables students to acquire relevant and desired statistical parameters in a friendly manner, but with the modification and processing of data they can acquire an in-depth comparative analysis, which leads them to an understanding of statistics and its dimensions. The statistical software must be easy to learn and use, we do not want students to spend too much effort and attention on learning the package at the expense of learning statistics concepts and skills. “A functioning statistics package also offers teachers the opportunity to provide additional examples and datasets. These can help to tailor a course for specific audiences, introducing data from the home disciplines of the students or data related to current events” (Velleman & Moore, 1996). This suggests that teachers have an important role in learning statistical software supports and in building of the student's understanding and consequently in the further use of statistical software support.

There is not much research done on the perceived use of SPSS, but only in recent years studies have emerged in which the researchers have expanded TAM model with different external constructs such as SPSS Self Efficacy, Computer Attitude, Statistics Anxiety, Statistics Learning Self Efficacy, Satisfaction with Achievements, Usefulness of Statistics (Hsu et al., 2009, Brezavšček et al., 2014, Šebjan & Tominc, 2014). Some researchers have studied the effects of microcomputer-based statistical software and hand-held calculators between students (Christmann, 2009), incorporation of statistical software in the introductory statistics classroom (Meletiou-Mavrotheris et al., 2007), examined the impact of two different types of statistical software (SPSS and Excel) on student knowledge and perceptions of statistics (Proctor, 2002), compared anxiety levels of graduate-level education majors using either hand-held calculators or statistical software (Rendulic & Terrell, 2000), and the differences in mastering statistics among those who have used pocket calculators and those who have used statistical software (Spinelli, 2001). But in the literature there are no research result found regarding the usefulness of statistical programming support by extending the TAM model, which is the purpose of this paper.

With that in mind we have developed a conceptual research model derived from the TAM model, which was expanded with the influence of pedagogical support which students receive during training. As at university the students acquire knowledge on the use of SPSS as undergraduate students as well as in postgraduate studies, we were also interested if there exist any statistically significant differences between the conceptual models of the two groups

of students. Paper is therefore a significant contribution to the development of social sciences by expanding the TAM model, which was included in the conceptual research model and verified by both students in undergraduate and postgraduate program in the field of economics and business studies.

## **2. LITERATURE REVIEW**

### **2.1. Pedagogical support**

Today, education is faced with many challenges. Due to increasingly complex society and rapid changes in the economy, which is based on technology, higher education institutions have to give students diverse skills needed at higher academic levels than ever before. However, all this with the knowledge needed by the society, according to the needs and development requirements. Achieving a high level of understanding and expertise in students requires skillful teaching and continuous pedagogical support of a teacher.

Teacher support has been differently identified by various researchers (Goodenow, 1993; Skinner & Belmont, 1993; Brewster & Bowen, 2004). What is common in all the definitions is that they include certain features such as caring, friendliness, understanding, dedication, and dependability. Researchers have found that throughout the education system, those students who perceive teacher support tend to be more successful than students that did not detect support (Goodenow, 1993). Researchers in the framework of education most commonly quote emotional support (Studsrod & Bru, 2012) and academic support (Regner et al., 2009), and also the social support (Tardy, 1985), informational, appraisal, instrumental support (Malecki & Demaray, 2003), that students receive from teaching staff.

Emotional support refers to approval and an explicitly caring manner. Research has shown that students who perceive emotional support of teacher, are also likely to be socially and emotionally adjusted or adapted, are positive in their motivational orientation, have a sense of control, autonomy, and engagement in school and meaningfulness of schoolwork (Chong et al., 2010; Hamre & Pianta, 2001; Zimmer-Gembeck et al., 2006; Thuen & Bru, 2000).

Regner et al. (2009) state that academic support can be viewed as an affective component of academic Involvement and refers to the extent to which teachers provide encouragement, help, and support concerning the student's academic behaviors and outcomes e.g. supporting them when they make the choices at school; supporting them when they have academic difficulties (Patrick et al., 2007; Chouinard et al., 2007). Teachers may also support their students academically, by helping them to perform well and by recognizing their good performances (Bru et al., 2002). Moreover, such support is assumed to motivate students to succeed instead of becoming frustrated and withdrawn, too involved in off-task activities, distressed, or alienated (Roeser et al., 1998; Thuen et al., 2007). With the perceived teacher support the relationship between teachers and students is established, which is strongly related to student achievement and motivation and all subject areas (den Brok et al., 2004).

However, the support of teacher is not reflected only in their students' results but also in the psychological dimensions. Researchers have, for example, found that those students that perceive increase in teacher support, show corresponding decrease in depressive symptoms and increase of self-esteem, enjoyment of academic work, achieve a higher positive academic self-concept (Felner et al., 1985; Reddy et al., 2003; Skinner & Belmont, 1993). Ryan and Patrick (2001) found that student's perceptions of teacher support, and the teacher as promoting mutual respect and interaction were related to positive changes in their motivation and engagement. Perceived teacher support is reflected in the student as reduced anxiety before the task (Pintrich & de Groot, 1990). In this way we can expect that students have a positive self-control at learning.

## 2.2. TAM Model

Technology acceptance model (TAM) is one of the most commonly used models that researchers use in various scientific fields, including the field of education when analyzing different programming support and other IT technologies used by students (Taylor & Todd, 1995; Venkatesh & Davis, 1996; Martins & Kellermanns, 2004). Developed and tested have been many theories, which were based on the intention of acceptance, including the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975; Davis et al., 1989), and the theory of planned behavior (TPB) (Ajzen, 1988; Taylor & Todd, 1995). Special emphasis was placed on the TAM model (Davis et al., 1989; Venkatesh & Davis, 2000), which explains the individual decision to adopt the technology by perceived use, perceived ease of use and future intentions to use technology. In different areas of education, researchers have studied the use of many new interactive ways of learning, especially e-learning or the use of learning support systems such as blended learning system, online learning system, with the TAM model broadened by factors such as computer self-efficacy, perceived playfulness, online education service quality, and identified differences of perception in male and female students (Ong & Lai, 2006; Lee, 2010; Chow et al., 2012; Padilla-Meléndez et al., 2013).

The literature review suggests that exploration of the use of statistical software support by using the TAM model is deficient. Little research has been aimed to study the applicability of statistical software support by using the TAM model which students use in their studies. In the field of application of statistical software SPSS support for students, there was some scientific contribution that is scientifically important. As already mentioned: it was found that the usefulness of statistics, computer attitude, self-efficacy SPSS, statistics anxiety, learning self-efficacy statistics, statistics learning value, satisfaction with achievements has significant impact on the perceived usefulness and ease of use of SPSS statistical software support (Hsu et al., 2009; Brezavšček et al., 2014; Šebjan & Tominc, 2014).

## 2.3. Research model and hypothesis

Consequently, the current work aims to test three basic hypotheses about the relations between the latent factors, and the possible differences between students of undergraduate and postgraduate program.

Support of teaching staff comprises the perception of teachers concerns by students and the teacher's behavior, which is reflected in the aid that they provide, providing feedback information and/or offering advice. Prudent teacher help students in achieving their expectations, teaches students to understand the content of lectures, answers the students' questions in connection with the allocated responsibilities, helps students in academic difficulties, provides feedback on the completed student work and communicates individually with students (Guess & McCane-Bowling, 2013). Research has shown that support of teaching staff, which students perceive as positive, has an impact on student learning achievements (Richman et al., 1998). In that case, students spend more time studying and being further involved in the content of the study, it allows them to detect the useful content of the study and enables them to acquire additional skills. Teacher support has significant impact on student participation (Perry et al., 2010), which may motivate the student for the in-depth thinking on the use of software support. Teaching staff provides students with additional explanations and help at use of software support, which can be reflected in the perception of use as well as in the perception of ease of use of software support. On the basis of the presented viewpoints we have formed the following hypothesis:

Hypothesis 1: Pedagogical Support (PS) has the positive effect on the perceived usefulness and (U) on perceived ease of use of SPSS (EU).

Relationship between Perceived Ease of Use of SPSS, Perceived usefulness of SPSS and Intention to Use SPSS derives from the basic TAM model. “Perceived ease of use refers to the degree to which the prospective user expects the target system to be free of physical and mental effort” (Davis et al., 1989; Davis, 1993), whereby the user will perceive a greater usefulness in terms of utility use and will continue to study or work in practical application of the software. Perceived usefulness was concerned with the expected overall impact of technology in use on job performance, whereas perceived ease of use pertained only to those performance impacts related to the process of using the technology (Davis, 1989). Numerous studies in the field of education have shown a statistically significant link between perceived ease, perceived usefulness and future intention to use IS/IT (Tan et al., 2014; Teo & Zhou, 2014). Hsu et al. (2009) and Brezavšek et al. (2014) explored the link between perceived ease of use SPSS, SPSS perceived use and future intention to use SPSS by students. They have found that perceived ease of use of SPSS is statistically significant and has positive impact on the perceived use of SPSS and future intention to use SPSS. That represents a base, a starting point for creating the following hypotheses:

Hypothesis 2: The perceived level of SPSS Ease of Use (EU) has a positive effect on the perceived Usefulness (U) of SPSS and on Intention to Use SPSS (IU).

In the third hypothesis the perceived usability is defined as the degree to which a person believes he/she can use IS/IT, particularly in order to improve work/study performance. The user's intention to use technology increases if a user perceives the benefit of the use of IS/IT. “The Usefulness-Intention of Use relationship in TAM represents the direct effect, hypothesizing that people form intentions toward using computer systems based largely on a cognitive appraisal of how it will improve their performance” (Davis et al., 1989). Student's use of the SPSS statistical software support is perceived as an opportunity to improve their study performance in the various fields of study or research activities. With the hypothesis 3 we also examined whether the increase in the perceived usefulness of SPSS for students increases the future intention to use SPSS. Hsu et al. (2009) did examine the relationship between perceived use of SPSS and the perceived future intention to use SPSS statistical software support in graduate MBA student. They found that there is a statistically significant, positive relationship and strong link between perceived use of SPSS and future intention to use SPSS. Similar findings were also presented by Brezavšek et al. (2014), who investigated the usefulness of statistical software SPSS support among students of different fields of study. Based on theoretical starting points, we formed the following hypothesis:

Hypothesis 3: The perceived Usefulness of SPSS (U) has a positive effect on the Intention of the use of SPSS (IU).

All three hypotheses were additionally tested regarding the differences for undergraduate and postgraduate students. Part of the analysis is therefore also establishing the differences between the constructs in undergraduate and postgraduate students.

### **3. METHOD**

#### **3.1. Procedures and participants**

The study included a total of 300 students (188 undergraduate and 112 postgraduate students) who were acquainted with the SPSS statistical software support during their studies at the University of Maribor, Faculty of Economics and Business. Online questionnaire was sent to the students of various courses of economics and business sciences. Students answered online

questionnaires in the classroom during the teaching process. All online questionnaires were duly completed. In the total sample, 33.9% were females, and 66.1% were males. The data was collected with the help of an online questionnaire form, from 26th November 2013 to 17th December 2013.

### 3.2. Instruments

In the study we used an online questionnaire which was developed in three phases. In the first phase, we needed to clarify the relationship between the constructs and to measure individual constructs we had to review literature and resources. A questionnaire with four scales was employed in the present study. All items in the questionnaire were scored on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The research design consisted of three constructs arising from the TAM model (Usefulness of SPSS, SPSS Ease of Use and Intention to Use SPSS) and one external construct (Pedagogical Support), that we formed and included into the expanded TAM model.

The construct “Usefulness of SPSS” (U) was explained with five items (Davis, 1989; Venkatesh & Davis, 1996; Saad & Bahl, 2005; Letchumanan & Muniandy, 2013), the “SPSS Ease of Use” (EU) with five items (Davis, 1989; Venkatesh & Davis, 1996; Letchumanan & Muniandy, 2013), the “Intention of Use SPSS” (IU) with four items (Nah et al., 2004; Yi et al., 2006; Letchumanan & Muniandy, 2013) and “Pedagogical Support” (PS) with 5-items (Brewster & Bowen, 2004; Torsheim et al., 2000). In the second phase, we designed an online questionnaire, which was pre-tested on a sample of 10 students. This phase resulted in a total of 18 items in the questionnaire (see Appendix A). In the final third stage an online questionnaire was sent to students. The questionnaire included two questions gathering basic demographics, i.e., gender and field of study.

### 3.3. Data analysis

Statistical Package for the Social Sciences (SPSS) and SmartPLS software were used to analyze the reliability and validity of the data and to conduct structural equation modeling (SEM). In the first phase we conducted the CFA which was used to ascertain the efficiency of the measurement models, and SEM was used to test the conceptual framework and assumptions. The quality of the measurement model was measured by the index of communality ( $C > 0.5$ ) and index of redundancy ( $R$ ). Based on the indices of cross-validated communality ( $Q^2 > 0$ ), cross-validated redundancy ( $H^2 > 0.5$ ) and variance explained by the model for a particular endogenous variable ( $R^2$ ), we examined the predictability value of the structural model (Cohen, 1988; Stone, 1974).

In the next phase, we examined the reliability and validity of the measurement instrument, keeping in mind the Cronbach's alpha ( $\alpha > 0.7$ ), index of communality and redundancy. Scale validity was analyzed by focusing on convergent validity and discriminant validity. As part of the convergent validity, we examined average variance extracted ( $\rho c^{AVE}$ ) and composite reliability coefficients  $\rho c^{CR}$ , keeping in mind the criterion (Hair et al., 2010; Fornell & Larcker, 1981):  $\rho c^{AVE} > 0.5$  and  $\rho c^{CR} > 0.8$  and the criterion by Byrne (2001)  $\rho c^{CR} > \rho c^{AVE}$ . To check the discriminant validity, we considered the relationship between  $\rho c^{AVE}$  in the square of the estimated correlation ( $\rho c_i^{AVE} > \rho^2_{ij}$ ;  $\rho c_j^{AVE} > \rho^2_{ij}$ ) (Fornell & Larcker, 1981).

To check the connections between the individual constructs, we verified significance at  $p < 0.05$  and standardized coefficient beta ( $\beta$ ). To determine statistically significant differences between the structural model of the links between different constructs, we examined the t-value.

## 4. RESULTS

### 4.1. Reliability and construction validity of the scales

To check the reliability of the measuring instrument the Cronbach alpha was used. All Cronbach alpha values for the individual constructs are higher than 0.7, which means that we meet the criterion reliability of the measuring instrument (Nunnally & Bernstein, 1994). At the same time we checked the composite reliability  $\rho c^{CR}$ , the value of which in all cases exceeds a specified value of 0.8. The values that relate to convergent validity  $\rho c^{AVE}$  are in accordance with the recommendations of Fornell & Larcker (1981) and reproduced in excess of the value of 0.5. We also meet the criterion Byrne (2001), that the value of the composite reliability has to be higher than the value of the convergent validity of all constructs that make up the conceptual model (see Table 1). Likewise, and as Table 2 shows, the cross-loadings are always higher for the latent variables upon which the items load. Based on the analysis results it can be confirmed that the conceptual model is in accordance with the criterion of discriminant validity (Fornell & Larcker, 1981), since for each of the four latent variables the  $\rho c^{AVE}$  exceeds the square of the estimated correlation between them (see Table 4):  $\rho c_i^{AVE} > \rho^2_{ij}$ ;  $\rho c_j^{AVE} > \rho^2_{ij}$ .

Table 1 shows the values of  $R^2$  coefficients of the regressions of the latent variables. All values of the coefficients  $R^2$  are at the level of statistical significance and higher than the prescribed value of 0.1 (Falk & Miller, 1992), with the exception of the construct “Pedagogical Support”. The quality of the conceptual model was also confirmed by the values of Commuality (C), all of which were positive and higher than the prescribed value of 0.5. Redundancy values in both models are ranging between 0.135 and 0.214. Regarding the overall quality of the research model, we computed the Goodness of Fit (GoF) for both conceptual model following Tenenhaus et al. (2005). The GoF is calculated as:

$$GoF = \sqrt{\text{communality} * \overline{R^2}} \quad (1)$$

GoF index for the conceptual model of undergraduate students is 0.607, for postgraduate students is 0.591. Both indexes GoF indicate that the models fit were good, because both are higher than 0.5 (Schepers et al., 2005; Kock, 2013).

*Table 1: Reliability measures for both subsamples*

	$\rho c^{AVE}$	$\rho c^{CR}$	$R^2$	Cronbach alpha	Commuality	Redundancy
<i>Undergraduate students</i>						
PS	0.789	0.949	(-)	0.934	0.789	(-)
U	0.821	0.958	0.428	0.945	0.821	0.135
EU	0.789	0.949	0.243	0.933	0.789	0.190
IU	0.894	0.962	0.672	0.941	0.894	0.214
<i>Postgraduate students</i>						
PS	0.759	0.940	(-)	0.920	0.759	(-)
U	0.790	0.950	0.523	0.933	0.790	0.198
EU	0.766	0.942	0.229	0.923	0.766	0.171
IU	0.782	0.915	0.606	0.861	0.782	0.192



*Table 2: Cross-loadings for convergent validity*

	Undergraduate students				Postgraduate students			
	PS	U	EU	IU	PS	U	EU	IU
EU1	0.470	0.609	0.884	0.634	0.415	0.554	0.893	0.580
EU2	0.411	0.569	0.913	0.584	0.415	0.562	0.905	0.525
EU3	0.374	0.460	0.817	0.488	0.274	0.494	0.775	0.442
EU4	0.518	0.569	0.912	0.555	0.510	0.657	0.841	0.576
EU5	0.401	0.550	0.910	0.562	0.444	0.641	0.952	0.642
IU1	0.412	0.727	0.620	0.938	0.396	0.643	0.551	0.905
IU2	0.474	0.768	0.570	0.951	0.439	0.617	0.568	0.854
IU3	0.481	0.774	0.622	0.948	0.483	0.743	0.574	0.894
PS1	0.864	0.514	0.503	0.511	0.806	0.569	0.405	0.539
PS2	0.933	0.420	0.458	0.441	0.935	0.535	0.479	0.472
PS3	0.919	0.446	0.507	0.468	0.899	0.491	0.422	0.444
PS4	0.852	0.322	0.333	0.291	0.886	0.401	0.288	0.350
PS5	0.868	0.371	0.325	0.370	0.825	0.398	0.455	0.324
U1	0.452	0.916	0.540	0.717	0.520	0.911	0.634	0.654
U2	0.475	0.940	0.575	0.746	0.530	0.904	0.552	0.617
U3	0.418	0.926	0.569	0.696	0.504	0.906	0.595	0.650
U4	0.426	0.911	0.574	0.738	0.499	0.906	0.617	0.815
U5	0.392	0.833	0.569	0.725	0.429	0.815	0.577	0.611

As for structural model, we have evaluated the guarantee of cross-validated communality ( $Q^2$ ). The values of  $Q^2$  for both models are ranging between 0.171 and 0.580. The average value of  $Q^2$  for model of undergraduate students is 0.374, for postgraduate students is 0.347. All values of  $Q^2$  are positive, confirming the good predictability value of our measurement model. The  $Q^2$  values are positive for all the endogenous structural variables, as Table 3 shows.

*Table 3: Predictive relevance ( $Q^2$  using blindfolding)*

	Undergraduate students			Postgraduate students		
	SSO	SSE	$Q^2 = 1 - \text{SSE}/\text{SSO}$	SSO	SSE	$Q^2 = 1 - \text{SSE}/\text{SSO}$
IU	438	183.934	0.580	225	138.149	0.458
EU	730	591.493	0.190	425	352.388	0.171
U	730	473.958	0.351	425	249.783	0.412

#### 4.2. Descriptive statistics and correlations

Table 4 summarizes the descriptive statistics and the correlations among the four observable first-order factors. Within both groups the highest rated construct was “Pedagogical Support” ( $M_U = 5.05$ ,  $SD_U = 1.31$ ;  $M_P = 5.12$ ,  $SD_P = 1.12$ ), which means that both students of undergraduate and postgraduate programs perceived the highest learning support and using SPSS. Undergraduate students perceived the lowest the Intention to Use SPSS ( $M_U = 4.15$ ,  $SD_U = 1.60$ ), while students of postgraduate programs perceived lowest the SPSS Ease of Use ( $M_P = 4.28$ ,  $SD_P = 1.37$ ).

*Table 4: Matrix of correlations between latent variables*

	Undergraduate students				Postgraduate students			
	1	2	3	4	1	2	3	4
1. IU	1.000				1.000			
2. PS	0.482	1.000			0.498	1.000		
3. EU	0.639	0.493	1.000		0.638	0.479	1.000	
4. U	0.800	0.478	0.625	1.000	0.758	0.559	0.670	1.000
<i>M</i>	4.15	5.05	4.50	4.29	4.31	5.12	4.28	4.74
<i>SD</i>	1.60	1.31	1.34	1.50	1.37	1.12	1.37	1.30

Note: All correlation are significant at level 0.001.

The correlation matrix displays moderate to high correlations among the three first-order factors, i.e., EU, IU and U. All the correlations between the constructs are positive and statistically significant. In addition, it was found that SPSS Usefulness of undergraduate study is in weak correlations with Pedagogical Support ( $r_U = 0.478$ ,  $p < 0.001$ ). At group postgraduate students, the weak and positive correlation between Ease of Use SPSS and Pedagogical Support ( $r_P = 0.479$ ,  $p < 0.001$ ) was found. The results presented here confirm the validity of all three set hypotheses, which will additionally be discussed and confirmed with the SEM analysis.

### 4.3. SEM analyses

Figures 1 and 2 show the connections between individual constructs and model for undergraduate and postgraduate students. Table 5 shows the results of the analysis of the direct effects. A dependency relation between the latent variables is evident. To measure the significance of these coefficients, the authors use resampling (bootstrapping) to obtain the t-statistics associated with each parameter. It can be seen that Pedagogical Support had moderate influence on SPSS Ease of Use ( $\beta_U = 0.493$ ,  $p < 0.01$ ;  $\beta_P = 0.479$ ,  $p < 0.01$ ) and SPSS Usefulness ( $\beta_U = 0.225$ ,  $p < 0.01$ ;  $\beta_P = 0.309$ ,  $p < 0.01$ ), which supports the Hypothesis 1, that Pedagogical Support has the positive effect on the perceived usefulness and on perceived ease of use of SPSS. With regard to the impact of SPSS Ease of Use on SPSS Usefulness, it was found that SPSS Ease of Use significantly influences the Usefulness of SPSS ( $\beta_U = 0.514$ ,  $p < 0.01$ ;  $\beta_P = 0.522$ ,  $p < 0.01$ ). There are also statistically significant and positive correlations between SPSS Ease of Use and Intention of Use SPSS ( $\beta_U = 0.228$ ,  $p < 0.01$ ;  $\beta_P = 0.236$ ,  $p < 0.01$ ) (see Table 5), which supports the Hypothesis 2, that the perceived level of SPSS Ease of Use has a positive effect on the perceived Usefulness of SPSS and on Intention to Use SPSS. The strongest positive relationship can be observed between perceived Usefulness of SPSS and SPSS Intention of Use ( $\beta_U = 0.658$ ,  $p < 0.01$ ;  $\beta_P = 0.600$ ,  $p < 0.01$ ).

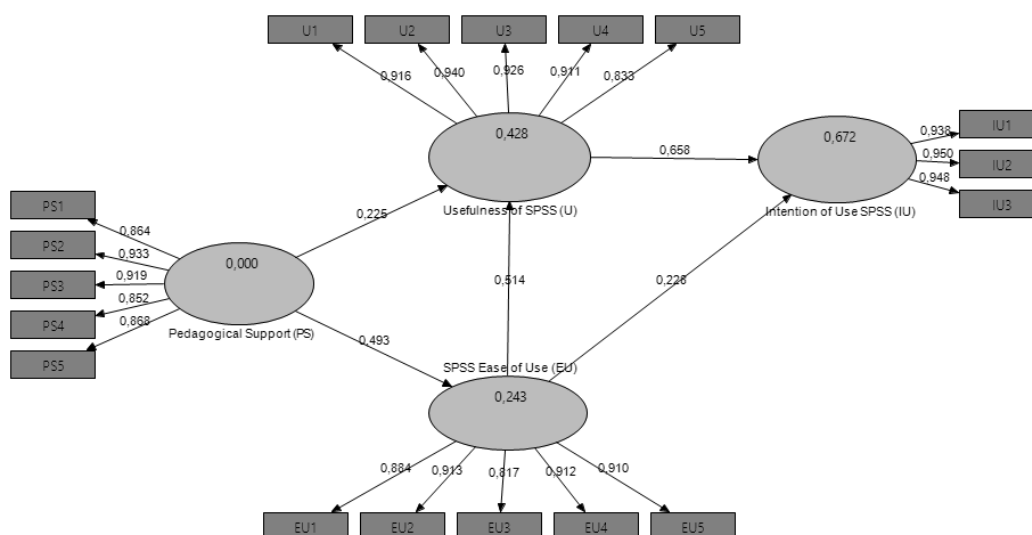


Figure 1: Estimation of structural equation model for undergraduate students subsample

It can be concluded that those both undergraduate as well as graduate students who perceive higher levels of usefulness of SPSS and who perceive higher levels of the ease of SPSS use on average also perceive higher levels of pedagogical support.

Our research results also show that students, who perceive higher levels of usefulness of SPSS and higher levels of ease of SPSS use, are on average also more likely to use the SPSS in their future activities (studies or work).

Table 5: Significance of estimated coefficients

	Undergraduate students			Postgraduate students		
	$\beta$	Std. error	$t$ -value	$\beta$	Std. error	$t$ -value
PS $\rightarrow$ U	0.225	0.066	3.412	0.309	0.063	4.909
PS $\rightarrow$ EU	0.493	0.054	9.090	0.479	0.056	8.542
EU $\rightarrow$ U	0.514	0.071	7.219	0.522	0.060	8.763
U $\rightarrow$ IU	0.658	0.053	12.324	0.600	0.051	11.684
EU $\rightarrow$ IU	0.228	0.065	3.530	0.236	0.074	3.186

Note: All relationships are significant at level 0.01.

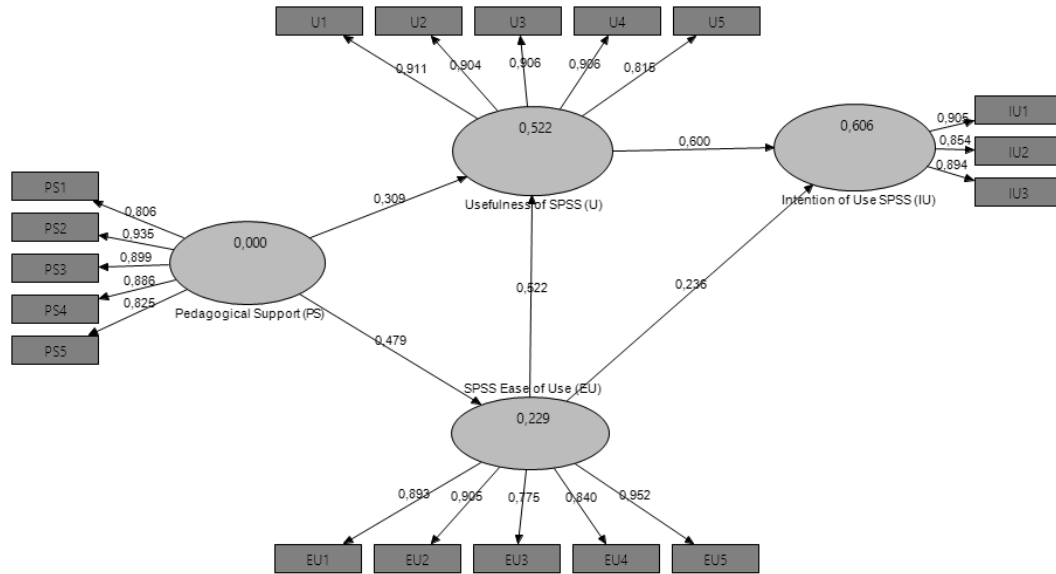


Figure 2: Estimation of structural equation model for postgraduate students subsample

As already pointed out, within this research we also examined whether there are statistically significant differences between undergraduate and postgraduate students. Differences were determined on the basis of standardized coefficients of each sample. To calculate the corresponding  $t$ -value, the following expression is used (Keil, 2010):

$$t = \frac{Path_{sample\ 1} - Path_{sample\ 2}}{\sqrt{\left[ \frac{(m-1)^2}{(m+n-2)} * S.E.^2_{sample\ 1} + \frac{(n-1)^2}{(m+n-2)} * S.E.^2_{sample\ 2} \right] * \left[ \frac{1}{m} + \frac{1}{n} \right]}} \quad (2)$$

The test statistics for testing the statistically significant differences between undergraduate and graduate students follows a  $t$ -distribution. Table 6 shows the results of this analysis. Research results suggest that there are no statistically significant differences between undergraduate and postgraduate students concerning the relations between the constructs within the model ( $p > 0.05$ ).

*Table 6: Differences between undergraduate and postgraduate students*

	Difference (undergraduate- postgraduate)	t-value	Sig.
PS → U	-0.084	-0.897	0.371 <sup>n.s.</sup>
PS → EU	0.014	0.150	0.881 <sup>n.s.</sup>
EU → U	-0.008	-0.095	0.924 <sup>n.s.</sup>
U → IU	0.068	0.574	0.567 <sup>n.s.</sup>
EU → IU	-0.008	-0.078	0.938 <sup>n.s.</sup>

Note: <sup>n.s.</sup> Non-significance.

Besides testing the differences of coefficients in the SEM models, the differences between undergraduate and postgraduate students were tested also using t-test for two independent samples. We tested the significance of differences between average values of four construct variables. Results of t-test for two independent samples are shown in Table 7, where we find that there are statistically significant differences ( $p < 0.05$ ) between undergraduate and graduate students regarding average perception of the usefulness of SPSS. Postgraduate students (4.74), perceived on average higher levels of usefulness of SPSS as students of undergraduate study (4.29). There are several explanations for such findings. Post-graduate students gain additional knowledge by studying scientific contributions in the field of economics and business studies, which require knowledge of quantitative methods through the use of SPSS.

*Table 7: Comparison of means components between undergraduate and postgraduate students*

	Groups of students	Mean	t-value	Sig.
PS	Undergraduate students	5.05	0.401	0.689 <sup>n.s.</sup>
	Postgraduate students	5.12		
EU	Undergraduate students	4.50	-1.221	0.223 <sup>n.s.</sup>
	Postgraduate students	4.28		
U	Undergraduate students	4.29	2.297	0.022 <sup>*</sup>
	Postgraduate students	4.74		
IU	Undergraduate students	4.15	0.757	0.450 <sup>n.s.</sup>
	Postgraduate students	4.31		

Note: <sup>\*</sup>  $p < 0.05$ ; <sup>n.s.</sup> Non-significance.

From the students of postgraduate studies research activities and contribution to the development of economic science and economic development is expected. For research activities, the verification of conceptual models and related analyzes require the use of SPSS. As regards the other constructs (Pedagogical Support, Ease of Use SPSS and Intention of Use SPSS) no statistically significant differences between students of undergraduate and postgraduate study were detected ( $p > 0.05$ ).

## 5. CONCLUSION

In this paper the conceptual model that analyze different aspects of the use of SPSS statistical software support for students of economics and business studies is presented. The conceptual model was developed based on TAM model, which was expanded with one external construct, i.e. "Perceived pedagogical support". In the first phase we checked the connections between the individual constructs. We found that all constructs were statistically significantly positively correlated. No matter what study cycle students were, higher levels of perceived pedagogical support by students are on average correlated with higher levels of perceived usefulness as well as with higher levels of ease of use of SPSS.. Pedagogical support is especially important having positive impact on the ease of use of SPSS because students want to use SPSS software support in the simplest manner, which will facilitate their acquisition of the analysis results. The perception of ease of use of SPSS statistical software support is also

reflected in the perception of the use and future intention to use SPSS. This means that the higher the perceived ease of use SPSS, the higher on average the perceived usefulness of SPSS which also implies the higher probability for future use of SPSS.

At the same time, we also found that the perceived usefulness of SPSS is more strongly associated with future intention to use SPSS than with perceived ease of use of SPSS. Therefore the task of teaching staff is transfer of knowledge, as well as promoting and motivating students for future use, in particular, so that they will be able to use SPSS software support faster and will respond more efficiently to the needs and demands of society, especially in the field of research and analysis. The role of the teacher should be to enable the students to find the usefulness of SPSS (or similar statistical software support) with the purpose to build motivation to use the statistical support by students in the future.

In the second phase we checked the possible existence of statistically significant differences between undergraduate and postgraduate students of economics and business studies, and the links between the different constructs. We have found that there are no statistically significant differences between the conceptual model for undergraduate and graduate students. Regarding the differences between average values of four constructs for the two groups (undergraduate and postgraduate students) we have found statistically significant differences in perceiving the usefulness of SPSS, namely post-graduate students perceive usefulness of SPSS on average higher than undergraduate students. This is the expected result since postgraduate students have already acquired basic knowledge of statistics and SPSS software support in study program as undergraduate students. Postgraduate students are also expected to be involved in research activities, as well as to be familiar with complex quantitative methods and analysis of databases, often in interdisciplinary fields of study, which also requires knowledge of the use of SPSS software support.

We limited our study to one external construct, namely “Perceived pedagogical support” and the conceptual model, supported by TAM model. In the sample survey we included only students of economics and business studies, who learn about the statistical software SPSS within their curriculum. We propose that in the future the conceptual model is expanded with “Compatibility with needs of study” construct. At the same time we could compare two conceptual models for students of two different fields of study (e.g. students of economics and business sciences, and students of psychology), students coming from two different geographic areas, or conceptual models for the use of two different statistical programming supports (e.g. SPSS and SAS).

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## Appendix A. Measurement scale for conceptual research model

We used the following scale: 1 = strongly disagree, 2 = disagree, 3 = mildly disagree, 4 = neither agree nor disagree, 5 = mildly agree, 6 = agree, 7 = strongly agree.

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### Pedagogical Support (PS)

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1. [PS1]: Lecturers encourage and motivate me to use SPSS.
  2. [PS2]: Lecturers give me enough support for the use of SPSS.
  3. [PS3]: Lecturers give me knowledge for ease to use of SPSS.
  4. [PS4]: From lecturers I receive help when I need it when using SPSS.
  5. [PS5]: Lecturers are ready to offer assistance when using SPSS even outside of the teaching process.
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### Usefulness of SPSS (U)

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1. [U1]: Using SPSS enables me to accomplish learning activities and obligations more quickly.
  2. [U2]: Using SPSS helps me accomplish my studying effectively.
  3. [U3]: Using SPSS enables me to accomplish learning obligations more easily.
  4. [U4]: In my opinion is expertise obtained of SPSS at faculty useful in general.
  5. [U5]: In my opinion usage of SPSS should be learned in all schools of higher education.
- 

### SPSS Ease of Use (EU)

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1. [EU1]: Using SPSS is simple and easy to understand.
  2. [EU2]: Learning SPSS is simple.
  3. [EU3]: Working with SPSS does not require much thinking.
  4. [EU4]: I think it is easy to get SPSS to do what I want it to do.
  5. [EU5]: General using SPSS is simple in understand.
- 

### Intention to Use SPSS (IU)

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1. [IU1]: I intend to use SPSS more in the future.
  2. [IU2]: I will use SPSS for analysis more than other statistical information support.
  3. [IU3]: I will share my knowledge of SPSS and recommend others to use the SPSS.
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## MANAGING THE QUALITY OF CAMPING OFFER

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### ABSTRACT

*In the overall tourism accommodation offer, camping offer presents an important segment of many European tourist destinations' carrying capacity. One third of the commercial offer in Europe is supplied by campsites, while in Croatia these capacities account for a quarter of all commercial accommodation units. The paper explores Croatian and European systems of campsites quality evaluation due to their extraordinary importance for the competitiveness of the camping product as well as their role in increasing the level of tourist consumption. The aim of this paper is to explore the relationship between quality and prices of camping services that encourage guest satisfaction as well as high performance and competitiveness of the camping offer. The authors wish to prove the thesis that higher quality camping product has a higher price, thus increasing the quality of camping demand, which implies both improved financial performance and competitiveness of camping accommodation as a special form of tourist accommodation. It is expected that the research results will confirm the thesis of the interdependence of quality and price of camping services, which encourages increased quality performance of camping facilities, but also contributes to the overall success and competitiveness of tourist destinations.*

**Keywords:** *camping offer, competitiveness, management, performance, quality*

### 1. INTRODUCTION

In the overall tourism accommodation offer, camping offer represents an important segment of many European tourist destinations' carrying capacity. The issue is to which extent is the quality of camping offer related to the camping services quality measurement system offered on the tourist market. It is commonly known that the quality of accommodation facilities in Europe is mostly measured by national regulations and that it still greatly varies among countries. Camping service is an important segment of the overall European tourist offer. It is an important and, in some tourist destinations, often the basic form of accommodation offer.

The European camping offer still doesn't have an unified classification system; systems of individual countries differ even in both the formal and the market system of evaluation of the quality of services offered in camping accommodations. The aim of this paper is to explore classification systems in European campsites as well as to compare them with the Croatian camping offer.

The research objective stems from common facts as well as from the notion that the aim is to prove which quality evaluation systems in European and Croatian campsites are measurable and nominal. The aim is to prove that the quality of camping service is related to the price and success of camping facilities and their overall service offered on the tourist market. The

authors aspire to prove that quality benchmarking of the best Mediterranean camp sites is a basis for the evaluation of camping offer quality and Croatian campsites.

In addition to the analysis of secondary data from available literature, the authors conducted primary research with the intention of setting up a benchmarking system between European and Croatian campsites. Methods of work and those used to reach the set objectives include analysis and synthesis, as well as the system of statistical data interpretation, and measurement of quality and prices by means of correlation. The research model in the process of reaching the paper's objectives are Croatian camping facilities and their accommodation services offered to camp guests. The comparison model includes campsites in the Mediterranean region and the majority of comparable camping facilities at the best known tourist destinations in Europe.

The complex task of elaborating the set objectives leads to research which should prove the claim that quality and the price of a camping service are mutually related, which encourages increased quality of a camping facility, but also contributes to the overall success and competitiveness of a tourist destination. Following the introductory general observations, the authors develop a quality comparison system in the European and Croatian camping tourism, try to prove that camping is a strong economic industry in Europe that reaches almost 400 millions of overnight accommodations and that in some countries makes up for the majority of accommodation capacities. Further in the research the authors aspire to prove that the European and Croatian systems of camping quality evaluation are recognizable and that they are a base for developing the quality of camping offer. They strive to prove the relevant relation between quality and average camping price. The paper tries to prove the mutual correlation of quality and price in camping tourism by using the model of Mediterranean campsites, the majority of whose market comprises European and Croatian campsites. It aims at proving that increased quality enables the formation of competitive prices that have crucial impact on the overall competitiveness of camping tourism and successful performance of camping facilities. Quality and price are the two most important components of competitiveness of an industry and they have a crucial contribution to the overall success and competitiveness of a destination.

## **2. QUALITY IN EUROPEAN AND CROATIAN CAMPING TOURISM**

Quality management is one of the fundamental determinants of firm performance (Nair, 2006, p. 948), development and competitiveness (Butnarua and Millerb, 2012, p. 375). In Europe tourism has been recognized as a competitive advantage of European economy with one of the main projects being the formation of a European tourist quality label (European Parliament, 2007). The aim of quality defining and testing is quality ranking. Bringing quality to the fore is the basis of competitive advantage that leads to prosperity and advancement, as well as to increased quality (Milohnić and Gržinić, 2010, p. 44).

The quality of accommodation facilities – as one of the most significant predictors of holiday destination travel choices (Kozak and Rimmington, 1999.) in Europe is mostly regulated by national regulations and it still greatly varies among countries (Trend, 2009): Unlike hotels, in European camping there still doesn't exist a unified classification system, so the systems in individual countries differ even with regard to their obligatoriness. As far as it is known, not a single European country has a classification system that at the same time serves as a work permit, which is the case in Croatia.

In line with the EU's parliamentary resolution, in September 2011 the European Commission has adopted the Strategic Proposal for the Implementation of a common European Tourism Quality Label: ETQ Label - European Tourism Quality Label. The objective is to foster trust in high quality in comparison with non-certified hospitality facilities in Europe and

worldwide. Principles of the implementation of the new European Tourism Quality Label will be 3Cs: Clarity, Credibility, and Comparability (European Commission, 2011<sup>1</sup>).

EFCO&HPA (European Federation of Camping Site Organisations & Holiday Parks Associations), representing the European camping and holiday parks industry from 23 European countries with a total of 26,000 campsites, has expressed its opinion about this initiative and has made a number of additional proposals.

Camping service is an important segment of the entire European tourist service and more than 15 % of overall European overnight stays is in the so-called "joint accommodation" or 353 millions of overnight stays (Eurostat, 2013) have been realized precisely in campsites (Eurostat<sup>2010</sup>). At the same time, European Union residents have undertaken 23 millions camping travels, almost one third of which has been realized precisely in their own countries (Eurostat, 2010<sup>1</sup>). The number of campsites in 27 European countries was 26,344 campsites. Keeping in mind that one accommodation facility in a campsite can accommodate 4 persons – beds, the number of "beds" in European campsites is approximately 10 millions beds. The largest number of campsites is situated in France - 7,981, followed by the United Kingdom with 4,701 campsites, Germany with 2,718, Italy with 2,595 and Netherlands with 2,358 campsites.

From the bed capacity perspective (Eurostat, 2010), France is in first position with 3.7 millions beds (36.2 % of the EU-27 beds) followed by Italy with 1.4 millions (13.3 % of the EU-27 beds), and the UK with 1.1 millions (10.7 % of the EU-27 beds) and Germany with 0.8 millions or 8.2 % of the EU-27 beds. These four countries comprise over two thirds of the overall European camping capacities in 2008.

Western Europe has developed a particularly strong camping product which is joined by Eastern Europe in which Croatia has the strongest camping product. Camping is extremely important for Croatia because of the high share of capacities and overnight stays in the overall accommodation capacities and overnight stays in a country as a whole. According to the Croatian Bureau of Statistics (DZS, 2013), in 2013 in Croatia there were 219 medium large campsites with the accommodation capacity of 230,730 persons and 305 small campsites in (rural) households and campsites with a capacity of 8,314 persons ([www.camping.hr](http://www.camping.hr)).

The overall accommodation capacity of Croatia in campsites in 2013 was 239,044 persons in 523 facilities (campsites) in total. In 2013 campsites have realized 16,628,119 overnight stays (2,441,492 arrivals). Compared to 2012, it represents an increase of +2.4 % in overnight stays and of 2.2 % in arrivals. Compared to other accommodation facilities in Croatia, camping accounts for 28 % of capacities and realizes 25 % of overnight stays.

Regional distribution of camping capacities in Croatia is concentrated in five coastal counties which take up 98 % of the country's camping capacities. The largest capacity has been concentrated in Istria (51.2 % of Croatia's capacities).

Camping, which has realized 25.6 % of all overnight stays in Croatia in 2013, is predominant in certain counties. For example, in Istria, Croatia's most developed tourist county, camping comprises 46.5 % of all overnight stays, in Zadar County it comprises 26.9 % and in Primorje-Gorski kotar county 26.8 %. The majority of guests in Croatian campsites comes from Germany (33.2 %), followed by guests from Slovenia (17.3 %) and the Netherlands (10.5 %).

To conclude, camping is a strong economic industry in Europe that realizes nearly 400 million overnight stays and which comprises the majority of accommodation capacities in certain countries. Camping takes up 15.4 % in overall overnight stays in Europe. A turnover of nearly 30 billions of Euro is realized in campsites, other economic entities offering services to campists and in accompanying industries.

### 3. EUROPEAN AND CROATIAN SYSTEMS OF CAMPING QUALITY EVALUATION

A common system of camping quality evaluation, classification and control still does not exist in Europe. The implementation of a quality system falls within the domain of national state institutions, while the role of the protector of consumers-campists was taken up by automotive organizations, publishers and travel organizers. ADAC and ANWB have developed a particularly strong and consistent evaluation system in Europe which is reviewed annually. The most widely known systems of testing camping quality are performed by:

- ADAC/ANWB - results are published in the ADAC Camping& Caravaning guide ,
- ADAC/ANWB - results are published in the ANWB Camping Gids guide,
- ACSI - results are published in the Camping führer Europa guide.

In addition to the mentioned evaluation systems, there is a number of marketing evaluation endeavours by publishers, including the following: Alan Rogers and his classifications such as "The best campsites in Europe" (Rogers, 2013) or "The best French campsites", as well as numerous other thematic publications such as "The best campsites on a beach", "The best campsites for dog-friendly vacation" etc.

In 2013 ADAC and ANWB consolidated the European campsites evaluation system which has been parallelly published in both ADAC's and ANWB's guide. The common system also includes the consolidated system of inspectors' inspecting campsites. It is a starting point in the creation of common criteria for camping quality in Europe.

According to ADAC's/ANWB's guide for 2013, ratings of the European camping quality are as follows:

*Table 1: Ratings of certain elements of quality in European countries according to the results of ADAC's/ANWB's inspection in 2013 (ADAC Verlag GmbH & Co. KG, Munich, June 2014)*

COUNTRY 1	Avg all categories	COUNTRY 2	Avg. sanitary facilities	COUNTRY 3	Avg. pitches	COUNTRY 4	Avg. supply	COUNTRY 5	Avg. leisure facilities	COUNTRY 6	Avg. swimming
NL	7	NL	8,13	NL	8,08	NL	5,56	NL	5,82	I	4,51
F	6,13	A	7,77	F	6,66	HR	5,39	F	4,13	E	4,33
HR	5,8	FIN	7,63	A	6,62	E	5,26	HR	4,04	F	4,19
I	5,72	D	7,32	DK	6,58	I	5,04	I	3,99	GR	3,75
A	5,65	DK	7,16	IRL	6,44	GR	4,57	DK	3,81	HR	3,63
E	5,57	GB	7,06	HR	6,4	P	4,35	E	3,11	NL	3,52
DK	5,53	HR	6,77	GB	6,35	F	3,8	S	2,97	H	2,73
D	5,43	CH	6,66	D	6,33	CH	3,53	A	2,86	S	2,32
GB	5,05	I	6,57	E	6,15	D	3,5	D	2,85	DK	2,24
CH	4,84	E	6,45	I	6,14	S	3,31	FIN	2,63	P	2,03
GR	4,79	IRL	6,41	S	6,03	H	3,12	H	2,22	FIN	1,85
S	4,75	GR	6,13	HR	5,84	A	3,12	CH	2,09	A	1,81
H	4,65	N	6,09	CH	5,56	DK	2,71	GB	1,99	D	1,8
IRL	4,6	H	5,64	FIN	5,28	GB	2,45	N	1,89	CH	1,5
N	4,21	S	5,62	GR	5,21	FIN	2,2	P	1,83	N	1,29
P	4,04	FIN	4,84	P	4,86	N	1,95	IRL	1,75	GB	1,22
FIN	4,04	P	4,77	N	4,76	IRL	1,06	GR	0,93	IRL	0,8

According to the above table, it can be observed that campsites in the Netherlands are the best according to all criteria except for the category "swimming and beach" where Italy holds the first position. France is second in Europe and Croatia third.

ADAC's and ANWB's guide annually collects and publishes average camping prices. Average price - the so-called "parallel price" (German: Vergleichspreis) refers to the season's peak, to two grown-up persons and one child on an average plot. Average camping prices in Europe in 2013 per country are as follows:

*Table 2: Average camping prices in Europe in 2013 (/www.reisenews-online.de/pics/campingpreise-in-europa-2013)*

<b>COUNTRY</b>	<b>PRICE (€)</b>
Switzerland	46.27
Italy	41.49
Denmark	37.91
Croatia	34.19
Spain	32.89
Sweden	32.51
France	32.09
Netherlands	31.24
Austria	31.2
Germany	27.9
Poland	22.94
Hungary	22.22

Europe's best campsites are presented with ADAC's/ANWB's award "Best". In 2013 the award was presented to 70 campsites in total, and in 2014, due to the consolidation of evaluation with ANWB, 144 European campsites received the BEST award. Among 144 campsites with the BEST title, awarded by ADAC/ANWB to the best campsites in Europe, 75 of them are located in Southern Europe.

*Table 3: The number of campsites, average rating and average price of the best campsites in Southern Europe (ADAC guide Suedeuropa 2014, ADAC Verlag GmbH & Co. KG, München, June 2014)*

<b>COUNTRY</b>	<b>Number of campsites</b>	<b>Average rating</b>	<b>Average price (€)</b>
Austria	7	22.3	45.5
Croatia	5	23.7	47.1
Switzerland	1	23.0	51.0
France	18	23.7	49.8
Italy	28	24.1	60.1
Spain	15	23.7	51.2
Hungary	1	23.0	27.2
<b>TOTAL</b>	<b>75</b>	<b>23.7</b>	<b>53.1</b>

Italy has both the largest number of best campsites and the highest average quality rating. It can be observed that Europe's best campsites realize an average price that is significantly higher than the average price of all campsites. For example, when it comes to quality of

campsites in Europe, Italy is in fourth position with an average price of EUR 41.49 for a family. Best Italian campsites achieve an average price of EUR 60.1.

109 Croatian campsites were reviewed in ADAC's guide. Below is the overview of the camps' quality and prices:

*Table 4: The overview of the Croatian camps' quality and price (ADAC's/ANWB's guide 2014, ADAC Campingfuehrer 2014 Suedeuropa, ADAC Verlag, Munich, January 2014)*

Number of campsites	ADAC/ANWB*	Average price (€)
5	5	47.11
18	4.5	44.58
24	4	40.60
15	3.5	37.52
15	3	36.28
18	2.5	28.57
12	2	32.91
2	1.5	25.30
109	<b>3.2</b>	<b>36.62</b>

Of the 109 reviewed campsites 5 have 5\*, and most campsites are on a 4\* level. The overview clearly shows that, according to ADAC's/ANWB's guide ratings, the price level is directly proportional to quality. The average camping price in Croatia is EUR 34.19 per family, while top 5 campsites achieve an average price of EUR 47.1 per family.

Discussions and data lead to the conclusion that there is a connection between the camping service quality and the price realized on the camping market. The European and Croatian examples of the evaluation of quality of average and top campsites show a significant connection between camping quality and average camping price.

#### **4. QUALITY BENCHMARKING OF THE BEST MEDITERRANEAN CAMPSITES**

Defining quality in tourism (Muskat, Muskat, and Blackman, 2013) implies continuous monitoring of market trends. Thus, there is a need for continuous comparison with the best competitors on the tourist market - benchmarking (Assaf and Dwyer, 2013, p. 1233). The notion of benchmarking in management theory and practice is related to research and studies of best practices among competitive economies. Benchmarking represents a quality standard that serves as a basis for comparison of one's own performance with competitive firms or destinations that have better results (Jovičić and Ivanović<sup>2006</sup>, p. 124<sup>1</sup>). In other words, benchmarking is recognised as an essential tool for continuous improvement of quality (Dattakumar and Jagadeesh, 2003, p. 176). The quality of accommodation facilities in a certain destination forms a basis for the evaluation of the tourist destination. Similarly, the ranking of accommodation facilities can be related to the destination quality. According to the model of calculating the average quality rate (Avelini-Holjevac, 2002, p. 123), the calculation for 293 Croatian campsites by their official categorization indicates that the average quality of Croatian campsites is 1.7 stars. At the same time, average quality of 109 campsites published in ADAC guide is 5.8 points in 2013 and Croatia is third in Europe. The difference in quality based on national and international evaluation, international being significantly higher than the national, is due to the fact that a large number of Croatian campsites is not aligned with the Ordinance on Categorization because there is still unsolved issues of national land. Therefore, reasons are political, not qualitative (Croatian Official Gazette, 2009).

75 best campsites in Southern Europe, that were awarded the BEST award for 2013 by ADAC and ANWB guide, were benchmarked for the purposes of this paper.

Out of 25 possible stars those campsites have an overall average rating of 23.7 stars. The average toilet facilities rating is 5 stars, for campsite area 4.9, for supplies and gastronomy 4.7, for additional facilities and animation 4.8 points, and for the quality of swimming facilities 4.3 stars. In order to join the exclusive club of leading European campsites, a campsite must receive at least 4 out of total of 5 stars in each category.

*Table 5: Ratings of respective quality elements of 75 top campsites in Southern Europe in 2013 (ADAC Campingfuehrer 2014 Suedeuropa, ADAC Verlag, Munich, January 2014)*

COUNTRY	TOILET FACILITIES	CAMPSITE AREA	SUPPLIES AND GASTRONOMY	ADDITIONAL FACILITIES / ANIMATION	SWIMMING AREA	TOTAL
<b>Austria</b>	5.0	4.9	4.4	4.4	3.6	22.3
<b>Croatia</b>	5.0	5.0	4.8	5.0	3.9	23.7
<b>Switzerland</b>	5.0	5.0	5.0	5.0	3.0	23.0
<b>France</b>	5.0	4.7	4.6	4.9	4.4	23.7
<b>Italy</b>	5.0	5.0	4.8	4.7	4.6	24.1
<b>Spain</b>	5.0	4.8	4.9	5.0	4.0	23.7
<b>Hungary</b>	5.0	5.0	4.0	4.0	5.0	23.0
Average	5.0	4.9	4.7	4.8	4.3	23.7

A guest holds the label BEST to be a guarantee of a wide range of top quality offer, while a campsite sees it as an obligation to provide the best possible service during the entire season. Average values of a respective competitive advantage qualitative elements of top European campsites on the Mediterranean are analysed below.

*Table 6: Elements of quality and competitive advantage of the best Mediterranean campsites (ADAC Campingführer 2014, ADAC Verlag Munich, January 2014)*

COMPETITIVE ADVANTAGE	F (OF 75)	PROPORTION
Child-friendly conditions	63	0.84
Wellness	40	0.53
Pets	56	0.75
Pleasant location	57	0.76
Wi-Fi in entire campsite	54	0.72
Plots with drainage in relation to total number of plots	58 %	0.58
Green leaf - environmental friendliness	19	0.25
Number of mobile homes	26%	0.26
Toilet facilities quality	5.0	1.00
Accommodation units quality	4.9	0.97
Supply and gastronomy quality	4.7	0.95
Quality of sports and recreation facilities and programs	4.8	0.96
Swimming, sea and pool quality	4.3	0.86

The most important quality elements of campsites in Southern Europe are child-friendly conditions, the quality of toilet facilities, accommodation units, and the quality of supply and gastronomy. Only then the quality of sea and swimming pool, and sports and recreation



facilities, are observed. Environmental friendliness is relatively low on the scale, as well as the number of mobile homes and the number of plots with drainage.

Pricing levels of selected campsites are additionally analysed. Standards in campsites set by ADAC play an important role in the creation of service quality. They define (regulate) quality and measure the achieved quality (Milohnić and Gržinić, 2010, p. 49). Top rated campsites have the highest standard and ensure the best service and the highest prices.

In order to determine a connection between campsite quality and price, Pearson's correlation coefficient has been calculated. The campsite quality rating is presented with the total number of stars, the maximum number being 25, i.e. evaluation is conducted in 5 columns with a maximum of 5 stars (toilet facilities, plot, supply, recreation facilities, programs). The standardised comparison price of camping equals the peak-season price for a family with two adults and one child under 10, including all camping costs.

The calculated coefficient of correlation between Croatian campsite quality and the average camping price in 2012 is 0.5220. The above correlation indicates a strong and positive link between the two variables. Therefore, it can be concluded that a higher quality of camping services implies a higher range of prices the camp can realize on the market.

An identical research of the Croatian campsite quality and price relation was conducted in 2013. The research examined the correlation of quality with regard to standard prices according to the ADAC guide (2013, p. 957-1014). The research included a total of 104 campsites published in the ADAC camping guide.

The calculated coefficient of correlation between Croatian campsite quality and the standard average camping price in 2013 is 0.5131. Although the coefficient value is somewhat lower with regard to the previous year, it can still be concluded that the correlation is positive and strong; in other words, the increase in camp quality, represented with the number of stars, implies an increase of the camping price.

Research related to price formation indicate the importance and strategy models of price formulation as a powerful management tool in obtaining a competitive position of a campsite.

The relation between quality and price leads to success and competitiveness. Earlier research show that a camping product of higher quality has a higher price, which implies increased income and improved financial results and competitiveness. Quality and price are the two most important components of an industry and they have a crucial contribution to the overall success and competitiveness of a destination.

The relation between competitiveness, quality and price in camping tourism is proven, and it can be concluded that improved quality enables the formation of competitive prices that have a crucial effect on the overall camping tourism competitiveness. It can be concluded that important elements in determining campsite quality in Southern Europe include child-friendly conditions, the quality of toilet facilities, accommodation units, and the quality of supply and gastronomy.

## 5. CONCLUSION

The camping offer in Croatia, Europe and worldwide is an important form of accommodation offer in most tourist destinations. In the overall tourism accommodation offer, camping offer represents an important segment of many European tourist destinations' carrying capacity. The quality of camping offer is related to the quality measurement for camping services offered on the tourist market. Camping accommodation services are an important economy industry in European, Mediterranean and Croatian vacation destinations which realizes almost 400 million overnight stays and which constitutes a predominant part of accommodation capacities in some regions and tourist destinations. Camping takes up 15.4 % in overall

overnight stays in Europe. A turnover of nearly 30 billion Euro is realized in campsites, other economic entities offering the services to campists and in accompanying industries.

The European and Croatian systems of campsite quality evaluation are transparent and formally defined; the market system of campsite accommodation quality evaluation is not always in line with actual and formal quality ratings. Campsite service quality and price realized on the camping market are mutually related and influence each other. The European and Croatian examples of the evaluation of quality of average and top campsites show significant connection between camping quality and average camping price, and all services offered in campsite facilities. Defining quality in tourism implies continuous monitoring of market trends of tourist offer and demand. Continuous comparison with the best competitors on the tourist market (benchmarking) is a model that allows campsite management to monitor tourist market changes in the best possible manner. Campsite management has to continuously monitor changes in competitors' offer quality, as well as monitor changes among potential guests; observing their wishes and motives is the core task of the management directing development of campsite offer quality. Management programs related to campsite services price formation are an important activity in the strategy of price formation as a powerful management tool in obtaining a competitive position of a campsite and increasing competitiveness on the tourist market of campsite services.

Appropriate relation between the campsite service quality and price leads to success and competitiveness. A camping product of higher quality has a higher price, which implies increased income and improved financial results and competitiveness. Quality and price are the two most important components of an economy industry, including campsite offer, that have a crucial contribution to overall success and competitiveness of a destination. Important elements in determining campsite quality for campsite management, especially on the Mediterranean and in Croatia, include child-friendly conditions and children programs, the quality of toilet facilities, accommodation units, and the quality of supply and gastronomy.

With its activities related to the improvement of service quality and continuous monitoring measures for both formal and market quality, management increases the competitiveness of the campsite facility it manages. Quality and prices in camping tourism – the offer are mutually related; improved quality enables the formation of competitive prices that have a crucial effect on the overall camping tourism competitiveness. Important elements in determining campsites quality in Southern Europe include child-friendly conditions, the quality of toilet facilities, accommodation units, and the quality of supply and gastronomy.

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## **SOCIAL AND ECONOMIC DEVELOPMENT OF RUSSIAN LOCAL SELF-GOVERNMENT: PROBLEMS AND PERSPECTIVES**

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### **ABSTRACT**

*The main function of local self-government is satisfaction of municipality's population needs. The essence of local self-government is to resolve issues of local importance by population of municipality directly and local authorities under its own responsibility. Thus, need to implement three main principles for effective solution of local issues: 1) principle of economic independence; 2) principle of organizational independence; 3) principle of functional independence. Research has shown that sometimes these principles are not implemented. According to the Russian Accounting Chamber and Russian Ministry of Regional Development only 2% of municipalities are economically independent. The revenue part of local budgets is composed of tax incomes (40-50%), of which only 3-15% is local taxes (the rest of the incomes are deductions from federal and regional taxes – 35%). And only 10-15% is incomes from using of municipal property, entrepreneurial activity. The rest of local budgets revenues are composed of interbudgetary transfers (grants, subsidies – around 35-50 %). Implementation of principle of organizational independence in many municipalities is also distorted. It means that in municipalities state authorities can intervene in process of formation (dismissal) and functioning of local self-government bodies. For example, a representative body of local self-government may be dissolved by Regional Law. Head of municipality may be resigned by Head of regional authorities. Such examples are very much. In 1998 Russia ratified the European Charter of Local Self-Government, therefore, this international treaties have priority over national legislation. Thus, Congress of Local and Regional Authorities of the Council of Europe conducts annual monitoring of the implementation of this Charter's norms. European Club of Local Government Experts annually informs Russian authorities about non-using the recommendations of the Congress of Local and Regional Authorities of the Council of Europe. These recommendations are aimed at improving the economic, organizational and functional independence of local self-government, as well as improving the quality of municipal democracy and it's social and economic development. The article examines these and other issues related to the implementation of principles of economic, organizational and functional independence of local self-government.*

**Keywords:** *local self-government independence, local budgets, local issues.*

### **1. INTRODUCTION**

The main function of local self-government is satisfaction of municipality's population needs. Social and economic development of local self-government depends on the efficiency accomplish of local issues. The essence of local self-government is to resolve issues of local importance by population of municipality directly and local bodies under its own responsibility. The Federal Law of the Russian Federation "On General Principles of Local Self-Government in the Russian Federation", dated October, 6, 2003 defines the local self-government as form of democracy providing solving of local issues by the population directly

and (or) by local authorities independently and under their own responsible in the interests of the population, taking into account historical and other local traditions.

Thus, need to implement three main principles for effective solution of local issues: 1) principle of economic independence; 2) principle of organizational independence and 3) principle of functional independence. Moreover the principle of local government independence is proclaimed by the Russian Constitution, 1993 (Article 12 determines that "Local self-government within their powers independently").

However research has shown that these principles sometimes are not implemented. European Club of Local Government Experts annually informs Russian authorities about non-using of the recommendations of the Congress of Local and Regional Authorities of the Council of Europe. These recommendations are aimed at improving the economic, organizational and functional independence of local self-government, as well as improving the quality of municipal democracy and it's social and economic development.

## **2. CHAPTER 1**

### Principle of economic independence

Based on the analysis of the Russian Constitution norms, we can conclude that the principle of economic independence is fixed in Constitution. Thus, in accordance with Article 130 "Local self-government in the Russian Federation provides solving of local issues by population independently and also possession, use and disposal of municipal property". "Local self-government bodies independently manage municipal property, form, adopt and implement the local budget, establish local taxes and fees, ensure public safety, as well as resolve other issues of local importance", Article 132. Analysis of the practice of local self-government functioning shows that these Constitution norms are not always implemented.

According to the Russian Accounting Chamber and Russian Ministry of Regional Development only 2% of Russian municipalities are economically independent. The revenue part of local budgets is composed of tax incomes (40-50%), of which only 3-15% is local taxes (the rest of the incomes are deductions from federal and regional taxes – 35%). And only 10-15% is incomes from using of municipal property, entrepreneurial activity. The rest of local budgets revenues are composed of interbudgetary transfers (grants, subsidies – around 35-50%). Only 7% of all municipalities receive less than 10% of interbudgetary transfers, but 85% of municipalities receive over 30%. The huge number of interbudgetary transfers leads to full financial and economic dependence of local self-government from state authorities.

In accordance with the Federal Law "On General Principles of Local Self-Government in the Russian Federation" all these sources (local taxes and deductions from regional and federal taxes, interbudgetary transfers, incomes from using of municipal property and municipal entrepreneurial activity) are considered as own incomes of local self-government. However, the European Congress of Local and Regional Authorities gave the definition of "own resources", "own incomes" – the structure of own resources (incomes) should only include funds received as a result of local self-government independent decisions. Proportion of interbudgetary transfers shall be such that not to restrict the independence of local government. This position of the European Congress of Local and Regional Authorities was formulated in the recommendations on the VII session, 2000.

Thus the deformed system of interbudgetary relations makes budgets of many municipalities deficient, and the dependence on interbudgetary transfers does not stimulate municipal economic development. The problem of deformed system of interbudgetary relations can be solved as follows: establish a local tax on property, fix deductions from other federal and regional taxes, increase the percentage of deductions from federal taxes. Analysis of the Russian Budget Code changes of 2013 allows to conclude: on the one hand the percentage of

deductions is increased (for example, agricultural tax – from 35% to 50% and from 70% to 100% depending on the municipality), on the other hand, on the contrary, the percentage of deductions is reduced (for example, tax on personal income – from 15% to 5% and from 20% to 15% depending on the municipality). Recommendations of the Congress of Local and Regional Authorities of the Council of Europe relate to change the structure of local budgets revenues.

At the same time, financial provision and financial independence should be determined not only by tax redirection to local budgets, but the efficiency of municipal business and entrepreneurial activity. Especially because in economic sphere local authorities have the following powers: 1) to establish municipal enterprises; 2) to support the agricultural production development; 3) to create conditions for small and medium-sized businesses development.

### **3. CHAPTER 2**

#### **Principle of organizational independence**

Principle of organizational independence fixed in many articles of the Russian Constitution. Thus, in accordance with Article 12 “Local self-government within their powers independently. Local self-government bodies are not included in the system of state bodies”. Article 130 of the Russian Constitution sets, that “Local self-government in the Russian Federation provides solving of local issues by population independently”. Article 131 establishes that “The structure of local self-government bodies is defined by the population independently. Changing the boundaries of the municipality is allowed with the consent of their population”.

These rules mean that local self-government bodies is formed (removed from office) by the population of municipality independently and the state bodies should not interfere in decision-making process of local self-government. It also means that population of municipality should be involved in process of solving local issues.

#### **3.1. Subchapter**

Implementation of principle of organizational independence in many municipalities is distorted. It means that state authorities can intervene in process of formation (dismissal) and functioning of local self-government bodies. For example, a representative body of local self-government may be dissolved by Regional Law. Head of municipality may be resigned by Head of regional authorities. The Head of local administration may be appointed under the contract on competition basis (City Manager). In this case, the one-third competition committee is appointed by legislative (representative) body of subject of the Russian Federation. In addition, the Regional Laws may establish additional requirements for candidates for the post of Head of local administration. That is, the state bodies intervene in this process again.

So, how can we say about the organizational independence of local self-government. Obviously, this is vivid example the presence of the principle of organizational interaction between Local self-government and State.

However, we have the Council of Europe’s recommendation to provide organizational independence of local self-government – cancel the right of state authorities to intervene in process of formation (dismissal) of local self-government bodies. Russia needs to make a choice between the Council of Europe’s recommendations and emerged principle of organizational interaction between Local self-government and State.

### 3.2. Subchapter

The main purpose of local self-government – the satisfaction of municipality’s population needs due to economic development and through the furtherance of democracy. Involvement of the population in decision-making process on local issues independently through forms of direct democracy – the most important aspect of the principle of organizational independence. However, the Russian Constitution puts direct democracy in the first place: “Bearer of sovereignty and the only source of power in the Russian Federation shall be its multinational people. People exercise their power directly and through state bodies and local self-government bodies. Supreme direct expression of the multinational people power is referendum and free elections” (Article 3). Next article 130 proclaims that “Local self-government in the Russian Federation provides solving of local issues by population independently. Local government is exercised by citizens through a referendum, elections and other forms of direct expression...”. The Federal Law "On General Principles of Local Self-Government in the Russian Federation" also puts direct democracy in the first place: “Local self-government – form of democracy providing solving of local issues by the population directly and (or) by local authorities independently and under their own responsible...”. Theoretically the direct democracy is system of legal relations between population and authorities, allowing people to participate in decision-making process, to perform these decisions and control over their performing. The Federal Law "On General Principles of Local Self-Government in the Russian Federation" fixes a few forms of direct municipal democracy: local elections, local referendum, revocation of local government elected officials, public hearings, lawmaking initiative, territorial self-government, citizen survey, appeal to local self-government bodies and other. One of the problems in implementation of all forms of direct municipal democracy is weak interaction between population and local self-government bodies. Only solutions on elections, referendum, recall of elected officials of local self-government bodies, voting on changes in boundaries (transformation) of municipality shall be binding upon (compulsory). The rest forms of direct municipal democracy (public hearings, lawmaking initiative, citizen survey) are optional (recommendatory). In connection with this there is problem the lack of consideration of population’s opinion. Also most significant is that no one forms of direct democracy, which would allow the population to exercise control over activities of local self-government bodies. However, there is a very relevant form of direct municipal democracy for interaction of population and local self-government bodies – “Recall of elected officials”. Elected authorities cannot be considered truly democratic, if voters don’t have the right to recall (revoke) deputies and (or) other elected officials. The Federal Law "On General Principles of Local Self-Government in the Russian Federation" establishes ground for “Recall of elected officials” – “specific wrongful acts, confirmed by court”. In this case a court decision on unlawful actions of elected officials is required for Recall initiation. Such decision is not always available. Thereby the criteria for recall of elected officials which are close to voters should be fixed in the legislation. It seems that the ground for “recall” should be – “loss of of voters’ trust” (for example, non-execution of powers, refusal to meet with voters, etc.). Formula “loss of voters’s trust” accurately reflects the responsibility of deputies and other elected officials before voters (electorate).

## 4. CHAPTER 3

### Principle of functional independence

Principle of functional independence of local self-government means that there is a sphere of local issues that are autonomous from the issues state importance and that the local self-government can independently solve them. Analysis of local issues leads to the conclusion

that they are not autonomous from the issues state importance (road work, fire safety, mobilization training, civil defense, prevention of terrorism and extremism, prevention and liquidation of emergency situations, communication services, conservation objects of cultural heritage and others). We see a lot of issues of joint jurisdiction, although Russian legislation does not contain the term "issues of joint jurisdiction of Local self-government and State". In practice we again see the existence of the principle of interaction between local self-government and State.

We have two conclusions: 1) a clearly define the competence of Local self-government and State; 2) to recognize the existence of the principle of interaction between Local self-government and State and fix joint jurisdiction of Local self-government and State.

## 5. CONCLUSION

Cursory analysis of the practice of local self-government functioning showed that the principle of independence, fixed in the Russian Constitution is not always realized. You can make 2 output: 1) to recognize that there is an objective principle of interaction between local self-government and state and fix it. Seems that it is right, as in the modern period the local self-government cannot operate without the state and its institutions. 2) To recognize that principle of independence is violated and lead all legal relations in accordance with content of this principle.

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## INCREASE OF THE ROLE OF THE UNIVERSITIES IN DEVELOPMENT OF THE REGIONS

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### **ABSTRACT**

*In conditions of formation of innovative system of development of the regions the intellectual function of the higher education and increase of the role of higher education institutions in innovative process becomes more obvious and demanded. The high education level is necessary background of movement to innovative economy. Extension of access to the higher education is the background for social progress and economic development.*

*The work in conditions of open market economy makes new requirements to knowledge of experts having higher education. The situation analysis in the Russian professional education shows that the majority of higher education institutions carry out training of specialists in the fields of economics, management and law, and these directions are very popular among applicants. Crisis of the real sector of economy has undermined essentially the prestige of engineering specialties. The huge intellectual potential that has been gained in technical colleges, is unclaimed in the market economy.*

*The problems of the higher school can't be solved separately from the problems of the social and economic development of the state and its territories. The priority role in formation and realization of innovative strategy of development of Russia and its regions has to be at the higher school as only the higher school has necessary for the solution of so major problem of the intellectual potential now. However, the coordinated efforts of the educational institutions are necessary for its effective use. The creation of the federal universities that allow to group necessary resources for modernization of the higher education has to be the effective tool, and turn such universities from the traditional scientific and educational organizations into the innovative centers of development of the regions.*

**Keywords:** *university, innovative system, development of education, economic development*

### **1. INTRODUCTION**

In conditions of formation of innovative system of development of the regions the intellectual function of the higher education and increase of the role of higher education institutions in innovative process becomes more obvious and demanded.

Effective management of formation and development of the intellectual potential in country scales, is possible only by means of sufficiently large strategic projects where the whole layers of national economy are involved.

Increase of the role of human capital as major factor of economic development is connected with the level of competitiveness of the modern innovative economy is defined by the quality of professional staff. Today the states can't support in the long-term period the competitive positions in the world economy due to the low cost of labor and economy in the development of education.

The work in conditions of open market economy makes new requirements to knowledge of experts having higher education. The situation analysis in the Russian professional education shows that the majority of new higher education institutions carry out training of specialists in the fields of economics, management and law, and these directions are very popular among applicants. Crisis of the real sector of economy has undermined essentially the prestige of engineering specialties. The huge intellectual potential that has been gained in technical

colleges, is unclaimed in the conditions of transition to market economy. During the years of reforms in technical colleges there are many problems, for example, faculty aging, obsolescence of the material and technical base; difficulties with the practice organization at the enterprises for students. (The theory of innovative economics: textbook / ed. by Belokrylova O.S. – Rostov-on-Don: Feniks, 2009.)

The problems of the higher school can't be solved separately from the problems of the social and economic development of the state and its territories.

The priority role in formation and realization of innovative strategy of development of Russia and its regions has to be at the higher school as only the higher school has necessary for the solution of so major problem of the intellectual potential now. However, the coordinated efforts of the educational institutions are necessary for its effective use. The creation of the federal universities that will allow to group necessary resources for modernization of the higher education has to be the effective tool of the solution of this problem, and turn such universities from the traditional scientific and educational organizations into the innovative centers of development of the regions. of the location.

The high education level acts as the necessary prerequisite of the movement to the innovative economy. Expansion of access to the higher education is the prerequisite for social progress and economic development.

## **2. CHAPTER**

Strategic mission of the federal universities is formation and development of the competitive human capital in the federal districts on the basis of creation and realization of innovative services and development. Realization of this mission means "the organization and the coordination by the federal university of works on the balanced providing of large programs of social and economic development of the territories and the regions in its structure by qualified personnel, and also with scientific, technical and technological solutions, including by bringing results of intellectual activity to practical application" (The concept of creation and the state support of development of the federal universities. M, 2009. – 11 p. – URL: <http://mon.gov.ru>)

The analysis of experience of the most successful western universities defining substantially economic and social prosperity of its countries allows to formulate the main requirements that have to be shown to the federal universities. First, the leading domestic universities must become modern scientific and educational centers capable to carry out training of competitive experts on the basis of close integration of educational activity with fundamental and applied researches. Secondly, federal universities must become scientific and educational centers of enterprise type open for external community and reacting sensitively to its inquiries that is provided with inclusion of the teachers and the students into a joint practice activity really capable to satisfy the current needs of the personality and society. And, at last, universities must provide possibility of realization of the individual educational trajectories, capable to satisfy educational requirements of everyone at the actual level (the paradigm "education during all life"). It is a basis of the innovative thinking and there is no and can't be innovative economy without it. (Kirov, V. N. Modernization of the system of the higher education: the experience of the Southern federal university and logics of development / V. N. Kirov //University management: practice and analysis. – 2009. - No 1 (59). – p. 31 – 44.)

Implementation of all listed requirements will allow to occupy one of the leading positions in management of the development of intellectual potential of the region to the federal university. The educational potential, being the most important component of the intellectual potential of the region, participates in creation and use of knowledge. Thus training and preparation represents the main component of the process of formation of personnel capacity

of the region which defines the subsequent efficiency of its use. Till the end of the XX century traditional universities were the structures uniting two types of basic processes - educational and research, and now the modern university must become the center of innovative processes. Such diversification of the types of activity at the university has to correspond to the main tendencies of post-industrial transformation of social development. At the result of association of higher education institutions in the university the part of administrative personnel was released and its efforts were directed to the implemented structures, such as the centers of consulting or the centers of a transfer of technologies. There are also the same the structural divisions involving students into the scientific researches and introduction: the student business incubators or preinkubators. There is also the joint structure organizing employment of students and graduates, their adaptation to a regional labor market at the federal university. It is possible to notice here that for the modern effective development of the territories of the region not only production technological innovations are necessary, but also the social innovations, that emergence is possible only in the heart of the versatile university. One more advantage of the joint federal university is the opportunity to accumulate additional budgetary appropriations for strengthening of material resources, hardware, software and methodical ensuring of educational, research and innovative activity. The experience of the first two federal universities showed that their consolidated budgets have increased not by percentage, but by many times. Thus additional budgetary financing has created multiplicative effect because it has stimulated joint financing of the universities from the private business structures. (Sinitskaya N. Y. Stepanova V. V. The creation of the North European federal university as the factor of innovative development of the higher school // The Basic Researches. – 2008 . – No. 8 – p. 91-92

### **3. CHAPTER**

The university in its activity has to be guided by the program of social and economic development of the region and provide personnel and scientific and technical maintenance of this process. Also it has to be the instrument of support of national and regional economies because they are the places where has to be formation and development of new ideas, carrying out researches that conducts to the creation of new products and services.

University is a basis for formation of the modern sociocultural environment in the region. Federal universities are based on rich sociocultural traditions, they are the most important element of social infrastructure, act as indicators of scientific, technical, social and cultural development of the region. The university role in the region is not limited by the training of specialists. It is possible to consider the universities as the social phenomenon, being characterized a duality of manifestation of the forms.

On the one hand, the universities continue to remain the productive organizations, which function was defined by the state as the production of educational products (scientific and educational goods and services). On the other hand, universities more and more turn into a subject of social and cultural development of the region, acting as the center of scientific and production and educational capacity of the region, the center of continuous education, providing the quality of presented educational services. The opportunity not only to be guided by requirements, first of all, the regional enterprises and the organizations of various branches of economy, but also to form the demand for the training of specialists of certain directions of science exists mainly at the federal universities realizing programs of the higher and postgraduate professional education for many specialties which are carrying out basic and applied researches on a wide range of sciences. The federal universities are constantly in search of the best way of development for the future and opportunities to be competitive in a system of the higher education of the region.

#### 4. CONCLUSION

However, it is obvious that the fact of creation of the federal university in the region won't be able to have the positive impact on the development of intellectual potential and formation of innovative economy at once. The analysis of the first years of activity of the existing federal universities shows "underfulfilment" of the planned indicators on many positions. Among the main reasons it is possible to notice the financial crisis owing to which it was difficult to provide joint financing of programs to higher education institutions, insufficient efficiency of control systems and weakness of the high school management, underestimation of many risks which had essential impact on the course of implementation of the Program, including insufficiently established partner relations between business, science and education at the level of the region.

There are also the problems of development of master preparation: the absence of the target order for the development of advancing master programs and for training according to these programs, and also disinterest of employers in the development of joint master programs (or network master programs)

It is possible to tell about one more problem, the obstacles for effective employment of the graduates, such as:

- The absence of medium-term personnel policy at the enterprises and the organizations and, as a result, the decrease of orders in higher education institutions on target training of specialists.
- Rather low level of initial salary for the young specialists, bringing to outflow of the employees from the regions.
- The absence of its own (office) housing for young specialists at the majority of the enterprises and the organizations.
- The absence of motivation at graduates to go for work to the countryside, bringing to employment "not on a profession profile" in the urban areas.
- Insufficient stimulation by employers (nominal grants, competitions, grants, training and so forth) of the students during their study.

Thus, increase of the role of the universities in development of national economies is caused by the objective factors, and it imposes community additional responsibility on improvement of quality of educational, scientific and innovative activity on the university.

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## SIMPLIFICATION OF INTERNET SERVICES IN THE KNOWLEDGE SOCIETY

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### **ABSTRACT**

*For several years, observable are processes of simplification IT systems and collectivization of network services. An example is the simplification of Linux operating system, which in first versions from clumsy, based on the command line and virtually devoid of the graphical elements evolved towards an open and user friendly operating system. The same applies to the posting of data on the Internet - work in cloud computing, building web pages. In addition, it is difficult not to agree with the fact that information is now one of the key consumer goods, and dynamic scientific and technological development in the twenty-first century civilization fosters referred to as a knowledge society. These considerations seem to indicate an increase simplification of communication systems and collective web services with the idea of the knowledge society. Undoubtedly, this issue deserves deeper consideration, and this article is a contribution to reflect on the issue of dissemination and simplify the network in the perspective of the knowledge society. Reflection locates on the border of sociology, economics and computer science.*

**Keywords:** *simplification, internet services, knowledge society.*

### **1. INTRODUCTION**

Jürgen Habermas noted that each generation stands on the shoulders of the previous generation, and with the passage of time accumulates resource of scientific and technical measures (1983b, p 423). What's more: "the direction of technological progress today is largely determined by social interests yet to emerge naturally from the need to reproduce social life and as such are not subject to reflection or self-understanding confronted with the declared political groups. Therefore, the new technical skills suddenly penetrate the existing forms of practical life" (Habermas 1983a, pp. 367-368). Cited above the thought of Habermas clearly shows the importance of technological development and its cumulative nature. It should also be noted that subsequent inventions and new technical solutions are used to facilitate human functioning in the new reality, and their development is dominated by the needs of the people, or more precisely, their interests. This thought is a smooth transition to the theme of simplification of computer systems and network services in the society of information/knowledge .

### **2. THE IMPORTANCE OF INFORMATION. THE DIFFERENCE BETWEEN THE INFORMATION SOCIETY AND THE KNOWLEDGE SOCIETY**

History of the socio-economic thought includes a wide variety of theories of social change. Among them is an interesting proposal of modernization theory, which shows the transition from a traditional to a modern society. The clearly illustrates the cycle of modernization comprising the following steps of evolution of human communities:

- traditional society (pre-industrial);
- semi-industrialized society;
- industrial society (modern);
- post-industrial society (postmodern);
- Information Society (postmodern) (cf. Krzysztofek, Szczepański 2002, p. 36).

The information society is not only the result of profound social structure, but also the rapid technological development. In contemporary society, neither important in the economy Frederick W. Taylor's determination (intensification of work on the effective use of time and minimize costs; the engagement time worker of his wage), nor the transition from Fordism (multisession mass production of standard components based on the technology of the production line) to post-Fordism (transition towards flexible specialization providing product differentiation) turns out to be insufficient for the needs of a modern economy and the world. In Western society there has been a clear shift away from industrial production, which seems to be a harbinger of the end of industrialism (cf. Dobrowolski 2006, p 11). Currently, you can not talk about simple logical connection - information leads to knowledge, and knowledge to cognition - because it combines information from a network of heterogeneous knowledge relationships that no longer serve cognition (as was the case in the classical idea of science), but try to meet the expectations of market (Ibidem, p 10). Today, information has become one of the key consumer goods, and dynamic scientific and technological development in the twenty-first century civilization fosters referred to as a knowledge society. The importance of information even more stress appearing assertion that everything that exists in the world can be reduced to information (cf. Jacyna-Onyszkiewicz 2002, 2013). In such vision information becomes the highest value and the ability of its discovery, selection, interpretation, evaluation, application or processing (Jaskuła 2009, p 183). Currently, these activities have become almost a requirement because, as noted by Grzegorz Kołodko, saturated data broadcasting time, acres of paper as well as the vastness of the Internet is often filled by the content of insignificant value (Kołodko 2009, p 12). However, a distinction should be made aware of the information society of the knowledge society, which takes the German sociologist Ulrich Beck. Information society puts on a pedestal goal of building the information infrastructure. In this type of society, it is important to continuously update the ownership information resource, because it is not based on it is possible to navigate the slippery surface of the modern world. The most important is access to information, and who possesses it has the power. In turn, the knowledge society is an alternative to that outlined above vision. While universal access to information and the development of information technology will accelerate the development of the information society, with so much knowledge can be used in the opposite direction - to maintain the *status quo* (cf. Dobrowolski 2006, p 23-25).

### **3. THE PROCESS OF SIMPLIFICATION OF IT SYSTEMS AND NETWORK COLLECTIVES - SELECTED EMPIRICAL EXAMPLES**

The development of the information economy about which, among others wrote Manuel Castells, runs along the plane of the commercial, financial, organizational, business and labor (Stalder 2012, p 76). Castells also speaks about capitalism information, which consists of: global reach, network structure and the nature of the information (Ibidem, p 76). At this point I would like to explain this network structure, to be more precisely, further reflection will refer to the process of simplification, and thus simplify IT systems and network services. The analysis below includes some examples of empirical evolution of solutions to the IT industry with at first was "clumsy" and "dedicated exclusively for professionals" towards "user-friendly graphics solutions."

(1) The first case concerns the evolution of the Linux operating system, which underwent a complete transformation of the system of the text-based command line (terminal) to the rich in complex visual effects functional system. Similar transition took place also in the production of Microsoft Windows, but there work in text mode (MS-DOS) lasted a relatively short time, Windows 95/98/2000/ME constituted a hidden sub-system, and in the distribution of Windows XP its dimension was rudimentary to the entire system. What's more, the

evolution of Linux is so interesting that in the public consciousness still appears stereotypical belief that Linux is not for everyone and you have to be a computer scientist to be able to deal with it. The origins of the system associated with the project Unix (then called Unics) which was established in 1969, when AT&T Bell Labs by a team composed of Dennis Ritchie, Ken Thompson, Rudd Canaday and several other developers<sup>5</sup>. K. Thomson and D. Ritchie for the first time presented a project for Unix Systems Symposium on Operating Principles in Purdue University in November 1973<sup>6</sup>. However, the real system Linux was created in 1991 with the work of the Finnish science Linus Torvalds who developed the system kernel<sup>7</sup>. In time Linux has become a full-scale operating system based on the text interface. Without knowing the syntax was not possible to operate the system. In addition, you have to know the principle of operation of the software, because in case of failure of software programs do not „tell” what's the problem. In the initial phase of development of the whole world of the IT system was designed for enthusiasts rather than unrelated to this industry of ordinary people.

```
[root@shrishti fat]# pwd
/lib/modules/2.6.33.7-desktop-2mnb/kernel/fs/fat
[root@shrishti fat]# ls
fat.ko.gz  msdos.ko.gz  vfat.ko.gz
[root@shrishti fat]# gunzip vfat.ko.gz
[root@shrishti fat]# ls
fat.ko  msdos.ko  vfat.ko
[root@shrishti fat]# insmod vfat.ko
insmod: error inserting 'vfat.ko': -1 Unknown symbol in module
[root@shrishti fat]# dmesg | tail -3
vfat: Unknown symbol fat_add_entries
vfat: Unknown symbol fat_sync_inode
vfat: Unknown symbol fat_detach
[root@shrishti fat]# insmod fat.ko
[root@shrishti fat]# insmod vfat.ko
[root@shrishti fat]# lsmod | head -5
Module                  Size  Used by
vfat                     8513   0
fat                     47218   1 vfat
iptable_filter           2271   0
ip_tables                9891   1 iptable_filter
[root@shrishti fat]# rmmod vfat fat
[root@shrishti fat]# gzip vfat.ko fat.ko
[root@shrishti fat]# modprobe vfat
[root@shrishti fat]#
```

Figure 1. The command line (terminal) on Linux. The first distributions have only a text interface. Retrieved 04.01.2014 from [http://www.linuxforu.com/wp-content/uploads/2010/12/figure\\_5\\_linux\\_module\\_operations.png](http://www.linuxforu.com/wp-content/uploads/2010/12/figure_5_linux_module_operations.png).

Really big change was the introduction of Graphical User Interface (GUI), which allows Linux has become more accessible to novice users. The first work began to Unix in 1984 at the Massachusetts Institute of Technology (MIT) - a project of X-Window. Then, in 1996, work started on KDE (Figure 2), while in 1997 the Gnome and Xfce.

<sup>5</sup> Unix/Linux history. Retrieved 04.01.2014 from <https://digital-domain.net/lug/unix-linux-history.html>.

<sup>6</sup> McKusick M.K., *Twenty Years of Berkeley Unix. From AT&T-Owned to Freely Redistributable*. Retrieved 04.01.2014 from <http://oreilly.com/catalog/opensources/book/kirkmck.html>.

This article based on: DiBona Ch., Ockman S., Stone M., *Open Sources. Voices from the Open Source Revolution*. January 1999.

<sup>7</sup> *Introduction to Linux*. Retrieved 04.01.2014 from [http://www.tldp.org/LDP/intro-linux/html/sect\\_01\\_01.html](http://www.tldp.org/LDP/intro-linux/html/sect_01_01.html).

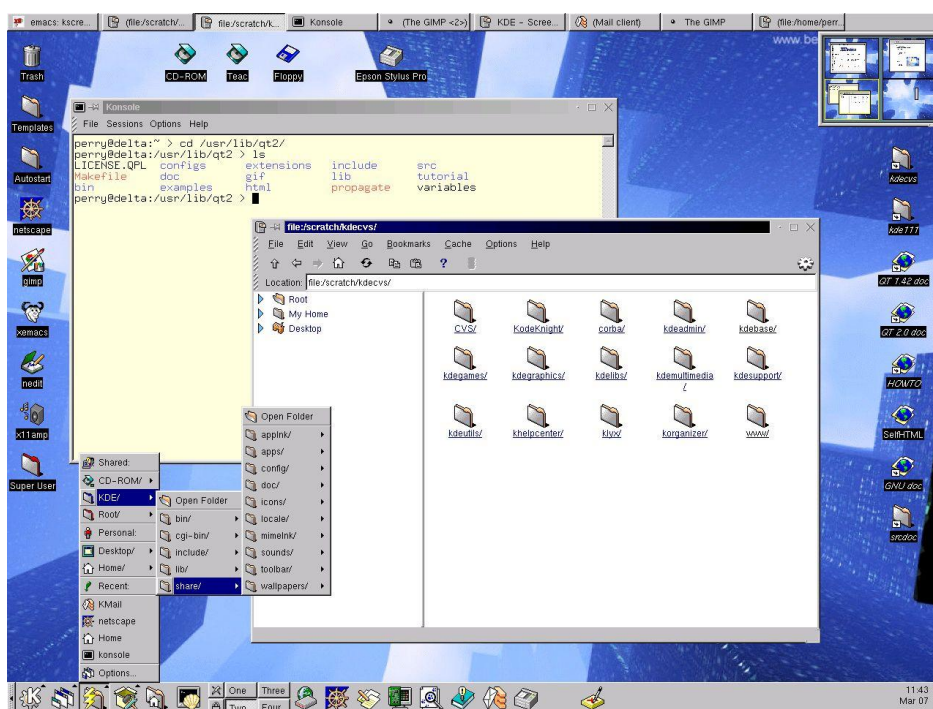


Figure 2. First KDE GUI v1.0 (1998). Retrieved 04.01.2014 from [http://sumolari.com/wp-content/uploads/2009/08/KDE\\_1.0.jpg](http://sumolari.com/wp-content/uploads/2009/08/KDE_1.0.jpg).

Subsequent editions of Linux distributions are increasingly filled with graphic elements and mechanisms to facilitate the user to operate the system. You can even say that the operating system started to operate in the background while the user only plane on which he can work. Transparency of the system allowed the user to redirect energy to work using their own tools (programs). This is undoubtedly good progress. Modern operating systems to the maximum extent focused on the user (generally for the novice user), because it does not require the knowledge of IT. The system is designed so that after installing a package of essential utilities, so that you can immediately use its features to the fullest. In addition, the deployment of applications and features are intuitive, and most of the processes running in the background (without the user's knowledge). It looks aesthetically pleasing and functional. However, more advanced users would expect the possibility of interference with the "subcutaneous" the system<sup>8</sup>.

(2) Also downloading and uploading data on the Internet has been simplified. It is based on Cloud Computing technology, which is a "model allows versatile, convenient, on-demand network access to a shared pool of configurable computing resources (...), which can quickly provide and share with minimal effort in terms of management or with minimal interaction service provider"<sup>9</sup>. The entire burden of providing IT services is here transferred to the server, which allows continuous access to data by client computers<sup>10</sup>. The architecture of Cloud Computing presents the picture below (Figure 3).

<sup>8</sup> Linux gives you the opportunity, mainly because of the open source license (GNU/GPL). Unfortunately, this issue belongs to the minority of operating systems.

<sup>9</sup> NIST (2009), Krajowy Instytut Standaryzacji i Technologii w Stanach Zjednoczonych; by: Komunikat Komisji do Parlamentu Europejskiego, Rady, Europejskiego Komitetu Ekonomiczno-Społecznego i Komitetu Regionów pt. *Wykorzystanie potencjału chmury obliczeniowej w Europie* from day 27.09.2012, p. 3, note 5.

<sup>10</sup> cf. *SmartCloud Enterprise. Moc obliczeniowa na żądanie*. Retrieved 04.01.2014 from <http://www-05.ibm.com/pl/cloud/>.



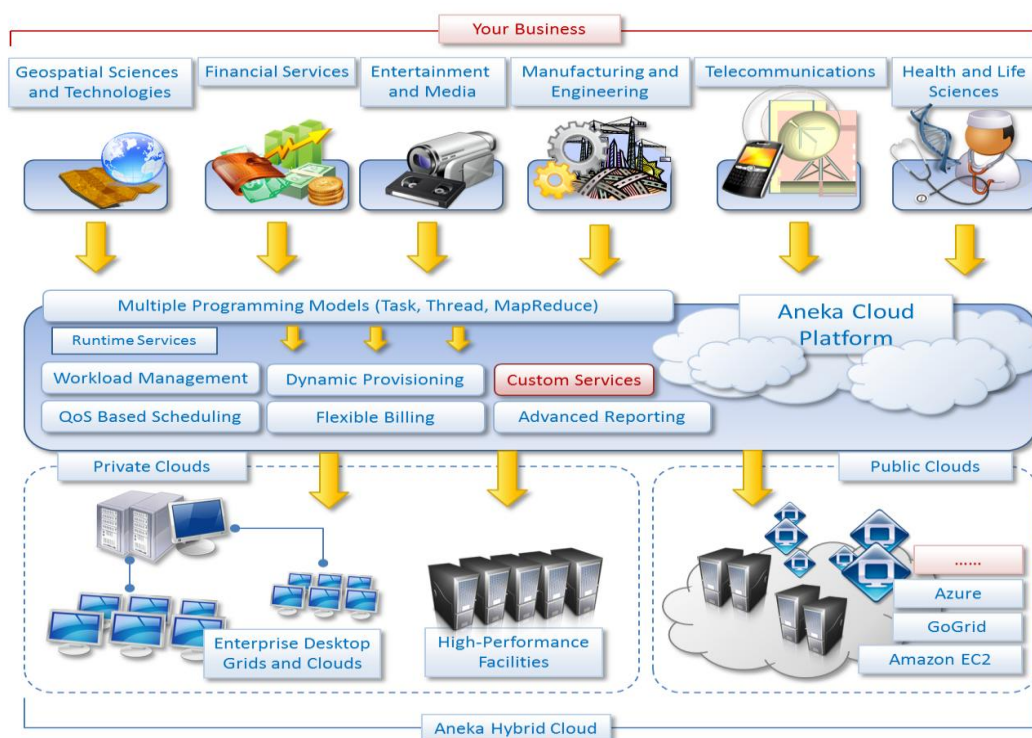


Figure 3. The architecture of Cloud Computing. Retrieved 04.01.2014 from [http://www.manjrasoft.com/images/aneka\\_cloud\\_computing\\_schema.png](http://www.manjrasoft.com/images/aneka_cloud_computing_schema.png).

(3) Combined with the above issue is to build websites. Initially required a knowledge of HTML (HyperText Markup Language) (Figure 4) and knowledge about the web browser and operating system users to adjust the code page to display hardware capabilities by users.

```

01 <!--html code starts here -->
02 <html>
03 <head>
04   <title>Video Library </title>
05 </head>
06
07 <body bgcolor="#DEDEDE">
08
09 <div align="center">
10 <h2>Media Streaming : Video Library Project</h2>
11 <h3>If you are viewing videos from this collection
12   for the first time, please download
13   <a href="http://localhost/videofiles/StreamingMediaPlayer.msi">
14   Streaming Media Player</a>
15 <br />
16 <a href="ums:\\TCP:localhost:5119\\videofiles\\hrm.mpg">
17 Introduction Human Resource Management</a>
18 </h3></div>
19 </body> </html>
20 <!--html code ends here -->

```

Figure 4. HTML code fragment. Retrieved 04.01.2014 from [http://wiki.greenstone.org/lib/exe/fetch.php?cache=&media=en:html\\_code.jpg](http://wiki.greenstone.org/lib/exe/fetch.php?cache=&media=en:html_code.jpg).

Currently, in order to build a website and put it on the Internet does not need to be a computer scientist. This can be done for each user using simple tools such as Wordpress even. Literally just a few clicks arises site design, and you can also use ready-made templates. The whole encoding process is invisible to the user.

#### 4. CONCLUSION

Nowadays, the importance of technology is so pervasive that you can say by M. Castells about the phenomenon of techno-meritocracy. It is characterized by several distinguishing features. Firstly, technical discovery related to the programming of computers in a networked environment is considered to be the highest value. Secondly, it just expertise used to improve the technical work. This means nothing less than the devaluation of knowledge *per se* and its instrumentalization. Rating technical discovery depends on community members, professionals in the field of network and the Internet. Project coordinators are appointed by the authorities, which also have control over the resources (basically hardware). Members of the community can not use the network only for the personal benefit (excluding the development of their own, which is treated in terms of the common good). However, the most important feature of techno-meritocracy in terms of Castells is open to the transmission of the software and any improvements identified through networking. Without this openness of the community would be completely only individual projects, taking care of special interests and intensifying competition (cf. Castells 2003, pp. 50-51). Putting together the two above outlined areas - the importance of information and the simplification - it can be concluded that in the modern society, the emphasis has not been placed on extensive knowledge, or the ability of critical and logical thinking. This, what is currently important is the ability to use information and the ability to make use of modern technology. At the same time the information is reduced to a kind of "already digested slurry" (unfortunately not by the user), which instead of user generate simplified services of the IT industry. To paraphrase McLuhan aphorism that the medium is the message Castells proposes a new look - the network is the message. In this vision of the network is understood specifically as a higher way of organizing social action, regardless of its purpose (Stalder 2012, p 38).

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## CHARACTERISTICS AND OPINIONS OF CROATIAN WINTER SPORT DESTINATIONS' VISITORS

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### **ABSTRACT**

*Although Croatia is not an Alps country, around 21% of its surface is 500 meters above sea level, and it has developed several winter sport destinations. All winter sport destinations have no more than 30 kilometres of ski trails, and are mostly intended for domestic visitors. The aim of this paper is twofold. First aim is to discuss the possibilities for development of winter sports tourism in Croatia, and second is to research into the opinions of domestic visitors about Croatia's winter sport destinations. For that purpose, a secondary data analysis was employed, and a primary research was conducted. A questionnaire was a part of a broader research conducted to find out characteristics of Croatian skiing market. In total 744 questionnaires were collected, but 291 interviewees stated that they do not go skiing and were therefore excluded from the analysis. Out of 422 analysed questionnaires, 48% of interviewees did not visit Croatian ski destinations. The research has shown that the most important shortcomings of Croatian skiing destinations are their size, lack of snow and poor quality of trails. Their biggest advantage is their proximity, and skiers are most satisfied with the quality of skiing schools. The results of this research can certainly help winter sports destinations improve their position at the market.*

**Keywords:** *Croatia, satisfaction level, skiers, winter sport tourism*

### **1. INTRODUCTION**

One of the basic characteristics of tourism is its seasonality caused mostly by the fact that tourists travel during holidays, weekends and their vacation time. As a result, the majority of tourism travel is generated during summer and/or winter months. Travel during winter season is generally oriented towards mountain destinations and motivated by sports and physical recreation-related activities on the snow, mainly, skiing, cross-country skiing, skating, etc. (Bartoluci, 2004, p. 22). Skiing, namely alpine skiing is truly the most popular form of winter sports tourism, which is supported by the fact that these destinations are usually referred to as alps skiing destinations or resorts.

However, snowboarding and some other activities like *heli* skiing, etc. are also present. These activities are conducted in winter sports resorts, i.e. the destinations which can be defined as "geographical, economic and social units consisting of all those firms, organisations, activities, areas and installations which are intended to serve the specific needs of winter sports tourists" (according to Bieger, 1996 and WTO, 1993, quoted in Flagestad, Hope, 2001, p. 449). The development of winter sports tourism is connected with the development of skiing. Although the traces of the first skiers dated back to Stone Age were found in the form of cave writings in Norway, a great boom in the development of skiing in Europe happened in 1960s. It can be attributed not only to better general conditions (higher purchasing power, good road infrastructure, and more vacation time) but also to improvement of skiing equipment (Vrdoljak-Šalamon, 2006, p. 243).

The aim of this paper is twofold. First aim is to discuss the possibilities for development of winter sports tourism in Croatia, and second is to research into the opinions of domestic visitors about Croatia's winter sport destinations.

## 2. THE DEVELOPMENT OF WINTER SPORTS TOURISM IN CROATIA

The possibilities for the development of winter sports tourism are determined by natural and geographical conditions, and generally cannot be developed if adequate geomorphological and climate conditions are not met. Note that we used the term “generally cannot be developed” since the development of various technologies made it possible to build ski resort in places that do not have necessary natural or geographical conditions, like for example in Dubai (see Ski Dubai, 2009). However, this is extremely rare due to significant costs associated with this type of winter resorts development.

The history of skiing in Croatia dates back to the end of 19<sup>th</sup> century and the town of Rijeka, which is actually a maritime town. An engineer Ferdinand Brodbeck brought the first skies to Rijeka from Vienna in 1885. He founded the first sport association called CAF (tal. *Club Alpino Fiumano*) for people who wish to pursue mountaineering and skiing (Vrdoljak-Šalamon, 2006, p. 246). However, Franjo Bučar did the first teachings of skiing technique in Zagreb when he came back from his studies in Stockholm in 1894 (Matković, Ferencak and Žvan, 2004, p. 20). Nevertheless, a significant number of years passed before the first cableways were built. The first infrastructure in the form of cableways was built in 1961 in Petehovac and in 1965 in Mrkopalj. This actually represents the moment when the exploitation of the mountains for the purposes of winter sports tourism development began. Before 1960s mountains were visited mostly during summer months. In general, the development of tourism in mountain areas of Croatia can be divided in these periods:

- firstly, until 1930s this area was visited because of untouched nature and was mostly interesting for explorers;
- since 1930 until 1960s this area was used for treating people with pulmonary problems because of favourable climate;
- finally, in 1960s, snow became dominating resource for further tourism development (Knežević, 1998, p. 180).

Nowadays in Croatia there are in total about 10 skiing resorts in the areas of Gorski kotar and Lika. Not one of those ski areas is in the altitude higher than 1500 meters. In addition, majority of them cannot even be called a resort since some of them only have one skiing trail, and no additional offer or accommodation capacities. In total, there are about 27 km of trails for alpine skiing and some 40 km of trails for Nordic skiing. However, this information is not precise because some skiing places do not give specific information. For example, they advertise that you can practice Nordic skiing but do not say how many trails there are. It is the same with information on cableways. According to available data, there are about 19 of them: 12 surface lifts (mostly T-bars, 2 baby lifts) and 6 aerial lifts (chairlifts). Although winter sports tourism (skiing tourism) is mainly developed in mountain part of Croatia, there are also two skiing resorts near large cities. The first one, called Sljeme situated at the mountains of Medvednica in the capital of Croatia – Zagreb. This is where the competition called Snow Queen (slalom race for women) is held since 2005 and since 2008 the slalom race for men as well. Platak is skiing place in the mountains of Risnjak and near town Rijeka that is actually situated at the coastline. This skiing area is mostly used for recreational skiing by the citizens of the town Rijeka and surrounding area. Some plans that include expansion of skiing trails and development of new all season resorts do exist, but the future of winter sports tourism in Croatia does not seem bright. Those plans exist for years and nothing has yet happened. Some of the reasons are quite objective in their nature. For example, in some areas it is still not safe to do any building since there is still possibility that bombs from the independence war in 1990s can be found. However, some reasons, such as administrative problems connected with obtaining licences and incorporating those centres and trails in space plans of towns and municipalities, should have already been solved, but are not. The question remains whether

Croatia has adequate geomorphological and climate conditions needed for the development of winter sports tourism. Well, around 17% of Croatia's surface is 500 meters above sea level, but only 4% is above 1000 meters. The highest peak is called Dinara and it is 1831 meters above sea level (CBS, 2013, p. 42). However "the highest mountains are on the crossings between continental and maritime parts, which means that maritime conditions often change the stability of the snow cover (for example, the snow cover at the same altitude in Tatras is twice as more reliable)" (Knežević, 2003, p. 126). At the same time, "the mean annual air temperature in Lika ranges from 5°C to 9°C, and in Gorski kotar from 3°C to 11°C. The lowest annual air temperatures, 2°C to 3°C, occur on the tops of Risnjak, Bjelolasica and northern Velebit, at altitudes above 1700 m. At the highest meteorological station of Zavižan (1594 m), the mean annual air temperature is 3.5°C". (Zaninović, 2008, pp. 29-30) The annual air temperature reaches its minimum in winter in January (Zaninović, 2008, p. 30). The number of days with snow cover higher than 1cm in three most important stations can be seen in Table 1.

*Table 1. The number of days with snow cover higher than 1cm*

	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Zavižan	148	111	167	164	153
Puntijarka (Medvednica)	86	69	116	98	71
Parg (Čabar)	74	75	117	75	63

*Source: CBS (2013, p. 49), CBS (2012, p. 49), CBS (2011, p. 49), CBS (2010, p. 49), CBS (2009, p. 54)*

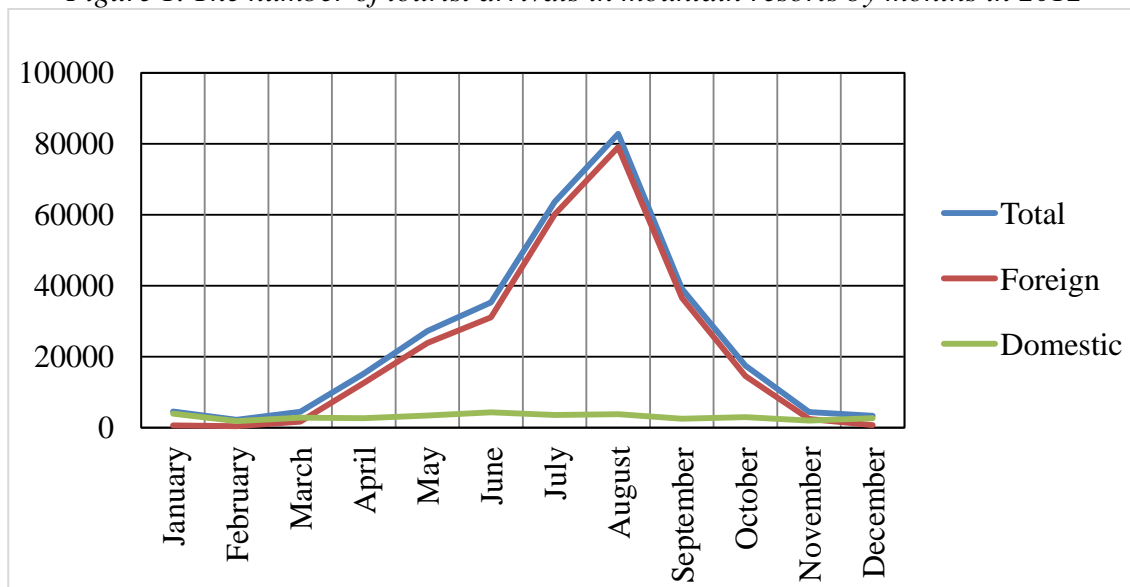
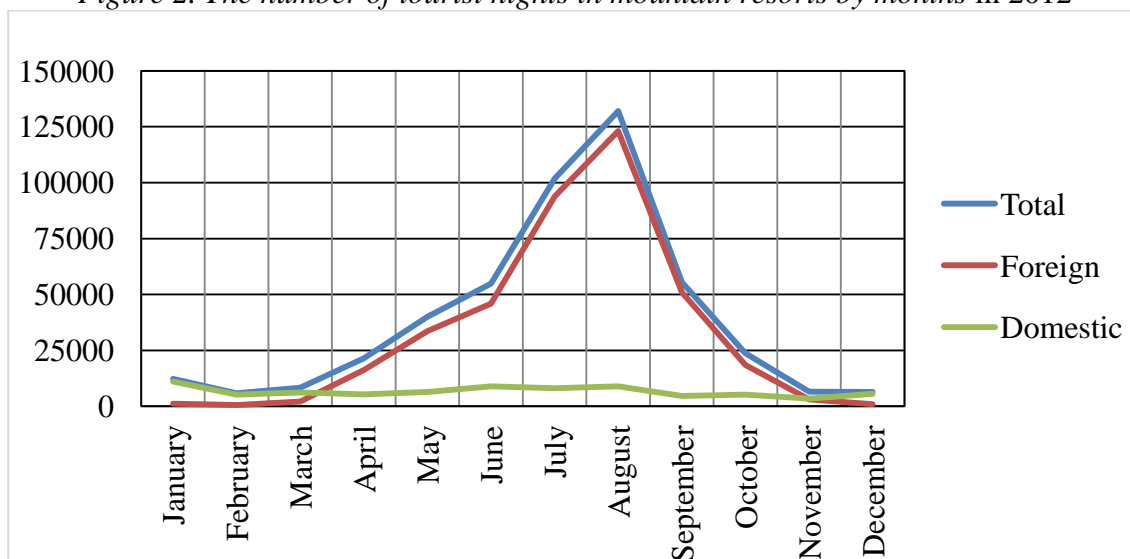
As can be seen from the table, the number of days with snow cover higher than 1cm very much differs in five presented years. The winter of 2010 was richest with snow, but the following winter of 2011 was exactly opposite. It is clear that the snow cover is not stabile. Finally, the highest inhabited place is called Begovo Razdolje, it is at 1060 meters above sea level and situated in the mountains of Gorski kotar. However, it only has 48 inhabitants out of which the majority is older than 55 (66.67%), and 43.75% is older than 65 (CBS, 2014). Without going into much more detail, based on data concerning skiing infrastructure and natural resources, it can be concluded that Croatia does not have good prerequisites for greater development of winter sports tourism. The existing infrastructure is rather poor and climate conditions do not favour stabile snow cover. The data concerning tourism flows in mountain areas confirm this statement (see Table 2).

*Table 2. Tourist arrivals and nights in mountain resorts (in 000)*

	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Arrivals	319	299	278	273	273
% of total arrivals	2,6	2,5	2,4	2,6	2,5
Overnight stays	509	467	446	430	429
% of total overnight stays	0,8	0,7	0,7	0,8	0,8

*Source: CBS (2014a, p. 16)*

As can be seen from the Table 2, only a small proportion of tourism flows in Croatia is generated in mountain resorts: around 2,5% of total arrivals and around 0,7% of nights. On average, tourists spend around 1,5 days in these parts of Croatia. However, perhaps more important is data concerning the distribution of tourism traffic by months (see Figures 1 & 2).

*Figure 1. The number of tourist arrivals in mountain resorts by months in 2012**Source: CBS (2013a, p. 46)**Figure 2. The number of tourist nights in mountain resorts by months in 2012**Source: CBS (2013a, p. 46)*

It is obvious that the majority of tourist arrivals and nights in mountain resorts are generated in summer, and not winter months. It is quite clear that mountain resorts of Croatia are excursion type of destinations, and represent additional offer during summer months for tourists spending their vacation at seaside. At the same time, Croatian people are quite a sporting nation, and skiing is rather popular recreational activity and sport. Each year it is estimated that more than 100.000 of Croats go for a winter holiday (skiing holiday) and they mostly go to foreign skiing resorts (most popular countries are Austria, Slovenia and Italy). A research was conducted in 2009 (see Škorić, 2010) in order to analyse the characteristics of winter sport destinations' domestic visitors and the results are presented in the following section of the paper.

### 3. CHARACTERISTICS AND OPINIONS OF WINTER SPORT DESTINATIONS' DOMESTIC VISITORS

During winter of 2009 a questionnaire was created and 744 telephone interviews were conducted. In total, 422 questionnaires were analysed (291 interviewees did not take winter holidays, and the rest was not properly filled out). The sample was nationally representative by sex, age and regions (central, northern, eastern, western and southern parts of Croatia). The questionnaire consisted of 25 questions with 1 eliminating question and 3 filter questions. Of interest for this paper are interviewees that visited Croatian skiing resorts and their opinions about visited resorts. Around 52% of interviewees (219) visited Croatia's winter destinations. Majority of them are male (58%), are on average 31 years old, have finished high school (55%), and are employed (53%). As can be seen from Table 3, the majority of interviewees that visited Croatian skiing destinations characterize themselves as advanced skiers, and only a small portion of them (13,7%) take winter vacations but do not know how to ski. On average they skied for about 11,7 seasons. Majority of them ski for about 20 seasons (25 skiers), but there were some interviewees that have been skiing for more than 30 seasons (8 skiers). During the season they usually ski for about 12 days, but at the same time spend around 6-7 days on their skiing vacation. This only confirms their statement that they visit Croatian skiing destinations where they usually go skiing for one day during the weekend. When traveling they prefer to make all the arrangements themselves (60,73%), rather than to engage the services of a travel agency. Naturally, this means that they get most of their information regarding the chosen destination from internet (49,77%) or from friends and other family members (35,62%). They mostly travel with their friends (52,05%) or family (42,01%), and ski in Austrian destinations. The most popular period for taking skiing vacations is from 20<sup>th</sup> December until 15<sup>th</sup> January, which corresponds with holidays in Croatia, and time when kids do not go to school.

*Table 3. Skiing habits and travel*

Advanced skier	35,62 %
Number of ski seasons	11,7
Number of ski days per season	12,4
Number of ski hours per day	5,5
Period of skiing vacation: 20 <sup>th</sup> December till 15 <sup>th</sup> January	54,79%
Number of days spent on skiing vacation: 6-7	49,77%
Individual arrangement of their stay	60,73%
Travel with friends	52,05%
Preferred destinations: Austria	30,59%
Source of information: internet	49,77%

Let us now move to the question of domestic skiing destinations. Majority of interviewees visited skiing destinations near Zagreb called Sljeme (39%), Sljeme and Bjelolasica (21%) or just Bjelolasica (15%) which is Croatia's Olympic centre (this centre is not in function since January 2011 due to a fire that destroyed the main building). Their satisfaction with various elements of the offer in visited skiing destinations can be seen in Table 4.



*Table 4. Satisfaction with various elements of the offer*

	<b>Average grade</b>
Quality of skiing schools	3,90
Courtesy of the staff	3,72
Quality of the accommodation capacities	3,19
Safety	3,14
The price of the accommodation capacities	3,00
Possibilities for family vacation (activities for children)	2,96
Maintenance of skiing trails	2,88
Possibilities for other outdoor activities besides skiing	2,78
The quality of cableways	2,63
Possibilities for fun (coffee places, night clubs, etc.)	2,53
The price of skiing tickets	2,44
The size of the skiing trails (number of kilometres and latitude)	2,35
Additional offer (wellness, swimming pools, etc.)	2,06

The grade 5 meant that they were completely satisfied, and grade 1 that they were completely unsatisfied with element in question. As stated in Table 4, five elements of the offer received grades higher or equal to 3 which meant that they were neither satisfied nor unsatisfied. Those elements are quality of skiing schools and courtesy of the staff (i.e. human factors) which received the highest grades, then quality of accommodation capacities, safety and price of the accommodation capacities. Although there is room for improvement in five previously mentioned elements, the ones that received the grades below 3, need immediate attention. This is especially true if we consider what the most important factors when choosing their skiing destination are, and what the interviewees find to be the most important shortcomings of Croatian skiing destinations (see Tables 5 and 6).

*Table 5. The most important factors when choosing skiing destination*

	<b>% of answers</b>
The price of the accommodation capacities	50,68
Proximity of the skiing destination	39,27
The size of the skiing trails	38,35
Maintenance of skiing trails	37,89
Enough snow cover	36,53

*Table 6. The most important shortcomings of Croatian skiing places*

	<b>% of answers</b>
Skiing places are too small	61,2
Not enough snow	48
Poorly arranged skiing trails	43
The price of skiing tickets is too high	21
Lack of possibilities for other outdoor sport and recreational activities	11,9
The price of accommodation is too high	10,5
Lack of additional offer (wellness, swimming pools, etc.)	10,5

It is obvious that the “technical elements of ski resorts” received the lowest satisfaction level, and are found to be one of the shortcomings of Croatian skiing destinations, and at the same time, some of those elements are of great importance for skiers when choosing their destinations (the size and maintenance of skiing trails, durability and quantity of snow cover). It seems interesting and important to point out that for interviewees that did not visit any of Croatia’s skiing places, top three reasons are more or less the same as shortcomings identified by visitors. Those are:

1. not familiar with offer – 37%
2. not enough snow – 30,5%
3. skiing places are too small – 25%.

Finally, the majority of interviewees (87%) find that Croatian ski destinations cannot compete with foreign ski destinations, and that Croatia does not have a “real” winter tourism centre (74%).

#### 4. CONCLUSION

Although skiing is rather popular in Croatia and Croatian skiers have achieved considerable success in various competitions, natural and geographical conditions of a country do not allow for better development of winter sport tourism, mainly skiing tourism. Maritime and other conditions (like climate change) often change the level and stability of the snow cover which makes it very difficult to plan and organize the business in ski destinations. These destinations tend to be excursion destinations in summer months for tourists visiting seaside resorts. Research has shown that as much as 48% of Croats that go on a winter holiday did not visit domestic ski resorts. The main reasons are marketing ones (37% of them are not familiar with their offer), but “technical” ones as well – they find there is not enough snow (30%) and that skiing places are too small (25%). If we compare these findings with the opinions of those that did visit Croatia’s ski destinations we find the conclusions to be more or less the same. The main identified shortcomings are skiing places are too small (61%), there is not enough snow (48%) and ski trails are poorly arranged (43%). When asked to grade their level of satisfaction with various elements of offer in visited ski destinations, the highest grades were attributed to what can be called “human factor”, i.e. the quality of skiing schools which greatly depends on ski instructors (3,90) and the courtesy of the staff (3,72). However, as can be expected, elements identified as main shortcomings received rather low grades. Maintenance of ski trails was graded with 2,88 and the size of ski trails with 2,35. In order to conduct their business in a more sound way (financially and organizationally), some changes seem necessary. It might be advisable for them to become an all year round destinations, since the majority of their tourist traffic is already being generated in summer months. On the other hand, winter business needs changes as well. Based on their natural and geographical conditions, they are better suited for domestic clientele and those just beginning i.e. learning to ski. Some joint activities with schools to organize ski seminars, as well as some other types of “nature schools” for children seem logical.

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## INNOVATION PROJECTS CLASSIFICATION ISSUES

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### **ABSTRACT**

*Innovation is identified as a key driver for strengthening of competitiveness and the central element of today's knowledge-based economy. In EU, it has become one of the priorities aiming at the modernization of the industrial base. In that sense, this paper is dealing with innovation projects as a special project category that is getting high attention in innovation and project management literature and practice. It can be said that quite recently the link between innovation and projects has come under serious examination, leading to better understanding of innovation in projects typology. This relation has generated much research in recent years, showing the importance of this area. Consequently, the goal of the paper is to give some more insight into concept and special characteristics of innovation projects and above all, to present one possible classification expanded by some new types of recently identified innovation categories. So far, conventional typologies have been mostly oriented towards a product/service/process innovation projects. One of frequently mentioned categories, not explicitly listed in Oslo Manual classification is that of eco-innovation. It represents the modern concept in the innovation theory, explaining a remarkable impact of innovations on the quality of life and environmental protection. Therefore, an overall and comprehensive innovation project classification should be very important regarding their clear contribution to economic and social development, as well as industrial and environmental improvements.*

**Keywords:** *Innovation, Innovation project, Classification, Model*

### **1. INTRODUCTION**

The ability to innovate is shown to be a vital competency that must be possessed, in order to build growing, profitable businesses. At the same time, managing innovation is one of the most difficult processes to guide and shape, being a combination of high risk and high return, mission-critical importance that makes innovation and innovation management so challenging (Maital, Seshadri, 2012). It is widely recognized that innovation is one of the key competitive elements of an enterprise and national economy.

Innovation is often defined as a specific form of change and novelty that enables the company to gain *competitive advantage* based on capability to realize successful innovation projects. In European Commission's Green Paper on Innovation, innovation is defined as "the renewal and enlargement of the range of products and services and the associated markets; the establishment of new methods of production, supply and distribution; the introduction of changes in management, work organization, and the working conditions and skills of the workforce" (European Commission, 1995).

It is widely confirmed that innovativeness stands for the central element of knowledge-based economy, with domination of information-communications technologies - ICT, as a key strategic dimension bringing completely new ways of communication and business. Innovations and innovativeness are said to be the basic enterprise development and competitiveness factors, with increasing importance today, in the age of *knowledge-driven*

*economy* as "directly based on the production, distribution and use of knowledge and information", OECD (European Commission, 2004). Innovation is given serious attention in Europe, starting from the point that EU cannot compete in this new environment unless it becomes more innovative (<http://ec.europa.eu/enterprise/policies-/innovation>). In other words, today's most developed and technologically advanced economies are actually knowledge-based, with the innovation as the key success factor (Stošić, 2013; Stošić & Milutinović, 2014).

Since innovation is not a singular event, but a series of activities that are linked in some way (Trott, 2005), it is significant to emphasize the importance of the relationship between innovation and project management. While the relationship itself is obviously clear, the earlier literature rarely finds some concrete definition of the innovation project and it is very often equated with the innovative design of the new product development project.

Starting from this point, the paper is organized in two main parts, first related to theoretical framework of innovation and projects, and the second related to suggested classification of innovation projects according to proposed Oslo Manual typology, and research of selected authors. The conclusion discusses the key elements mentioned in the paper, and suggests possibilities for the future research.

## 2. THEORETICAL FRAMEWORK

The term *innovation* originates from Latin word *innovo* (Guest editorial, 2008) which could be translated as *to renew*. Today, innovation is commonly accepted concept with a large number of definitions. "Innovation is not a single action but a total process of interrelated sub processes. It is not just the conception of a new idea, nor the invention of a new device, nor the development of a new market. The process is all these things acting in an integrated fashion" (Trott, 2005).

Bearing in mind the importance of the innovation in economic and social development, governments have to make a big effort in order to ensure that all the innovation is translated into new products/services that can be helpful for society. Considering major influence of economic growth and performance in the globalised economy, the bond between innovation and economic growth has been well studied. The bond has been examined through influence of new technologies, new products, new ways of producing goods and delivering services on enhancement of productivity, job creation and improvement citizens' quality of life (Fagerberg, Srholec & Verspagen, 2010; Torun & Çiçekci, 2007).

From the theoretical point of view, both project management and innovation management have evolved over time as two independent disciplines. On the other hand practice showed just the opposite, namely, the most effective way to manage the life cycle of innovation, from idea to commercialization, is with the use of project management. Nowadays the term project is used in a number of different meanings - to signify a group or an organization, to demarcate a particularly complex transaction, to refer to a visionary plan or idea. The term project originates from Latin word *projicere* which means to throw something forward. On the other hand, innovation is often used to signify something new, either a new product, service or other output, and/or a new process and method (Guest editorial, 2008).

Taking all this into account, the fact that innovations are mainly developed by applying the concept of project management is not surprising at all. Moreover, research has pointed out the difficulties of moving from invention to innovation, from ideas to value creating products i.e. the process where project management has a very important role (Fillipov, Mooi, 2010).

At the company level, successful innovation management includes some basic elements (Stošić, 2013):

- defining innovation strategy and coordination with other strategies - business, technology, marketing, intellectual property;
- management and development of innovation models from idea to market;
- management of innovation portfolio (innovation projects);
- stimulating innovation and measurement of innovation performance.

When it comes to innovation classifications issues, lots of them can be found in different literature, but the most significant is one given in the guidelines for collecting and interpreting innovation data, well-known in innovation field as the *Oslo Manual* (2005), saying that innovation represents the implementation of a new or significantly improved product (good or service), or process, or a new marketing or organizational method. Having this in mind, there are four types of innovations (Oslo Manual, 2005):

1. product/service innovations;
2. process innovations;
3. organizational innovations;
4. marketing innovations.

An interesting classification of innovation is that of *Henderson and Clark* (1990). They divided innovation in four groups along two dimensions: *knowledge of the components* and *knowledge of the linkage between them*, called *architectural knowledge* (Figure 1).

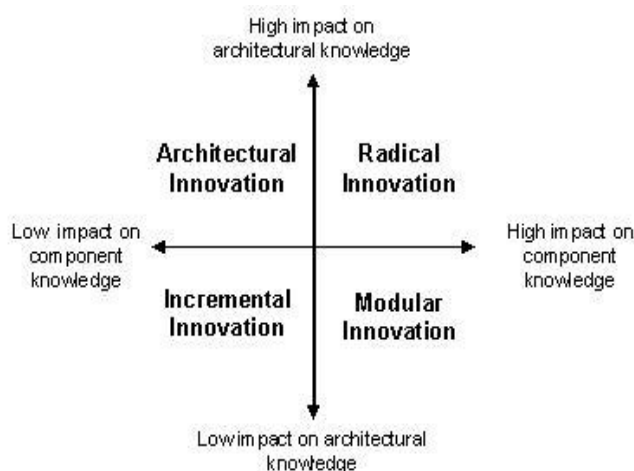


Figure 1: Henderson-Clark innovation model (<http://innovationzen.com>)

When it comes to incremental innovations, they are developed within the existing architecture and components. Modular innovations require new knowledge connected to components knowledge, but the architectural knowledge stays the same. As opposite to modular innovation, architectural innovation has significant influence on knowledge of relationship between components, but the knowledge of the individual components stays the same. At the end, when some innovation makes substantial change in both knowledge related to components and knowledge concerning relationship between the components, it is radical innovation (Henderson, Clark, 1990).

In today's literature we can find a "new growth theory" that provides a way to understand the central role of innovation in advanced economies. In new growth theory, the primary drivers for economic growth are ideas which generate growth by reorganizing physical goods

in more efficient and productive ways. The ingredients, such as natural, human, capital resources, are not as important as the recipes, respectively the ideas about how to connect ingredients together. The recipes are the product of the innovation process. The new growth theory represents innovation as the recipe that is composed of four major ingredients (Collaborative Economics, 2008):

- Expertise - New discoveries, new knowledge, and new insights come from all people who are given the resources necessary for success.
- Interaction - Face-to-Face is still very important for the exchange of ideas and synergy that creates new business models, marketing plans, or products.
- Diversity - Ideas will only get better when they are openly discussed and considered by a mix of people with a variety of research fields, backgrounds, approaches, and mindsets.
- Application - Ideas are useless unless used.

### 3. INNOVATION PROJECTS - A TYPOLOGY MODEL

By its definition, a project is a temporary endeavor, or a temporary organization with a specific purpose (Turner, Müller, 2003). This temporary nature of projects might be in contrast to functional organization in companies or public institutions where certain functions are run as continuous processes on a daily basis (Filippov, Mooi, 2010). In order to identify the right place of innovation projects in different projects typologies, we created our typology model starting from the *Oslo Manual*, as well as from research agenda on innovation projects management by Filippov and Mooi. Some more studies on this subject can also be found, such as (Entekhabi, Arabshahi, 2012).

Firstly, innovation project revolves around certain criteria, and should include at least one of them (Filippov, Mooi, 2010):

- aimed at development of an innovative (new) product or service (product or service innovation);
- employ innovative methods and approaches (process innovation);
- lead to improvement of innovative and learning capabilities of the project executor (organizational innovation);
- be realized in a close interaction with the project owner (user innovation).

In addition, several characteristics can be taken into account when comparing innovation and conventional projects (Stošić, 2013; Keegan, Turner, 2002):

- as opposite to the conventional projects, innovation projects start with poorly defined and sometimes ambiguous objectives, which become more specific in the following phases of the project;
- since the failure is one of the possible outcomes, innovation teams are more involved in management of project risk, in sense of being proactive about it. They must quickly overcome failures and orient on the new, more attractive options.
- project teams have to be made up of different people among whom exist high level of confidence (their work does not always result in success);
- ideas presented in innovation projects have to be sold to sponsors (function in project teams for innovation), which is not characteristics for conventional projects.

On the following figure the differences between functional and project organized innovation are displayed.

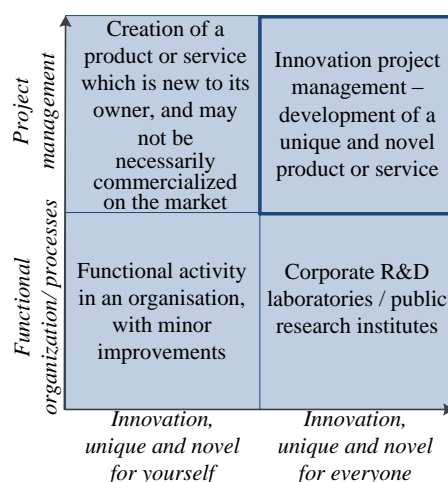


Figure 2: Positioning of innovation project management(adapted from Filippov, Mooi, 2010)

The horizontal axis shows an intensity of innovation and the vertical the way of organizing innovation activities (project management, functional organization). The right side of figure shows the innovations that bring new ideas to the market through new product and services (high intensity). The left side represents weaker innovations (low intensity), developing new product or services that are new to the experience of the business entity.

The intersection of these values creates four quadrants: (1) the upper-left quadrant display projects with low intensity of innovation. It assumes temporary creative effort in order to develop specific products or services that are not strictly innovative; (2) the lower left quadrant represent traditional way of organizing and managing business activities, with low innovation potential or little enhancement that are new only to the company; (3) the lower right quadrant represents innovation as a continuous functional process, i.e. development of new products or services in specialized departments in companies, or in specialized public research institutes (R&D); (4) the last quadrant is related to the innovation project management, respectively, development of a new product or services using project management tools and methods.

It should be noted that despite the visibly clear distinction between the four categories, in reality the borders are fuzzy (Filippov, Mooi, 2010). With regard to uncertainty, it is expected that the radical innovation is associated with the highest level of technical, organizational and market uncertainty. This is in contrast with imitation, where a lower degree of uncertainty is expected. It is useful to take into consideration four levels of uncertainty that can be identified according to the industrial sector (Table 1):

1. low technological uncertainty for low-tech projects;
2. medium technological uncertainty for medium-tech projects;
3. uncertainty for high-tech projects high technological;
4. super high technological uncertainty for super high-tech projects.



Table 1: Description of types of innovation projects (Filippov, Mooi, 2010)

		“Intensity” of innovation		
		<i>Imitation</i>	<i>Incremental innovation</i>	<i>Radical innovation</i>
		A temporary endeavor undertaken to create a product or service, new to the customer / owner, but already existing somewhere on the market	A temporary endeavor undertaken to create a product or service, as a substantial improvement of products or services already existing on the market	A temporary endeavor undertaken to create a unique product or service, absolutely unique on the market
Project goals		Objectives	Clearly defined	More vague and
Uncertainties		Lower level	Medium level	Higher level
Industrial sector	High-tech	Reverse engineering of an advanced technological product	Improvements in existing high-tech products	Breakthrough R&D in advanced high-tech
	Low-tech	Imitation in low-tech sectors, low value added, minimum learning and innovative potential	Slight improvement in low-tech products	Radical change in low-tech products

It should be interesting to point out the significance of the filed in Table 1, named reverse engineering, considering that overall economic growth and success of the southeast countries are based on imitation and high technology.

Characteristics, such as the budget of the project or constraints in the form of time, cost, quality and scope, are not possible to generalize for a particular group of projects. In other words, imitation can have a bigger budget than radical innovation project, and vice versa.

Consequently, it is very important to classify innovation given that classification provides models for determination, identification and articulation of knowledge related to a variety of innovations. For the purpose of this paper, we start from the position of innovation projects in overall projects classification model given by *Filippov* and *Mooi* as in Figure 3.

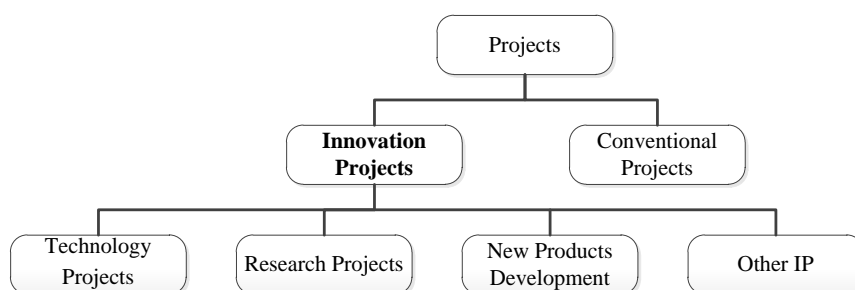


Figure 3: Classification of projects (Filippov, Mooi, 2010).

In line with previously stated, all projects can be separated into two major groups - innovation and conventional projects. Conventional projects include the most frequently executed ones connected to infrastructure, construction, operation, etc.

When it comes to innovation projects, a few project categories are distinguished: technology projects, research projects, new product development projects and other IP.

This approach has been further developed by (Entekhabi, Arabshahi, 2012), introducing one more level of hierarchy (given in brackets):

- technology projects (low-technology, medium-technology, high-technology, super high technology);
- research projects (exploratory research, constructive research, empirical research);
- new product development (advanced development projects, breakthrough development projects, platform or next generation development projects, derivative development projects).

Technology projects become important when the activities of R&D are presented as R&D projects. Classification of technology projects is based on the level of technology uncertainty at the time of initiation of the project (Entekhabi, Arabshahi, 2012). Research projects are defined as scientific research of theories and hypotheses. They represent scientific studies that require large capital investments, but also expected to provide significant results. These projects produce knowledge which can be formally represented in the form of models, patterns and patents. The innovation project class covers several project categories: new product/service development, new process development, new marketing methods development, new organizational methods development and eco-innovation projects.

*New product development* (NPD) is associated with introduction of product which is completely new or significantly improved, considering its features and purpose. Such innovation may include breakthrough technologies or can combination of existing technologies with new application. Substantial product innovation can be defined as product whose intended use, performance characteristics, properties, characteristics of design or use of materials/components, differs significantly compared to previously implemented product (Stošić, 2013). *Service innovation* becomes very important category, because services stand for the most significant economic factor in most developing countries and wider. Taking service characteristics into consideration is necessary (intangibility, simultaneity, heterogeneity, perishability), because services cannot be examined before use such as products, they are used simultaneously, vary from one implementation to another within a certain category and cannot be stored (Leich, Gökdoğan, Baaken, 2010). *Process innovation* suggests adoption of new or significantly improved production methods. These methods encompass change in equipment, software, techniques, in production organization, or in all this fields together. Essential element of the process innovation is the reduction of costs per unit of output or process time reduction (Stošić, 2013; Davenport, 1993). *The organizational innovation* represents implementation of new organizational method in business practice, organization of working environment or external relations. *Marketing innovation*, firstly introduced by latest Oslo Manual (2005), presents implementation of new marketing method, which includes significant changes in product design and packaging, positioning, promotion and price. *Eco-innovation* is the contemporary concept connected to changes toward more sustainable economic and social models. Eco-innovation is defined as the introduction of any new or significantly improved product (good or service), process, organizational change or marketing solution that reduces the use of natural resources (including materials, energy, water, and land) and decreases the release of harmful substances across the life-cycle (EIO, 2013). The aim of our research is to determine the possible position of innovation projects together with indicating their specific categories. According to the aforementioned, we propose a model of possible project typology, combining previous approaches and Oslo standard (Figure 4). Second level stays unchanged, including two large project categories - innovation projects and conventional projects, while innovation projects are decomposed in line with Oslo typology, expanded by one specific subclass of innovation projects regarding eco-innovation.

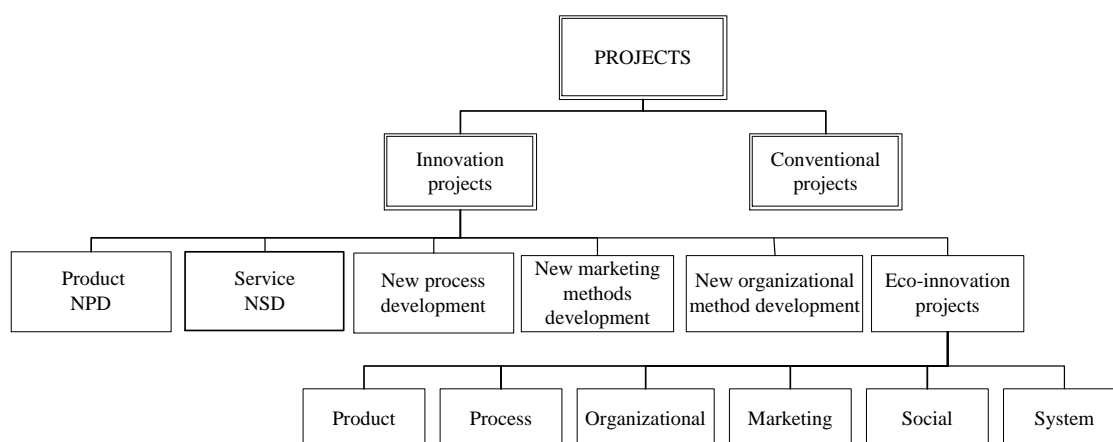


Figure 4: An extended projects classification model

As for further decomposition of this particular subclass, we have adopted elements of the latest classification (level 4, Figure 4) reported by European Commission and Eco-innovation observatory (2013).

*Eco-innovation products* include both goods and services, with their minimized impact on the environment. *Eco-innovation processes* are aiming to reduce material use, lower risk and costs. Their main purposes are substitution of harmful inputs during production process and optimization of production process. *Organizational eco-innovations* represent introduction of organizational methods and management systems for dealing with environmental issues in production and products. *Marketing eco-innovations* consider changes in product design and packaging, product placement and pricing, looking for techniques that can be used for pursuing people to buy, use or implement eco-innovations. *Social eco-innovations* request for humans to be an integral element to any discussion on resource exploitation involving the creative potential of society. *System eco-innovations* are about series of associated innovations that improve or create entirely new systems with reduced environmental impact (EIO, 2013).

#### 4. CONSLUSION

Having in mind the overall importance and influence of innovation on economic and social development and other spheres of life, on job creation, improvement of citizens' quality of life, it is important to clarify the proper place of innovation management, especially innovation projects. In view of aforementioned, this paper addresses some basic elements of the large innovation management field, with the key focus on innovation projects typology. With the intention to identify the right place of innovation projects in different projects typologies, we created our typology model considering *Oslo Manual* typology, as well as typology given by *Filippov* and *Mooi* and some other authors. On the third hierarchical level we introduced eco-innovation projects, introducing them as the new category in this model. It is important to observe eco-innovation projects as particular innovation projects category, bearing in mind that every venture in today's world is in some way connected to environmental protection.

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## **MODERN CONCEPT OF FINANCIAL POLICY OF THE UNITED STATES OF AMERICA, THE EUROPEAN UNION AND POLAND AND ITS IMPACT ON GROSS DOMESTIC PRODUCT**

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### **ABSTRACT**

*The article was devoted to the most important theme, which is taken up not only in Europe but also in the world. The modern concept of financial policy, which is applied in various countries, among others, in Poland, the United States and Europe, is characterised by the difference, but it has to lead to one goal of economic development. Two different concepts that were applied by the United States of America and the European Union have similar indirect aims, but the approach of achieving them differs. The policy of the United States of America consists in the additional printing of money, while the European Union policy is based on signing the fiscal pact, according to which the European Union countries can not bear too high costs. They even restrict expenditure and stabilise public finances as well as save money and search for other sources of income.*

*In the thesis, the research on various stages of dealing with the economic crisis, as well as the application of counteracting the economic crisis were made. Moreover, two different financial policies, applied in the United States of America, the European Union and Poland, and their impact on the Gross Domestic Product, were compared. The impact of the applied financial policies on the financial results was examined. Furthermore, the ratios of inflation, unemployment, industrial production and current turnover, were analysed. Additionally, the evolution of the commodity prices and the exchange rate on the two sides of the Ocean, during the use of various financial policies in America and Europe were compared.*

*The research aims to approximate which of the applied financial policies is more effective, how it affects the financial results that should be achieved with its application, what an impact it has on the inhabitants of a given region, and if it is characterised by the effectiveness in counteracting the crisis and even results in the economic growth. The research period that was emphasised in the thesis relates to the period of 01.2004-06.2014. The research was conducted analysing the selected economic data of the United States of America, the European Union and Poland.*

**Keywords:** *crisis, financial policy, Gross Domestic Product, inflation, interest rates*

### **1. INTRODUCTION**

A financial policy is an activity of an entity which, with the use of financial tools, strives for the previously set objectives. It is mostly assumed that the financial policy is a domain of the country due to the fact that the entities other than the country do not have full sovereignty in relation to financial matters, such as the creation of money, determining interest rates, tax rates, etc. According to this approach, it is possible to say that the financial policy expresses the ability to collect and spend public funds for the implementation of social and economic objectives. In other words, it is a conscious activity of organs and institutions of the country which consists of determining an objective of its activity and optimal solutions (means) to achieve these objectives. These activities include: preparing, planning and conducting of money operations of any type, and then the implementation of these operations and a final record and analysis of the course of similar operations in the future. In turn, among the

objectives of financial policy, it is possible to distinguish: strategic (overriding) or staple (secondary), short or long term, and also related to collecting (liabilities) or spending (assets). They must also meet the following criteria: feasibility, consistency, clarity and acceptability. The financial policy of a country may be divided into fiscal and budgetary policy being developed by the government, as well as monetary policy, which the central bank is responsible for, and which includes monetary and exchange rate policies.

The universal goals of financial policy and its functions should be mentioned.

The universal objectives of financial policy include:

- economic growth - the GDP growth in real terms,
- creation of new jobs,
- stabilisation of the economy - reduction of fluctuations of the business cycle,
- competitiveness of the economy,
- retaining the real value of money,
- internal safety of the system,
- external safety of the system,

The functions of financial policy include:

- supporting macroeconomic stability of the economy,
- increasing the efficiency of the economy,
- taking care of preserving the social justice.

The financial policy of the United States of America as well as Europe and Poland is slowly evening out and heading for the same direction, however, a previous period demonstrates that it differed on the approach, such as printing much money in the USA, and reduction of finances, expenditure, in Europe.

## **2. STRATEGIES FOR A MORE DIRECT INFLATION TARGET**

In the literature, it is possible to find a few strategies of the inflation target. It can be concluded that central banks had begun to implement the strategy before it was analysed. There is a lack of one universal model.

However, there are certain patterns and keywords of the direct inflation target strategy:

- regarding the price stability as an overriding objective of the monetary policy,
- taking into account a number of economic indexes, as well as forecasts of inflation in the process of decision making,
- a public announcement of the numerical target for inflation,
- democratic accountability of central banks allows the central bank's settlement of the implementation of established objectives.

Therefore, a strategy of the direct inflation target constitutes an important element in the financial policies of countries, not only of the European Union but also of the world, because the economy of all countries is dependant on each other even in case of the currency exchange, or import and export (Chen, 2009, pp. 3-23).

## **3. MONETARY POLICY OF THE USA**

The monetary policy of the USA stopped the financial collapse in 2008, and the fiscal simulation enabled to overcome the recession in 2009. However, it should be noted that the economic revival is very slow. In 2004, the fiscal policy does not have a negative impact on growth. Before the FED decided to modify its monetary policy by the introduction of the

inflation target, it had long been considered if the benefits on this account would be connected with the price stability, that is with greater reliability of the financial policy. Many emphasised that the introduction of the inflation target (Mishkin F.) would guarantee keeping of the price stability. Others postulated (Bernanke B.) that the introduction of inflation target was associated with uncertainty related to the desired level of inflation by FED, and at the same time, uncertainty connected with the future monetary policy which increased uncertainty in the economy and financial markets (Bernanke, 2004, pp. 168-169).

However, in January 2012, The U.S. Central Bank (Federal Reserve System) changed the monetary policy, which includes:

- the definition of inflation target,
- the start of publication of individual assessments of the Federal Open Market Committee (FOMC) members on the future interest rate of the FED funds,
- the publication of the FOMC assessments regarding long-term nominal interest balance in the United States.

Consequently, the idea that the inflation rate in a longer period is primarily determined by the monetary policy began to be promoted. In this case, FOMC is able to determine the desired level of inflation on the time horizon. So the inflation at 2.0%, measured by the PCE deflator (household consumption expenditure) is the most consistent in the longer term with the FED mandate. It promotes the stability of prices and moderate long-term interest rates, and also facilitates conducting the full employment policy.

Thus, defining the inflation target at 2.0% in a longer period, FOMC used the term "longer run goal for inflation", and not as it was previously "inflation target" related to the direct inflation target strategy (Rjrock, 2012).

Therefore, it can be concluded that FED joined a group of central banks which base their monetary policy on the strategy of direct inflation target.

In the United States of America, the Federal Reserve System Mandate does not assume the primacy of target of the price stability to other objectives recorded in it, so this mandate is not hierarchical. It is also crucial to remember that all central banks apply the strategy of direct inflation target, and in their case, it is the primacy of this objective (McCully, 2007).

In accordance with the documentation, the Federal Reserve System includes at least two elements, such as full employment and a stable level of prices. In my opinion, we will never achieve the full employment in every economy, however, the stable level of prices should stimulate the economy to grow. The stability of prices is a primary goal of the United States.

The scope of the mandate of the Federal Reserve System, whether in literature, or in the economists' statements reveals the duality of the FED mandate (dual mandate), that are, as it was previously mentioned, two objectives of the monetary policy of the country, and thus full employment and prices' stability. However, the lack of indication of the primary objective related to the prices' stability makes it impossible to identify the United States as a country, in which the direct policy of inflation target is executed. Despite of this fact and the policy conducted in this way, I would classify the United States of America to the "fully-fledged inflation targeters" group, just as Australia and Canada, which do not have the hierarchical mandates, and which are in this group (Mishkin, 2004, pp. 117-127).

Thus, FOMC states that the full employment is determined by the factors of a non-monetary character, which change over time and are not directly measurable.

According to the above interpretation, it is important to add that the Federal Reserve System refers to the inflation measured by the PCE deflator, and adopts the target of 2% in a longer period. However, all central banks execute the strategy of direct inflation target, defining their

objective in relation to the CPI consumption prices index and execute this objective in the medium period of time.

In the United States of America, FED adopted the PCE deflator as a size, which the inflation target makes reference to. It was justified by the fact that unlike the CPI index, the PCE index takes into consideration changes in the structure of consumption and is more significant for households because it covers all expenditure on the health care and is not distorted by the contractual rents, which are important in CPI, and do not constitute expenditure of the households (Freedman, 2009, pp. 27-29). In contrast to the group of central banks, FED does not publish a path of the future interest rate, but the point assessments of the "FED funds" rate, which are formulated by the individual FOMC members. The FOMC members assess the long-term balance rate, which other central banks do not do. In the United States, FED, by buying assets and providing banks with capital, contributes to printing much money, which is appropriate in the financial policy because it is not detrimental for the society and does not set the frenetic pace of belt-tightening within the society, and contributes to slow recovery from the crisis and stable economic growth.

#### **4. MONETARY POLICY OF THE EUROPEAN UNION**

The European Union has the many-year financial frameworks, also referred to as the financial perspectives, which are an expression of a political agreement on the European Union's financial priorities. These are inter-institutional agreements between the European Union Council, the European Parliament and the European Commission. The primary objective of the adopted financial perspective is to maintain discipline in expenditure made from the general budget of the EU. The financial economy of the European Union is conducted within the framework of the EU general budget and extra-budgetary funds including, among others, the European Development Fund and the loans granted by the European Investment Bank. National budgets are a tool to redistribute a significant part of GDP, and the expenditure effected by the general budget of the EU account for about 1% of the European Union's GDP. The revenues of the general budget of the European Union come from the so-called own resources, which according to the treaty provisions and secondary legislation automatically influence the EU budget, without the necessity of making any additional decisions by authorities of the member states (Sławiński, 2011, pp. 120-147).

Four major sources of the own resources may be distinguished (Ostaszewski, 2010, pp. 356-357):

1. Agricultural fees relate to the import of agricultural products, and fees for production and storage of sugar.
2. Duties collected on imports from third countries on the basis of the common customs tariff,
3. The income from the value added tax, VAT,
4. The income related to the participation of each member state in the European Union's gross national income.

In fact, the European Union should be based on four pillars, such as:

- integrated financial framework (banking union),
- integrated budgetary framework
- integrated economic policy,
- ensuring the necessary democratic legitimacy.

In the face of such assurances, the European Central Bank, applying the monetary policy and supervisory function, should watch over the financial situation that exists in the whole



European Union. In common with the United States of America, the main priority is the prices' stability, however, the responsibility that was transferred to the European Central Bank also applies to the financial stability. The European Central Bank quickly responds to the financial turbulence by the use of non-standard monetary policy instruments within its political system's limits. Then, the quantitative easing policy was applied. However, the so-called belt-tightening, introduced within the European Union, does not have a great impact on the society. It is significant for the financial policy and brings results in a macroeconomic form, but the consequences can be large because the society pays the price for such policy with the excessive depletion and financial belt-tightening.

## 5. POLISH FINANCIAL POLICY

The stable financial system in Poland strongly supports the implementation of the main objectives of the central bank, such as maintaining a stable price level, thereby creating the foundation for achieving long-term economic growth.

The stability of the financial system in Poland is understood as a condition in which the system fulfils its functions in a continuous and efficient way, even in case of unexpected and adverse disturbances on a significant scale. The disturbances of the financial system work and efficiency of the financial intermediation services adversely affect the situation of companies and households. Therefore, leading central banks, including NBP, perform analyses and research in this field and publish reports on the stability. The aim of these activities is to strengthen the stability of the financial system by providing information about risk factors for the stability, and assessment of the resilience of the financial system to disturbances. Dissemination of this knowledge is to promote the financial stability, among others, due to better understanding of the scale and scope of risk in the financial system. In this way, the possibility of spontaneous adjustment of the financial market participants' behaviours, taking too much risk, without the necessity of interference of public entities in the market mechanisms, increases (Grostal, 2011, pp. 3-6).

The financial system in Poland is stable. The surrounding condition of Polish economy is the most important risk factor for the stability of the domestic financial system. The resistance of Polish financial system to the turbulence in the European Union or world's economy is high due to good financial condition of the banking sector. Perspectives of the relatively average rate of economic growth and a continuing debt crisis in the euro zone result from the global economic growth, trade and currency exchange, because Poland is not yet in the Monetary Union. The economic growth in Poland should occur in the second half of 2014 and in 2015. However, only in 2015, the employment will increase and the unemployment rate will decrease.

The mandate of the National Bank of Poland on the stability of the financial system is contained in both, the national and EU regulations. In addition to the primary objective of maintaining prices' stability, one of the tasks of the NBP is to promote the stability of the domestic financial system.

In Poland, like in the United States of America, the Monetary Policy Council and FED have a significant impact on the economy.

The Monetary Policy Council (Założenia polityki pieniężnej na rok 2014, 2013):

- establishes annual monetary policy guidelines and submits them to the Sejm (the lower chamber of the Polish parliament), with the submitting of a draft of the budget act by the Council of Ministers at the same time.
- submits a report on the execution of monetary policy to the Sejm within five months after the end of the financial year,
- determines the amount of the NBP interest rates,

- establishes the rules and the banks' statutory reserve rates
- determines upper limits of the obligations resulting from taking loans by NBP in the foreign banking and financial institutions,
- approves the NBP financial plan and report on the NBP activities,
- accepts the annual financial report of NBP,
- establishes principles of the open market operations.

The differences between the NBP and FED strategies should also be presented.

*Table 1: The NBP and FED strategies  
(own development based on the NBP and FED data, 2014)*

<b>Name</b>	<b>Poland</b>	<b>the United States of America</b>
objectives	NBP – maintaining the price stability while promoting the economic policy of the Government, unless it limits the basic objective of NBP	FED – full employment, prices stability and moderate, long-term interest rates
Objective level	2.5%	2.0%
Date of the objective's adoption	2004	2012
Establishing Party	The Monetary Policy Council	Federal Open Market Committee
Measure of inflation	The CPI indexes	The PCE indexes
Time	Average period	Longer period

Thus, similarities and differences, which occur in both systems of the United States of America and Poland, are visible. In Poland, as well as in the United States of America, the financial policy was based on the maintenance of a stable price level but in the United States of America, the full employment is determined dually.

In Poland, the level of target does not differ much more, it is about 2.5%, however, in the United States of America, it is only half a percent less, that is 2.0%. It is similarly established by the Bodies like the Monetary Policy Council and FED. However, it is crucial to notice the differences which are the measure of inflation that is the CPI index in Poland and the PCE index in the United States of America. I believe that the PCE index is a better index of the inflation measure because it accurately represents the value of inflation, does not distort it, and allows for changes in the consumption structure, which is more significant for households. In turn, the average period of application seems to be more accurate, because nowadays, changes taking place in the world of finances should be taken into account regularly.

## **6. THE MOST IMPORTANT FINANCIAL INDEXES IN THE UNITED STATES OF AMERICA, IN THE EUROPEAN UNION AND IN POLAND IN 2004-2014 SUBJECTED TO THE COMPARATIVE ANALYSIS**

The research was conducted by the comparative analysis over time. The most important indexes include base interest rates, inflation, GDP and unemployment (Bureau of Labor Statistics, 2014; Narodowy Bank Polski, 2014).

Interest rates in the United States are at a very low level of 0.25% and have maintained as such since 2008, while interest rates of the Euro Zone are 0.15%, which is the lowest rate. In

Poland, the interest rate is 2.5%, but it should be noted that Poland is not yet within the monetary union. However, at such low rates held for several years in the United States of America and in Europe, the economic recovery should take place in the coming years, starting from 2014 (figure 1).

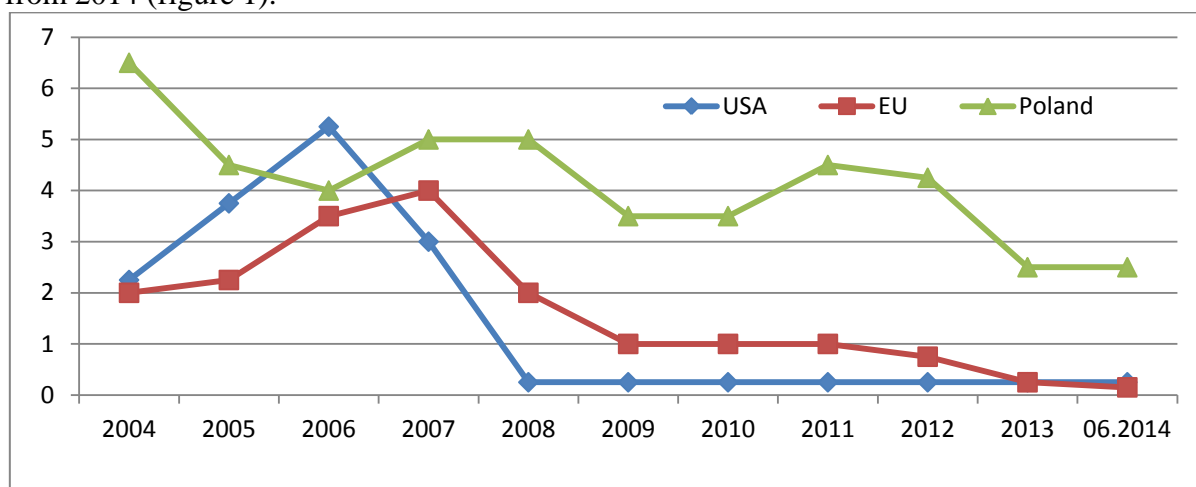


Figure 1: The interest rate in percentage in 2004 - 06.2014 in the USA, the EU and Poland (development based on the NBP, FED and ECB data, 2014)

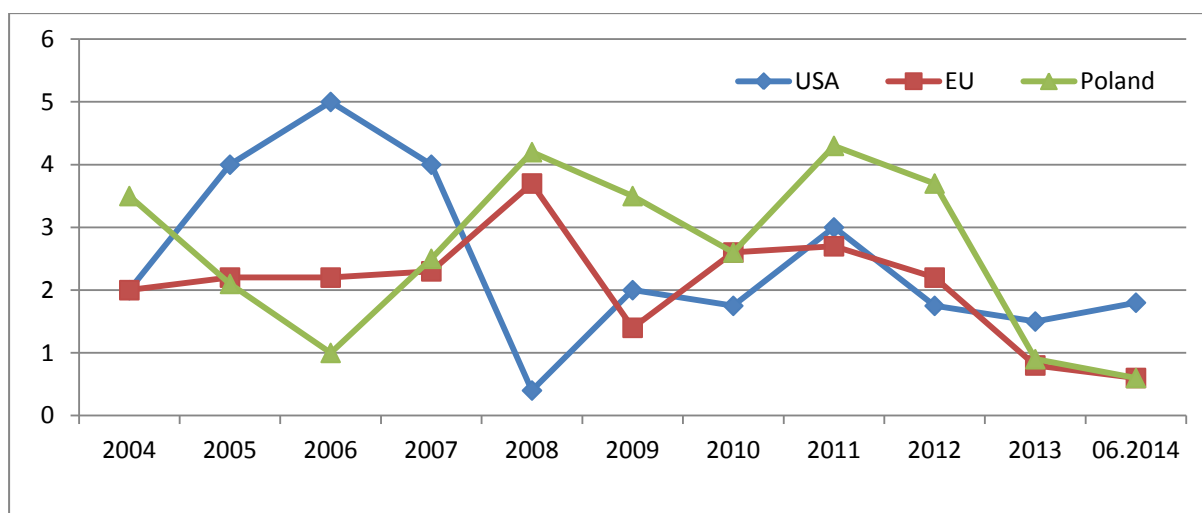


Figure 2: The inflation in percentage in 2004 - 06.2014 in the USA, the EU and Poland (own development based on the NBP, FED and ECB data, 2014)

Inflation in the United States is currently 1.8% and is the highest in comparison to the Euro Zone or Poland. It is 0.6% in the Euro Zone and Poland. This low inflation in all studied countries and Euro Zone below 5.0% should stimulate the economic growth, which also confirms that it should occur since 2014. The highest inflation might be observed during the crisis in 2008 in Poland and Euro Zone, while in the United States, the inflation was the lowest in this period (figure 2).

Gross Domestic Product shows that in the Euro Zone and Poland, with such low inflation, the economic growth is possible and other factors contribute to this growth. This is reflected in the GDP in June 2014 and estimated at the end of 2014 in the range of 2.5% - 3.7%. However, in the United States of America, with such low interest rates, and such low inflation, it is possible to notice that problems with the achievement of the positive GDP still occur. Currently, at the beginning of 2014, they were estimated at 1.0% (figure 3).

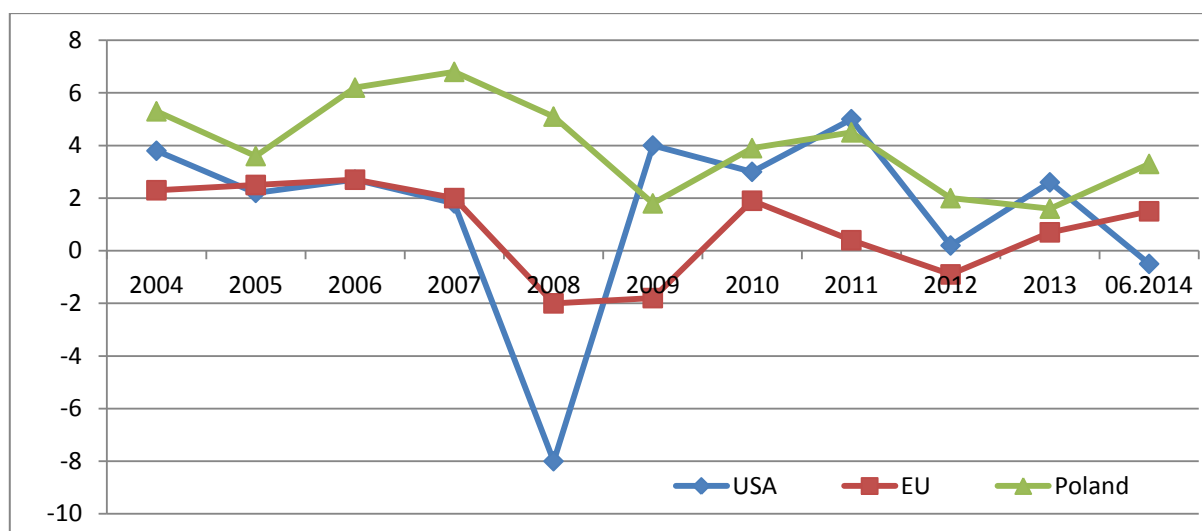


Figure 3: GDP in percentage in 2004 - 06.2014 in the USA, the EU and Poland (own development based on the NBP, FED and ECB data, 2014)

Unemployment in the United States of America is the lowest because the applied financial policy treats the citizens of the country more liberal (figure 4).

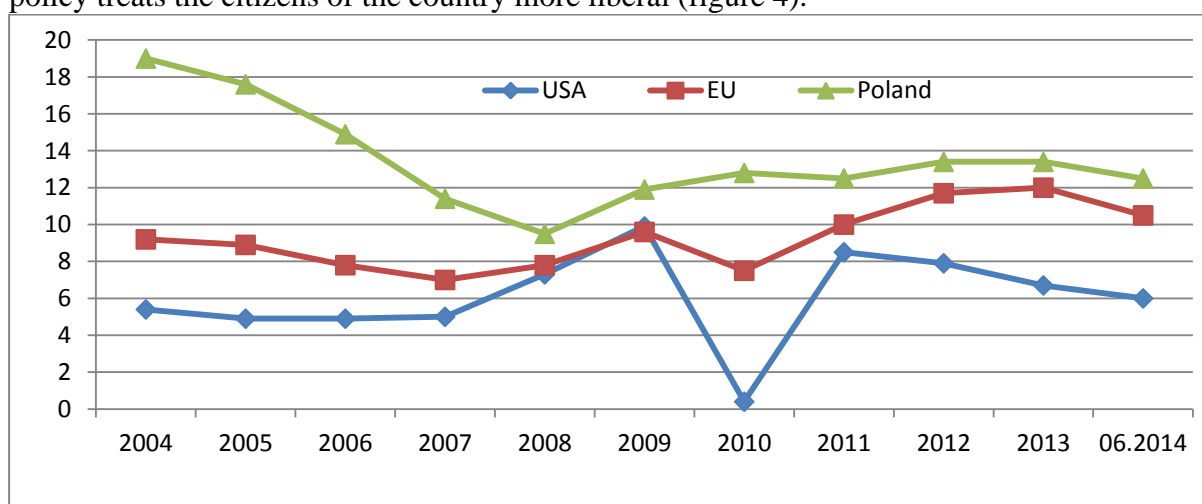


Figure 4: Unemployment in percentage in 2004 - 06.2014 in the USA, the EU and Poland (own development based on the NBP, FED and ECB data, 2014)

There is no financial belt-tightening here but printing money, so to speak. In this case, society loses less, but the country must control the budget. Consequently, unemployment here amounts to 6.0%, while in the Euro Zone more than 10.0%, and in Poland even 12.0%, which is twice the value in comparison to the USA. However, in the European Union, the emphasis is put on the expenditure and charging the society with the financial policy, that is noticeable because of limits of the expenditure, introduction of new taxes or increase of the existing ones. However, the final user or the society loses because of it.

## 7. CONCLUSION

In the research, the inflation, unemployment, interest rate and GDP indexes were used. The research covered the period from 2004 to 2014. Research shows that having regard to different approach systems to the monetary policy and the direct inflation target strategy in the United States of America as well as the Euro Zone, including Poland, it is possible to

notice the similarities in activities and results in a form of indexes, such as inflation or interest rates. The result of it is that each of the mentioned systems has the same objective to keep the price stability, which is very crucial in both American and European zone. However, analysing the GDP and unemployment indexes, significant differences can be seen. It refers to the somewhat different financial policy conducted in the United States of America, related to printing money and buying bonds, which shows that these are favourable conditions for the society and the operation does not lead to the stratification and depletion (low unemployment), while in the Euro Zone and Poland, there is the proverbial financial belt-tightening, reduction of expenditure, the increase and introduction of new taxes in order to stabilise the budget and its enlargement. According to the author, both applied financial policies are correct and efficient. It is impossible to introduce an ideal order in economics and finances because it will never be possible to eliminate unemployment or to reduce inflation to zero, or to keep interest rates at very low levels because the accumulation will not be profitable then. However, too high interest rates may pose a threat to the economic growth.

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## MIGRATION VERSUS RETRAINING AND PROFESIONAL CHANGE

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### **ABSTRACT**

*The present study aims to analyze labor migration from Romania starting with 2005 until present, the causes and effects of this phenomenon on short and medium term. The labor force mobility is a component of contemporary society and equally adjustment tool imbalances in labor markets. The dynamics of labor force mobility in Europe has been determined, basically, by the political events from 1989. After the falling of the communist regime in Romania, our country has faced the phenomenon of population migration and, implicitly, of labor work mobility. The migration is still happening nowadays, but the intensity of migration is no longer as strong as it was 10 years ago. Also, this study will present the measures taken on the national level to counteract the migration phenomenon in Romania. Have these measures failed to achieve their goal? The study will also analyze the problem of the unemployment insurance, especially the costs incurred in terms of retraining and professional reconversion of free movement of goods, persons and capital open with the accession of Romania to the EU's economic and social valences. The study conclusions propose a set of measures that each state should take to balance retraining costs of unemployment segment, a mutual fund in this regard, so that countries with lower economic potential should not be forced to bear much of these expenses.*

*Chapters:*

- 1. The analysis of the migration phenomenon from 2002 to present. Causes and effects*
- 2. Retraining programs of the Romanian labor force from 2005 to present*
- 3. Demand and offer on the labor force market in Romania compared to EU*
- 4. Conclusion*

**Keywords:** *labor force, migration, social protection system, unemployment insurance, unemployment retraining.*

### **1. INTRODUCTION**

Every month, an important fraction of the population moves from one economic activity to another. Some are laid off and must seek work, or they quit to take new jobs; young people leave school and look for work; workers leave the labor force because of disability or duties at home. The continual process of turnovers seems to be the characteristic of the modern economy that distinguishes it from those of other developed countries, where the experience of individual workers appears to be much more stable over time. Worker mobility plays a critical role in market economies. Because the job of any market is to promote voluntary exchange, society relies on the free movement of workers among employers to allocate labor in a way that achieves maximum satisfaction for both workers and consumers. The flow (either actual or threatened) of workers from lower-paying to higher-paying jobs, for example, is what forces firms that are paying below-equilibrium wages to increase their wage offers. The existence of compensating wage differentials, to take another example, also depends on the ability of informed workers to exercise choice among employment opportunities in the search for enhanced utility. Mobility, however, is costly. Workers must take time to seek out information on other jobs, and for at least some workers, job search is most efficient if they quit their current job first (to look for work in a new geographic area, for example). Migration

represents both an opportunity and a challenge. While well-managed migration may foster progress and welfare in origin- as well as destination countries, its mismanagement may put social cohesion, security and national sovereignty at risk. Sound policy-making on migration and related matters must be based on knowledge, but the construction of knowledge must in turn address policy priorities. Because migration is rapidly evolving, knowledge thereof needs to be constantly updated. Given that migration links each individual country with the rest of the world, its study requires innovative cooperation between scholars around the world.

## 2. CHAPTER I - The analysis of the migration phenomenon from 2002 to present.

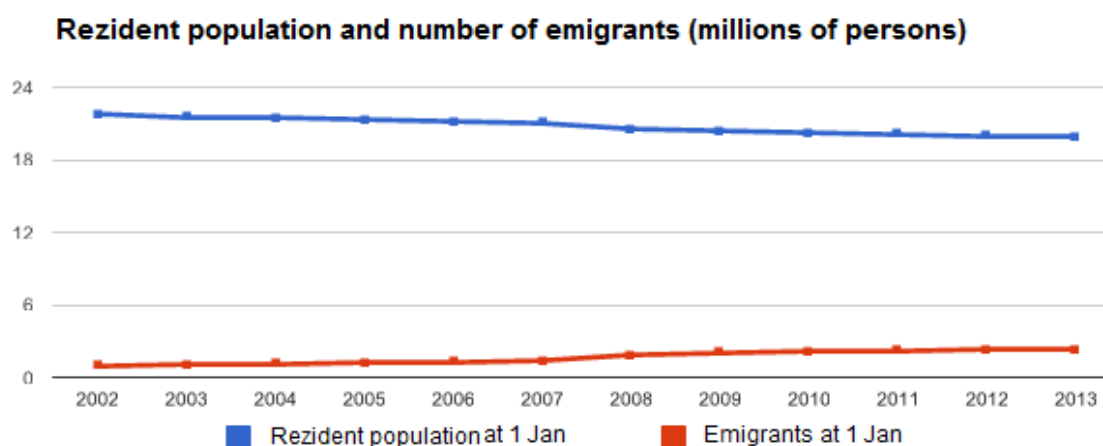
### Causes and effects

Migrants are presumably more concerned about turnover in the labor market and would be expected to pay much more attention to the rates at which hiring for new jobs is taking place, currently-employed workers are losing or leaving their jobs, and the like. Furthermore, these turnover variables are likely to be more sensitive indicators of differences in labor market conditions than is the unemployment rate. Finally, recent labor market research has found that the disaggregation of labor market information into component flows is helpful in understanding the unemployment experiences of different labor force subgroups at different points in time. Since migration is also influenced in an important way by anticipated accessions and separations of workers and jobs, similar gains in understanding might be expected by treating migration in terms of labor turnover. For all these reasons, the unemployment rate may not be the best guide to employment conditions in alternative labor markets from the point of view of potential labor force migrants, and measures of labor turnover would appear preferable. The types of turnover variables used in this study are the rates of new hires and layoffs in each labor market.

*Table 1: Resident population and number of emigrants (millions of persons)<sup>11</sup>*

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Resident population</b>	21,83	21,63	21,52	21,38	21,26	21,13	20,64	20,44	20,29	20,2	20,1	20,02
<b>Net value</b>	-	-0,2	-0,11	-0,14	-0,12	-0,13	-0,49	-0,2	-0,15	-0,09	-0,1	-0,08
<b>Emigrants</b>	1,06	1,15	1,18	1,27	1,35	1,44	1,92	2,14	2,23	2,29	2,34	2,34
<b>Net value</b>	-	0,09	0,03	0,09	0,08	0,09	0,48	0,22	0,09	0,06	0,05	0

*Table 2: Resident population and number of emigrants<sup>12</sup>*



<sup>11</sup> <http://www.insse.ro/cms/ro>

<sup>12</sup> <http://www.insse.ro/cms/ro>

We can easily observe from the table above that the number of population is decreasing and the main cause of this decrease is the external migration and the low rate of births registered year by year. Until 2005, the total number of emigrants was 1.27 million. In 2013, the number of emigrants reaches the total of 2.34 million of persons that chose to leave the country. The main cause of the massive migration phenomenon was Romania's accession to the European Union. The Romanian labor force was finally accepted with full rights among the other EU states. In 2007, the sociologists were sure that we will witness to a huge exodus of the Romanian labor force to EU well developed countries. These expectations weren't fully materialized for 2007 and the net value of the Romanian emigrants was 0.9 million of individuals (a very low value comparing with the specialists expectations). The explication is that the cause of peoples migration wasn't a political one, as it was in 1990, the cause was mainly economical. The economical safety of a well-paid job was the main reason of the Romanian labor force migration. The Romanian people that migrated in 2007 in the EU countries had never worked before into another country and they were at their first experience of this kind. Regarding the big number of migrants from 2008 – 0.48 million of people – we can observe that they were influenced by the success of their predecessors (in 2007). Not all the 0.48 migrants from 2008 found a job in the country where they migrated and we are talking here about the segment of people 16-64 years. Although for the well-developed EU countries 2008 was the starting year of the economic crisis, this fact wasn't an influencing factor for the migration from 2009 (0.22 million of people migrated in 2009). There is a big possibility that a largest share of migrants from 2009 to be represented by the children of people that migrated in 2007 and 2008. It can be easily observed from the statistic that starting with 2010 the migration tendency is decreasing, so the number of Romanian migrants to EU "adoptive" countries is as it follows: 0.09 million in 2010, 0.06 million in 2011 and 0.05 million of migrants in 2012. The decreasing of Romanian labor force migration is basically determined by the effects of the economic crisis on the "adoptive" countries, and I am referring here to their entrance in the recession, low productivity, layoffs, lack of new jobs on the market).

### **3. CHAPTER II - Retraining programs of the Romanian labor force from 2005 to present**

A number of measures have recently been undertaken to address the difficult labor market situation of young people. While the law on apprenticeship in the workplace was amended, the results of its implementation are rather modest and could be further improved by providing incentives to employers to hire apprentices. Moreover, the Romanian authorities financed programs dedicated to improving young people's entrepreneurial skills and helping young entrepreneurs to set up microenterprises. The government is currently preparing the National Plan for Youth Employment, which is a starting point for the introduction of the Youth Guarantee. The measures focus on improving the entrepreneurial culture among youth and support Small and Medium Enterprises, as well as on adapting education and vocational training to the labor market needs. To facilitate youth transition from school to labor market, the plan proposes various measures, such as: granting mobility bonuses and job subsidies, offering professional guidance and entrepreneurship counseling, business stimulation, supporting apprenticeships, higher graduates' traineeships, developing partnerships between schools, universities, companies and other organizations, and monitoring the labor market insertion of young graduates. The plan's effectiveness may benefit from improved coordination and partnership across policy fields for ensuring quality jobs, apprenticeships and traineeships. Better targeted employment measures and services to young people could help improving their labor market integration. The European Social Fund will remain the main source of funding for youth employment policies, in particular through the support of



the EU Youth Employment Initiative, which should deliver measures targeted to young people not in employment, education or training. Weak labor market participation continues to be a challenge for Romania. The insufficient institutional capacity and low quality and coverage of the national employment services, an inadequate level of basic skills acquired during compulsory education and a high early school leaving rate, the persistent mismatch between the qualifications offered by the education sector and the requirements of the labor market, difficult transitions from school to work, a low rate of participation in life-long learning and education for adults and the underinvestment by businesses in continuous vocational training are all likely to have a negative impact on employment. Poverty reduction continues to present another major challenge. People in Romania are the second most likely to be at risk of poverty or social exclusion and suffer severe material deprivation rates that are almost twice the EU average. Access to healthcare for disadvantaged people continues to be an issue, as does the quality of services provided. Mismatches between skills and labor market demands are characteristic of a large proportion of vocational and tertiary education, with the poor level of vocational skills being a specific challenge. There are a number of national programs that aim to improve vocational training but the overall vocational training system remains largely embryonic. Completing upper-secondary general or vocational education is a prerequisite for skilled employment and access to higher education. The employment rate of recent graduates has declined further during the economic crisis and is well below the EU average. This situation reflects, at least in part, a significant mismatch between the education offered by universities and the needs of the labor market. The links between higher education and business could be strengthened through the inclusion in the university curricula, in addition to core competencies, of critical skills needed for a knowledge-based economy, such as entrepreneurship as well as transversal skills like communication, marketing and management. For the 20-24 age groups, 29.4 % of tertiary graduates were unemployed in 2011 compared to 22.9 % of secondary graduates. Attracting more students from lower-income families, particularly those from rural areas, to higher education remains an important challenge. While the legal framework on adult training has been reformed, adult participation in lifelong learning remains stagnant at very low levels (1.6 % in 2011), significantly lower than the EU average (8.9 %). Participation rates are particularly low among low-skilled adults. According to CEDEFOP – *European Centre for the Development of Vocational Training* – skill forecasts, Romania will have a deficit of medium and high-level skills by 2020. Initiatives to strengthen the national qualification framework and to encourage the recognition of informal learning would facilitate labor mobility. Romania lacks an adequate skills forecasting system which could provide better guidance to individuals and to industry as to the future needs of the labor market but a lifelong learning strategy that has been long delayed is currently under preparation.<sup>13</sup> Some measures have been adopted to tackle low agricultural productivity and under employment in agriculture but further efforts are needed. The European Agricultural Fund for Rural Development continues to be the main EU source of funding to tackle these challenges. Using this fund, the government has taken measures aimed at diversifying of economic activities in rural areas such as by investing in non-agricultural activities and the tertiary sector. The fund is also used for the modernization of the agricultural sector, including through investment support to increase competitiveness of farms and food processing businesses and to help young farmers set up semi-subsistence holdings that offer the potential to develop into viable market-based farm businesses. However, underdeveloped services in rural areas and poor quality infrastructure are impeding

<sup>13</sup> COMMISSION STAFF WORKING DOCUMENT – Assessment of the 2013 national reform program and convergence program for ROMANIA, Brussels, 29.5.2013 SWD(2013) 373 final, p. 20-21 (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>)

other economic activities and the creation of alternative employment opportunities. Continued investments and upgrading of skills in agriculture as well as provision of new skills for ex-farmers are needed so as to turn semi-subsistence employment into steady-income employment, and to exploit agro-food sector's potential as a competitive and sustainable engine of growth.<sup>14</sup>

*Table 3: Persons who attend vocational training courses*<sup>15</sup>

	Persoane cuprinse în pregătire / Persons attending training						din care: s-au încadrat în activitate / of which: employed in activity					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
<b>Total</b>	<b>65031</b>	<b>64093</b>	<b>59703</b>	<b>44347</b>	<b>39987</b>	<b>54751</b>						
of which:												
Unemployed	55931	53651	50622	41306	37979	52788						
Persons who benefit of free vocational training services	5452	6007	5307	1346	825	1014						
Persons who do not benefit of free vocational training services	3648	4435	3774	1695	1183	949						
<b>Accomplished their training in organized courses:</b>	<b>54906</b>	<b>45731</b>	<b>44490</b>	<b>36586</b>	<b>30692</b>	<b>50906</b>	<b>24819</b>	<b>21891</b>	<b>8924</b>	<b>5894</b>	<b>6713</b>	<b>6713</b>
Unemployed who attended courses financed from unemployment insurance budget	33215	26601	25241	24910	23480	33713	10567	6387	4818	3369	5008	5008
Unemployed who attended courses organized from other funds	1630	1432	2258	911	1702	10210	277	244	236	74	141	141
Persons who benefit of free vocational training services financed from unemployment insurance budget	3359	3531	3504	659	413	608	-	-	-	-	-	-
Persons beginning the training in the previous year	13169	11942	11643	9035	4297	5776	13975	15260	3870	2451	1564	1564
At the request of interested natural persons	3280	2016	1513	960	601	506						
At the request of the economic operators	253	209	331	111	199	93						
<b>Under training (on going courses)</b>	<b>3508</b>	<b>12910</b>	<b>9912</b>	<b>4533</b>	<b>6391</b>	<b>9848</b>						
<b>Interrupted the training</b> <sup>1)</sup>	<b>5150</b>	<b>3508</b>	<b>3681</b>	<b>2301</b>	<b>1406</b>	<b>2180</b>						

The professional training and retraining courses play the adopting role for new retrained labor force on the labor force market and can influence the labor force migration to other EU member countries.

The influence of retraining courses can have two ways of action:

- The decrease of the migration phenomenon in Romania by retraining the labor force according to the employers offers on the market and has as result the immediate employing on the available jobs on the market;
- The increasing of the migration phenomenon – when the retraining of the labor force is not efficient and it's not adapting to the economy demand from a certain moment.

There is also another interpretation of this increasing – starting with Romania's accession to the European Union, the retraining programs available in our country were required by EU Commission without taking into account the existing profile of the labor offer generated by the Romanian employers or the possibility that through the harmonization of the job types on European level to create discrepancies between the Romanian activities and the ones from other countries from EU. For example, until 2007, a young farmer was able to create and manage his activity in agriculture by founding a family association (F.A.) without prior authorization. After 2007, the same young farmer, although he had the necessary knowledge obtained by knowledge transfer from his parents or other experienced persons, he is forced to

<sup>14</sup> COMMISSION STAFF WORKING DOCUMENT – Assessment of the 2013 national reform program and convergence program for ROMANIA, Brussels, 29.5.2013 SWD(2013) 373 final, p. 15-18 (<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>)

<sup>15</sup> <http://www.insse.ro/cms/ro/content/anuarul-statistic-2012>

take some training courses necessary for the self-employment process. There is a big question that occurs in this case. If the retraining courses taken by the young farmer included also classes about handling the farm machineries, classes about new planting and harvesting techniques and he didn't had in his farm this type of agricultural equipment, we have to ask ourselves: to whom were these courses useful? It's quite obvious that these courses don't have practicability on individual level, being necessary within each household for an appropriate technical capital. On a European level there are a lot of researches regarding the quality of the Romanian labor force and the fact that the majority of the Romanian emigrants looking for a job in EU states members are not well trained professionally and educationally. The professional training and retraining has a well determined role: reducing the bad training tendencies for the Romanian labor force with new knowledge in accordance with the labor force market tendencies from the entire EU space. As we can observe from the statistical table, 65.031 people were engaged in training programs in 2006 and 54.906 of these people were able to finish the training courses. We have an abandonment rate of 15, 57%. In the following years there is a decreasing of the number of people engaged in training courses, so in 2010 we have 39.987 people with an abandonment rate of 23, 24 %. Basically, for the 2006 – 2010 period of time, Romania is facing with a descending trend of people engaged in professional training courses directly correlated with an increasing trend of people that choose to emigrate from Romania. The explanation of this fact is given by the low number of employed people after they finished the training courses. If in 2006 the employment rate was 45, 2 %, in 2010 the employment rate was registered with 21, 87 % percentage. Although people were finishing training courses in order to find a new job, the labor force wasn't able to find his utility on the Romanian market and they preferred to migrate in other EU countries. I will analyze now some important statistic data, relevant for my study. In 2011, Romania had a number of 33.713 unemployed people that have been engaged in retraining programs financed by the state budget and a number of 10.210 people that have been engaged in retraining courses financed from other sources than the state budget, and I am referring here to EU funds. The employment rate of unemployed people that have taken retraining courses financed by the Romanian state budget was 14, 85%, a rate that is far exceeding the employment rate of those people who had taken retraining courses financed with European funding – 1, 38%. This statistic data demonstrate us the bad management of the European funding allocated to professional retraining programs in Romania. A bad management of the received funds and sometimes a fraud committing management can only lead to an image degradation of the Romanian labor force market. There is another case when the retraining programs financed by the European Union do not respond to the labor force market demand, but this is a hard to believe case.

#### **4. CHAPTER III - Demand and offer on the labor force market in Romania**

Further measures to promote longer working lives need to be undertaken, as older workers have a high potential for growth. An entrenched culture of early retirement, notably for women, as also indicated by the employment rates for older workers and the duration of working lives, which are among the lowest in the EU, is a key reason for low benefits. Going beyond the 2011 pension reform, Romania is currently rolling out a number of fiscal incentives for the employment of older workers but labor market measures to promote longer working lives are too few and too isolated to deliver the necessary change in working and retirement practices. A comprehensive active ageing strategy to facilitate longer working lives could enhance synergies between the different current initiatives and would complement efforts on lifelong learning, career guidance policies and good age management in work places.

Table 4: Registered unemployed and unemployment rate (end of year 2011)<sup>16</sup>

	Total șomeri / Total unemployed						Din care: femei / Of which: women					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
<b>Total</b>	<b>460495</b>	<b>367838</b>	<b>403441</b>	<b>709383</b>	<b>626960</b>	<b>461013</b>	<b>191449</b>	<b>166626</b>	<b>187228</b>	<b>302124</b>	<b>264401</b>	<b>203677</b>
<b>Recipients of unemployment benefit</b>	<b>166657</b>	<b>121389</b>	<b>143549</b>	<b>435497</b>	<b>329639</b>	<b>182538</b>	<b>74997</b>	<b>60513</b>	<b>73039</b>	<b>188457</b>	<b>142429</b>	<b>89604</b>
Primary, secondary, vocational	106112	74249	86056	262026	178728	83576	40821	31588	37599	93100	60638	33101
High school and post high school	49359	37781	44650	131855	110052	71017	27714	23210	27213	71697	57710	38622
University	11186	9359	12843	41616	40859	27945	6462	5715	8227	23660	24081	17881
<b>Recipients of support allowance</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Primary, secondary, vocational	-	-	-	-	-	-	-	-	-	-	-	-
High school and post high school	-	-	-	-	-	-	-	-	-	-	-	-
University	-	-	-	-	-	-	-	-	-	-	-	-
<b>Beneficiaries of compensatory payments according to G.P.O. no. 98/1999</b>	<b>176</b>	<b>121</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>51</b>	<b>32</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Primary, secondary, vocational	83	64	-	-	1	-	17	8	-	-	-	-
High school and post high school	79	48	-	-	-	-	30	21	-	-	-	-
University	14	9	-	-	-	-	4	3	-	-	-	-
<b>Unpaid unemployed</b>	<b>293662</b>	<b>246328</b>	<b>259892</b>	<b>273886</b>	<b>297320</b>	<b>278475</b>	<b>116401</b>	<b>106081</b>	<b>114189</b>	<b>113667</b>	<b>121972</b>	<b>114073</b>
Primary, secondary, vocational	263613	216027	225848	240969	262874	237689	100505	89325	94153	97407	103748	93817
High school and post high school	23759	23884	26169	24497	25536	30011	12289	12987	15087	11282	12891	13964
University	6290	6417	7875	8420	8910	10775	3607	3769	4949	4978	5333	6292
<b>Unemployment rate (%)</b>	<b>5,2</b>	<b>4,0</b>	<b>4,4</b>	<b>7,8</b>	<b>7,0</b>	<b>5,2</b>	<b>4,6</b>	<b>3,9</b>	<b>4,4</b>	<b>7,1</b>	<b>6,3</b>	<b>4,9</b>

The fourth table presented here highlights the connection between the active population and the number of emigrants that determines the unemployment rate.

1. In 2006 the unemployment rate was 5, 2 % with a total number of unemployed people of 460.495 from which 166.657 receive unemployment benefits. The rest of 293.662 doesn't receive the benefits and doesn't get any kind of material support from anybody. They are the perfect profile of possible emigrants looking for a job in other EU countries.
2. Due to the economic growth, in 2007 the unemployment rate decreased to 4,0 %, a decreasing of 1,2 percentage points in terms of a decrease of unemployed people with 20,12% compared with 2006.
3. When the economic crisis started in the EU, the Romanian unemployment rate was 4,4 % in 2008 due to an aggressive migration phenomenon. The fear of not having a job and stable revenue lead to a mass migration as we can see in the statistic of the first table (in 2008 Romania had 0, 48 millions of emigrants).
4. The degradation of the Romanian economy was also reflected by the 7,8 % unemployment rate for 2009 and the migration phenomenon is still happening, but not at the same big rates as in 2008.
5. Based on certain legal measures taken by the Romanian Government regarding the unemployment reducing, we can identify for 2011 a 5, 2 % unemployment rate – a 1,8 percentage points decreasing rate.

We are tempted to believe that the legal measures taken by our Government were pure economic, by helping the employers to create new jobs in the labor force market or by supporting the labor force by reducing the taxes for the revenue and encouraging the consumption. On a micro economic level, things were not quite the same. In 2011, based on the existence of a black market labor force acknowledged by the Romanian Government, they adopted a Governmental Decision no. 500/ 27.05.2011 and a Labor Code modification, which states severe conditions for the employers regarding punishments if they are encouraging the black market labor force. Thus, employing a person without legal forms is being punished with 11.000 Lei fine (around 2.500 Euro) and for more than five individuals employed without legal forms the punishment was the imprisonment because it was considered

<sup>16</sup> <http://www.insse.ro/cms/ro/content/anuarul-statistic-2012>

delinquency. According to the statistical data from the National Institute of Statistic, in 2011 the unemployment rate was 5.2 %, so we can consider that this measures that changed the Romanian Labor Code had the role to decrease the unemployment rate on a national level.

## 5. CONCLUSION

Education and training play a major role in the migration decisions of children and poor people but are easily overlooked. Indeed migration and education often go hand-in hand. Although migration can lead, in a few cases, to children dropping out of school, it is more common for migration to facilitate investment in education, either in the place of origin or of destination. The labor force migration phenomenon will continue to exist for a long time in Romania. As long as there will be discrepancies between the average salary on economy, bad conditions for the labor force, the low level of unemployment benefits in Romania compared to the ones existing in the EU well-developed countries the wish to emigrate of the Romanian labor force will always exist. Let's take for example, according to the Romanian National Institute of Statistic, the medium gross salary in 2010 was 1.024 Lei and in 2011 the gross salary was 1.044 Lei. In both cases, reported to the Lei/Euro exchange rate from 2010 (1 Euro= 4.20 Lei) and for 2011 (1 Euro= 4.23 Lei), we can conclude that the medium gross salary is not bigger than 250 Euro/month (2.905 Euro annual salary).<sup>17</sup> Having these conditions, who can still believe that, regardless the specialization or the retraining taken, this salary is enough for a decent living in Romania when the costs per month for food, energy and personal care are the same as they are in other EU countries. The low number of unemployed people reintegrated on the labor force market after they took a retraining course indicate us the fact that the courses that they followed does not correspond to the labor force market offer from the Romanian economy. This situation requires a new analysis of the labor force market offer and its correlation with new professional retraining courses. For the moment, in Romania there aren't enough professional schools. This is a cause of a very low number of applicants that are willing to take professional retraining courses. The preconception is that the person who follows such kind of classes is a person with a low intellectual level and that his professional future is compromised. The bad choosing of a proper high school is the cause of the low number of teenagers that are graduating the high school. These young people will become the new Romanian unemployed people due to the lack of a skill diploma and they will be unable to take university courses.

## LITERATURE

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<sup>17</sup> <http://www.insse.ro/cms/ro/content/anuarul-statistic-2012>

## PREDICTING INDICATORS AT SMALL SCALE USING ENTROPY ECONOMETRICS

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### ABSTRACT

*Statistical information for empirical analysis is very frequently available at a higher level of aggregation than it would be desired. Economic and social indicators by income classes, for example, are not always available for cross-country comparisons, and this problem aggravates when the geographical area of interest is sub-national (regions). In this paper we propose entropy-based methodologies that use all available information at each level of aggregation even if it is incomplete. This type of estimators have been studied before in the field of Ecological Inference. This research is related to a classical problem in geographical analysis called to modifiable area unit problem, where spatial data disaggregation may give inaccurate results due to spatial heterogeneity in the explanatory variables. An empirical application to Spanish data is also presented.*

**Keywords:** *Disaggregated regional data, distributionally weighted regression, generalized cross entropy.*

### 1. INTRODUCTION

One relatively frequent limitation for empirical economics is the lack of data available at an appropriate spatial scale. Although the target, in principle, would be to work at a smaller geographical scale, the non-availability of geographically disaggregated information usually limits the conclusions of the analysis at an aggregate level. There is a growing need to produce economic and social indicators at a disaggregate geographic scale and this kind of information has become a focus of recent academic enquiry and planning policy concerns. In this paper we propose entropy-based methodologies that use all available information at each level of aggregation even if it is incomplete. This type of estimators have been studied before in the field of Ecological Inference (EI) (see Judge et al., 2004; Fernandez-Vazquez et al., 2013, Peteers and Chasco, 2006; Bernardini Papalia, 2013, Bernardini Papalia et al., 2013). Generally speaking, EI is the process of estimating disaggregated information from data reported at aggregate level. The foundations of EI were introduced in the seminal works by Duncan and Davis (1953) and Goodman (1953), whose techniques were the most prominent in the field for more than forty years, although the work of King (1997) supposed a substantial development by proposing a methodology that reconciled and extended previously adopted approaches.

Within the set of techniques used for EI problems,<sup>18</sup> the estimation procedures based on entropy econometrics are gaining weight. Recent applications can be found in Judge et al. (2004), Peeters and Chasco (2006) or Bernardini Papalia (2010). This research is related to a classical problem in geographical analysis called to modifiable area unit problem, where spatial data disaggregation may give inaccurate results due to spatial heterogeneity in the explanatory variables. On this background, our proposal is to address within an IT framework

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<sup>18</sup> An extensive survey of recent contributions to the field can be found in King, Rosen and Tanner (2004).

the research question of how to exploit all the available aggregate information in order to improve the estimation of disaggregated economic/social indicators. In such a situation, we propose to approach the EI problem by using distributional data to estimate a weighted regression that will be estimated by Generalized Cross Entropy. The proposed estimators present the advantages to produce disaggregated indicators by balancing the costs and errors of the disaggregation for a study area of interest. The methods also account for spatial effects of data autocorrelation and heterogeneity. Autocorrelation is where certain variables included in the model as determinants are related in space, and hence violate traditional statistical independence assumptions, and heterogeneity is where the associations between variables change across space. The proposed estimators present the advantages to produce disaggregated indicators by balancing the costs and errors of the disaggregation for a study area of interest. The methods also account for spatial effects of data autocorrelation and heterogeneity. Autocorrelation is where certain variables included in the model as determinants are related in space, and hence violate traditional statistical independence assumptions, and heterogeneity is where the associations between variables change across space. The paper is divided into five further sections. The next section presents the estimation of disaggregated data in terms of a Distributionally Weighted Regression (DWR). The use of entropy econometrics in the context of DWR estimators that account for parameter heterogeneity is presented in section three. Section four evaluates the performance of this type of estimators by means of a numerical simulation under several scenarios. Section four presents an empirical application with Spanish data. The last section presents the main conclusions and possible further lines of research.

## 2. DISTRIBUTIONALLY WEIGHTED REGRESSION: AN OVERVIEW

Consider a geographical area that can be divided into  $i = 1, \dots, T$  smaller spatial sub-areas. Further to this geographical division, suppose that there is another dimension on which we would like to observe some variable or indicator. Consider that this second dimension is the classification into  $j = 1, \dots, K$  different classes (for example, population classified by income, age, etc.). The objective of the estimation problem would be to recover the values of the variable disaggregated by sub-areas and by classes, from aggregate information.<sup>19</sup>

We start by paying attention to some indicator of interest which is observable at the level of the  $i = 1, \dots, T$  geographical areas,  $y_{i\cdot}$ . In the context of a DWR,  $y_{i\cdot}$  is usually defined as a weighted sum of the latent indicators  $y_{ij}$ , i. e.:

$$y_{i\cdot} = \sum_{j=1}^K y_{ij} \theta_{ij}; \forall i = 1, \dots, T \quad (1)$$

where  $\theta_{ij}$  stands for the observable weights given to class  $j$  in area  $i$  defined as population shares:

$$\theta_{ij} = N_{ij}/N_{i\cdot} \quad (2)$$

Being  $N_{i\cdot} = \sum_{j=1}^K N_{ij}$ . In DWR, the relations between the (latent) disaggregated indicators  $y_{ij}$  and the (observable) aggregates  $y_{i\cdot}$  are only contained in equation (1). However, other possible relations between disaggregate and aggregate information could be observable as well.

<sup>19</sup> Judge et al. (2004) suggested the use of information-based estimation techniques for EI problems, although in a different context (the estimation of individual voters' behavior from aggregate election data).

Sometimes, aggregate indicators across the  $i$  geographical areas for each one of the  $j$  classes are available as well and they could be incorporated to the estimation process. Consider the aggregate indicator  $y_{.j}$  defined as:

$$y_{.j} = \sum_{i=1}^T y_{ij} \eta_{ij}; \forall j = 1, \dots, K \quad (3)$$

where  $\eta_{ij}$  stands for the observable weights given to the area  $i$  in class  $j$  defined now as population shares:

$$\eta_{ij} = N_{ij} / N_{.j} \quad (4)$$

where  $N_{.j} = \sum_{i=1}^T N_{ij}$ . Note that the additional information considered here are just the  $K$  aggregates defined in equation (3), since the weights  $\eta_{ij}$  are, by definition, observable if the  $\theta_{ij}$  weights are observable too.

Next, the values for the unobservable indicators  $y_{ij}$  are modeled as functions of  $H$  observable explanatory variables for the class  $j$  in each area  $i$  ( $\mathbf{X}_{ij}$ , which can include a specific intercept for each class  $j$  in area  $i$ ) and  $R$  aggregate covariates observable at the level of the  $i = 1, \dots, T$  geographical areas ( $\mathbf{Z}_i$ ). Assuming a linear relation between the indicator of interest and the covariates, but without loss of generality, this function is defined as:

$$y_{ij} = \sum_{h=1}^H \beta_{ij,h} x_{ij,h} + \sum_{r=1}^R \gamma_{i,r} z_{i,r} + \varepsilon_{ij}, \quad (5)$$

where  $\beta_{ij}$  and  $\gamma_i$  are the vectors with the parameters to be estimated and  $\varepsilon_{ij}$  is a residual.<sup>20</sup>

### 3. ENTROPY ECONOMETRICS

The estimation of DWR models like (5) can be based on the use of Entropy Econometrics (EE) for estimating linear models. Generally speaking, EE techniques are used to recover unknown probability distributions of random variables that can take  $M$  different known values. The estimate  $\tilde{\mathbf{p}}$  of the unknown probability distribution  $\mathbf{p}$  must be as similar as possible to an appropriate *a priori* distribution  $\mathbf{q}$ , constrained by the observed data. Specifically, the Cross-Entropy (CE) procedure estimates  $\tilde{\mathbf{p}}$  by minimizing the Kullback-Leibler divergence  $D(\mathbf{p} \parallel \mathbf{q})$  (Kullback, 1959):

$$\text{Min}_{\mathbf{p}} D(\mathbf{p} \parallel \mathbf{q}) = \sum_{m=1}^M p_m \ln \left( \frac{p_m}{q_m} \right) \quad (6)$$

The divergence  $D(\mathbf{p} \parallel \mathbf{q})$  measures the dissimilarity of the distributions  $\mathbf{p}$  and  $\mathbf{q}$ . This measure reaches its minimum (zero) when  $\mathbf{p}$  and  $\mathbf{q}$  are identical and its minimum is reached when no constraints are imposed. If some information (for example, observations on the variable) is available, each piece of information will lead to an update of the *a priori* distribution  $\mathbf{q}$ . When  $\mathbf{q}$  is set as uniform (a situation without *a priori* information to favour some of the results), minimizing () is equivalent to maximizing the Shannon's entropy:

$$\text{Max}_{\mathbf{p}} H(\mathbf{p}) = - \sum_{m=1}^M p_m \ln(p_m) \quad (7)$$

And the CE procedure is turned into a Maximum-Entropy (ME) problem.

The same underlying idea can be applied for estimating the parameters of general linear models, which leads us to the so-called Generalized Cross Entropy (GCE). The point of

<sup>20</sup> Note that in this specification the parameters are allowed to vary across the  $T$  areas and  $K$  classes.



departure consists in assuming the parameters to be estimated ( $\beta_{ij}$  and  $\gamma_i$ ) as discrete random variables that can take values considered in some supporting vectors with  $M \geq 2$  possible values (namely,  $b^\beta$  and  $b^\gamma$ ) with respective unknown probabilities  $p^\beta$  and  $p^\gamma$ . The  $\varepsilon_{ij}$  errors are treated in terms of a discrete random variable with unknown probability distribution as well. The uncertainty about the realizations of these errors is introduced in the problem by considering each element  $\varepsilon_{ij}$  as a discrete random variable with  $L \geq 2$  possible outcomes, contained in a supporting vector  $v' = \{v_1, \dots, 0, \dots, v_L\}$ . The unknown probability distribution for the support vectors will be denoted as  $w$ .

In general, the support spaces for parameters and errors are constructed as discrete, bounded entities, but it is possible to construct unbounded and continuous supports within the same framework (Golan, Judge and Miller, 1996). The support points in vectors  $b^\beta$  and  $b^\gamma$  for the parameters are chosen on the basis of some *a priori* information<sup>21</sup>. However, such knowledge is not always available, and symmetric parameter supports around zero are generally used in the presence of scarce prior information about each parameter. The set of possible values for the  $\varepsilon_{ij}$  errors in vector  $v'$  are usually assumed to be symmetric ( $-v_1 = v_L$ ) and centered on zero. With regard to the bounds in this support vector for the errors, the “three-sigma rule” can be used (Golan, 1996). This rule implies to set as upper and lower bounds  $\pm$  three times the standard deviation of the dependent variable in a regression model, which in this case is the observable indicator  $y_{i\cdot}$ . The *a priori* distribution for the parameters (namely,  $q^\beta$  and  $q^\gamma$ ) and the error ( $w^0$ ), without any additional prior information, can be naturally set as uniform and the GCE solution reduces to the Generalized Maximum Entropy (GME) one.

Under a GCE framework, the full distribution of each parameter and each error (within their support spaces) is simultaneously estimated under minimal distributional assumptions, by means of the following program:

$$\begin{aligned} \min_{p^\beta, p^\gamma, w} D(p^\beta, p^\gamma, w \| q^\beta, q^\gamma, w^0) = & \sum_{h=1}^H \sum_{i=1}^T \sum_{j=1}^K \sum_{m=1}^M p_{ijhm}^\beta \ln \left( \frac{p_{ijhm}^\beta}{q_{ijhm}^\beta} \right) + \\ & \sum_{r=1}^R \sum_{i=1}^T \sum_{j=1}^K \sum_{m=1}^M p_{irm}^\gamma \ln \left( \frac{p_{irm}^\gamma}{q_{irm}^\gamma} \right) + \sum_{i=1}^T \sum_{j=1}^K \sum_{l=1}^L w_{ijl} \ln \left( \frac{w_{ijl}}{w_{ijl}^0} \right) \end{aligned} \quad (8)$$

Subject to:

$$\begin{aligned} \sum_{m=1}^M p_{ijhm}^\beta = \sum_{m=1}^M p_{irm}^\gamma = \sum_{l=1}^L w_{ijl} = 1; \\ \forall i = 1, \dots, T; \forall j = 1, \dots, K; \forall h = 1, \dots, H; \forall r = 1, \dots, R \end{aligned} \quad (9)$$

$$y_{i\cdot} = \sum_{j=1}^K \left[ \sum_{h=1}^H \sum_{m=1}^M p_{ijhm}^\beta b_{ijhm}^\beta x_{ij,h} + \sum_{r=1}^R \sum_{m=1}^M p_{irm}^\gamma b_{irm}^\gamma z_{i,r} + \sum_{l=1}^L w_{ijl} v_l \right] \theta_{ij}; \quad \forall i = 1, \dots, T \quad (10)$$

In the case that only the aggregate indicators considered in (2) are available, the sample information is contained in (10).

If, additionally, aggregate information across the  $T$  areas for each one of the  $K$  classes is available as in (3), the following additional constrain can be included in the GCE program:

<sup>21</sup> The choice of  $M$ , and the choice of continuous support spaces and different priors, is discussed in Golan, Judge and Miller, (1996).

$$y_{.j} = \sum_{i=1}^T \left[ \sum_{h=1}^H \sum_{m=1}^M p_{ijhm}^{\beta} b_{ijhm}^{\beta} x_{ij,h} + \sum_{r=1}^R \sum_{m=1}^M p_{irm}^{\gamma} b_{irm}^{\gamma} z_{i,r} + \sum_{l=1}^L w_{ijl} v_l \right] \eta_{ij}; \quad (11)$$

$$\forall j = 1, \dots, K$$

Once estimated the coefficients in (5), the estimates of the indicators for each class  $j$  in each area  $i$  will be given by:

$$\hat{y}_{ij} = \sum_{h=1}^H \hat{\beta}_{ij,h} x_{ij,h} + \sum_{r=1}^R \hat{\gamma}_{i,r} z_{i,r} + \hat{\epsilon}_{ij} \quad (12)$$

The optimal solutions depend on the prior out-of-sample information (the *a priori* distributions and supporting vectors), the data in (10) and (11) and the normalization constrains in (9), which should be found by means of numerical optimization techniques.

#### 4. A NUMERICAL SIMULATION

In this section we try to find some empirical evidences, by means of some numerical simulations, on the comparative performance of the DWR estimator to recover a set of  $(T \times K)$  disaggregated latent indicators. The point of departure of the experiment is the unknown elements of a target matrix, which are drawn from a log-normal distribution with mean 10 and standard deviation 2. The choice of a log-normal to simulate the target variable is motivated because economic variables like income or productivity often follow this distribution. Once these values are generated, they are divided by the (observable) corresponding population totals  $N_{ij}$  to obtain the  $y_{ij}$  indicators.

As usual in DWR estimation, regressors to explain the  $y_{ij}$  indicators should be available. In order to keep our simulation as simple as possible, we first consider that only one disaggregated regressor  $x_{ij}$  is assumed observable. The disaggregated regressor  $x_{ij}$  contains some imperfect information on the target indicators. To reflect this idea, in the experiment the elements of the  $(T \times K)$  matrix  $\mathbf{X}$  have been generated in the following way:

$$x_{ij} = y_{ij} + u_{ij}; \quad \forall i = 1, \dots, T; \quad \forall j = 1, \dots, K \quad (13)$$

Where  $\mathbf{u} \sim N(0, \sigma y_{ij})$  and  $\sigma$  is a scalar that adjusts the variability of this noise making it proportional to the respective element  $y_{ij}$  and it has been set to 0.1. In this context, the latent indicators will be modeled by means of a simple linear regression like:

$$y_{ij} = \alpha_{ij} + \beta_{ij} x_{ij} + \epsilon_{ij} \quad (14)$$

Being  $\alpha_{ij}$  an area and class-specific intercept. Additionally, an aggregate regressor  $z_i$  is incorporated into the model, being the values of this aggregate indicator generated in a similar way, where:

$$z_i = y_i. + \epsilon_i; \quad \forall i = 1, \dots, T \quad (15)$$

Where  $\epsilon \sim N(0, \sigma y_i.)$  and  $\sigma$  is the same scalar previously defined. In such a case, the DWR model to estimate is:

$$y_{ij} = \alpha_{ij} + \beta_{ij} x_{ij} + \gamma_i z_i + \epsilon_{ij} \quad (16)$$

The parameters in (14) and (16) will be estimated by the GCE program described in equations (8) to (11) with equal supporting vectors for all them  $(-100, 0, 100)$  with  $M = 3$ . For the error terms, again the support with  $L = 3$  values has been chosen applying the three-sigma rule with uniform *a priori* weights. The *a priori* probability distributions taken for the coefficients are uniform as well, so the CGE estimation is equivalent to a GME program.

Two different scenarios with various levels of available aggregate information will be assumed: i) the usual situation where only aggregates for each one the  $i$  areas  $y_i. = \sum_{j=1}^K y_{ij} \theta_{ij}$  are known, and ii) an alternative scenario where, additionally, aggregates for each  $j$  class  $y_{.j} = \sum_{i=1}^T y_{ij} \eta_{ij}$  are observable as well.

In the experiment we evaluate the performance of the DWR modeling with and without the additional constrain considered in (11) under different scenarios. Six different dimensions of the target matrix have been considered in the experiment. The six types of matrices reflect several situations with different number of regions ( $T$ ) and classes ( $K$ ). For example, in matrices 1, 2 and 3, the number of geographical areas is small ( $T = 20$ ), whereas in cases 4, 5 and 6 more geographical areas are considered ( $T = 200$ ). In each one of these simulated scenarios several possibilities for the number of classes ( $K$ ) have been considered: namely 2, 4 and 8. In each one of the twelve resulting scenarios 1,000 trials have been carried out and the average of two measures of error have been computed: the root of the mean squared error (RMSE), and the weighted absolute percentage error (WAPE). Table 1 summarizes the results.

*Table 1: Results of the numerical experiments (1,000 replications)*

		Matrix 1 (20 × 2)		Matrix 2 (20 × 4)		Matrix 3 (20 × 8)		Matrix 4 (200 × 2)		Matrix 5 (200 × 4)		Matrix 6 (200 × 8)	
		WAPE	RMSE	WAPE	RMSE	WAPE	RMSE	WAPE	RMSE	WAPE	RMSE	WAPE	RMSE
One regressor	DWR	10.46	120.24	14.36	123.85	23.77	209.69	8.06	75.29	11.81	116.52	21.93	209.65
	DWR with additional information	6.22	55.35	9.83	75.85	16.59	123.68	7.74	75.02	11.32	103.01	21.26	203.32
Two regressors	DWR	5.18	47.93	12.64	117.13	22.74	205.67	6.73	66.65	9.84	96.11	21.38	207.32
	DWR with additional information	5.12	44.28	8.68	74.39	15.75	120.33	6.73	66.62	9.19	83.76	20.73	200.86

## 5. EMPIRICAL APPLICATION

Complementarily to the numerical simulation carried out in the previous section, the two approaches are tested in an empirical application using a data set for Spain. Spain is administratively divided into 50 provinces for which official data on gross value added by industry (classified into 5 different sectors) are regularly published in the Regional Accounts by the National Statistical Institute (INE). However, the provincial and sectoral aggregates are available much sooner than the disaggregated information, whereas the disaggregated data by industry and province are made public with a time lag of several years. In this context, it would be interesting the application of an estimation procedure that produce disaggregated values quicker than the official ones. The empirical application will be conducted taking as reference year 2005. The target variable is the distribution of GVA per unit of labor by province and industry (now we aim at a latent indicator-target instead of a level-target). The industry aggregates are assumed as observable, as well as additional information required to define the weights  $\theta_{ij}$ . Specifically, for weights we use that data on labor units (thousands of workers) by industry and province in year 2005. This is a realistic situation, given that the Spanish Labor Force Survey (EPA) publishes estimates of labor by industry and province with quarterly and annual frequency. With all this information the DWR equation has been estimated by means of GME. Tables 2 and 3 compare the results with the actual values by obtaining the absolute percentage error. Table 2 reports the average absolute deviations in percentage over the aggregate GVA by province, whereas Table 3 shows the same average deviation measures in relative terms to the industry aggregates.<sup>22</sup> As a first indicator of the

<sup>22</sup> The results are weighted averages where each province and industry is weighted by their number of workers.

accuracy of the DWR technique, the average absolute error in the estimation of value added per worker is approximately 16%. The general trend that can be observed is that the errors obtained are concentrated in the agriculture and energy activities, and they diminish for the industries with a major share in the economic structure in Spain (manufacturing and services). In terms of variability in the error of the DWR approach across sectors, the biggest provinces in terms of population presented deviation that are above the average error (with the exception of Madrid and Valencia).

*Table2: Absolute percentage errors by province (real GDP vs. Estimates)*

Province	GCE	DWR	Province	GCE	DWR
Albacete	9.33	14.26	Jaén	5.47	9.19
Alicante	2.59	11.90	León	2.74	16.65
Almería	11.90	12.06	Lerida	4.18	12.43
Álava	6.44	8.26	Lugo	11.70	13.45
Asturias	0.78	13.30	Madrid	1.08	12.60
Ávila	21.68	13.93	Málaga	11.11	12.44
Badajoz	12.91	12.42	Murcia	1.59	15.51
Bal. Islands	10.00	14.02	Navarra	7.46	10.75
Barcelona	2.20	12.18	Orense	8.82	10.44
Vizcaya	2.74	11.99	Palencia	11.21	12.06
Burgos	9.84	7.90	Las Palmas	10.34	12.65
Cáceres	19.37	10.74	Pontevedra	1.87	11.93
Cádiz	2.59	14.30	Rioja	6.21	17.31
Cantabria	2.42	10.40	Salamanca	8.10	10.90
Castellón	3.60	11.34	Tenerife	9.53	11.05
Ciudad Real	12.27	15.47	Segovia	15.59	15.71
Córdoba	3.60	8.37	Sevilla	2.62	13.59
Coruña	1.66	11.48	Soria	27.56	11.27
Cuenca	17.00	13.02	Tarragona	5.38	10.05
Gipuzcoa	10.95	7.95	Teruel	19.71	9.08
Gerona	4.48	12.00	Toledo	6.79	15.05
Granada	12.19	14.07	Valencia	0.76	13.50
Guadalajara	14.85	9.74	Valladolid	5.79	11.67
Huelva	4.43	17.66	Zamora	19.97	14.54
Huesca	8.52	12.25	Zaragoza	3.78	12.59
Average percentage abs. error DWR = 12.35					

*Table3: Absolute percentage errors by industry (real GVA vs. Estimates)*

Industry	DWR
Energy and manufacturing	8.17
Construction	17.14
Commerce, trade and transport and communic. services	6.61
Financial, insurance and real estate services	15.12
Non-market services	14.71
Average percentage abs. error DWR = 12.35	

## 6. FINAL REMARKS

In this paper a distributionally weighted regressions (DWR) Entropy-based approach to Ecological Inference is formulated in presence of spatial heterogeneity throughout simulation experiments and a real data application. If compared to the traditional EI problem formulations, our approach is remarkably different and presents two distinctive differences in terms of model formulation: (i) spatial heterogeneity of parameters and (ii) data constraints for available aggregate information are introduced. The performance of the proposed approach is tested by means of numerical simulations under several scenarios. We studied the effect of the informative contribution contained in the “non target” variable to predict the sub-area values (or sub-area indicators) for target variables. We also evaluated the performance of the formulation in presence of different number of classes. The results observed in the simulation showed the goods results of the DWR estimator especially in small samples cases and when

additional information at aggregate level is included. The application of the proposed approach is illustrated by means of a real-world example with data of Spain, where the target is the estimation of GVA per unit of labor by province and industry in 2005. The average deviations are similar to those obtained in the numerical simulation and, the DWR equation considered reduces the variability of the deviations across provinces and industries. In this study we have considered the case of continuous target variables. Further work should be done to explore the performance of the competing methods: (i) within a panel data framework; (ii) by improving model specification when the covariates alone do not succeed in accounting for the spatial heterogeneity; (iii) by exploring new IT- based composite estimators. Future research is also needed to evaluate the predictive accuracy of the proposed approaches by the use of discrete target variables and count data.

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## **NEW WAY OF BEHAVING IN INTERDEPENDENT SOCIETIES: INTERNET CONTRIBUTION IN FOSTERING CONSUMER'S WILLINGNESS TO PAY SOLIDARITY-BASED GOODS**

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### **ABSTRACT**

*This paper aims at demonstrating that Worldwide growth, International Trade has led to great hopes for the sustainable improvement of well-being and living conditions. But it has a cost, while extreme long-term poverty is on the wane, there is a parallel dangerous increase in the different forms of inequality that threaten both the sustainability of our interdependent societies and a specific region as Sub-Saharan Africa... Several initiatives have emerged worldwide and aimed at tackling structural inequalities. For instance, solidarity-based economy challenges the major social and/or environmental problems of today's world by seeking innovative solutions at the economic, political levels... In daily life, Solidarity-based economy leans on the consumers' willingness to pay a premium, with respect to the "social quality" of produced goods. The paper highlights the major contributions of Internet in fostering the "prospective responsibility" and "individualized collective action" within our interdependent societies and globalized economies. It shows that specific characteristics of this Technology help in developing consumers' prospective responsibility which is at the heart of a new way of behaving... Those contributions will be illustrated with the study of Fair Trade: "a new trade partnership considering equity and solidarity towards marginal and vulnerable actors", which is the best known of the emerging initiatives that constitute the solidarity-based economy and addresses social justice issue.*

**Keywords:** *Consumer's responsibility, Individualized collective action, Internet, Inequality Poverty, Solidarity-based economy, Willingness to pay*

### **1. INTRODUCTION**

The particularity of the world of the twenty-first century is the realization that country, whatever it is, can hardly meet the economic and social challenges alone. A State can of course act through appropriate public policies. But once national and regional, challenges have now acquired a global dimension. The 2008 crisis and its consequences lengthen the list of socio-economic facts that demonstrate the growing intensity of the interdependence of our societies. Financial and economic globalization, information and communication technologies (ICT) are working to improve an irreversible interconnectedness of the world, in several levels. In this context, the objective of this paper is twofold. We show, first, that this changing world brings to question the scope of social justice. Indeed, if the last 30 years seem to attest to the humanity victory over poverty, this decade saw the publication of studies alerting us about the explosion of intra- and inter- inequalities and the danger associated with widening structural inequalities in the sense that they pose a threat in the short and medium term for the living conditions of some populations of the world. Secondly, we will focus on the contributions and limitations of ICT, in both, the changing scope of social justice and in behavioral changes that it brought about.

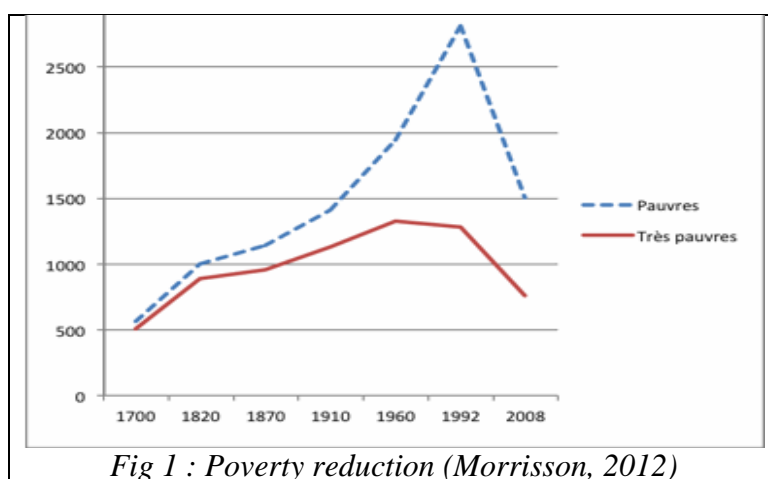
As an illustration, we will focus on the renewed interest in responsible consumption, including consumption of goods having a "social solidarity quality" since the late 1990s.

## 2. CHAPTER 1: DOES STATE REMAIN THE SCOPE OF SOCIAL JUSTICE?

Globalization, global growth have resulted in the emergence of new actors on the international scene. This has raised many hopes for the sustainable improvement of our living conditions, more generally, welfare for all of humanity, but especially for millions of us who were previously private. On the social level, while long term extreme poverty is on the wane, there is in parallel a widening of structural inequalities that enhances the vulnerability towards risks related to an interconnected world. Indeed, some people particularly in sub-Saharan Africa do not benefit from globalization. Worse, they are most vulnerable. When millions of people face risks associated with global operations, whilst the 1% richest account for increasingly global wealth, social justice scope represents a major challenge of the twenty-first century.

### 2.1. Victory of humanity over poverty

At a global level, great hopes for improved living conditions in the IIIrd Millennium are based in particular on poverty reduction. Morrisson (2012) suggests a victory of humanity on this great scourge and stresses that for the first time in three centuries, the number of poor and very poor decreases and it is not a marginal change. Between 1992 and 2008, approximately 520 million people get out of extreme poverty, 650 million of poverty (Fig 1).



On the one side, as far as poverty reduction in a globalized world is concerned, the benefits of a participation in world trade are ever put forward. The largest multilateral provider of Aid for trade, the World Bank Group, has announced its \$15 billion annual funding, since 2002. The objective is to contribute to the Millennium Development Goals achievement by continuing to expand market access to developing countries, by supporting the establishment of a predictable and rules-based trading system (World Bank, 2013). The Commission on Growth and Development led by the World Bank Group stresses that all developing countries that have experienced sustained periods of high economic growth have prospered by being open to global markets. The trading system is at the heart of dynamic research, initiatives and funding. More than ever, Trade is seen as a key way to eradicate poverty, able to help countries to benefit from globalization.

On the other side, the intensity of the interdependence of the various parts of the world has changed the discourse and the way of seeing growth. On paper, the idea that has become a



public-private policy of a shared and inclusive prosperity is certainly a pillar of the international agenda. But as Piketty's theses (2013, cited by Chavagneux, 2014) point out: a phenomenon that has marked the savage capitalism of the late nineteenth century can hinder this global program. He talked about the explosion of inequalities in both developed and developing countries.

## 2.2. Inequalities are not the past, poverty is African ...

Morrisson (*ibid.*) presents an overview of three centuries of global inequality where he detected a strong tendency of the eighteenth to the twentieth: the share of the poorest 80% continues to decline, the 20% richest to increase. By joining Piketty (*ibid.*), he notes that the nineteenth century saw a rapid increase of the Gini and Theil coefficients. And as for poverty issue, studies show a sustained decrease of the global income inequality in the late 1990s (Fig. 2 and 3).

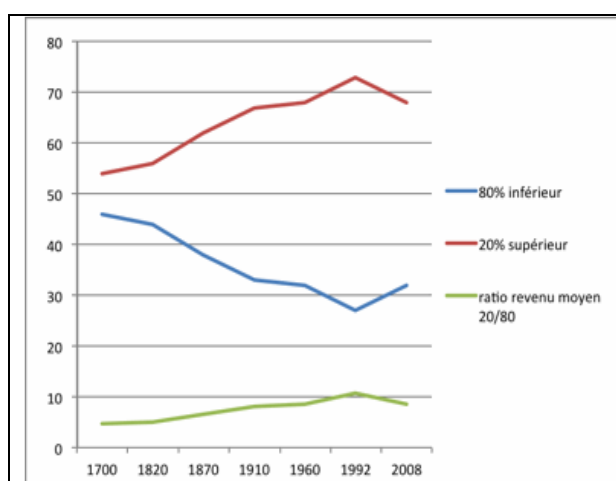


Fig 2 : Share of the poorest 80% and of the richest 20%, (Morrisson, 2012)

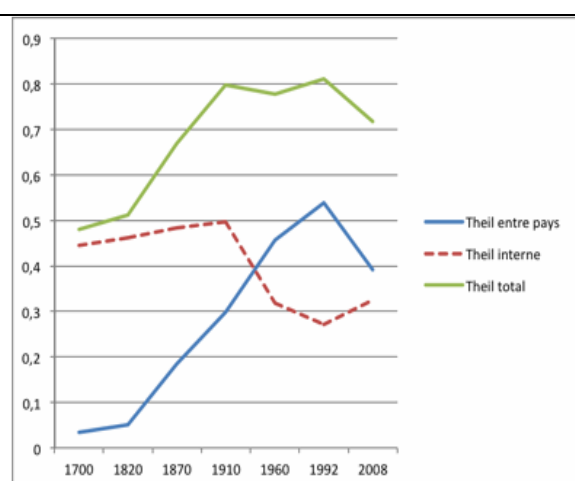
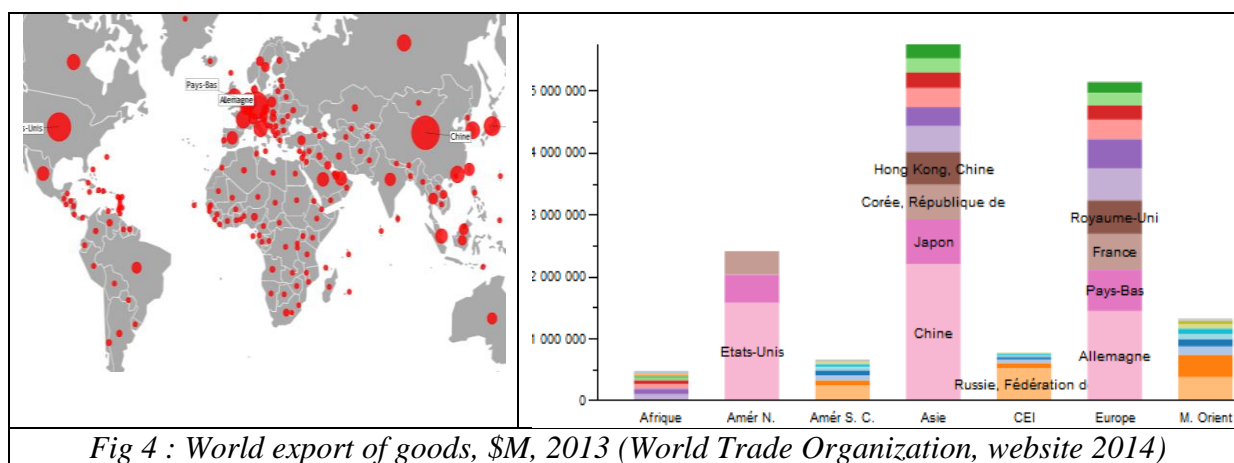


Fig 3 : Intra- and Inter-inequality between countries, 1700 to 2008 (Morrisson, 2012)

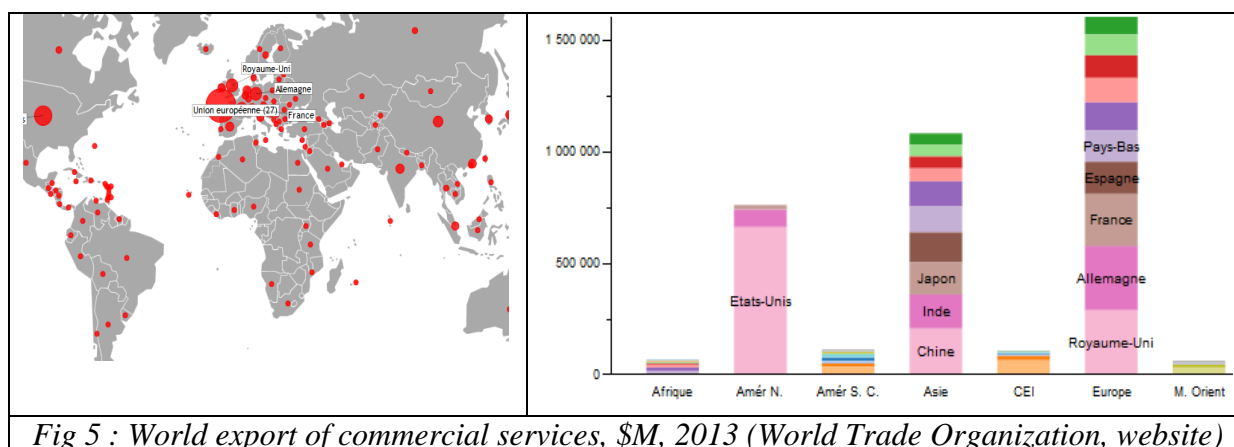
The trend observed since the eighteenth helps to appreciate – just as for poverty issue – the sustained decrease of the global inequality in the late 1990s. Several studies outline that its primary cause is the decrease of income inequality between countries, which actually is a phenomenon commonly related to globalization benefiting mainly emerging countries and China. Also for its forward-looking 2030, Morrison concludes, for example, that the global inequality trend will depend especially on the two largest countries, i.e., China and India, and also on African countries. Indeed, since the early 2000s several red flags were raised about the challenges and even dangers that Africa has to face. Given the African economy, a strong global inequality does not benefit this continent as it is the main actor of the poorest 20%. Despite a significant decrease of inequality in the twenty-first century, the world remains highly unequal with a Gini coefficient of 0.7. Milanovic (2012) states that it is much higher than the coefficient of the most unequal countries like Brazil where adverse effects on poverty were demonstrated. Also, whilst we can observe the victory of humanity over poverty and inequality, it is known that it has cooled off for a single continent: Africa! (Especially Sub-Saharan excluding South Africa which is ranked within emerging countries).

As far as International trade and its benefits mentioned above are concerned, with a realization of 599,500 million U.S. dollars on a total declared value of 18,784,000 million U.S. dollars, African exports of goods accounted for only 3.2% . More than half of these exports (55%) are carried by four countries, Nigeria, South Africa, Angola and Algeria,

known for their mining sectors. Countries in sub-Saharan Africa excluding South Africa, Ivory Coast and Equatorial Guinea are making less than 5% of African exports and **less than 0.2%** of the world export of goods (Fig 4).



ICT extraordinary development facilitates and boosts extraordinary progress especially in world trade of services. But again, sub-Saharan Africa is not best placed. With an embodiment of 90,530 million U.S. dollars on a total declared value of 4,623,710 million U.S. dollars, the African export of commercial services represents only 1.9%. Nearly half of this export is performed by three countries, Egypt, South Africa and Morocco. Countries in sub-Saharan Africa excluding South Africa are making less than 15% of African exports and **less than 0.3%** of world exports of commercial services.



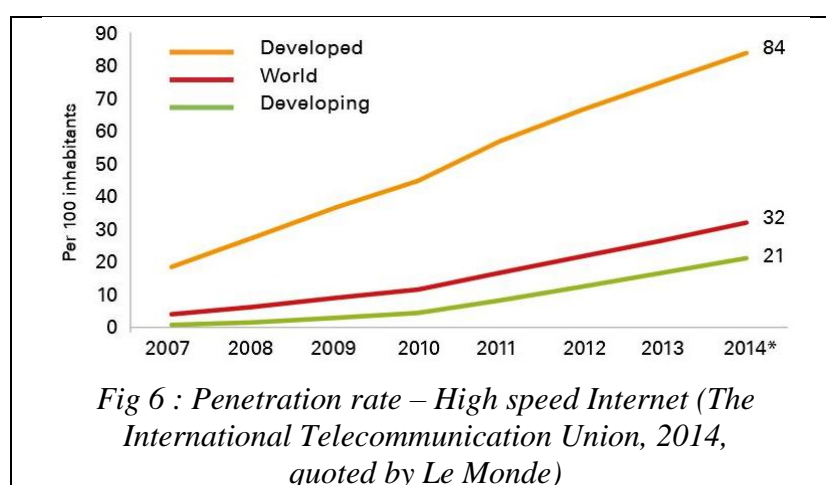
Finally, considering income inequality mentioned above, it may be recalled that agricultural sector remains dominant in Africa, and farmer's average income is significantly below the poverty line. As an illustration, for a symbolic culture as cocoa, the European Voice Network (quoted by Alet, 2013) shows that income would have raised to 341% in Ghana, or 1608% in Côte d'Ivoire to reach the poverty line of two dollars per day. Impoverishment does not belong to the past and nourishes the vulnerability of African farmers, classified among the poorest in the village that the world has become. IFAD<sup>23</sup> points out that sub-Saharan Africa (especially East and South), merely unreached by globalization positive effects, is an area that

<sup>23</sup> IFAD referenced by [www.ruralpovertyportal.org](http://www.ruralpovertyportal.org).

has one of the world's highest concentrations of poor people. Within this context, as far as Social justice is concerned, the growing importance of services in wealth creation and the interdependence of our societies lead us to study ICT, in at least two ways.

### 2.3. The special status of Information and communication technology

Nowadays, inequality in ICT access and exploitation has become a concern of the international community. This technological challenge that has an important economic and social issue is driven by Development organizations. Since the beginning of the 2000s, the United Nations Development Programme (UNDP) states that throughout history, technology has been a powerful tool for human development and poverty reduction. Hence, improving ICT access in one of the poorest regions in the world is among the United Nations agenda. Global programs as *Connecting Africa* have involved the United Nations, financial institutions, governments, businesses and citizens. And it seems working! In 2012, the World Bank and its partners noted that Africa has about 650 million subscribers, in front of the European Union and the United States performance. More generally, the UNDP reported that poor countries have recorded nearly 56% of mobile phone subscriptions, with a growth rate well above 35% in most developing regions. Hence, regional inequalities in terms of penetration rate have also significantly decreased. But the gap remains especially important for High speed Internet (Fig. 6). Penetration rate of mobile broadband in Africa is about 19%, far behind Europe (64%) and the U.S. (59%). The global penetration rate is estimated at 32% and 90% of non-connected people live in developing countries.



Much remains to be done, particularly in terms of ICT exploitation. Because, if the success seems to be revealed and quantified by the number of subscription in developing countries; in developed ones, although the mechanisms are not yet very clear, ICTs are quoted at the same level as economic and financial globalization as responsible of the long-awaited and qualified extraordinary growth in the 1990s.

However, in the short run, hope revives due to the behavior observed vis-à-vis ICT. In the poorest regions, the craze is real. ICT local appropriation affects several generations. Mobile as a tool for communication tends to replace computers. Private operators take into account the low banking system and customize their offers and services (Ledjou and Randrianasolo, 2012). In some countries, relationship with productivity is even mentioned, highlighting a better information flow, a travel time reduction and mobile broadband effects. More generally, recent worldwide events show that ICT, namely, Internet and social networks, are associated with great progress in democracy and freedom. Not only, it could be an effective

support of the exercise of any individual's freedom of expression wherever he lives, but it has facilitated citizens' movements, as the world has observed during the "Arab Spring". Fogel and *al.* (2013) state that with Internet, classical references of social life are shifting. A connected person can widely enlarge his actions' scope: a social network user can get thousands of friends or fans, followers of a simple microblogging can reach over million... Besides, addressing the multiple challenges of the contemporary world, ICT has also greatly contributed to the awareness of Our common destiny. With the interdependence of our societies, improving the living conditions of the most vulnerable people, victims of structural inequalities and poverty is not anymore a local or even national issue but a global one.

Relaying Milanovic's works (*supra*) Duru-Bellat (*ibid.*) also raises the Social justice scope issue. She presents two main streams, the first one, defending national scope, the second a global one as a relevant perimeter of solidarity. One has to note that without waiting for what the author (quoted by Martinache, 2014) calls "the creation of a hypothetical global State", solidarity-based citizen actions have emerged around the world. And again, the Internet has played and will play a crucial role! But, isn't it the right time to alert, that despite Internet huge benefits, it cannot alone win the challenge of regulation of those global citizen actions and the businesses it brought with?

### **3. CHAPTER 2: INTERNET AND THE CHALLENGE OF SOLIDARITY ECONOMY**

As mentioned above, despite the difficulties in providing accurate measurements, there's an emerging consensus about the benefits that developing countries have got from their participation in world trade. An exception that may prove the rule is the case of sub-Saharan Africa. We will show that in this trend, the interdependence of our societies has led to a social construction of a new characteristic of some goods produced in poor countries suffering from poverty and inequality and exported to developed ones. This social construction takes root in the relationships forged between producers and consumers since the international trade advent. Indeed, since Antiquity, international trade has linked the consumer and the producer of a remote area, with a special mention on the complexity of the task of the latter (Quote Pliny the Elder, Natural History, VI, 54 Trad. J.. André). According Mouzon (2014), without waiting for the economic globalization and ICT that will enable the global community to realize the living conditions of producers in developing countries, a minority of consumers were still interested in the production conditions of the goods at the heart of their purchase. The invention of what is called "ethical" trade dates back to the early nineteenth century, when activists shops against slavery appear in the United States. The author identifies a first wave of responsible consumption rise that extends from the nineteenth century to the 1930s. With the increasing globalization of production and abusive practices that have been highlighted and gradually communicated worldwide, a new dynamic was born in the early 1960s, its intensification is illustrated with the Fair trade movement, which is the most well-known practice of what is currently known by the term "solidarity economy". In this second and final chapter, this article will address the contributions of Internet in the progress of individualized collective action (Micheletti, 2003) and prospective responsibility (Jonas, 1979 quoted in Randrianasolo, 2006) which constitute the main pillars of solidarity-based economy.

#### **3.1. The extra cost of solidarity-based quality is mainly supported by consumer**

According Dubigeon (2009), the awareness of a growing global threat is in progress within our interdependent societies. In mobilizing a systemic approach, the scientific community has a clearer vision of the environmental and social challenges facing Humanity. Regarding the

social justice issue, we can consider the author's statement about a growing exclusion – of some of the world's population – generating a profound social destabilization. Access to economic opportunities has certainly increased but paradoxically the degree of social inequality is seen as a source of threat to basic survival. Joining several studies on the topic (Randrianasolo, 2006; Ballet and *al.*, 2007.), the author discusses the ethics of responsibility that has become a key of the new socio-technical system that underlies the modern world. The analysis of the development of Fair trade has helped to outline and clarify the impact of this responsibility and the role played by Internet. New trading partnership launched in 1945, Fair trade poses as a priority the living conditions improvement of marginalized producers in selling the produced goods with a “fair price” benefiting the producers and not only intermediaries. This global movement expects that consumer in developed countries will back this partnership. In daily life, it is about making the choice to purchase Chocolate or Coffee or any other Fair trade products, not only for the organoleptic characteristics but also for their solidarity-based quality, which has the “power to do good” in the producers countries. Thus, the entire process of sensitization aims at transforming the willingness to buy a solidarity-based quality into an act of purchase mobilizing generally a payment of an extra cost. According to Fair Trade founders, this solidarity-based purchase will enable the producers to enhance his freedom to choose his life, i.e., to remain a producer and not having to leave his land, to improve his income and quality of life (Randrianasolo, Dahmani, Dubois, 2014). The consumer's role is of the utmost importance because within this solidarity-based movement, a study led by a French consumer group (acronym CLCV) concluded that the payment of this extra cost related to solidarity is currently provided, in large part, by consumer. The association has, quite naturally, invited retailers and intermediaries to make efforts on their margins and prices (Randrianasolo, 2010). Price surveys and analyzes conducted by the agency Noteo (2014) attest and reinforce this effort made by consumer, and the social benefits of the products. As an illustration, Chocolate labeled Fair trade (Fig 7) get high score for the social side and very bad score for the Budget (The agency rates from 0 to 10, 10 being the best).



The payment of this additional cost related to a solidarity-based characteristic of produced goods can find its place, at least, in two theoretical concepts, that can help to better understand the new way of behaving in interdependent societies. The first echoes to the ethics of responsibility mentioned above, in particular, the prospective responsibility of Hans Jonas (1979). The second is the concept of “individualized collective action” developed by Micheletti (2003). And ICT, especially, Internet is involved in both concepts.

### 3.2. Internet and Prospective responsibility

According to Jonas (1979 quoted by Metayer, 1997), it is the vulnerability of the persons whom we influence which is the source of our responsibility. It is because their fate depends on us, because they need us to live, or because they may be threatened by some of our actions that we have to feel responsible for them before we act. It means that our responsibility is engaged at the source of our action, i.e. *ex-ante* or *a priori*, and not only in its consequences, i.e. *ex-post* or *a posteriori* (Randrianasolo and Dubois, 2014)... The economic history of Fair trade shows that the pioneering Fair trade shops represented in France by “Artisans du monde” were not only a place to sell goods but a place where volunteers made an effort of education and sensitization regarding the relationship between producers and consumers and especially the consumer’s ability to act and to impact the producers living conditions. With the arrival of the labeled Fair trade (In France, Max Havelaar), Fair trade products are retailed within hyper and supermarkets... Volunteers have disappeared! Noting the sustained sales growth of Fairtrade products growth, it can be argued that meters of linear within mass distribution has remedied the lack of volunteers, of the “education and awareness” component... We note that this latter one has not totally disappeared, because of Internet.

At a first level of analysis, we argue that Internet has offered new opportunities to consumer wishing to contribute to the living conditions improvement of the poorest producers. This technological tool has changed the context. Purchasing Fair products is no longer solely linked to a militant approach which previously required a commitment to belong to an association or to have some knowledge about the value chain... With Internet and namely the dedicated website, blogs, forum..., consumers can now learn about the living conditions of small producers in the South. In some cases, it is even possible for them to interact with the latter. More generally, with Internet, consumers can find explanations of the different organizations, labels (Fairtrade, Ecocert Fair ...), voluntary codes of conduct, codes of ethics (hourly compensation, opening hours, days off, but also gender / women ...). They can even access information on the conditions of production and producers. All forms of expression are used: articles, videos, forums or social networks... Hence, considering Fair trade movement, we can say that, consumers in developed countries have a prospective responsibility related to the vulnerability of the producers living in poor regions suffering from global inequality. The payment of the solidarity-based extra cost is part of this responsibility *a priori*. And a better access to information related to producers, dynamic interactivity between consumers and Fair trade key actors through Internet help in exercising this responsibility. Our last point discusses one of its main consequences.

### 3.3. Internet and the individualized collective action

From a theoretical standpoint, the consumption of fair trade products can be seen in several ways: first, as a responsible consumer to mitigate the negative consequences of consuming (Digger et al 2008), then it can be analysed as a positive form of the political consumerism based on individualized collective action. Consumer expresses voluntary purchase of specific products regarding some values, i.e., he “buycotts” (Micheletti 2003). This last concept emphasizes the consumer political role and, theoretically, proves to be the most advanced in terms of formalizing the inclusion of prospective responsibility and collective agency. In this positive form of consumption, the consumer-citizen more directly address the political sphere rather the market one.

To induce global change and address fair-trade goals, individual’s choices have to be modified first. Political consumerism makes it possible the individualisation of collective action. In that way, Micheletti (*ibid.*) argues that, even without belonging to an association or a formal group with leaders representing the members’ interest, each individual consumer can

exercise his or her own prospective responsibility by adding to the pressure to change unfair market rules. The resulting network is naturally more diffuse, but can be extremely efficient in a globalised and interconnected world. Boycott as a way of choosing to buy fair-trade products in order to change the market rules is the perfect example of such individualized collective action based on prospective responsibility. It is the aggregation of all these individualized and responsible purchases that provides the economic weight required to force the market into new directions (Dubuisson-Quellier 2006 referenced in Randrianasolo and Dubois, 2014).

Political consumerism contributes to building bridges between different groups in society and to gathering people with the same beliefs. Micheletti (ibid.) stresses on the emergence of new institutions where citizens can pursue their own interests and public interests. Every consumer can have his “own political sphere”, it may be inside his room in front of his screen. He has neither to seek for a prefabricated refuge or association nor to be represented by an elected Person... He can be an activist in daily life, to look for information, to be aware and to act as making a solidarity-based purchase... The interest we have, in our turn, in this positive form of political consumerism is its ability to better reflect the consumption trend in a world increasingly interconnected and interdependent. Indeed, the author shows that the specificity of political consumerism lies in the individualization of collective action which is opposed to the traditional collective action more collectivist.

#### 4. CONCLUSION

Internet reproduced and stimulates political debates on socio-economic aspects, issues of poverty and inequality ... that continually “feed” the consumer’s prospective responsibility resulting in a willingness to choose and to pay extra cost for specific products. Without belonging to formal group, Internet helps to carry individualized collective action. Indeed, it allows “the circulation of ideas out conventional institutional frameworks and facilitating direct contact between individuals and groups from different geographical origins, social, and cultural” (Dahmani 2007). In this article, we aimed at illustrating this thesis in calling to Fair Trade analysis.

Within a world suffering from a high level of inequality (Gini coefficient about 0.7), and interdependent, Fair Trade has experienced significant growth since the 1990s, French consumers have adopted the values of solidarity and responsibility towards the poorest. Individualized collective action, prospective responsibility are working. But Fair Trade also suffered from a lack of regulation encouraging free riders and opportunism. According to IPSOS, a well-known French polling institute, buying fair-trade products makes sense to Northern consumers who view it as a way to make equitable purchases. However, nearly 60 % of them felt, in the mid-2000s, that they have too little information about how fair-trade really works, about the production processes and the financial benefits that effectively reach the marginalized producers and workers of the South. With the emergence of new labels, it became difficult to prevent opportunism and the people raised the issues of the credibility of so many competing labels and the traceability of fair-trade products. I was not even sure that fair-trade really meant the same thing to all the people involved in this new market. According to F. Karpyta (2009:125) “business gains a stranglehold on the movement and gets rich with the fair-trade idea”. This generated a threat on the consumer’s freedom to choose effective fair-trade products, which in turn had consequences on the producers’ agency and empowerment (Randrianasolo and Dubois, *ibid.*). And according to national consumers groups, occurrence of Gresham’s Law and adverse selection: « *bad labels could drive out good ones* » constitute a serious threat (Randrianasolo, 2010). This lack of regulation may cause the release of the solidarity-based actions and initiatives which may transform the



opportunities into a source of exclusion. A lack of confidence between Banks and Financial Institutions was enough to provoke a global crisis in 2008, it is not exaggerated to think about the threat within the solidarity-based movements where reciprocity, liability, confidence play a major role due to the choice of living and also the willingness to pay extra cost that it brought with.

According Randrianasolo and Dubois (*ibid.*), French Government considers this regulation issue. Fair-trade organizations required the French Ministry in charge of social and solidarity economy, to play a pioneering role in the labeling of fair-trade initiatives through an appropriate certification process. In response, the French government designated, in 2005, a member of the Parliament to investigate irregularities and initiated a quality assessment with the objective of improving fair-trade regulation. It was concerned with those consumers who choose to buy fair-trade products and who were looking for guarantee about the origin and quality of these products. It also wanted to encourage consumers to go beyond the usual focus on price and considered introducing tax incentives to promote ethical consumption (Herth 2005). However, the main issue at the heart of the debate remained the certification process, which involved the definition of fair-trade standards. After three years of intense debate, the French Standards Agency (AFNOR) issued in 2006 a specific memorandum of agreement on fair-trade (AC X50-340). It was, unfortunately, only an agreement and did not provide the official benchmark, or standard, that was initially sought and expected by some consumers' organizations. Therefore, some fair-trade organizations considered it as a success while others viewed it as another setback... However, it shows that public action remains necessary, and may be, the concept of "Global public action" is not an utopy regarding solidarity. It may need years and years of international meetings, working groups... Probably, it may cost a lot! But may be, again, Internet and opportunities it gives may help in launching appropriate e-conference, e-meeting, e-working groups... as it is done in Businesses!

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## CREATIVITY AND ENTREPRENEURSHIP IN INFORMATIONAL METROPOLITAN REGIONS

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### ABSTRACT

*Due to the growing importance of metropolitan regions for the economy this work aims at analyzing what fosters economic prosperity. We propose the theory that creativity generates new ideas and enhances the entrepreneurship level in the city. In this research the focus lies on metropolitan regions, located around 30 Informational World Cities, which are prototypical cities of the knowledge society. Referring to Friedmann, we extended our focus to regions (surrounding the cities) and went beyond administrative boundaries for the purpose of economic integration and commuting flows to be included. The main task entails finding a possible correlation between creativity, entrepreneurship and economic prosperity. In order to do so, we had to determine adequate indicators describing these aspects. Regarding the economic prosperity we elaborated the GDP per capita. As for entrepreneurship, we focused on the self-employment rate and establishment of new firms. For the purpose of measuring the creativity we had to define it first, namely as constructiveness and innovative problem solving. This means creativity is not only to be found in the field of arts, but also in the fields of science, technology and research. Therefore, we chose the following four indicators to measure the level of creativeness: the Bohemian Index according to Florida which measures the amount of creative people within the city, the creative infrastructure, the scientific (publications) and the technological output (patents). To sum up, our research questions are: Can it be stated that in the informational metropolitan regions the more creative the city is, the more entrepreneurs it has? And, is there any correlation between creativity, economic prosperity, and entrepreneurship?*

**Keywords:** Creativity, Economic prosperity, Entrepreneurship, Metropolitan regions, Informational World Cities

## 1. INTRODUCTION

Metropolitan regions have been gaining in importance for the economy. Thus, in this work we investigate if there is a correlation between indicators of creativity and entrepreneurship in informational metropolitan regions in order to ascertain what fosters economic prosperity. These regions are located around 31 potential Informational Cities designated by Mainka et al. (2013) (see appendix). Informational Cities are the prototypical cities of the knowledge society and the new centers of power, which have a “glocal” orientation since they can act out both—locally and globally (Stock, 2011; Mainka, Khveshchanka, Stock, 2011). Castells (1989) bespeaks Informational Cities as parts of knowledge societies. In such cities two kinds of spaces coexist: the “space of places” and the “space of flows,” meaning the flows of information, capital and power. Informational Cities are important nodes of the space of flows (Castells, 2000) and if they are important glocal cities, they often are world cities as well. Furthermore, global cities serve as locations for the headquarters of global companies that require information and expert knowledge. And since there are a lot of different companies with various talents and expertise within one global city, the city itself becomes an information center (Sassen, 2001).

According to Friedmann (1995, p. 23), “world cities are large, urbanized regions that are defined by dense patterns of interactions rather than by political-administrative boundaries.” Thus, for the purpose of this research, the focus was expanded from just the cities themselves to the metropolitan regions they lie in, because “metro-regions are based on agglomerations, which include the commuter belt around a city” (Eurostat, 2013) and so, “this approach corrects the distortions created by commuting” (Eurostat, 2013).

Since this work aims at analyzing the correlation of creativity and entrepreneurship, these concepts have to be defined first. As for creativity, it is not possible to find an explicit definition. According to Florida (2003, p. 40), “creativity is multifaceted and multidimensional.” He identifies three different kinds of creativity: technological creativity or innovation, economic creativity or entrepreneurship, and artistic and cultural creativity, which are dependent and reinforce each other. One theory to explain regional development is “human capital,” i.e. the importance of highly educated and productive people. The higher the number of talented people, the more further talent is attracted, which includes existing firms as well as the creation of new enterprises (Florida, 2005). Florida identifies the “creative capital” as a type of human capital and the key to economic growth. Creative people prefer places which are diverse, tolerant and open to new ideas (Florida, 2002), so his creativity-based theory consists of the “3 T’s” of economic development: technology, talent and tolerance. As a result, Florida has used different indicators to verify this theory. Besides the Innovation Index, the Gay Index and several more indicators, the Bohemian Index reveals a region’s level of aesthetic creativity and measures artistically creative people like authors, designers, musicians, composers, actors, directors, painters, sculptors, artist printmakers, photographers, dancers, artists, and performers. Moreover, he defined the Creative Class in a broader way with the main aspects of marketability and creative problem-solving. This includes occupational fields of scientists and engineers, artists and designers, as well as creative professionals, managers and technicians (Florida, 2003). Concerning the overlap of the Bohemian Index and the Creative Class as well as the difficulty of finding data comparable to Florida’s values, another established term was used to capture the habitat of creative workers: “creative industries,” also called “cultural industries” or “creative economy” (Hesmondhalgh, 2002; Howkins, 2001). The British Department for Culture, Media and Sport (DCMS) describes the creative industries as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DCMS, 2001, p. 4). In 2006,

the DCMS recognized twelve creative sectors including advertising, architecture, crafts, arts, design, fashion, film, video, photography, software, computer games, publishing, music, performing arts, television, and radio. Nevertheless, there still remain different though similar comprehensions of the term “creative industries.” For example in the USA the creative industries are defined as industries composed of arts-related businesses that range from non-profit museums, symphonies, and theaters to for-profit film, architecture, and advertising companies. In other regions it is the “creative and cultural industries,” not directly implying which sectors are included or if creative industries contain cultural industries per se.

Besides creativity, the second important concept is entrepreneurship. It can be defined as the process by which individuals follow opportunities without regarding resources they currently control (Stevenson, Jarillo, 1990). The most obvious process of entrepreneurship is a business coming into existence (Gartner, 1989). A possible coherence between both creativity and entrepreneurship might be the circumstance that researchers can be seen as academic entrepreneurs. Innovations, which researchers create and release in the form of publications and patents, are not only a type of creativity, but also a kind of entrepreneurship since “they ‘sell’ their products at conferences, journals” (Erdős, Varga, 2012, pp. 157-158). According to Etzkowitz (1983, p. 199), research groups can even be declared “quasi-firms.”

### 1.1. Indicators

To quantify the aspects of creativity and entrepreneurship, several indicators were defined. Our index describing entrepreneurship consists of two indicators: the number of enterprise births (Lee, Florida, Acs, 2004) and the self-employment rate—two measures which are also to be found in the literature (Glaser, Kerr, 2009; Blanchflower, Oswald, 1998). It is stated that self-employment is the “simplest kind of entrepreneurship” (Blanchflower, Oswald, 1998, p.27). Apart from these indicators, a third one counting the number of small and medium enterprises (SME) was initially included. Since it was found that in most of the regions the ratio of SMEs amounted to more than 98%, it was decided that this indicator would not show significant differences between the various investigated regions and was thus removed from the Entrepreneurship Index. The Creativity Index is comprised of four indicators: the ratio of creative workers, the creative infrastructure (on city level, because data could not be found consistently on regional level), the scientific output and the technological output. In accordance to Florida’s Bohemian Index and his Creative Class (2002), the ratio of creative workers was calculated by computing the percentage of employed people in the creative industries in relation to all employed people. What accounts for a creative city is not only “cultural production” but also “cultural consumption” (Hall, 2004, p. 257), which is why the creative infrastructure was included into the Creativity Index as well. Furthermore, the aforementioned three types of creativity (Florida, 2003) were incorporated into the compiled list of indicators. So, to cover the aspect of creativity not only in the sense of culture and arts, innovation as a form of creativity was taken into consideration as well by measuring the scientific output (published articles) and the technological output (number of international patents). Apart from the Entrepreneurship Index and the Creativity Index, two further general indicators were incorporated into the statistical analysis. One of these indicators is the GDP per capita to capture the economic prosperity of the metropolitan region. In this way, we are able to answer the question whether creative people foster the economy. The second general indicator is the population in order to put the other indicators into perspective and get comparable results for each of the investigated regions.

## **1.2. Research questions**

Based on the defined indicators the following research questions were formulated:

- Can it be stated that in the informational metropolitan regions the more creative the city is, the more entrepreneurs or economic prosperity (Florida et al., 2011) it has?
- Is there any correlation between creativity, economic prosperity, and entrepreneurship?
- Are there any distinctions between different continents or nations which can lead to the assumption of diverse cultural influence and development?
- Which type of creativity has the greater impact on economic prosperity, if any?

Answering all these questions is a challenge to meet and requires the right tools to obtain significant results like a variety of methods to collect and correlate the data. This approach is explained in the following.

## **2. METHODS**

During the investigation of the introduced research questions different methods were used. These encompass working with official statistics, informetrics (consisting of bibliometrics and patentometrics), online content, and statistical analysis.

### **2.1. Official Statistics**

Official statistics, which are based on the respondents' obligation to give truthful and unmitigated information, were used to obtain profound statements about the investigated indicators. To enable an international comparison between regional currencies, the prices were adapted to US dollars. Furthermore, all statistical data was preferably collected from the year 2012 and from an extended period of time in case the data for 2012 was not available. In this respect, finding data for Dubai turned out to be a problem since hardly any data could be found. Due to that, it was decided to leave Dubai out as one of the originally 31 informational cities; hence, this research focused on metropolitan regions located around the remaining 30 informational cities.

### **2.2. Informetrics**

As an indicator to study a region's technological output (patentometrics) and scientific output (bibliometrics), the number of its patents and publications from 2003 to 2012 was derived from respective databases. To determine the number of patent applications, a search was performed in the Patentscope database of the World Intellectual Property Organization (WIPO). The database enables a patent search on city level (field: AAD), at the same time considering the priority date of an application (field: PD). Every city located in a region had to be included with disjunction, except for the regions of the United States where only principal cities could be regarded. By involving a country restriction (field: AADC) homonymous city names were avoided (e.g. London, UK and London, Ontario). To include different notations, a city's English name was linked to its national language's name, if necessary, and alternate spellings were utilized for the German umlauts. Furthermore, only the number of international patents (WO applications) was taken into consideration, which enabled a better comparability between the different regions.

The number of publications (scientific output) was ascertained using the interdisciplinary database Web of Science by Thomson Reuters, which allows searching for a city (field: CI) and a publication year (field: PY).

### 2.3. Online content analysis

Useful information can also be provided by conventional websites. Since not every data was available through official statistics, especially data describing the creative infrastructure (theaters, galleries etc.), and the number of start-up companies were retrieved from reliable websites.

### 2.4. Statistical analysis

Previous to the computation of any correlations, the indicators expressed by absolute numbers had to be made comparable, taking into consideration the size of the region, so that small regions were not disadvantaged compared to the greater ones. Therefore, such indicators were relativized by the population size of the respective area.

To determine possible correlations between the entrepreneurial and the creative indicators, the correlation coefficient by Pearson was applied to all of the statistical series comparing every indicator with all other indicators. As a result of the application of the Pearson coefficient for each two compared indicators, a value figure between -1 and 1 was obtained. Any figure between 0 and 1 shows a positive correlation between the indicators while a figure between 0 and -1 signifies a negative correlation. The greater the distance to 0, the stronger the correlation. These correlations were computed not only for the comparison of all metropolitan regions but also for metropolitan regions within a country or a continent, which are the United States of America, Europe and Asia. As it was not intended to compare the metropolitan regions within these areas on the level of the single indicators, they were agglomerated to two indexes: an Entrepreneurship and a Creativity Index. For comparison, the agglomeration approach was also conducted for all investigated metropolitan regions. Both, the Entrepreneurship Index as well as the Creativity Index, are composite, agglomerated indicators (Saisana, Saltelli, Tarantola, 2005). There is no “real counterpiece” of such indicators; they are pure constructs.

To agglomerate the different indicators within one index, the found data for each of them (and not the relativized values) was turned into a percentage. 100% were designated to the highest value within each indicator. All other values were calculated as the percentage of the previously determined highest value. Subsequently, the average of all indicators' percentages had to be computed for each region to obtain its index value. To calculate the Entrepreneur Index, for example, the average of the appertaining indicators *self-employment rate* and *enterprise births* was computed.

## 3. RESULTS

The correlation of the described indicators resulted in the values listed in table 1. The highest value is 0.541, which represents the coherence between the population and the ratio of creative workers. In contrast, the most negative correlation exists between the population and the scientific output (-0.509). Remarkable results are the correlation of creative facilities and the scientific output (0.529) as well as a mediocre negative coherence between the GDP per capita and both the self-employment rate (-0.378) and the ratio of creative workers (-0.374).

As mentioned in the introduction, creativity is measured in different ways depending on the region's definition standards. Hence, it is difficult to compare the values of creativity homogeneously. Furthermore, it was not possible to find all information for every city. For instance, the number of enterprise births could not be found for Hong Kong. Therefore, to find a better way to compare entrepreneurship and creativity, and to obtain more significant results, it was more reasonable to create agglomerated indexes as well as to distinguish between the different continents the metropolitan regions are located in (table 2). This way, continentally and nationwide differing trends could be examined.

*Table 1: Correlations of the investigated informational metropolitan regions (Multiple sources; own calculation); significance level of 10% (\*), 5% \*, 1% \*\**

<b>Total</b>	<b>GDP per capita in Dollar</b>	<b>Population</b>	<b>Self-employment rate</b>	<b>Enterprise births per 1,000 inhabitants</b>	<b>Ratio of creative workers</b>	<b>Creative facilities per 1,000 inhabitants</b>	<b>Scientific output per 1,000 inhabitants</b>	<b>Technological output per 1,000 inhabitants</b>
GDP per capita in Dollar	1							
Population	-0,270	1						
Self-employment rate	<b>-0,378(*)</b>	0,094	1					
Enterprise births per 1,000 inhabitants	0,114	<b>-0,373*</b>	0,049	1				
Ratio of creative workers	<b>-0,374</b>	<b>0,541</b>	0,119	<b>-0,364</b>	1			
Creative facilities per 1,000 inhabitants	0,071	<b>-0,475**</b>	-0,041	0,297	-0,100	1		
Scientific output per 1,000 inhabitants	<b>0,398*</b>	<b>-0,509**</b>	-0,166	0,108	-0,128	<b>0,529**</b>	1	
Technological output per 1,000 inhabitants	<b>0,479**</b>	-0,124	-0,282	-0,098	-0,033	0,241	<b>0,438**</b>	1

*Table 2: Agglomerated correlations of the investigated informational metropolitan regions by region (Multiple sources; own calculation); significance level of 5% \**

	<b>GDP per capita in Dollar</b>	<b>Population</b>	<b>Entrepreneurship</b>	<b>Creativity</b>
<b>Total</b>				
GDP per capita in Dollar	1			
Population	-0.270	1		
Entrepreneurship	-0.106	-0.242	1	
Creativity	<b>0.304</b>	-0.242	-0.041	1
<b>Asia</b>				
GDP per capita in Dollar	1			
Population	-0.086	1		
Entrepreneurship	<b>0.775</b>	-0.109	1	
Creativity	<b>0.311</b>	<b>0.525</b>	0.365	1
<b>Europe</b>				
GDP per capita in Dollar	1			
Population	0.297	1		
Entrepreneurship	<b>-0,416</b>	-0,105	1	
Creativity	0,040	<b>-0,387</b>	-0,219	1
<b>USA</b>				
GDP per capita in Dollar	1			
Population	<b>-0.398</b>	1		
Entrepreneurship	<b>-0,330</b>	<b>0,745</b>	1	
Creativity	<b>0,910*</b>	<b>-0,482</b>	<b>-0,465</b>	1

As can be seen in table 2, there are considerable differences between the correlations of the different continents and countries, and all metropolitan regions in total. However, it has to be considered that these values are not representative of the whole continent or country itself, but only for the investigated informational metropolitan regions located there. In this work, the focus lies on the correlation between creativity and entrepreneurship. Whereas the consideration of all regions in total did not reveal special findings, there are expressive results regarding the continental or nationwide correlation values. In the US regions, the GDP per capita and creativity correlate highly positive (0.910). In contrast, a relation of this kind cannot be found for the European regions (0.04). Taking a glance at the whole table, it can be

seen that for each country or continent the significant correlation values differ enormously. The most remarkable difference can be observed between the correlation of the GDP per capita and entrepreneurship in Asia and Europe. In Asia, there is a high correlation of 0.775, while there is a mediocre negative correlation of -0.416 for European Informational World Cities.

These numerical results allow assumptions about the significance of the dependence of creativity and entrepreneurship as well as of the other investigated indicators which are discussed in the following paragraph.

#### 4. DISCUSSION

The focus of this research lay on the impact of creativity on the entrepreneurship in informational metropolitan regions. After analyzing the elaborated results, we can state that there do exist coherences between entrepreneurship and creativity to a varying degree depending on the investigated region and the agglomeration. The correlation of the agglomerated indicators (table 2) shows that in total there is a slightly positive correlation between creativity and the GDP per capita, which represents the region's economic prosperity. A glance at table 1 reveals that this is mainly due to the positive correlations of the scientific and technological output, whereas the creative facilities only have a noticeably weak correlation with the GDP per capita; the amount of creative workers even correlates not inconsiderably negative with the economic prosperity. This finding inevitably leads to a discussion about Florida's thesis that creativity and economic growth interrelate. He states that in the American society the people "now live in an 'information' or 'knowledge' economy. This economy is powered not by information or by knowledge, but by human creativity" (Florida, 2003, p. 39). As the correlation of the agglomerated indicators shows (table 2), this is unmistakably true for the USA: creativity and the GDP per capita correlate positively with a remarkable correlation value of 0.910. This assertion originally made for the USA does not necessarily hold for the other investigated regions, though. While in Asia there still is a slightly positive correlation to be found (0.311), there is no considerable correlation for Europe (0.04). The most striking correlation value for all investigated metropolitan regions (table 1) is the correlation between the creative facilities per 1,000 inhabitants and the scientific output per 1,000 inhabitants. This value can only be of fortuitous nature, though, since no immediate causal relation between these indicators could be found. A possible explanation might be that both indicators are in the same way influenced by another third indicator and, therefore, correlate. The slightly positive correlation between the scientific output per 1,000 inhabitants and the GDP per capita (0.398) for all investigated regions possibly arises from the fact that the more prosperous a region is, the more higher education institutions it can afford; and at the same time it might imply that the scientific output, and thus the work of higher education institutions, fosters the economic prosperity of a region. Regarding creativity, the scientific and technological output have the highest influence on the GDP per capita, which explains the strength of the USA in this area with an average of 20.8 publications and 3.7 patents per 1,000 inhabitants. Although Asia has a huge ratio of creative workers, the correlation is even highly negative (-0.796), which underlines that the output or production of a creative city is more important than just the number of employed people in the creative sector, because Asia has the least scientific and technological output. With reference to the GDP and entrepreneurship, differences arise between Asia and the USA or Europe. While the GDP in Asian regions is growing with the increase of entrepreneurship (0.775), in western regions a lower amount of large enterprises tendentially suggests economic prosperity and one seems to be less willing to take risks. Furthermore, the indicator *enterprise births per 1,000 inhabitants* is obviously more expressive in the context of *GDP per capita* than the self-



employment rate as Europe, for example, has the highest average self-employment rate (12.9%) but nevertheless a negative correlation between GDP per capita and entrepreneurship (-0.416). The GDP per capita and the population can only be minimally associated with each other, where the type of cohesion is different for the European regions (0.297) than for the US regions (-0.398). For the investigated European metropolitan regions it is the case that a higher population implies a higher degree of prosperity, while in the investigated US regions, a smaller population comes along with a higher GDP per capita. A linkage between the population and entrepreneurship can only be detected for the analyzed metropolitan regions of the USA, but in this particular case a rather conspicuous one. Since the USA is the weakest of the regions in terms of entrepreneurship and only there the population and entrepreneurship correlate positively, and additionally fairly high (0.745), it seems that from a certain degree of existent entrepreneurship in a metropolitan region onwards, the size of the population does not play a major role anymore. Concerning the correlation of the population and creativity, there are differences to be noticed between the Asian and the western regions. The greater the population in the Asian regions, the higher the degree of creativity, especially the percentage of people employed in the creative industries. As the Asian regions have a larger population on average (16.8 million inhabitants), the impression that creativity in these regions is generated through quantity instead of scientific and technological output (in contrast to the western regions) can be confirmed. Positive correlations between entrepreneurship and creativity can also only be spotted in the Asian regions.

## 5. CONCLUSION

Overall, it cannot be stated that in the informational metropolitan regions creativity always generates more entrepreneurship or prosperity, but most certainly there are correlations between these aspects, although to different degrees. It was found that the influence of creativity on economic prosperity is mainly caused by a certain type of creativity, which is the technological creativity and innovation, while creative workers and creative facilities only play a minor role in this respect. Moreover, the investigated metropolitan regions of the USA and Asia seem to be greatly different in respect of entrepreneurship and creativity, while the European regions do not show such high extremes but have correlations that are rather tendentially prone to those of the USA than those of the Asian regions. Hence, it can be stated that the initially posed research questions cannot be answered for all investigated metropolitan regions in total. Future investigations could work out the differences and the specific reasons therefore. Besides promotion programs for entrepreneurs or creative workers, also the hard and soft location factors of metropolitan regions should be considered, as they attract more human capital. During the search for and the analysis of the official statistics several obstacles arose in so far as that the international comparison had been complicated by the absence of a coherent, transnational standard for statistics of all administrative levels. On the one hand, data for the same indicators were partly findable by different terms and on the other hand, some terms, especially within the creative sector, denote distinct entities. With regard to the alleged informativeness of these world cities, there still is potential for improvement to guarantee an optimal data acquisition. Additionally, a useful step would be the extension of statistics for metropolitan regions because they are the engines of economic prosperity and this growing importance should be describable in facts and figures. In conclusion, it can be said that creativity in general has a more distinct positive correlation with the economic prosperity of a metropolitan region than entrepreneurship. At the same time, creativity and entrepreneurship correlate with each other both positively as well as negatively—depending on the country or continent one lives in: positively in informational regions in Asia, slightly negatively in Europe and very negatively in the USA.

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## **Appendix**

*The Informational World Cities according to Mainka et al. (2013):*

*Amsterdam (The Netherlands); Barcelona (Spain); Beijing (China); Berlin (Germany); Boston (U.S.A.); Chicago (U.S.A.); Dubai (U.A.E.); Frankfurt (Germany); Helsinki (Finland); Hong Kong (China, SAR); Kuala Lumpur (Malaysia); London (United Kingdom); Los Angeles (U.S.A.); Melbourne (Australia); Milan (Italy); Montreal (Canada); Munich (Germany); New York City (U.S.A.); Paris (France); San Francisco (U.S.A.); Sao Paulo (Brazil); Seoul (Korea); Shanghai (China); Shenzhen (China); Singapore; Stockholm (Sweden); Sydney (Australia); Tokyo (Japan); Toronto (Canada); Vancouver (Canada); Vienna (Austria).*

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## MODELS FOR MEASUREMENT OF NATIONAL INTELLECTUAL CAPITAL - A CASE STUDY OF THE SKANDIA NAVIGATOR MODEL

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### **ABSTRACT**

*Measuring of the national intellectual capital is important for every nation because of its role in the creation of national wealth. During the time, different individuals and international organizations have tried to develop an appropriate methodology for measuring national intellectual capital. This article focuses on a model that was developed by Leif Edvinsson and Michael S. Malone for needs of companies. The model is Skandia Navigator, and it was widely accepted both by companies and academic community. After this enormous success, the authors decided to modify this model for measuring a national intellectual capital. Just as the previous model (for the companies), a national model has resulted to be a great success, and it was used for measuring intellectual capital of 44 countries. The model consists from five components: financial capital, market capital, process capital, human capital and renewable and developing capital that are placed in suitable time frame (past, present and future). The indicators used in the model can be divided in basic and specific for every country. Model has several concepts of implementation, and some of them are presented in this article.*

**Keywords:** *Financial Capital, Human Capital, Market Capital, Process Capital, Renewable and Developing Capital, Skandia Navigator.*

### **1. INTRODUCTION**

This article has seven chapters in first, and last chapters are introduction and conclusion and in between there are five chapters. Second chapter contains a short explanation of the relation between national wealth and national intellectual capital (theoretical and graphical presentation). After this explanation in the next third chapter, focus is on national intellectual capital and its essential components with the theoretical explanation of each of them. Brief presentation of models for measurement of national intellectual capital is in chapter four. Chapter five contains explanation of Skandia Navigator model and in this chapter two-case studies are elaborated. Next, the sixth chapter contains suggestions made by author related to introducing new indicators for use in measurement models based on Skandia Navigator.

### **2. THE ROLE OF INTELLECTUAL CAPITAL IN THE CREATION AND DEVELOPMENT OF THE NATIONAL WEALTH**

In order to understand the relation between “national wealth” and “national intellectual capital,” it is necessary to define this two main term. National wealth can be defined as “the sum, for the economy as a whole, of non-financial assets and net claims on the rest of the world”(OECD, 2001/2003). From this definition, one can conclude that national wealth has two parts one part is non-financial assets and the other is financial assets. This article focuses on the part determined as non-financial assets known as intellectual capital.

There for it is necessary to define intellectual capital and national intellectual capital for that purpose is selected comprehensive elaboration (without any intervention) of experts in this field Lin and Edvinsson. For them intellectual capital is defined as “intellectual material – knowledge, information, intellectual property, experience – that can be put to use to create wealth” (Stewart 1997) and functions as the roots for future earning capabilities (Edvinsson

and Malone 1997)" (Lin, Edvinsson, 2011, p. 1, 2). However, in the national context intellectual capital includes "the educational system, infrastructure, and renewal capability, affect national competitiveness and constitute the major components of national intellectual capital, namely, human capital, market capital, process capital, and renewal capital. Those countries rich in knowledge-intensive activities will be the winners in terms of future wealth creation (Bounfour, Edvinsson 2004; Stähle and Pöyhönen 2005)" (Lin, Edvinsson, 2011, p. 1, 2). The definitions emphasize the role of intellectual capital in the creation of the wealth and describe it on the two different levels the micro level (of companies) and macro level (states/ nations). Edvinsson and Malone created "intellectual capital tree" for companies in order to graphically present influence that intellectual capital has on market value. Later they modify that intellectual capital tree to suite for national level. The modification is shown in Figure 1.

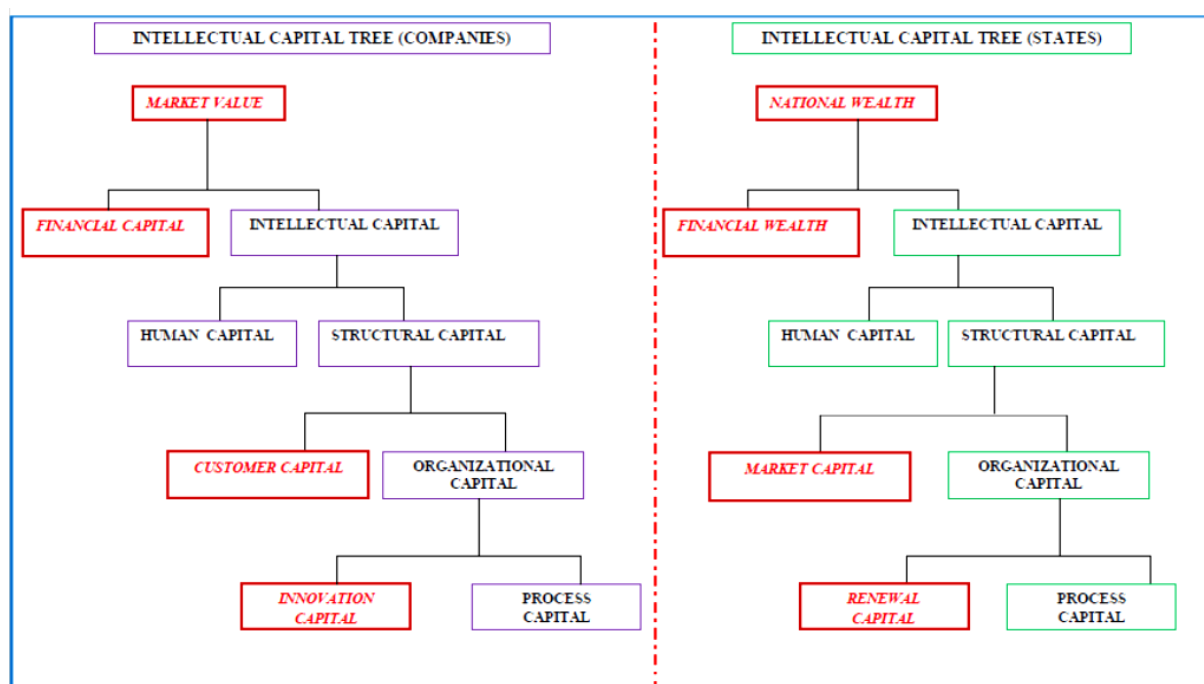


Figure 1. Modified intellectual capital tree.

Author's modification of Bontis presentation of Edvinsson and Malone 1997.

(Bontis 2000, p.6) and (Bontis 2004, p. 15)

According to this modification the intellectual capital has a great role in the growth of market value on the micro level (companies) and growth of national wealth on the macro level (states). Bearing this fact in mind it is possible to conclude that the intellectual capital of the nation „includes the hidden values of individuals, enterprises, institutions, communities and regions that are the current and potential sources for wealth creation. These hidden values are the roots for nourishment and the cultivation of future wellbeing“ (Bontis, 2004, p. 14, 15).

### 3. NATIONAL INTELLECTUAL CAPITAL

According to extended elaboration, from the previous chapter one can conclude that all experts agree that the national intellectual capital represents the hidden values (of individuals, organization, regions and state) which contribute to national wealth. Components of national intellectual capital are human capital, market capital, process capital and renewal and development capital some authors also consider financial capital. All experts in this field have tried to give a comprehensive definition of each of the components of the national intellectual

capital, and their combination allows presentation of the components in a holistic manner. For the purpose of this article, new definitions of components are designed (based on definitions of before mentioned individuals) with a particular approach that emphasize the role of the state in creating an environment for development of national intellectual capital. Flowing the same logic in the last chapter of this study new indicators that emphasize the role of the state will be suggest for future researchers. After this brief introduction, the defining process can begin. The most important component of national intellectual capital is human capital because it can use and create all other capitals. "Human capital includes knowledge, wisdom, expertise, intuition, and the ability of individuals to realize national tasks and goals. This focal area also includes the values encompassed within the culture and philosophy of the nation Human capital constitutes a population's total capabilities as reflected in education, knowledge, health, experience, motivation, intuition, entrepreneurship and expertise; in addition, a highly skilled labor force, the availability of scientists and engineers, a female labor force, and health (life expectancy, physicians) are also good indicators... Human capital provides the resources for the development and cultivation of other areas of intellectual assets such as R&D and training, as the human factor is the most important link in the process of value creation" (Lin, Edvinsson, 2011, p. 4). Analyzing this definition of the human capital it is evident that focus is on individuals and their contribution in the creation of national wealth, and that is an absolute fact, but as it was mentioned before state has great influence on national intellectual capital. State influences intellectual capital thru strategies, plans, infrastructure, laws and policies for developing and managing education system, health system, social security, internal and external security and business environment. Political processes and government relations strongly determine all spheres of social life that is often forgotten fact because it is considered obvious, but it is evident that it is necessary to acknowledge this influence of the state in the creation of national intellectual capital. In that context human capital is a result, of organized and planned effort of the state to invest in the health system, educational system, scientific research system and spiritual system (culture, religion and traditions). State invests in this systems in order to create the preconditions for knowledge and skills improvement of its citizens. The next component is market capital. "Market capital represents a country's capabilities and successes in providing an attractive, competitive solution to the needs of its international clients, as compared with other countries. A country's investment and achievements in foreign relations, coupled with its exports of quality products and services, constitute a significant component in its development of market capital, which is rich in intangible assets" (Bontis, 2004, p. 23).

"Market capital is social intelligence created by elements such as laws, market institutions and social networks. It is similar to social capital, but a lot more because it includes systemic qualities with an embedded discovery attributes that enhance social capital creation" (Bontis, 2004, p.23). Considering definition mention above for the purpose of this article the market capital is the result, of conscious activity of the state in maintaining and developing image in the institutional and legislative terms aimed at raising the competitiveness of the companies both in the domestic and global market. Process capital includes "processes, activities, and related infrastructures for creation, sharing, transmission and dissemination of knowledge for contributing to individual knowledge workers' productivity" (Malhotra, 2003, p. 23). "It is defined in terms of the non-human storehouses of a nation's knowledge assets embedded in technological, information and communications systems: as represented by its hardware, software, databases, laboratories and organizational structures which sustain and externalize the output of human capital (UNDP, 1998)" (Malhotra, 2003, p. 23). Taking into account previously mentioned definitions (and modified definition from Pasher 2007) process capital is a result, of previous generations knowledge and skills formalized in technology,

information, infrastructure and communication systems which operate on the basis of known and accepted procedures, rules and contribute to the social output. Next important component of national intellectual capital is renewal and development capital, and its importance lies in the fact that from its quantitative and qualitative traits depends the future of the nation. Renewal capital “refers to the nation’s capabilities and real investments made in an effort to increase its competitive strength in future markets, which, in turn, encourages future growth. Renewal and development assets include investments in research and development, patents, trademarks, start-up companies, the number of scientific publications, the number of patents registered in the US, EPO patent applications, total expenditure on R&D, and capacity for innovation“ (Lin, Edvinsson, 2011, p. 4). In the context of the definition mentioned above, the renewal capital is understood a result of a conscious investment (by government and private sector) in research and development (within companies, universities and in cooperation) where the products of these processes (goods, services, supplies) are verified by publication and protected (by patenting) in the internationally recognized way. Lin and Edvinsson define financial capital as “to GDP, external debt, industrial production by major branches and inflation“ (Lin, Edvinsson, 2011, p. 4). In the context of this article the financial capital is the result of policies and measures taken by the government in the economic sphere with the aim of managing economic trends, (facilitate economic growth and development). Economic policy measures direct movements in the economy, encourages industrial production and creates the conditions for raising the level of competitiveness at the micro and macro level, which allows foreign trade at an appropriate scale with the aim of meeting the needs of the population. Economic growth and development are prerequisites for reducing public debt (internal and external) and raising living standards. After the defining all components of the national intellectual capital, a brief explanation of the models for its measurement will be presented. Before that their few questions that need to be answered: first why do we need to measure the national intellectual capital and the second question is how do we measure national intellectual capital?

The answer on the first question is easy and obvious we measure the national intellectual capital in order to know it's quantitative and qualitative characteristics so we can manage, develop and improve it. Founding the answer on the second question is more complicated, and attempt of answering on that question is in chapter that follows.

#### **4. MODELS FOR MEASUREMENT OF NATIONAL INTELLECTUAL CAPITAL**

It is clear from the descriptions of every form of capital (human, market, process, renewal and development and financial) that they include collection of data for almost every segment of society. It is a great challenge for researchers, and so far many individuals and international organization tried to create holistic methodology for measurement of national intellectual capital. Measurement of intellectual capital was first conducted in profit organization (small, medium and large companies) then the measurement methodology was modified to suite needs for measurement of intellectual capital in public and nonprofit organization (university and public administration) and in the end the methodology is modified to suite needs for measurement of intellectual capital on a national level. This article will be focused only on methods and models for measurement of national intellectual capital. The models and methodological frames for this purpose were developed by individuals (Edvinsson, Malone, Bontis, Pasher) and organizations (IMD- International Institute for Management Development; WB-The World Bank and OECD- The Organization for Economic Cooperation and Development). All presented models were used in practice, and they can be divided into two groups models that are not based on Skandia Navigator and models based on Skandia Navigator. The models that are not based on Skandia Navigator are EU- The intellectual

capital of the EU- Intellectual Capital Monitor (2004); UN- United Nations Economic Commission for Europe 2003- the UNECE model (2003); Bonfour- EU states, IC-dVAL approach (2003); The World Bank- Knowledge Economy Index-KEI and Knowledge Index-KI (2005); OECD - Innovations in science, technology and industry, Scoreboard (2001). Skandia Navigator based models are in focus of this article. Those models are: Lin and Edvinsson - 40 states (2011); Sandhu, Lodhi & Memon – Pakistan (2011); Cheong & Lidé - Finland, Singapore, Malaysia (2010); Lin & Edvinsson- Nordic countries (2008); Lin & Lin-Taiwan (2008); Weziak - EU states (2007); Pasher & Sacher- Israel (2007); Alexander-Luxembourg (2006); Stahle & Pöyhönen - Finland (2005); Bontis –Arab region (2004); Pomedá, Moreno, Rivera & Mártel – Spain, Madrid (2002). There are at list two ways for measurement based on Skandia Navigator model one is based on the description of indicators and the other on the calculation of the index. This article considers examples for both versions of measurements. For the presentation of the practical use of this model, two studies were selected. The selected studies are Edna, Pasher and Sigal, Shachar (2007). "The Intellectual capital of the state Israel -60 years of achievements" and Carol, Yeh-Yun Lin and Leif, Edvinsson (2008). "National intellectual capital: comparison of the Nordic countries." In the next chapter of this article, there is a brief explanation of the basic model and in separated parts is presentation of the practical use of selected cases.

## 5. MODEL SKANDIA NAVIGATOR

Skandia Navigator was first developed for the companies bay Edvinsson and Malone back in 1997. After great success that it has achieved in measuring intellectual capital of the profit organizations the creators of the model decided to modify the model to suit the needs of measurement of national intellectual capital. Same authors (Edvinsson and Malone) have created "house metaphor" of Skandia Navigator first for the companies and later they modified it for states. In the figure below is a comparison of this two models.

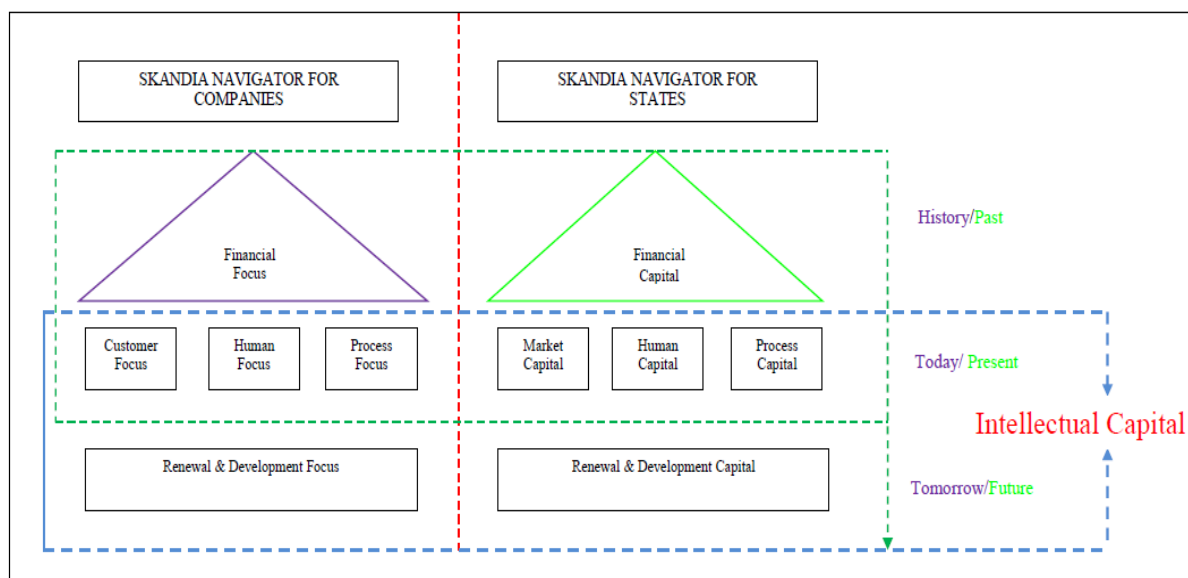


Figure 2. Comparison of the Skandia Navigator for companies and states. (Edvinsson, Malone, 1997) and (Pasher, Sachar, 2007, p. 11).



From this figure, it is obvious that the model for companies and model for states have standard components such as financial focus /capital, human focus /capital, process focus /capital and renewal & development focus /capital. Only difference is in customer focus that in case of states changes into market capital. The time frame (past, present and future) and position of components in time frame is the same in both cases. Since components of national intellectual capital were defined before (Chapter 3), and their position inside of chosen model is theoretically and graphically presented (Figure 2) that made the foundation for establishing specific methodology of analysis for selected studies. This analysis has four parts: in the first part of the study there is information about state researched in studies. In the second part of the study, there is an explanation of used methodology (for studies that have this information). The third part of the study contains overview of used indicators and in the fourth part of the analysis there is a brief presentation of the research results.

### **5.1. Case Study 1: Edna, Pasher and Sigal, Shachar (2007). “The Intellectual Capital Of The State Israel -60 Years Od Achievements.”**

One of the first countries in the world that measured national intellectual capital was Israel. The conducted research resulted with three reports: first in 1998, second in 2004 and the last in 2007 in all of them Dr. Edna Pasher had been lead researcher with her's associates. The report form 2007 has three parts; the first part is The Intellectual Capital of Israel Report. The second part contains comprehensive listing of government support programs currently operating, and the last third part contains examples of successful Israeli companies. This article focuses on the first part of the report. In the report, methodology is briefly described emphasizing the selected model as a Skandia model with the definition of every component of classic Skandia Navigator model. Methodology was also shown in two figures one theme was “modified intellectual capital tree” and the second figure was “house metaphor” also previously explained and presented (Figure 1, 2). The measurement of the national intellectual capital was “based on data and information collected from international statistics publications, such as OECD, the Human Development Report, IMD, the Global Competitiveness Report, etc., as well as from national reports and key figures in the government and academia worlds.”(Pasher, Shachar, 2007, p. 12)

At the beginning of the report there was a general description of the state of Israel as developed, modern, democratic, and pluralistic country that is attractive to investors and business partners from all over the world.“ (Pasher, Shachar, 2007, p. 13) In the report, there was also a state vision of innovation in which the authors emphasize the role of strategic national orientation on the development of human capital and knowledge. In Table below are indicators used in this report.

Figurno.	Indicators	Israel's position
1.1	G.D.P Growth Comparison, 2005	5
1.2	G.D.P Growth Quarterly, at annual rate 1995-2006	-
1.3	External Debt, Gross and Net	-
1.4	ICT Employment (as a percentage of total) Business sector 2003	4
1.5	Quarterly Employment and Unemployment in Israel since 1999	-
1.6	Industrial Production by Major Branches, 2006	-
1.7	Manufacturing Export by Technological Intensity (net), 2006	-
1.8	Manufacturing Export by Technological Intensity, 1991	-
1.9	Annual Inflation, 1987-2006	-
2.1	Attitudes Toward Globalization,2006	8
2.2	GCI Indicator ,2006	15
2.3	Flexibility and Adaptability ,2006	3
2.4	Resilience of the Economy, 2006	6
2.5	Nobel Prizes Per Capita -2005	7
3.1	Information Technology Skills,2006	3
3.2	Technology Readiness	3
3.3	Personal Computers per (100 inhabitants), 2004	4
3.4	Cellular subscribers (per 1000 people), 2006	3
3.5	Cyber Security, 2006	8
3.6	National Expenditure on Education,2003	1
3.7	Higher Education Achievement 2003	6
3.8	Quality of Scientific Institutions, 2006	3

3.9	Knowledge Transfer, 2006	4
3.10	Legal Environment Supports Scientific Research, 2006	5
3.11	Start-Up Days – Number of Days To Start a Business-2005	12 days
3.12	ISO13485- Medical Devices-Quality Management Systems, 2005	9
3.13	Agricultural Productivity, 2005	3
4.1	High Skilled Labor Force, (Engineers per 10,000 employees), 2004	1
4.2	Avallability of Scientists and Engineers, 2006	1
4.3	Female Labor Force 2005	9
4.4	Life Expectancy, 2004	8
4.5	Physicians (per 100,000 people) 1990-2004	7
5.1	Nasdaq-high Correlation between TASE and the NYSE	-
5.2	Number of Scientific Publications	3
5.3	University / industry research collaboration,2006	6
5.4	Number of Patents Registered in the US, during 2003	3
5.5	Share of EPO Patent Applications owned by Universities 2001-03	3
5.6	ICT-Related Patents as a Percentage of National Total (PCT filings), 2006	3
5.7	Number of Utility Patents Granted per Million population, 2005	5
5.8	Biotechnology Patents	7
5.9	Total Expenditures on R&D (percentage of GDP), 2004	1
5.10	VC Investment by sector, 2006	-
5.11	Venture Capital Availability	2
5.12	Capital raised by Israeli High Tech Companies	-
5.13-	Capacity for Innovation 2006	8
5.14	Entrepreneurship	5

*Figure 3. The position of the Israel on the indicator.  
(Pasher, Sachar, 2007, p. 8).*

The analysed model in this study belongs to the group of the reports without calculation of index and authors are more focused on describing the results of gathered data rather than quantifying them in a manner to compare that data with the data for other countries in the form of index. The data (indicators) were graphically presented and theoretically explained with emphasising the level of development for each segment that indicates covers. Brief summary of the first part can be found at the end in which authors conclude “This study shows that, since its establishment, Israel has succeeded in accomplishing great technological achievements. Israel is leading in various fields such as agro technology, biotechnology, computer-aided education, and data communication. Furthermore, the country’s competitive edge is excellent human capital in the form of highly educated workforce that is well integrated with the hi-tech sector and research and scientific activity. (Pasher, Shachar, 2007, p. 32). “In addition, Israel provides a modern infrastructure - a supportive business environment which includes a highly advanced banking and financial sector and legal protection of foreign trademarks and patents.” (Pasher, Shachar, 2007, p. 32) This report is comprehensive, accurate and inspiring for all researchers in this field.

## **5.2. Case study 2: Carol, Yeh-Yun Lin and Leif, Edvinsson (2008). “National intellectual capital: comparison of the Nordic countries.”**

In this case study authors were focused on Sweden, Denmark, Norway, Finland and Iceland. Also later in 2011 they published the book gathering data for more countries counting total of 40 countries, then in 2013. and 2014. series of books that emphasise the impact of economic crises on intellectual capital of the selected countries. This case study belongs to the group of measurement models that quantify their findings in the form of index. It is also important to underline that authors used same methodology when they researched 40 countries. According to authors the “data analyzed in this study ... describes 40 countries over a period of 12 years, from 1994 to 2005. In this study, there are two different types of data: data with an absolute rating, such as “patents per capita”; and data with a qualitative rating based on a scale of 1-10, such as “image of the country.” (Lin & Edvinsson, 2008, p. 531) For a meaningful integration

of the quantitative score and qualitative rating, the ratio of the absolute value relative to the highest value of each quantitative variable was calculated and multiplied by 10 to transform the number into a 1-10 score. The data transformation procedures have been repeated for all numerical indicators of human capital, market capital, process capital, and renewal capital. Financial capital is represented by the logarithm of GDP per capita adjusted by the purchasing power parity of each country, calculated its ratio to the highest value and then transformed it into a 1-10 score. (Lin & Edvinsson, 2008, p. 531) The overall index is the total score of the five types of capital. To assure the validity of the selected variables in measuring the four latent constructs (human capital, market capital, process capital, and renewal capital), the LISREL technique and “Amos 5” program were utilized to test the measurement model. Data analyses showed that all the variables are significant at a  $\frac{1}{4}$  0.05, which means the selected variables are sufficient to evaluate the latent constructs. Thus, the measurement model is valid for assessing national IC.” (Lin & Edvinsson, 2008, p. 531) After describing the used methods it is necessary to point out the used indicators below (Figure 4).

<i>Human capital index</i>	<i>Market capital index</i>
1. Skilled labor <sup>a</sup>	1. Corporate tax <sup>a</sup>
2. Employee training <sup>a</sup>	2. Cross-border venture <sup>a</sup>
3. Literacy rate	3. Culture openness <sup>a</sup>
4. Higher education enrollment	4. Globalization <sup>a</sup>
5. Pupil-teacher ratio	5. Transparency <sup>a</sup>
6. Internet subscribers	6. Image of country <sup>a</sup>
7. Public expenditure on education	7. Exports and imports of services
<i>Process capital index</i>	<i>Renewal capital index</i>
1. Business competition environment <sup>a</sup>	1. Business R&D spending
2. Government efficiency <sup>a</sup>	2. Basic research <sup>a</sup>
3. Intellectual property right protection <sup>a</sup>	3. R&D spending/GDP
4. Capital availability <sup>a</sup>	4. R&D researchers <sup>a</sup>
5. Computers in use per capita	5. Cooperation between universities and enterprises <sup>a</sup>
6. Convenience of establishing new firms <sup>a</sup>	6. Scientific articles <sup>a</sup>
7. Mobile phone subscribers	7. Patents per capita (USPTO + EPO)
<b>Notes:</b> <sup>a</sup> Variables are rated qualitatively using a scale of 1-10. Financial capital is the logarithm of GDP per capita adjusted by purchasing power parity	

*Figure 4. Indicators proposed by Edvinsson and Lin.  
(Edvinsson & Lin, 2008. p. 530)*

Authors emphasize that the sources for the data were OECD database and the World Competitiveness Yearbook. The result of the research (overall results) are presented below (Figure 5).

			Intellectual capital				
Mean of 1994-2005			Financial capital	Human capital	Market capital	Process capital	Renewal capital
Denmark	Mean		9.814	8.302	6.589	7.057	5.537
	Ranking	Within	1	2	4	3	5
		Between	2	1	2	2	3
Finland	Mean		9.558	7.551	6.558	7.586	7.082
	Ranking	Within	1	3	5	2	4
		Between	5	4	3	1	2
Iceland	Mean		9.724	7.234	6.693	6.762	4.887
	Ranking	Within	1	2	4	3	5
		Between	3	5	1	5	4
Norway	Mean		9.920	7.813	5.962	6.986	4.689
	Ranking	Within	1	2	4	3	5
		Between	1	3	5	3	5
Sweden	Mean		9.612	8.077	6.181	6.978	7.540
	Ranking	Within	1	2	5	4	3
		Between	4	2	4	4	1

*Figure 5. Means and ranking the comparison of Nordic countries.  
(Lin, Edvinsson, 2008, p. 534)*

The overall result of this studies (graphically presented for each country) are formulated in very concise conclusion "The Nordic countries' intellectual capital has an international reputation for excellence, and this study supports that perception. The intellectual capital of all five Nordic Countries' was ranked among the top ten countries of the 40 countries included in this study, and three were in the top five." (Lin, Edvinsson, 2008. p. 541).

## 6. INTRODUCING INDICATORS THAT SHOWS THE IMPACT OF GOVERNMENT ON NATIONAL INTELLECTUAL CAPITAL

From the lists of indicators presented above (Figure 3 and 4), it is easy to conclude that researchers uses some standard indicators but also they are introducing some of their specific indicators. The suggested indicators in this study are divided according the previous logical frame (Skandia Navigator). Both selected case studies had brief information about countries that are researched, and this shows that is essential for every model to have a profile data for selected country but that profile needs to be modified by adding more data. The inspiration for this expanded profile came from analysed studies (case studies one and two) but also from the works of Nick Bontis (2004) "National Intellectual Capital Index: A United Nations initiative for the Arab region initiative" and Susan Alexnader (2006) "An Intellectual Capital of the Grand Duchy of Luxembourg." Bontis considers natural resources, population and its age structure, GDI index, HDI index, remittance and diaspora, WTO membership, membership in regional and international organization and the freedom of trade as indicators suitable for country profile. Alexander in her study emphasizes geography, history, government, culture and language in use. So recommendation for the future researchers is to combine those dates because together they can give a great profile of the country. For the financial capital, suggestion is to add two indicators, and those are diversion of public funds and wastefulness of government spending (Global Competitiveness Report, World Economic Forum). First indicator is related to corruption that is very dangerous for every segment of society, and it has a strong influence on financial capital. Suggestion of the second indicator is based on the fact that irresponsible wasting of public money means less money for education, research,

health care. From obvious reasons corruption and irresponsible wasting of public money in the past will strongly affect financial capital. In the case of market capital, three indicators are proposed: favoritism in decisions of government officials, burden of government regulation (Global Competitiveness Report, World Economic Forum) and Index of failed state (Found for peace). Favoritism in decisions of government officials obviously distorts market competition and contributes to monopoly and oligopoly which certainly is not desirable in market economies. The burden of government regulation strongly effects companies since government regulation can influence on local and global competitiveness. Index of failed state shows the political image of the state. For process capital, three indicators are proposed: number of procedures for starting a business, strength of investor protection (The World Bank, Doing Business Report) and property rights (Global Competitiveness Report, World Economic Forum). The listed indicators should be considered since everyone of them has influence on process capital. More precisely previously mentioned indicators strongly influences on investors (domestic and foreign) and their ability to produce new value. For the human capital seven indicators are proposed: quality of the educational system, quality of math and science education, local availability of specialized research and training services, ethical behavior of firms (Global Competitiveness Report, World Economic Forum). Other indicators for this component are the total number of students with a master degree, the total number of student with Ph.D. (national statics offices) and number of scientific publications on 100000 citizens (UNESCO, Science Report). For developing and renewable capital, twelve indicators are suggested: total number of ISO 9001, ISO 27001, ISO 22000, ISO 16949, ISO 14001, ISO 50001.(International Organization for Standardization) ISO standardization upgrades all fields that covers. Other indicators are firm-level technology absorption, FDI and technology transfer, quality of the overall infrastructure, brain drain, country capacity to retain talent and country capacity to attract talent (Global Competitiveness Report, World Economic Forum).This indicator can help in improvement and creation of a holistic model for measurement of national intellectual capital.

## 7. CONCLUSION

Based on the facts presented in the previous chapters, it is possible to conclude, that the study of national intellectual capital is a very dynamic area of science that is by its nature interdisciplinary. In terms of models and methods of measurement of national intellectual capital that were practically applied it is obvious that models based on Skandia Navigator dominant. All researchers and experts in this field indicate that there is a need for continuous innovation and finding new indicators in order to improve the model. Various researchers used widely accepted and specific indicators within components of the model for measuring national intellectual capital as in two presented case studies. Additional indicators that should be incorporated into the model Skandia Navigator are based on extensive research conducted for a doctoral dissertation. Measurement of quantitative and qualitative traits of national intellectual capital contributes to its better management and to the general development of the society.

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## INFLUENCE OF CULTUROLOGICAL ENVIRONMENT AND LEADER'S PERSONALITY IN MORAL JUDGEMENT

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### ABSTRACT

*At the moment of entering a new cultural environment there is an inevitable appearance of the need for personal transformation in leadership, and that according to Jean Piaget, author of theory of cognitive development, primarily occurs in early age and develops throughout life, passing through all transformations, adjusting to social and ethical norms of behaviour thus creating personality later enriched with education, experience, beliefs and values through ways of judgement and deciding makes a whole. When entering a new cultural environment, with various business and social activities, this whole is often tested in terms of flexibility, adjustability, internal moral criteria (moral compass), acceptance of new norms of behaviour, different culturality, different language areas, different microeconomic situations than the one it came from. Leaders face a task of maintaining their own integrity through reactions defined by the code of ethics, socially responsible management and profits. If they put in a new situation, leaders use all of their resources in order to know how to rightly deem and judge which behaviour to keep through their moral compass, and which to accept from the culture they came to. Each of them is faced with a question to what extent goal (profits) justifies means. It is a duty of every leader to conduct an inventory of their ego as exhibited manifestation of personality through recognition of too weak and too strong ego and reactions to appearance of them through humility, humbleness, ethics, morality and the need to satisfy all stakeholders in the decision-making process, characterized by ethical leadership. Link between leaders, shareholders and stakeholders should be continuous with the right to integrity and dignity of all those included in the system through implementation and everyday enlivening and enrichment of ethical norms of behaviour agreed by code of ethics.*

**Keywords:** *Culturological Environment, Ethical Leadership, Moral Judgement, Personal ego, Personality*

### 1. INTRODUCTION

Moral judgment is becoming an increasingly important leverage point for organisation. They operate in more complex and ambiguous contexts in which leaders and their followers face challenging moral dilemmas, often while addressing the competing needs and values of multiple stakeholders (Donaldson, 2003; George, 2007; Hannah and Avolio, 2010). Whether driven by heightened ethical consciousness or response to public scrutiny, many organizational leaders have assumed a larger role in seeking to build cultures and performance management processes that develop ethical leadership (Hannah and Avolio, 2010). Furthermore, Ibarra-Colado et al. (2006) explained how an individual's values and organizational context guide individual decision choices of managers (Elango et al., 2010). However, much of the literature conflates values with personality and other individual characteristics (e.g. Hambrick and Mason, 1984; Finkelstein and Hambrick, 1996; Higgs and Lichtenstein, 2011). There have been a number of studies that explore the relationships between personality and values with a number of authors proposing either direct relationships (e.g. Furnham *et al.*, 1999) or at least a degree of overlap (Higgs and Lichtenstein, 2011). Valentine and Rittenburg (2004) noted that public and national values are known to affect individual beliefs (Jackson and Artola, 1997; Hofstede, 1991; Wines and Napier, 1992), and

these values might also impact ethical reasoning. Genesis of the word ethics and moral are not at all simple. Johnson (2012) defines that ethics involves judgments about the rightness or wrongness of human behaviour. According to Klaic (1978) 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 (Klaic, 1978). Organizational ethics applies moral standards and principles to the organizational context (Johnson, 2012). 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). 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). On the other hand personal ethics is made of the rules that individuals use to live their lives by (Weihrich, Koontz, 1994). Those rules can differentiate from person to person, however, there are some universal ethical norms. Therefore, ethical behaviour is the one in line with generally accepted social norms (Zugaj et al., 2004).

## **2. THEORETICAL FRAMEWORKS OF MORAL JUDGMENT IN LEADERSHIP**

### **2.1. Significance of moral judgment and ethical decision-making**

Trevino and Nelson (2011) stated that exist two ways to think about individual ethical decision making – the prescriptive approach and the descriptive approach. The prescriptive approach is derived from ethical theories in philosophy and offers decision-making tools (ways of thinking about ethical choices) that help to decide what decision people should make as a „conscientious moral agent“ who thinks carefully about ethical choices and who wants to make the ethically “right” decision (Trevino and Nelson, 2011). Moral philosophies present guidelines for determining how conflicts in human interests are to be settled and for optimizing mutual benefit of people living together in groups (Rest, 1986). However, there is no single moral philosophy that everyone accepts but the most applicable to the study of business ethics are: teleology (consequentialism, egoism, and utilitarianism), deontology, virtue ethics, justice (Ferrell et al., 2013). On the other hand the descriptive approach describes how people actually make ethical decision and relies on psychological research. To be able to talk about ethical decision-making is necessary to perceive ethics as an important item in the daily business operations and it is important to incorporate ethics to become a part of decision-making process (Trevino and Brown, 2004). Recognition of an issue as an “ethical” issue triggers the moral judgment process, and understanding this initial step is key to understanding ethical decision-making more generally (Trevino and Brown, 2004). According to them moral judgment focuses on deciding what’s right— not necessarily doing what is right. Even when people make the right decision, they may find it difficult to follow through and do what is right because of pressures from the work environment (Trevino and Brown, 2004). In dealing with moral dilemmas, people must extract, weigh, and integrate the morally relevant information in the situations confronting them (Bandura, 1991). Furthermore Trevino and Brown (2004) stated that moral awareness represents just the first stage in a complex, multiple-stage decision-making process (Rest, 1986) that moves from moral awareness to moral judgment (deciding that a specific action is morally justifiable), to moral motivation (the commitment or intention to take the moral action), and finally to moral character (persistence or follow-through to take the action despite challenges). The most

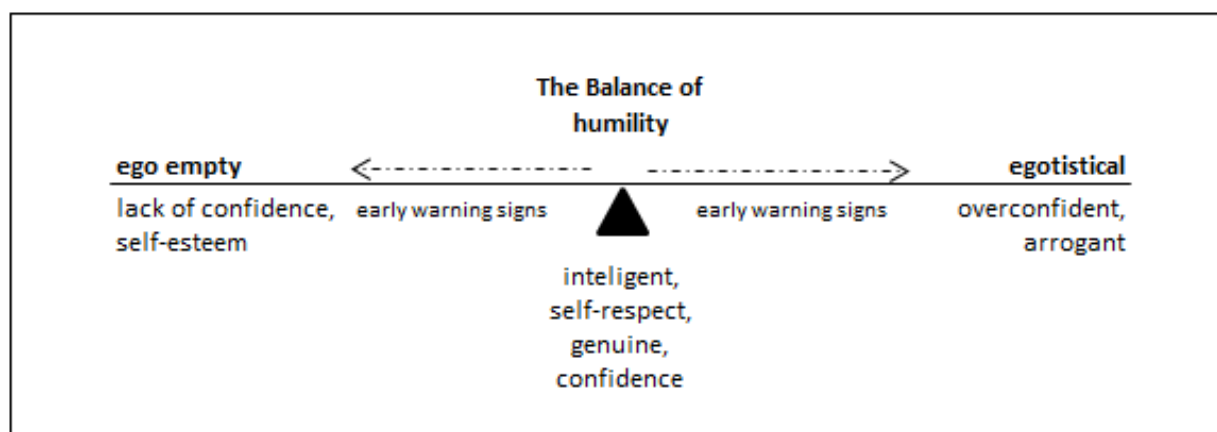
prevalent models for character or moral development have focused primarily on aspects of cognition or judgment, most typified by Jean Piaget and Lawrence Kohlberg's models of cognitive moral development, and James Rest's four component model (Hannah and Avolio, 2010). First, Piagetian theory favours a developmental sequence progressing from moral realism, in which rules are seen as unchangeable and conduct is judged in terms of damage done, to relativistic morality in which conduct is judged primarily by the performer's intentions (Bandura, 1991). Following the lead of Piaget, Kohlberg developed an expanded cognitive structural theory of morality that emphasized the cognitive basis of moral judgment and its relationship to moral action. He postulates a six-stage sequential typology of moral rules, beginning with punishment-based obedience, evolving through opportunistic self-interest, approval-seeking conformity, respect for authority, contractual legalistic observance, and culminating in principled morality based on standards of justice (Bandura, 1991). Some theorists argue that the moral idealization in Kohlberg's theory reflects preference for Western views of moral adequacy rather than objective standards or the dictates of reason (Bandura, 1991). Furthermore Kaplan (1989) has examined the integrative rules of moral decision making with scenarios that include different combinations of factors characterizing the various stages of Kohlberg's theory. Bandura (2002) developed moral agency that embedded in a broader socio-cognitive self-theory encompassing affective self-regulatory mechanism rooted in personal standards linked to self-sanction. In recent years Hannah and Avolio (2010) proposed a new construct titled moral potency that represents an individual's ethical psychological resources and includes the components of moral ownership, courage, and efficacy. They propose that a leader's character is defined not only by what the leader thinks but also by his or her motivation to act to address ethical dilemmas. Kohlberg and Candee (1984) stated that people must first make judgments of responsibility before they will initiate dedicated moral judgments and actions while Hannah and Avolio (2010) propose that the psychological process underpinning such judgments of responsibility stems from a sense of ownership over the ethical conduct of oneself, and for leaders or even teams in terms of shared leadership, over others in their sphere of influence. Bandura (2002) stated that whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to produce desired effects by one's actions, otherwise one has little incentive to act or to persevere in the face of difficulties. He considered that self-efficacy beliefs regulate human functioning through cognitive, motivational, affective, and decisional processes which affect whether individuals think in self-enhancing or self-debilitating ways; how well they motivate themselves and persevere in the face of difficulties; the quality of their emotional life, and the choices they make at important decisional points which set the course of life paths (Bandura, 2002).

## **2.2. Challenges of moral development**

In the development of a moral self, individuals construct standards of doing what is right and wrong according to their beliefs and values shaped throughout the process of education and socialisation that serve as guides for their further behaviour. Having regard to different circumstances people behave unpredictably and differently. Bandura (2002) stated that people regulate their actions by the consequences they apply to themselves that give them satisfaction and a sense of self-worth. He noted that people generally act in accordance with their personal values, but their sense of when and how to apply their values is influenced by the social norms in the workplace and the society as well. He argued that they refrain from behaving in ways that violate their moral standards, because such conduct will bring self-condemnation. Recent research suggests that standards of right and wrong or moral standards do not function as fixed as people would like to conduct (Mazar et al., 2008).

What is important for leaders to understand is that their self-concept itself can change with the circumstances—in particular, with the organizational culture (Gebler, 2012). Employees who have high moral standards in a specific occasion, lured by the company's culture and encouraged by incentives, rewards or short profit goals, disengage moral standards and doing things they did not set out to do or they would not do in other circumstances. Bandura (2002) noted that disengagement practises will not instantly transform considerate people into cruel ones but that it is a gradual process in which individuals perform mildly harmful acts they can tolerate with some discomfort. He stated that after their self-reproof has been diminished through repeated enactments, the level of ruthlessness increases, until eventually acts originally regarded as abhorrent can be performed with little anguish or self-censure and inhumane practices become thoughtlessly routinized and people may not even recognise the changes they have undergone as a moral self. Furthermore Bandura identified six forms of moral disengagement strategies including advantageous comparisons (e.g., “well at least our actions weren't as bad as what our competitors would do”), justifications that attribute blame to victims (e.g., “they were asking for it”), diffusion of responsibility (e.g., we wouldn't have to do this if headquarters didn't demand such a high profit margin”), dehumanizing victims (e.g., “the competition is a bunch of snakes”), choosing to not recognize the extent of harm (e.g., “it will only put some people out of work”), and using sanitizing language or euphemisms (e.g., “a bomber ‘servicing’ a target causes ‘collateral damage’”), which allow the actor to lessen the perceived severity of their actions and thereby protect their moral self-identity (Hannah and Avolio, 2010). Similar to this theory, Marcum and Smith (2008) developed a balance of humility, which explains the function of the ego in moral judgment and ethical decision-making (Figure 1.). They stated that ego gives self-esteem to utilise the biggest advantages, but at the same time, it turns into weaknesses that mine those very advantages. Their theory argued that once people move right or left from the balance they start losing humility as one of preconditions of ethical behavior. The more time passes away from the balance, the more it becomes pleasant for them to be there and it is likelier that they will develop egoistic habits. After they create the habit of being outside of the balance, they slowly start to believe that they are above other things as well: that they are not a subject to reprimand, that they are never wrong, that their behaviour is undisputable by anyone, that they are obsessed with the need to prove they are right, that they cannot have a bad idea, that it is beneath them to be led by others etc. (Marcum and Smith, 2008). When people are consistently outside of the balance, that eventually takes them to behavioural extremes in non-ethical way and the greater the likelihood that they would reach dishonest conduct.

*Figure 1. The Balance of humility (Marcum, D. and Smith, S., 2008, p. 98)*



Bandura (2002) stated that people do not usually engage in harmful conduct until they have justified, to themselves, the morality of their actions and in this process of moral justification, pernicious conduct is made personally and socially acceptable by portraying it as serving socially worthy or moral purposes.

### **2.3. Role of individual and cultural values in moral judgment and decision-making**

Personality refers to individual differences, a person's character and temperament, whereas values are principles that a person believes about what is important, what is valued, and how one should behave across a wide variety of situation. Like personality traits, values guide a leader's behaviour and are influenced by a combination of biological and environmental factors (Nahavandi, 2012). The study of the impact of individual values on a range of outcomes has a history dating back to the 1930s (Rohan, 2000; Higgs and Lichtenstein, 2011). In general, values theorists assert that individual values are a dominating force in life, providing a sense of meaning for individual actions (Rokeach, 1979; Higgs and Lichtenstein, 2011). Although the study of values has tended to be anchored in the social psychology literature there has been a growth of interest in their role in a broader work context (Higgs and Lichtenstein, 2011). Values are relevant to individuals, to organizations, and to societies. Krizmanic (2009) 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. Values cannot be directly perceived, instead, people make their conclusions about them based on the goals that an individual is trying to achieve or deems important in his or her life (Krizmanic, 2009). Covey (2009) states that everything affecting our lives – family, school, church, work environment, friends, co-workers and ruling social paradigms – all those things leave a silent, unconscious imprint and participate in shaping of our reference frame, our paradigms, our efforts, and says that those paradigms are starting points of our attitudes and behaviours. According to England and Lee (1974), values can affect leaders in several ways, including effects on (Washington et al., 2006):

- leaders' perceptions of situations, individual and organizational successes, and ethical and unethical behaviour;
- solutions leaders generate to solve problems;
- leaders' interpersonal relationships;
- the extent to which leaders accept or reject organizational goals and pressures;
- leadership performance.

According to Rokeach (1979) two types of individual values can be defined. He referred to one of them as instrumental values which show desirable modes of conduct, the other – as terminal values which are the end state of existence. The number of individual values is small with different structural arrangement, that they are results of social demands and psychological needs of the person. He also argued that individual values are capable of undergoing changes as a result of changes in society, situation, self-conceptions, and self-awareness, but they are regarded as much more stable phenomenon compared to employee attitudes and finally, that change in values represents central rather than peripheral changes, thus having important consequences for other cognitions and social behaviour (Rokeach, 1979; Diskiene and Gostautas, 2010). Most of the research has dealt with the concept of values to understand culture (Earley, 2006; Vaclair, 2009). The first of these approaches, which views national culture as the key determinant of work values (Elizur et al. 1991), draws particularly on the work of Hofstede (Gahan and Abeysekera, 2009). The effect of national culture on an individual's work values is founded on the view that an individual's values in life are shaped by immediate family, societal and cultural norms, values and beliefs, which form "the collective programming of the mind that distinguishes the members of one group or

category of people from another” (Hofstede 2001; Gahan and Abeysekera, 2009). Hofstede (1980) stated that values are “among the building blocks of culture” and culture is “the collective programming of the mind” in which values and beliefs are assumed to influence behaviour places culture inside the minds of individuals as members of a cultural group (Vauclair, 2009). He proved that what applies to cultural groups does not necessarily apply in the same way to individuals, furthermore cultural dimensions such as collectivism and individualism, also could not be replicated at the individual-level. Considering that culture determine boundaries and constraints on what is accepted or appropriate and considering this cultural values refer to what is judged as right or wrong that refer to issues of morality. In fact, it is difficult to “delineate where culture ends and morality begins as culture and morality share an intricate and intimate relationship” (Vauclair, 2009).

### **3. CULTUROLOGICAL ENVIRONMENT**

According to Tsalikis and Fritzsche (1989), with more companies expanding into foreign markets, the problem of cross cultural ethics is getting more prevalent. Business practices that are considered ethical in the U.S. are not viewed as such in different cultures (Valentine and Rittenburg, 2004). The investigation of international ethics is difficult because the issues are complicated and difficult to scrutinize, and global firms encounter many value contrarities (Valentine and Rittenburg, 2004). Valentine and Rittenburg also stated that many questionable business practices only impact other nations and governments, and egocentric businesspeople might be inclined to make decisions that help their home countries. They noted since international firms attempt to enhance their relationships with other countries, business professionals should function in a manner that benefits all interested parties. Managers operating in the international markets face significant pressure to act unethically due to tolerance of bribery (Elango et al., 2010). Often a lack of congruence in ethical standards between home country and host country allow for considerable variation in managerial judgment. Elango et al. (2010) stated that the manager stationed abroad may feel distant from organizational and societal resources for resolving ethical issues and that the scrutiny of consumers, investors, journalists, or other stakeholders may be less intense, hence less effective as social control influences. In fact that can be verified with Tilker (1970) and Bandura (1991) researches that it is relatively easy to hurt others when their suffering is not visible and when causal actions are physically and temporally remote from their effects. Therefore, the autonomy and authority necessary for managerial effectiveness in an international setting expand the possibility for decision-making to deviate from corporate expectations (Elango et al., 2010). Leadership should be a key source of ethical guidance for an organisation (Huhtala et al., 2011), critical in creating, establishing and maintaining an ethical organisation (Lloyd & Mey, 2010) and ethical decision-making (Brown et al., 2005). Unless leaders create market-oriented organizational cultures, any required transformation and adaptation to a market economy may be seriously undermined (Littrell and Valentin, 2005). Su and Richelieu (1999) stated that multi-national corporations are confronted with what they interpret as peculiar habits that in turn greatly influence the success or failure of their activities abroad. They also noted that managers have to face the challenge of translating moral values into business decisions and actions that are accepted in the respective cultures. Discrepancies between moral values as well as their application are commonly heightened in countries in transition, for instance, in the Central and Eastern European Countries where legal and political structures are still at an embryonic level a chronic temptation to break the rules in order to survive which favoured the development of ethical standards that may be considered in Western countries as unethical (Su and Richelieu, 1999). Although Bandura (1991) noted that societies that are less inclined toward ethical abstractions and idealization of



autonomy come out looking morally underdeveloped even though in their moral conduct they may exhibit fewer inhumanities than Western societies that are ranked as morally superior. Furthermore cultures are diverse and dynamic social systems not static monoliths and intracultural diversity and intraindividual variation in psychosocial orientations across spheres of functioning underscore the multifaceted dynamic nature of cultures (Bandura, 2002). There are predominantly individualistically oriented social systems and more collectively oriented ones (Kim et al., 1994; Bandura, 2002). For instance, collectivistic systems founded on Confucianism, Buddhism, and Marxism favour a communal ethic, but they differ significantly from each other in particular values, meanings, and the customs they promote (Kim et al., 1994; Bandura, 2002). He also stated that nor individualistic cultures are uniform and that Americans, Italians, Germans, French, and the British differ in their particular brands of individualism. Even within an individualistically oriented culture, such as the United States, the Northeast brand of individualism is quite different from the Midwest and West versions and the latter differ from that of the Deep Southern region of the nation (Vandello & Cohen, 1999; Bandura, 2002).

#### 4. CONCLUSION

In the modern economy the moral judgement became an imperative of successfully implemented business ethics in organisation. 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 (Rahimic and Podrug, 2013). Since effective corporate governance is enhanced by concordance between organizational and individual ethics, it is important to understand the elements that produce this congruence (Elango et al., 2010). Complex and aspirational contexts of international business define preconditions to assess how individual ethics and work environment influence an individual's intentions to moral judgement and ethical behaviour. Even when action is clearly warranted and legitimate, people with higher moral standards who knows what is the ethical thing to do still fail to take an action on their decision because of pressures from the work or social environment. Furthermore people live their lives in various cultures that differ in values, customs, legislation and social and economic parameters that shape these potentialities into diverse forms and influence people in their actions and experiences. Leaders "own" their experiences when they interpret those experiences and plan their future actions in ways that portray their values and beliefs, thereby shaping their context in ways desired—and through this reciprocation leaders are producers as well as products of their environments (Bandura, 2002).

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## CREATIVE INDUSTRIES ROLE IN ST. PETERSBURG SOCIO-ECONOMIC DEVELOPMENT STRATEGY

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### ABSTRACT

St. Petersburg is the second biggest city in Russia (4th in Europe due to citizens number factor) with total population over 5 million inhabitants and is extremely important industrial, commercial, scientific, cultural national center. Now St. Petersburg is the only big city which whole downtown (over 40,000 buildings) has been included into UNESCO World Heritage list. At the same time St. Petersburg has some economic and social problems (underdeveloped infrastructure, old technology based industrial enterprises number, negative regional foreign trade balance, low population life expectancy, etc.). In order to solve different problems the city Government has designed the socio-economic development strategy up to the year 2030 (Strategy).

**Keywords:** *Creative industries, creative spaces, city of St. Petersburg, St. Petersburg St. Petersburg socio-economic development strategy, Russia*

### 1. INTRODUCTION

Strategy general objective - to ensure citizens stable life quality and increase St. Petersburg global competitiveness based on the national development priorities implementation, sustainable economic growth and use of innovation and technology activities. Present socio-economic development features highlight the cultural resources and creativity as one of the modern, post-industrial economy basis. Creative approach gives an opportunity to find new and unique solutions in a rapidly changing world. Therefore, creative industries (CI) development provides a significant competitive advantage to the St. Petersburg economy. CI sectors are the following: music, visual arts, cinema, performing arts, gallery business, fashion industry, publishing, advertising, design, architecture, Internet and computer technology, cultural tourism. Development of creative industries Features contemporary socio-economic development highlight the cultural resources and creativity as one of the foundations of modern, post-industrial economy. Creative approach makes possible to find the new and unique solutions in a rapidly changing world. Therefore, the creative industries development provides a significant competitive advantage economy of St. Petersburg. By sector of the creative industries include: music, visual arts, film, performing arts, gallery business, fashion industry, publishing, advertising, design, architecture, internet and computer technology, cultural tourism.

### 2. CHAPTER 1

St. Petersburg has a large, but it is not yet sufficiently realized the creative industries potential. Meanwhile, the creative industries can be an important element of the urban economy and a factor of social well-being in the city. Examples include such European cities as London, Paris, Amsterdam, Berlin and others, in which a considerable percentage of people employed in the creative industries, generating a significant gross regional product (GRP)

share. Currently creative industries are producing only 7% of St. Petersburg GRP.<sup>24</sup> CI has contributed to the spending growth in the field of culture. They contribute to the industrial development, innovation and economic differentiation. In addition, creative technologies contribute to a change in the quality of life, the formation of cultural identity, the pluralism development and tolerant atmosphere in the society. From the perspective of business forms, creative industries are based on the priority of small and medium enterprises (SMEs) producing creative products and services. At the same time, this local production, focused on finding a way into global markets in a post-industrial economy. Modern business strategies take into account not only the material, but also intangible assets. Human and creative capital of the corporation becomes an important part of its financial solvency. For the development of creative industries sector is necessary to implement a set of measures in the following areas. Basically - is to create a favorable climate in this area, creating the conditions and the atmosphere that contribute to the emergence of new ideas, creative initiative and its implementation. Urban policies in this area could be not confined to administrative and / or financial support to specific organizations or projects. Much more important is to ensure a competitive and free creative environment, freedom of creativity in a variety of areas. It is necessary to ensure efficient interaction between representatives of the creative industries, at the level of the city as well as at the national or global level. The city's contribution may be to create a communication infrastructure and support joint projects St. Petersburg residents and other cities and countries residents. The city will contribute to the creation and development of new and creative spaces (studios, workshops, showrooms, etc.), including on the basis of the transformation of the existing, but unclaimed industrial facilities. It is important to take a number of measures, removing legal and administrative barriers to such a transformation. In addition, the city will create favorable conditions in the area of taxation and rent-to organizations and creative industries, as well as in organizations activities regulation. The most important objective in this regard is to ensure maximum creative freedom. It is necessary to create favorable conditions for attracting non-governmental funding of creative industries, including in the framework of the Russian and international charitable initiative.

### 3. CHAPTER 2

For St. Petersburg, as well as for Russia as a whole, it is characterized by a relatively high degree of conservatism in the perception of art, design, architecture. But without the openness to new ideas and approaches active creative industries development could not be ensured, it is impossible to stimulate private initiative and the creation of a new one. In this regard, along with the preservation and promotion of historical and cultural heritage of St. Petersburg, one of the priorities of the state policy in the sphere of culture and education should be the St. Petersburg residents and guests communion to contemporary art, to current trends in world culture, art, design, architecture, scientific and social thought. This task should be implemented as cultural institutions and science and education institutions. An important condition for the creative industries development in St. Petersburg is the active participation in the national and international creative initiatives. Such participation should cover not only the field of art and design, has a tradition of a strong presence of local players, but also areas in which the city and the country behind the advanced world trends. It is necessary to promote the development of the internal "creative" market, its infrastructure, vocational training, promotion of creative industries through tax incentives and facilitating administrative procedures. An important component of the policy of St. Petersburg in the field of culture should be the coverage of non-governmental creative industries producers - providing them

<sup>24</sup> [http://spbstrategy2030.ru/?page\\_id=102](http://spbstrategy2030.ru/?page_id=102),  
<http://zdrav.spb.ru/media/komzdrav/documents/document/file/strategiya1.pdf>

with grants to encourage their interaction with the state cultural institutions, providing them with platforms for the implementation of projects. One of the ways to solve problems in the creative industries development should be to promote the development of an integrated practice-oriented education in the creative industries field. By 2030, St. Petersburg should be a city open to new ideas and initiatives culture, the arts, science and social thought, an important center of the interaction between creative individuals and organizations in Russia and other countries, the birthplace and implementation of new creative projects and activities. The foundation for this will be available as a scientific and cultural potential of the city, and the authorities' efforts to create such economic and ideological climate that will be most favorable for the open and free creativity. The above mentioned strategic areas implementation support to creative industries will ensure by 2030 the following tangible positive results. The creative industries contribution to the formation of GRP St. Petersburg will increase to 12%. Value for professionals involved in the creative industries, in relation to the total civilian labor force in St. Petersburg will be 16%.<sup>25</sup> Creative economy in the UNESCO report in 2013 is defined as the type of economy, which is formed as a result of the development of creative industries.<sup>26</sup> Creative economy subjects produce creative product - an economic good or service that is the creative process result and has economic value. Creative product could be equal in both terms as goods and as services. Creative product (such as a piece of music) can move from the category of goods in the category of services and vice versa.<sup>27</sup>

#### 4. CHAPTER 3

The term "cultural industries" dates back to the early work of the Frankfurt School's 1930-1940.<sup>28</sup> Art condemned for providing ideological legitimating of capitalist societies, and for the emergence of popular culture industry.<sup>29</sup> From this perspective, culture and economy are presented as mutually hostile. They are governed by incompatible logics. Cultural industries have been promoted around the world in the 1980s by the UNESCO. They contain a wide range of areas, such as music, art, fashion and design, media (radio, publishing, film and television). Opportunities for cultural industries are not limited to intensive industrial production.<sup>30</sup> Traditional agricultural craft in developing countries is cultural craft. Crafts are not only a significant economic values, but also represent a visible cultural and social values. The term "creative industries" refers to a wider range of production, which includes goods and services produced on the basis of innovation, research and various software products. This term came into use during the promotion of the national cultural policy, for example, in Australia in the early 1990s. At the end of the decade the transition from cultural to creative industries has been carried out by the Department of Culture, Media and Sport. The birth of the term "creative industries" also follows from relations of creativity and economic development of cities and urban planning.<sup>31</sup> Cultural and creative industries can be

<sup>25</sup> [http://spbstrategy2030.ru/?page\\_id=102](http://spbstrategy2030.ru/?page_id=102),

<http://zdrav.spb.ru/media/komzdrav/documents/document/file/strategiya1.pdf>

<sup>26</sup> Creative Economy Report 2013. Special Edition. Widening Local Development Pathways. United Nations / UNDP / UNESCO, 2013. P.20.

<sup>27</sup> John Howkins. The Creative Economy. How People Make Money From Ideas. 2013. P. 4.

<sup>28</sup> Adorno, T. W. Negative Dialectics. New York: The Seabury Press, 1973.

<sup>29</sup> Creative Economy Report 2013. Special Edition. Widening Local Development Pathways. United Nations / UNDP / UNESCO, 2013. P. 21.

<sup>30</sup> Galkin D.V. Cities cultural development strategies: Contemporary approaches. Sociology and Social Anthropology. – 2005. – № 4. – p. 41

<sup>31</sup> Creative Economy Report 2013. Special Edition. Widening Local Development Pathways. United Nations / UNDP / UNESCO, 2013. P. 20

represented as “bull’s-eye” circles. One of the first and most famous diagrams was proposed by David Throsby.<sup>32</sup> Decipher each cyclic circle diagram. Centre is represented by industrial cultural production: literature, music, performing arts, visual arts. Other key creative industries are considered as filmmaking, museums, galleries, libraries, picture businesses. The next concentric are the industry having a broader set of characteristics - this industry, which are cultural and national heritage, television, radio and print media, the recording industry, video and computer games. These industries are closely interdependent with the so-called "related to cultural production industry": advertising, architecture, design, fashion. Respect to the diagram is necessary to clarify the following:

1) The boundaries between the circles transparent. Each subsequent circle contains more aesthetic and symbolic attributes

2) The central circle diagram, which is called the "core of cultural production» (core cultural expression) and includes activities such as literature, music, fine arts, and others. - Does not mean that artists are at the top of the hierarchy of creative professions. The central part of the diagram indicates that at the beginning of chain of cultural values, individual artists and creative workers are part of a larger enterprise, initiated by managers, entrepreneurs, producers and intermediaries. They depend on the communities involved in the production of cultural goods. Speaking about the situation, when the creative spaces combine features of cultural production, as well as a variety of marketing and business strategy, we note that the chain of creation of a product that has cultural value, begins far beyond the art studio. Building owners, management companies, tenants and subtenants ("residents") - is associated chain management policy development of a space. Subtenants usually consider themselves the "creative class." They depend on the decisions made up the chain. Owners of some creative spaces for tenants prefer one and not the other, in order to meet the intended image space. Creative space produces the product, the cultural component of which is its added value. In other words, "creativity", contained in the product is its unique selling proposition. Thus, for the entrepreneurs it is economically profitable to sell "creative products". St. Petersburg – is a city with a long history and rich cultural heritage. Existing traditional cultural objects has been actively updated with new cultural spaces that offer alternative culture. Such spaces are called creative. The main difference between these spaces and the others – is to focus on making a profit from the sale of cultural products. In this case culture provides the added value and increases the product value. Uniqueness, individuality, focus on the personality of the consumer - these are the distinctive quality of the product (service) produced in creative spaces. Creative industries development to substantial extent depends on creative spaces development. The authors have made the field research based on pool while interviewing St. Petersburg inhabitants. On the other hand, as the results of piloting the questionnaire "The attitude of residents of St. Petersburg to the creative industries and space", the owners of creative businesses in St. Petersburg create high barriers to explore with their products, or so-called "barriers to entry". Therefore, the main consumers of their services and manufactured goods are representatives of other creative spaces and youth belonging to different subcultures. The survey showed that the main reasons for the lack of interest in the activities of creative spaces district Bypass channel in other categories of the population is the lack of information, lack of money and a well-developed cultural infrastructure in other St. Petersburg. Socio-economic characteristics of creative industries and spaces of St. Petersburg are reflected not only in the policy documents of the city government, but also evaluated in terms of the need for appeal by the residents. To determine the population's attitude towards settling down in their area creative spaces, Admiralty district was chosen as the area of the

<sup>32</sup> Throsby, D. Modeling the cultural industries / D. Throsby // International Journal of Cultural Policy, 14(3) P. 217-232.

highest concentration of creative spaces in its territory: Art Rizzordi Foundation, Red Triangle, Weavers, Floors - a list compiled of the most famous places of creative spaces.

## 5. CHAPTER 4

Piloting the questionnaire "The attitude of residents of St. Petersburg to the creative industries and space" was conducted among residents of the Admiralty district by subdistrict: Admiralty district, Haymarket District, Kolomna, Semyonov, Izmailovo. Sew was 48 respondents. Comments and observations were taken into account, tools profiles changed in line with the results of aerobatics. Initially, the questionnaire was not placed the question of whether the respondent is familiar with the terms "creative industry and space." It was assumed that the inhabitants of the Admiralty district, especially districts Kolomna and Izmailovo, where the largest number of creative spaces that had experienced with them. Because first piloting the questionnaire was conducted internally, and respondents were selected at random, then the problem is lack of knowledge was found in the first few seconds during the announcement of the theme and purpose of the study. Obviously, people who know nothing about the creative spaces could not continue to respond to the questionnaire. As a result, in two days aerobic work in the "field" three questionnaires have been collected. After piloting this work, it was decided to carry out on the internet with the help of the internet survey. Comments on the questionnaire have been offered to write in the comments or send them in person. Definition of creative spaces was brought outside the questionnaire to the respondent was able to read it, as well as to create a certain mood of the respondent. Thus, before the start of the survey is necessary to know whether the respondent had heard anything about the creative spaces, or to put this issue at the beginning of the questionnaire itself. If a person has been familiar with the creative industry and space, the next step - to find out ways to get information. The vast majority (74.4%) responded that the main source of information about the creative industries and spaces is the Internet (social networks, news feeds, announcements). Response options "newspapers, radio and television" and "outdoor advertising" got zero. Perhaps in the final version of the questionnaire is to exclude these options. Option that receives the highest number of responses, probably needs more specific segmentation: if information is collected from the "social networking", and if the answer is yes, then what ("Vkontakte", "Facebook"; "news feeds", "announcements"; "e-journals." In the question "How do you rate how well you know about goods, services, and held in the creative spaces of events" results show the average level of awareness of the work of creative spaces. Because 74% of respondents know about creative spaces via the Internet, you need to ask clarifying questions about the kind of information received (for example, what's the news, basically, read the respondents in the social networks of creative spaces). Also here there is a lack of completeness of the proposed list of possible answers (only two points). It is necessary to break the list down into more specific options giving examples: what products are sold, what services are offered and what activities are carried out. The vast majority of respondents (93%) had the experience of visiting a creative space "Loft Project Floors." Results are consistent with the hypothesis of the study. The question of whether the respondents know about the experience of visiting the creative spaces of his inner circle shows the value zero option "no." Respondents do not speak confidently about the experience of visiting the creative spaces of others. Expressed uncertainty about 5 people (including those who themselves have never visited creative spaces). Only half of the respondents are aware of the other places of recreation, ranging in the Admiralty district, other than those listed creative spaces. Rather low percentage may be related to inadequate sample volume, as well as the fact that people go to rest in the other areas of the city (eg, Central) to visit all sorts of cultural sites. Wording of the question has also caused some difficulties, because The term "recreational" perceived by the respondents



vague and interpreted in different ways, and the term needs to be clarified. Questions, "How do you think, who are focused creative space" and "What kind of people you associate yourself" are the logical intersection, as in the questionnaire are nearby and have similar response options. Answering the second question, the respondent at the same time focused on the first one: "If I go out creative spaces, so I am a representative of a certain type of people." This relationship is demonstrated by the results: 88.37% of the respondents believed that creative spaces visited by young people focused on their own development and education, and the same number of respondents associate themselves with this type of people. In the final version, these questions should be placed in different parts of the questionnaire, as well as supplemented by control issues. The income level of people who visit the creative spaces, respondents estimated the average. However, the question is worded incorrectly, as respondents' self-use criterion. Asked about the average income of visitors creative spaces they suggest themselves. Need for more detailed work on this issue, and to include the qualifying criteria, "level of education", "level of income", etc. Russia's middle class has always been a controversial category that requires special consideration in each case study. The question of how much money the respondent spends on certain leisure activities, shows the lowest value of money for each item in the list. Among the list of leisure can be objectively identified only one most expensive form of entertainment, "theater, cinema" - in which respondents are willing to spend 2-3 thousand Rubles a month (30, 23%). Other types of leisure activities have a minimum value of "less than 1,000 rubles.". It is obvious that this issue is quite controversial, and the conclusions of the abundance of the respondents may be biased. For further work on the questionnaire decided to abandon the existing formulation of the problem, consisting of only variants leisure practices of the respondents, and include a complete list of articles monthly expenditure of the respondents (the cost of food, utilities, leisure, clothing, etc.). The questionnaire was an attempt to assess whether respondents feel difficulties with access to the creative space, the so-called barriers to entry. An attempt was made to assess the respondents' attitudes towards themselves as part of the target audience of creative space along three dimensions: income level; on the specifics of cultural consumption; as belonging to a particular social group. However, these issues are not contributing to the disclosure of a software issue and profiles need to be developed. Question of the relationship of the respondent to the ongoing activities in the creative spaces did not cause trouble, and demonstrates adequate target group results: for exhibitions, expositions 62% of respondents have a positive attitude to the ongoing activities are positive 58% of the respondents. No negative attitude expressed virtually none of the respondents, however, this is due to a shift in the sample, when almost all of the respondents had experience of visiting creative spaces. The usual stay of respondents includes virtually equivalent options: meeting with friends (52%); I read books, newspapers, magazines (45%); visit museums, exhibitions, art exhibitions (40%); visit theaters, cinemas (34%); visit the cafes, bars, restaurants (27%); interested in computer, internet access (27%); doing sports (27%). We note that the respondent had to choose three answers. As a result, the issue of pilotage has not shown any recreational preferences are most preferred among the respondents. However, the issue and the options have been formulated correctly, so will have representative data for large samples. It can be concluded that the residents of leisure is very diverse. To creative space became a place of rest of district significance, it must respond to these demands by the local population. Respondents also noted that the main features of successful cultural space - a fun activity (72%); affordable prices (63%); opportunity for a comfortable communicating (cozy space, nice music) (56%). Thus, not only the cultural component is important for the success of the place, but also the social: the ability of people to communicate with friends, spending time with family, for little money. Among the 48 respondents, only 9% have never visited a creative industries spots and

spaces. It should be noted in connection with the fact that the questionnaire was carried out aerobically mainly through online survey among users of social networks, it has been a shift of the sample. As a result, the questionnaire was filled mostly people with higher education (80%), young, aged 18 to 35 years old (85%). However, since piloting the questionnaire was not of a substantive and methodological in nature, such a shift is acceptable.

## 6. CONCLUSION

In general, the questionnaire did not cause fatigue among respondents filling took place quickly and without stress. Often, however, the respondents were asked questions about the meaning of a term. The concept of "creative space" caused the most difficulty, so you need to replace it with a known term. It may be useful to include in the questionnaire more questions filters. So far, we have to consider that creative industries and spaces development role in St. Petersburg economy is not high enough now. But socio-economic development strategy realization should involve much higher creative industries and spaces development level.

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*On the other hand, as the results of piloting the questionnaire "The attitude of residents of St. Petersburg to the creative space", the owners of creative businesses in St. Petersburg create high barriers to explore with their products, or so-called "barriers to entry". Therefore, the main consumers of their services and manufactured goods are representatives of other creative spaces and youth belonging to different subcultures. The survey showed that the main reasons for the lack of interest in the activities of creative spaces district Bypass channel in other categories of the population is the lack of information, lack of money and a well-developed cultural infrastructure in other St. Petersburg.*

*С другой стороны, как показывают результаты пилотажного анкетного опроса «Отношение жителей Санкт-Петербурга к креативным пространствам», владельцы креативных предприятий Санкт-Петербурга создают высокие барьеры для знакомства с их продукцией или так называемые «барьеры входа». Поэтому основными потребителями предоставляемых ими услуг и производимых товаров являются представители других креативных пространств и*

*молодежь, относящаяся к разным субкультурам. Как показало исследование, основные причины отсутствия интереса к деятельности креативных пространств района Обводного канала у других категорий населения заключается в отсутствии информации, недостатке денег и наличии развитой культурной инфраструктуры в других Санкт-Петербурга.*

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## TRANSFER OF TECHNOLOGIES IN DEVELOPMENT COOPERATION MODELS

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### ABSTRACT

*Development cooperation has been identified as one of the possible sources of technology transfer to Sub-Saharan Africa. However, the poorest region of the world and the biggest recipient of Official Development Assistance, Sub-Saharan Africa is also the least advanced technologically. Seeing in technology development an opportunity to stimulate economic development and convergence, the issue of development cooperation mechanisms for increasing the use of technology in economies of the countries from the region is approached. The goal of this paper is to define three general models of cooperation: traditional, socially responsible, and horizontal. These models are based on the historical background of development relations between the so called donor and recipient, on the structure of aid and the recipient catalogue. Main characteristics of identified models were put in the context of aid quality and selection of aid channels. Although the models apply to general development aid compartment, the context of technology transfer possibility was addressed in this paper, since it has been assumed a crucial element to eliminate development disparities. Problem of the role of international cooperation in technology transfer, factors influencing the transfer and conditions which foster technology transfer have also been undertaken in this research. Methods of comparative and system analysis were adopted in order to elaborate theoretical foundations for the models of cooperation.*

**Keywords:** *development assistance, development cooperation, technology transfer*

### 1. INTRODUCTION

Research and development are the engine of growth in the theories of catching up (Silverberg and Verspagen, 1995). The effective use of knowledge and intellectual assets build inside a country and commercialized, or brought from abroad, can potentially fuel value creation (Ondari-Okemwa, 2011). Because of that, the development of technologies, consistent with the wider concept of sustainability (Leiserovitz, Kates and Parris 2005), has become important element of policy strategies on national, regional and international level – and it has been made crucial issue for many international organizations like OECD, European Community, Worlds Bank, and others. For countries with limited potential to create technology, the transfer can be a chance to use processes of globalization for acquiring the technology instead of deepening income and development inequalities (Climent, Palmer, Ruiz, 1995, p. 98). However, in the 21<sup>st</sup> century, with ubiquitous globalization, the focus of international and global technology transfer has changed. It is no longer seen as a simple stream from North to South. Currently it is about the transfer of knowledge and overseas subsidizations of firms. It is less concentrated on the ideas of fixed developed-underdeveloped flow, acceleration of growth and transition, but on exploitation of comparative advantages in global competition (Audretsch, Lehmann and Wright, 2014, p. 302). This creates both an opportunity and a threat for the less developed economies. More efficient use of existing resources can be a chance to foster economic development in Sub-Saharan Africa (Kumar, Dutta and Fantazy, 2007; Yelapaala et al., 2012), but according to statistic data, when it comes to technological advancement, the economies in SSA region are still behind the rest of the world. Technological development in Sub-Saharan Africa (SSA) countries includes especially

mining, agriculture, biotechnology, and manufacturing of textiles. Also, renewable energy sources development are thought to be prospective for the continent growth. In addition, information and communication technology (ICT) sector has risen exceptionally fast in the recent years. At the moment, 16% of the African population has internet access, and this number will increase to almost 50% by 2025 (ITU, 2013). Nevertheless, SSA has relatively low indigenous science and technological infrastructure (with the exception of South Africa) in comparison with other regions of the World. High technology exports from SSA are only 3% of manufactured exports (in 2010), which is one sixth of the world average. The amounts spend on research and development expenditures as a percentage of GDP are still relatively low and account for 0.58% (World Bank, 2007). Some authors characterize such relatively poor technology performance as due to the absence of explicit policies, which would define and guide the undertaken actions, and the ineffectiveness of existing arrangements for managing policies (Vitta 1990; Kane 1998; Karani 2002; Ondari-Okemwa 2011). Many governments in Africa have already reacted to this situation, and started drafting science and technology policies, established ministries of science and engineering universities, devoted more resources to targeted science development programs, and enhanced international cooperation with organizations such as the World Bank, ADB, IDB, DFID, CIDA, UNCTAD, UNESCO to develop science and technology capacity building programs (Watkins and Ehts, 2008). However, deep institutional changes are still required in order for these initiatives to become fruitful. The mechanism of technology transfer requires sound legal environment that allows both secure market for licenses and transfer of knowledge and appropriate protection, the absorption capacity (Cantore, Velde and Peskett, 2014, .p. 316). Stimulation of capacity building for internal science and technology development through human capital investments along with opening the economy for spillovers from abroad are important angles of increasing technology processes. Inviting multinationals which expand technology through foreign direct investments and licensing, is one of the ways to transmit needed values, practices and solutions to the economy (Yang and Maskus 2008, Pouris 2010). Apart from that, the mechanism of transfer may be enacted by public flows, in the scope of governmental cooperation. Although private flows are considered as more important, still the public channels of transfer keep their significance, especially for the low income regions. In this article, the problem of the transfer of technology is studied in the context of development cooperation. The process of technology transfer is viewed here as a global process which embraces all aspects of social system and its interrelationships with the physical environment (Climent, Palmer, Ruiz, 1995, p. 93), including the model of development cooperation. In order to create a comprehensive view of the context for the technology transfer in the scope of development cooperation, the descriptive models of development cooperation have been distinguished based on qualitative analysis. Finally, the problem of technology transfer in the scope of development cooperation with SSA has been addressed. Methods of comparative and system analysis were applied in order to elaborate theoretical foundations for the models of cooperation and the mechanism of technology transfer.

## **2. DIMENSIONS OF DEVELOPMENT COOPERATION**

The Official Development Assistance (ODA) flows are public flows - provided by official agencies - to developing countries placed on the DAC (Development Assistance Committee) List of ODA Recipients and to multilateral development institutions. These transfers are concessional in character – they convey a grant element of at least 25 per cent (calculated at a rate of discount of 10 percent per annum), and are administered with the promotion of the economic development and the welfare of developing countries as the main objective (OECD, 2014). Development cooperation has its half century tradition from 1960 - the formal closing

date of colonial era, and the beginning of transformation of North-South relations. Aid giving system replaced the system of open exploitation of resource rich poor countries. Born in the bipolar world, postcolonial relations in the scope of development cooperation were not too »developing« in character at first. With growing income disparities and rising number of people living below the poverty line, first in 70s (energy crisis), than in the late 80s (debt crisis, structural adjustment), the role and effectiveness of aid has been questioned. The character of these relations changed significantly since then. The critique of aid and donors lead to official redefinition of development cooperation in year 2000 (UN Millennium Development Goals Declaration). In the new century the aid has been finally declared to serve development issues, not the donors interests.

However, can we really say that the donors stopped realizing their external policy goals in the scope of development cooperation? It is debatable. Because of this, the two major dilemmas that undermine the very concept of development cooperation, the effectiveness of aid and the motivation of donors, remain. The impact of ODA on economic growth (and development) has been questioned and analyzed for years showing different results (Doucouliagos and Paldam, p.3, 2008). Some authors suggest that development cooperation is against the market and may not replace private trade - may even threat it (Bonne 1994). Others notice, that the increase of corruption which accompany aid giving is a potential side effect which may have severe consequences for the recipient country (Easterly, 2006).

It is also observed, that aid may have negative effect on public and private savings (Ouattara, 2007; Papanek, 1972), and it is blamed for mismanagement and even lowering the beneficiary's reforms. In other research aid is claimed to create no effect on development (Williamson, 2008). On the other hand, the supporters of development aid say that the aid flows are generally needed, just the mistakes of the system should be eradicated (Deszczyński, 2001; Radelet, Clemens and Bhavnani, 2004). Most of them claim that once certain conditions are met (ie. Burnside and Dollar thesis on sound policy requirement), aid may stimulate the development. However, the problem remains unsolved. The crucial fact, is that the discourse (ie. Burnside and Dollar, Sachs, Easterly) influences the politics and aid practitioners, who realize the need to rethink and reform the ODA. Apart from the effectiveness issue, the non-profit and development-driven character of foreign aid flows remain questionable.

In many cases the resources spend in the country of destination of flows comes back to the origin country e.g. as a profit of private contractors. Officially it is identified as tied aid flows, however cases of un-official tying also occur, though may not be identified in the official datasets. Tied aid obliges recipient to purchase goods in the donor country, usually for oversized prices. This of course leads to improving market position of the donor and may have negative influence on recipient terms of trade. Such import generate higher cost and is not considered as positive for economic growth (Osei, 2005). Tied aid is generally seen as export promotion of developed donor country (Easterly and Pfutze, 2008; Tajoli, 1999). Most of the aid instruments open the possibility for the donor to profit from the cooperation. However, at the same time development cooperation may be also used by the recipient, which will be able to create an environment to properly use it.

Absorption of technology in the scope of development cooperation is such an example. Both the discussion on effectiveness and the motivation of donor create a context for a critical evaluation of the models of development cooperation that emerge from the half century experience. Several dimensions of the cooperation have been identified. They are: colonial experience, history, language&culture, democracy, natural resources, moral obligation, partner relations, trade interests, international obligation. It has been assumed that these dimensions influence the way the development cooperation is structured based on the

humanist interpretation theory by Kmita. Given the context, rational entity realizes its goals based on knowledge and values it supports (Kmita 1991, p.186-187). These dimensions of cooperation are the input data for entities which are a part of development cooperation relations, and the entities act (set the goals and choose means of their realization) rationally according to this data. First, the colonial past of a donor is an important factor of development cooperation since it influences the structure of recipients and the history of bilateral relations (ie. France and Ivory Coast). The former colonial powers directed their development systems to the regions which were previously their resource background as a colony. Decisions of both France and UK, the biggest metropolis of XXth century were strongly influenced by the need to continue the economic relation with countries which became no more politically dependent from them. The colonial system of administration influenced not only institution building (D. Acemoglu) but also future diplomatic relations.

The way the reciprocal relations are shaped today is therefore affected by the historical ties and colony administration methods. The positive legacy are the elements of common culture, the negative legacy is the paternalistic approach on the former metropolity side and the reluctance on the other. However, the historical dimension of cooperation embraces not only colonial past, but also other relations shaped by past events. USA did not possess colonies in SSA, but their comportment toward countries of the region was quite similar to France and UK. The Cold War era, pushed the hegemonies to search for political support and find the votes in UN. The political support exchanged for the aid has been long-term solution within the development cooperation in XXth century. It considered the so called »Western« countries in general. Apart from the history, geopolitical situation is important dimension of development cooperation. Current interests realization, influenced by past events, is identified as an independent variable in the changing international environment.

It considers recent war against terrorism, or energy resources seeking - powerful states often treat developing world instrumentally. It is no secret that part of the motivation of aid giving is to prevent the migration to developed economies, and to keep peace in fragile states. Most of Polish ODA goes to neighboring East states. China does not provide assistance to countries which have officially recognized Taiwan as a country (ie. Burkina Faso). The increase of involvement of Brazil in Africa is being explained by the Brazilian plan to take a seat in Security Council of United Nations (Chatham House, 2014). Whereas the interests of Scandinavian socially responsible model is also considered as a way to gain more influence in international policy. Culture and social system also influence the development cooperation. It is important for every cooperation mode, but in a different context. The existence of a common language and sharing the elements of cultural heritage bring closer Francophone or the Commonwealth. Despite the fact, that it is strongly supported by the need to realize political and economic interests, the existence of cultural understanding enables elements of cooperation. Purely technically, speaking the same language supports cooperation since it makes the communication more effective.

At the same time the very reason for which the language can support development cooperation it is the reason to make it more difficult. Complicated relations inherited from the past cause strong opposition to the comportment of the representation of developed world, associated with the colonial past, and often acting from the position of superiority. Very important factor of development cooperation is also culture of sharing and helping, the concept of charity. Although in every religion and culture there is an element of sharing, the construction of the value vary across Christians, Muslim, Confucianism, or Buddhism (Spero, 2014). Quite important issue in development cooperation is the democracy issue. China is being intensively criticized for providing assistance for governments which do not respect democracy, as opposed to the current policy of DAC countries. Important element of

development cooperation is the institutional approach and the ideological comportment of donor. In the past the aid was an instrument of ideological division of the world in the scope of bipolarization of international relations after the Cold War. Today that shifted more into democracy/authoritarianism with the risk of terrorism as an undermining threat. The non-intervention in political system paradigm, which seems to be a sign of partnership, may at the same time be an excuse to support authoritarian powers and corrupted administration. Economic dimension of development cooperation is capacious. However, the natural resources and energy sources seeking are especially important.

SSA countries dispose of important natural resources, including oil. It is a very strong motivation for the donors to provide support which may conclude with signing the contracts that grant access to raw materials. The second huge aspect is the access to SSA market for foreign firms on advantageous conditions – it considers mining, but also to the large extent the construction, and the supply of consumption goods to growing middle class. In the transfer of technology, the balance between the donor interest (market seeking) and the recipient interest (market structure, demand and general absorption capacity) is crucial.

### **3. MODELS OF DEVELOPMENT COOPERATION**

Three major models of development cooperation have been distinguished: traditional (e.g. France, UK), socially responsible (e.g. Sweden, EU institutions), and horizontal (e.g. China and Brazil). The models have been described based on qualitative dimensions, presented in Table 1, and described above. Major context for the cooperation dimension analysis were the motivation of donor and recipient to enter into relation, the character of relations between the donor and recipient, characteristic of the flows, and characteristic of the structure of recipients (e.g. income of recipient, language of recipient).

This paper addresses the qualitative elements of models which refer to the character of international and intergovernmental relations in the historical context, and allow to define them. The reflection in quantitative representation of cooperation (e.g. structure of recipients, flows quality) will be subjected to further research.

#### **3.1. Traditional model**

The traditional development cooperation model has quite the longest traditions. This model of relation with developing countries consider countries like France, UK, and USA, the “oldest” donors. This model is characterized by longtime relationship at relatively high intensity. Although not all traditional donors have been colonial metropolis (US), they have a history of postcolonial relations with developing countries.

This model is also most significant for the theory of development assistance. The evolution of development assistance is the evolution of traditional model policy declaration - from postcolonial relations to development agenda and sustainable development. The traditional donors at the same time both, keep using aid as instrument of their foreign policy (votes in UN, peacekeeping, access to natural resources), and engage in the initiatives of Millennium Development Goals and the democracy building.

They claim to be driven by moral obligation for the past wrongdoing, but at the same time are perceived to use their superior position in negotiations. Within this group a part of donors share some culture with the recipients due to the past experiences (Organization of Francophone, Commonwealth of Nations), while others do not as much (US). The traditional donors are generally “Western” civilization cultures.



*Table 1: Models of development cooperation*

	Dimension	Traditional (France)	Socially responsible (Sweden)	Horizontal (China)
1	Colonial history	Yes	No	No
2	Language	Yes	No	No
3	Democracy as condition	Yes	Yes	No
4	Natural resources	Yes	No	Yes
5	Moral obligation	Yes	Yes	No
6	Partner relations	No	Yes	Yes
7	Trade interest	Yes	No	Yes
8	International obligation	Yes	Yes	No
9	Culture	Yes	No	No

### 3.2. Socially responsible model

Socially responsible model embrace the Nordic states and multilateral organizations. The model itself is based on an assumption, that aid should be given to the poorest countries with the profound purpose to help them get out of poverty. It is supposed to help building democratic institutions and be devoid of donor interest motivation, so natural resources or trade opportunities shall make no influence nor on recipient structure, nor on choice of aid type, nor on the choice of technology to transfer. This is the altruistic model, that favor the recipient over the donor. In this model we find the most generous donors, who provide the highest percentage of their own GDP to the ODA. This aid shall not be tied, and the relations with recipient country is based on reciprocity and partnership. The international multilateral aid is opposed to bilateral because it is not representing one donor interests. This model of aid giving is not rising from historical colonial past. It is based on the international responsibility for the global community, global public goods, and the concept of sustainable development.

### 3.3. Horizontal model

Developing countries of BRICS representing the so called South states take active part in the development assistance system. The horizontal model applies to generally recently noticed relations and the statistical data for the ODA recipients providing ODA to other recipients is not reported in the OECD statistic development database. The major donors of horizontal model are China and India. Although the Indian Ocean trading relations have their history of trade between Africa and Asia, but the trade that is now flourishing across it is different in scale, range of products, and in its economic and strategic implications. So the merchants from Asia are recognized in the African countries culture, but the character of that past is not as much a burden, as it is in the case of traditional model countries. Today this commerce is based on mutual needs - China and India need energy supplies and raw materials from Africa, and Africa needs the financial resources. Also great expectations are towards African agriculture as possible food resource of a world (Walker, 2008, p. 21). The development assistance between so called Southern countries is at the same time a partner and business relation. It means that no party is presumed to be ideologically weaker, however it also means that the market forces are governing the relation. Obviously that puts economically weaker party in the worse negotiating position. In consequence, the paradox of this relation model is that it is a very unequal relation after all. Depending on the culture of donor, the responsibility and charity element may occur with different density, depending on the culture – in this model, generally the donors do not share the culture.

### 3.4. Testing the models

The models shall be tested in quantitative analysis in the further research. The statistical data will allow to test the quantitative dimensions of development cooperation, which are the consequences of qualitative ones. The amounts of flows aggregated by type will be compared for each model in order to verify if it has been well distinguished. The test will embrace especially the total aid volume and generosity of donor, recipient income-structure (how much of aid goes to the poorest countries, how important is geographical closeness), recipient natural resources role (is the aid provided mostly to resource rich countries), FDI/aid ratio (is there a relation between amounts of FDI and aid), debt forgiveness and technical cooperation (which types of aid prevail). These will consider the characteristics of aid distribution policy of donor on one hand, and the quality of aid on the other. Special attention will be put on the aid types which are a potential sources of technology transfer to recipient economy. Before the statistical data mining research will be finished, few remarks (based on OECD data 2014) can be made. First, traditional donors are also the biggest donors, French development assistance is almost twice as big as Swedish, and USA is the biggest historic contributor. On the other hand the generosity ratio is better for Nordic countries. At the same time, the stability of yearly growth of the amounts of ODA from Sweden is higher than from traditional donors. The changes in aid volume are more important in traditional model. The amount of flows from France vary, and because of that, is less predictable. In the traditional model the debt forgiveness is much more important element of aid. Of course this also is a consequence of the fact, that these countries are the creditors. Important debt forgiveness strongly influence yearly volume of the aid. It is very important for the sake of the group of Heavily Indebted Poor Countries. However, this instrument is not directly aimed at institutional capacity building or technology transfer. Comparison of debt forgiveness importance in the aid volume is significant. According to [www.aidflows.org](http://www.aidflows.org) (OECD tool), countries like Sweden, Norway or Netherlands differ from UK, France or US. In 2003 and 2004 when debt forgiveness initiative considered highest commitments, France would have a share of debt relieve of 28% and 20% of bilateral ODA, and Sweden respectively 7% and 1%. The amounts for bilateral projects and technical assistance are quite steady for most bilateral donors. This is quite positive in the context of technology transfer, since it means that the financing does not depend on current events. The share of bilateral projects and technical assistance is about 50% for France and 60% for Sweden in years 2003-2012. The limitation of the research is lack of data considering the horizontal cooperation. The data sources acquired for horizontal aid are not fully consistent with the methodology of OECD or World Bank databases. Major statistic organizations do not gather information on development cooperation flows between developing countries (China protects such information). However, lack of unified database should not prevent from seeing patterns of these relations as well.

## 4. TECHNOLOGY TRANSFER THROUGH DEVELOPMENT COOPERATION

The development of technology, either created in or transferred to developing countries has the potential to stimulate economic growth and development, so it is important to analyze its possible sources and means of its support (Dickson, 2010). The transfer may occur in the scope of investment flows or non-profit flow, depending on the purpose of the action. On the other hand they may be either public source or private source. In the seventies, most of the technology transfer was between the governments, meaning that the government of donor country has been the driving force of the transfer (Rosen, 1997, p. 97). Technology may be acquired by reversed engineering, purchase of technology, licensing, hiring specialists, academic journals, fair or even industrial espionage. It can be transferred as a pure knowledge (not a subject to commercial protection) and as a knowledge rent (exclusive rights transferred

in accordance with intellectual property rights protection, or by the acts of infringement – counterfeits, industrial espionage). All these, traded goods (indirectly), patent information, and conferences (directly) are channels for the knowledge diffusion (Verspagen, 1997).

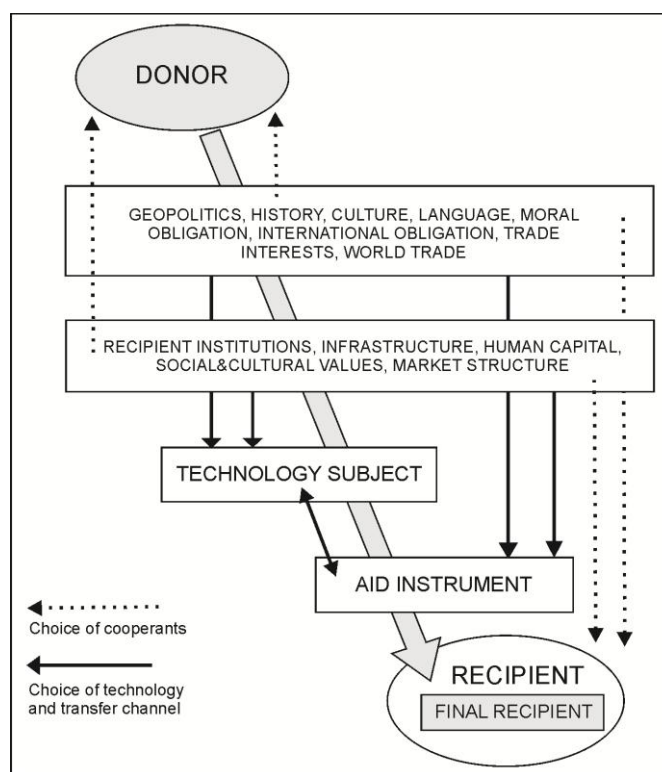
In the late 70s, H. Rosen would find that technology transfer to developing countries was extremely fluid, since it was affected by the policy of the times and the changes in power (Rosen, p.93, 1977). Since then it became less dependent from the policy and more relying on multinationals business strategies. Knowledge became an asset in the modern economy. At the same time the protection of knowledge became a source of financial profit. Because of that, the intellectual property protection system has been covering more and more areas, and narrowing the window of the transfer (Coriat and Weinstein, p. 288-9, 2012). Apart from that, the transfer of technology to African countries has also been burdened by the cultural differences that occur between the supplier and receiver of technology (Rosen, p. 95, 1977; Kumar, Dutta and Fantazy, 2007). Overcoming formal (e.g. legal) and informal (e.g. culture) barriers require mutual commitment of donor and recipient of technology. The cooperation is less effective when the channel of communication is one-side dominated. The paternalistic attitude and the diffusion model, according to which the information comes from the omnipotent agent to the recipient who copies the patterns of behavior given as model (Servaes i Malikhao 2008, p. 165; Kumar, Dutta and Fantazy, 2007) were claimed ineffective. The participatory communication is being depicted as more effective mode of communication for economic development (Andrzejczak, 2012).

Development cooperation may be a source of technology transfer if the recipient is able to absorb it (Dinkar, 2011, p. 110; Kumar, Dutta and Fantazy, 2007, p.643; He Jun, 2009, p. 56). The technology transfer in the scope of development cooperation may be small or large-scale, direct or indirect, which depends on the type of aid applied. The direct transfer is possible generally through technical assistance and project aid. According to OECD, project is a set of inputs, activities and outputs, agreed with the partner country, to reach specific objectives/outcomes within a defined time frame, with a defined budget and a defined geographical area. Technical assistance covers the provision, outside projects as described in "Project-type interventions", of know-how in the form of personnel, training and research. Not all of these type intervention effect in technology transfer, but they create a possibility. Usually the small-scale projects are realized by donor or recipient local agents, while the large-scale projects by the developing country state (Kumar, Dutta and Fantazy, 2007, p.630). It is important to note, that the technology transfer may also be supported indirectly, through aid flows which help to enable the recipient environment to enhance the transfer (e.g. budget aid, program, basket funds, scholarships, direct support to NGOs, and others). Statistic databases allow to access data on funds allocated in sectors of secondary education, advanced technology training and scholarships which consider investment in the recipient human capital (OECD, 2014). Long term training programs do not cause the transfer per se, but increase the social capacity to absorb technology.

Depending on the type of aid the technology transferred may be embodied in either a product (ie. agricultural equipment), production (ie. insemination method) or knowledge (ie. on appropriate fertilizers for the crops). Implementation of production depends on the level of involvement of domestic human and other resources, which will influence the actual integration with economy. The knowledge is not automatically changed in the technology, however by empowering people with knowledge the transfer may be more coherent with the local system. Such knowledge should be turned into either practice or policy, and increase the returns from investing aid resources in research (Dickson, 2010). The transfer through product gives place for reversed engineering. This of course is highly fragile for intellectual property rights violation.

Three general models of development cooperation which have been distinguished as one of the factors that influence the technology transfer in the scope of development cooperation. It is assumed here, that the likeliness of transfer of technology in the scope of development cooperation depends on its model and the way it influence the mechanism for technology transfer (Figure 1). The mechanism of transfer depicted in Figure 1 embrace the dimensions of development cooperation which were used to distinguish the models. According to Climent, Palmer, Ruiz, in technology transfer models the most frequent context is external environment (cultural, social, economic, political, ecological, environmental), and the least frequent geopolitical (international, national, regional, rural, sectoral, local) (1995, p. 95). What they have noticed is also the need to place history context in technology transfer models. As they claimed, historical context of development processes must be considered to understand and share people's needs and goals, as well as beliefs, knowledge, values, oral traditions (1995, p. 96). The mechanism in Figure 1 is an attempt to follow these guidelines.

*Figure 1: Technology transfer in the scope of development cooperation (own elaboration)*



The mechanism in Figure 1 visualizes the general process of technology transfer in the scope of development cooperation. First, an assumption needs to be made, that the donor has decided on sharing technology in the scope of development cooperation. In the traditional model the relation tend to be dominated by donor decisions, in the horizontal it is supposed to be reciprocal, while in socially responsible balanced more for the recipient interest. This however needs to be verified in further research, as mentioned above.

The transfer form donor to final recipient in the economy is influenced by donor and recipient factors of exogenous and indigenous character. However, it is important to note, that the donor factors also influence the recipient decisions and reverse. Donor makes his transfer decision in a geopolitical and historical context. His interest may depend on increasing technological capability of certain kind in chosen regions. Stabilization of access to natural

resources may demand giving extraction technology in certain countries. On the other hand, realization of geopolitical interest may lead to preferences to countries with common geopolitical goals. This may be a consequence of membership in mutual international or regional organizations or purely realization of regional goals. Helping the neighbors may be a mean of stabilization of international situation in the geographic area.

History context may have a positive or a negative influence on the transfer. The colonial relations may have negative influence on the social aspect of transfer, while on the other hand the fact of existence of colonial ties is usually equivalent to having strong economic relation, which may channel the transfer. So are the aspects of culture and language. Sharing the language and values facilitate the communication process extremely important in the technology transfer. These may also be important for the maintenance of the transfer effect. The obligation and morality on donor part and the violation of human rights and political regime on recipient part may influence the choice of partners depending on cooperation model. The transfer is also influenced by the economic interest. Depending on the situation on international markets, donors may want to gain access to specific resources, and that may be a driving force for directing aid (technology) to selected sectors or countries. The donors may also want to promote their economy. The donor may be likely to support transfer of technology that lies in his interest, because he wants to profit from such technology transfer. The choice of donor, technology and aid depend also on recipient resources, market structure, infrastructure, political situation, human capital etc. – the absorption capacity. Socially responsible donor will be more likely to adjust the technology to recipient needs and capacity, whereas the traditional and horizontal donors, to their politic and economic interests. The level of donor's involvement for the technology transfer is an important factor of the process (Isabaliya, Mbarika and Kituyi, 2013, p.6). Insufficient resources for operation and maintenance after project finalization are common challenges (Klintenberg, Wallin and Azimoh, 2014, p. 807).

The level of sophistication of technology is an important factor of the transfer. Some technologies require existence of certain conditions – if the human capital or the infrastructure is not ready to absorb it, the technology may not be transferred to final recipient. It is both in the recipient and donor interest to choose an appropriate technology, but is also a challenge for the transfer partners. The recipient accept the donor and the type of aid proposed. These decisions are influenced by all the external factors mentioned above, as well as absorption capacity and interest. The recipient may have his own economic goals and geopolitical motivation, to enter into the relation. He may also be interested in certain kind of technology. The role he has in different cooperation models will influence the extent to which his decisions on technology transfer (positive or negative) will influence the process.

## **5. CONSLUSION**

Increasing technology may be a way to foster the economic development in SSA, but the transfer of technology depends on many factors. In this research, the influence of development cooperation model on technology transfer has been approached. Development assistance is a system burdened by historical heritage of colonial system, which it has replaced, and by the ineffectiveness patch. Despite the fact that it was supposed to undo the wrong and serve the purposes of the poor countries development, it has served donors interests for many years. Today, as a result of the evolution of the cooperation system, three models of cooperation were distinguished, the traditional, the socially responsible and the horizontal. They concentrate on different dimensions of cooperation so the aid recipients, no longer depend on unique scenario of cooperation. The effectiveness of technology transfer through development cooperation, is assumed to depend on the model of cooperation.

The cooperation model influence important factors of development aid technology transfer process, such as choice of transfer partners (donor and recipient), choice of technology (technology subject), and channel of the transfer (aid type). The level of sophistication of technology should be adjusted to recipient absorption capacity and market structure in order to maintain the effects of the transfer. The more the development cooperation is focused on actual transfer of technology and less on realization of other political or economic goals, the more it is probable to happen. The dimensions of development cooperation which differ in distinguished models, influence the process of technology transfer because they influence and balance the character relation of technology donor and recipient.

What is crucial, is that the fact that the aid has been provided and realized, it does not mean that the transfer has been effective. If the aid, consisting technology has been given it does not mean that it actually has reached the final recipient – entities capable to use the technology. If the technology disappears once the foreign development agent leaves the economy, the transfer has not been done. Also, the quality of transfer may differ. If the transfer reaches exclusively limited areas of economy (technology islands, foreign investments, elites), the effectiveness is low. A proper transfer reaches wide groups of final recipients in the recipient country economy. Depending on the way, how a chosen type of aid is absorbed by recipient country, there is a possibility that the product, production or knowledge will be subjected to the further transfer in recipient economy, to the next final recipient.

This paper has a preliminary character. Further research is planned in the scope of the project on “Mechanisms of technology in Sub-Saharan Africa” (SONATA 51104-73). The assumptions made in this paper need to be verified empirically in statistical data mining analysis, that will also allow to allocate the aid donors with the right model. Apart from the quantitative test to be performed, there may be more models to identify (e.g. new donors – Poland, Czech Republic).

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# **LINUX MYTH. OPEN SOURCE SOFTWARE IN INFORMATION SOCIETY**

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## **ABSTRACT**

*In Information Society is clear that information is the most important value. To have access to them need to pay fee. Nevertheless in this economic algorithm is at least one exception - the Open Source Software project. The quality of those kind of applications is as good as in commercial projects, but they are free of charge. In some versions of software licences (like in GNU General Public License) user can freely use the software, analyse how it works, adjust the application to his expectations and put the new version into Internet (for other users). This solution is totally free. But, here is the question - how it works? what is the legal status? why it is free? is it popular? In one of empirical cases of my work I will put into examination the case of Linux Operating System. I will try to answer those questions and show the background of whole problem with Open Source Software.*

**Keywords:** *Linux, Open Source Software, Information Society, Software Licences.*

## **1. INTRODUCTION**

Nowadays world is in constantly change. Some sociologist, like Anthony Giddens and Piotr Sztompka, says that society is in constantly creation. That mean that society is not an finished project. This thesis shows that change is a part of human life and it has great impact on functioning of human beings. Likewise technical solutions are changing and the most important thing is the ability to use them properly. To meet this expectation people need to use information, because it is important in, so called Information Society. However to get the access to information and to technical support you have to pay. That is the way of functioning in today's economic reality. It is normal that manufacturer asks for payment when in example he create a software. The line looks like this: he has to pay first and thats understandable that future users have to pay also. This behavior is consistent with the fundamental principles of classical economics. It is hard to say what is Information Society. Frank Webster says that we can distinguish five definitions of Information Society: technological, economic, occupational, spatial and cultural (cf. 2006, p. 8-9). Stating by Bill Martin may be noted that in a general sense Information Society presents a view of a society where social as well as economic change is driven through interactions with information embodied and represented in products, services, in media and in the structures and governance of society (Martin, 1995; Martin, 2005, p. 30).

## **2. OPEN SOURCE SOFTWARE – HOW THIS WORKS?**

In the 1960s IBM and others sold their first large-scale commercial computers with free software (code was free available and could be improved and modified). But in the mid-1970s this began to change. Software became a commercial product that could not be redistributed or modified. It could no longer be freely shared by programmers (cf. Moreno, 2006, p. 1). The term "open source" refers to something that can be modified because its design is publicly accessible<sup>33</sup>. This type of software is characterized by several features: (1) free redistribution,

(2) the program must include source code and allow to distribute it, (3) the license must allow to make modifications and derived works, (4) integrity of the author's source code - the license may require derived works to carry a different name or version number from the original software, (5) no discrimination against persons or groups, (6) or fields of endeavour (an effort made with a willing mind and heart), (7) the rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties, (8) the rights attached to the program must not depend on the program's being part of a particular software distribution, (9) the license must not restrict other software (non-open source), (10) the license can not impose the style of software or interface (must be technology-neutral)<sup>34</sup>. In short open source projects, products, or initiatives are those that embrace and celebrate open exchange, collaborative participation, rapid prototyping, transparency, meritocracy, and community development<sup>35</sup>. It is worth to mention that in 1998 in California public benefit corporation the Open Source Initiative (OSI) started its activity<sup>36</sup>. They provide public support for Open Source Software (OSS) and the role OSI plays therein<sup>37</sup>. There are many well known organizations affiliated in OSI – such as the Linux Foundation, Mozilla Foundation, Python, Debian, Creative Commons, Wikimedia.



Figure 1. Open Source Affiliates. Retrieved 03.09.2014 from [http://opensource.org/files/AffiliateLogosFinal\\_0.png](http://opensource.org/files/AffiliateLogosFinal_0.png)

### 3. POPULARITY OF OSS

Someone could say that OSS benefits only programmers. It is not. Non-programmers as much gain using OSS. In fact, because much of the Internet itself is built on many open source technologies – like the Linux OS, Apache Web server application, MySQL data bases, PHP, etc. Every time computer users view webpages, check email, chat with friends, stream music online, or play multiplayer video games, their computers, mobile phones, or gaming consoles

34 The Open Source Definition. Retrieved 03.09.2014 from <http://http://opensource.org/definition>.

35 What is open source? Retrieved 03.09.2014 from <http://opensource.com/resources/what-open-source>.

36 About the Open Source Initiative. Retrieved 03.09.2014 from <http://opensource.org/about>.

37 Become an OSI Affiliate. Retrieved 03.09.2014 from <http://http://opensource.org/affiliates/about>.

connect to a global network of computers that routes and transmits their data to the "local" devices they have in front of them.<sup>38</sup> Paul Kavanagh said that: „appliances based on Linux and open source tools have been widely deployed in corporate networks, small businesses, and homes for several years with proven reliability” (2004, p. 31). The popularization of open source projects met with a positive response of computer and Internet users around the world. A lot of us use every day web browser which usage is free of charge. Browser statistics collected by W3Schools (intentionally limited to 2014) shows that non-commercial projects are popular.

2014	Chrome	Internet Explorer	Firefox	Safari	Opera
July	59.8 %	8.5 %	24.9 %	3.5 %	1.7 %
June	59.3 %	8.8 %	25.1 %	3.7 %	1.8 %
May	59.2 %	8.9 %	24.9 %	3.8 %	1.8 %
April	58.4 %	9.4 %	25.0 %	4.0 %	1.8 %
March	57.5 %	9.7 %	25.6 %	3.9 %	1.8 %
February	56.4 %	9.8 %	26.4 %	4.0 %	1.9 %
January	55.7 %	10.2 %	26.9 %	3.9 %	1.8 %

*Table 1. Browser Statistics. Retrieved 03.09.2014 from  
[http://www.w3schools.com/browsers/browsers\\_stats.asp](http://www.w3schools.com/browsers/browsers_stats.asp)*

Searching Internet sources, one can find different rankings of the best OSS projects. One of them shows that the most popular OSS projects are:

- WordPress (world's most popular blogging platform, used by a staggering 202 million websites),
- Mozilla Firefox (web browser),
- Mozilla Thunderbird (e-mail client),
- FileZilla (cross-platform FTP client),
- Audacity (music software),
- GIMP (image editing software),
- OpenOffice (free alternative to MS Office),
- VLC (video player),
- Pidgin (ultimate, free instant messaging tool),
- Notepad++ (nice and easy tool for programmers; it offers everything: syntax highlighting; folding and auto-completion for CSS, C, C++, C#, Java, JavaScript, SQL, HTML, XML and PHP; multi-file viewing; tabbed editing; zoom in/out; and bookmarks),
- 7-Zip (file archiver),
- PDFCreator (program to print files in PDF; convert them),
- TrueCrypt (free encryption program),
- Ubuntu (Linux distribution)<sup>39</sup>.

<sup>38</sup> *Is open source software only important to computer programmers?* Retrieved 03.09.2014 from <http://http://opensource.com/resources/what-open-source>.

<sup>39</sup> Walker Tom, *20 Most Popular Open Source Software Ever*. Retrieved 03.09.2014 from <http://www.tripwiremagazine.com/2010/03/20-most-popular-open-source-software-ever-2.html>.

The other website contains a detailed list of software (free, OSS) which are used by UK universities and colleges:

- Apache HTTP Server [<http://httpd.apache.org/>] (web server),
- Blender [<http://www.blender.org/>] (3D graphics and animation package),
- DSpace [<http://www.dspace.org/>] (digital repository),
- EPrints [<http://www.eprints.org/>] (digital repository),
- The GIMP [<http://www.gimp.org/>] (image editor),
- GNOME [<http://www.gnome.org/>] (Linux desktop environment),
- GNU Compiler Collection [<http://www.gnu.org/software/gcc/gcc.html>] (GCC, a suite of compilation tools for C, C++, etc),
- KDE [<http://www.kde.org/>] (Linux desktop environment),
- LORLS [<http://bookworm.lboro.ac.uk/distribution.html>] (reading lists management system),
- Mailman [<http://sourceforge.net/projects/mailman>] (mailing list manager),
- Moodle [<http://www.moodle.org/>] (virtual learning system),
- Firefox [<http://www.mozilla.com/en-US/firefox/>] (web browser based on Mozilla),
- Thunderbird [<http://www.mozilla.com/en-US/thunderbird/>] (mail client based on Mozilla code),
- MySQL [<http://www.mysql.com/>] (database),
- OpenOffice.org [<http://www.openoffice.org/>] (office suite, including word processor, spreadsheet, and presentation software),
- PHP [<http://www.php.net/>] (web development),
- Perl [<http://www.perl.org/>] (programming/scripting language),
- Plone [<http://plone.org/>] (content management system),
- PostgreSQL [<http://www.postgresql.org/>] (database),
- Python [<http://www.python.org/>] (programming/scripting language),
- Sakai [<http://sakaiproject.org/>] (learning management system),
- Samba [<http://www.samba.org/>] (file and print server),
- SSL-Explorer: Community Edition [<http://sourceforge.net/projects/sslexplorer/>] (browser-based SSL VPN solution),
- TeX [<http://www.tug.org/>] (typesetting language),
- WUBS [<http://sourceforge.net/projects/wubs/>] (resource booking system),
- Zope [<http://www.zope.org/>] (web application server)<sup>40</sup>.

Now is the time for general question. Why OSS is so popular? Many people prefer open source software because they have more control over that kind of software. They can examine the code to make sure it's not doing anything they don't want it to do, and they can change parts of it they don't like. Others like open source software because it helps them become better programmers. They can learn to make better software by studying OSS. They can also share their work with others, inviting comment and critique. Some people prefer open source software because they consider it more secure and stable than proprietary software. Anyone can view and modify the code, someone might spot and correct errors or omissions that a program's original authors might have missed. Many programmers can work on a piece of

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40      *Examples of open source software in use at UK universities and colleges.* Retrieved 03.09.2014 from <http://oss-watch.ac.uk/resources/softwareexamples>.

OSS code without asking for permission from original authors.<sup>41</sup> Patches and fixes can be implemented quickly.

#### 4. LINUX MYTH

Statistics shows that OSS is quite popular solution. The same thing can not be said about the popularity of open source operating systems (data from 2014).

2014	Win8	Win7	Vista	NT*	WinXP	Linux	Mac	Mobile
July	17.3%	54.8%	1.0%	0.2%	7.0%	5.6%	9.5%	4.6%
June	17.0%	55.3%	1.1%	0.2%	7.1%	5.3%	9.6%	4.3%
May	16.6%	55.2%	1.2%	0.2%	7.3%	5.1%	10.0%	4.2%
April	15.8%	55.4%	1.2%	0.2%	8.0%	5.0%	10.3%	4.0%
March	15.0%	55.1%	1.3%	0.2%	9.4%	4.9%	9.9%	4.0%
February	14.2%	55.0%	1.4%	0.3%	10.1%	5.0%	10.0%	4.0%
January	13.4%	55.3%	1.5%	0.3%	11.0%	4.9%	9.6%	4.0%

*Table 2. OS Platform Statistics. Retrieved 03.09.2014 from  
[http://www.w3schools.com/browsers/browsers\\_os.asp](http://www.w3schools.com/browsers/browsers_os.asp)*

Still the most popular operating system is Microsoft Windows, which has about 80% market share. Other systems shared between the 20% of the market (10% for Mac and 5% for Linux and Mobile). The table below shows popularity of Linux distributions in 2014. Data from Linux Counter Distributions Report generated in 2014-09-04 on a sample of machines that has a distribution submitted (92338 machines at all).

Distribution Name	Machines	Percent
Ubuntu	26,982	29,22%
Debian GNU/LINUX	17,129	18,55%
Fedora	6,666	7,22%
Slackware Linux	5,893	6,38%
SuSE Linux	5,45	5,90%
CentOS	3,846	4,17%
Gentoo Linux	3,797	4,11%
Arch Linux	3,402	3,68%
Kubuntu	1,775	1,92%
Red Hat Linux	1,537	1,66%
open SUSE	1,48	1,60%
Linux Mint	1,442	1,56%
Mandriva	1,406	1,52%
Mandrake	993	1,08%
Android	938	1,02%

*Tabel 3. Linux Distribution Statistics (more than 1%); Retrieved 03.09.2014. from  
<http://linuxcounter.net/distributions.html>*

Within the framework of the most popular Linux distribution are Debian and Ubuntu (which is also Debian derivative distribution). Those are universal use systems. On the third position of that kind is SUSE, and then openSUSE, Kubuntu (KDE Ubuntu), Linux Mint and in some way Fedora (which is dedicated in half for network solutions and half universal system). Rather network systems (Slackware, CentOS, Gentoo, Red Hat) are also quite popular. But, problem is in fact, that this percentage of popularity is in framework of 5-6% of general usage of OS (see Table 2). What is the reason of this situation? I guess that computer forums are nice source of information in this matter. Computer users shall know the best why some OS is popular and other is not. „Kaydell” user said that „Linux is hard to install and most computers come with Windows preinstalled”<sup>42</sup>. User named „Penguin Guy” said that there is branding problem. Ubuntu – most people think it sounds weird; the Gimp (is this a joke?), and more<sup>43</sup>. He also said that in Linux distributions are multiple installer package types (.deb, .rpm, .tgz, etc) - this means that packages are not very compatible between distributions<sup>44</sup>. User called „maflynn” said quite popular opinion that „Linux is viewed by most people as an OS for hobbyists who like to muck around with the innards of the OS, compiling kernels and such. Most typical users don't want to dig in that much”<sup>45</sup>. User „Calmor” said:

„I think a large part of why Linux isn't more popular is the fact that it's hard to displace what everyone already knows well. At this point, Microsoft is popular because everyone uses it. Send someone an OpenOffice Writer file saved as .DOC with a bunch of custom-formatted tables and see if they like it. Thus, MS Office is a de facto standard of business”<sup>46</sup>.

That is interesting way of thinking. MS Windows/Office are popular because of its history. From the very beginning MS products was really easy to use and user-friendly. Linux was not like that. The beginnings were crude, the system was basically a text (weak / no GUI). It was necessary to know the syntax of Terminal language commands and discipline in their application. However, since the beginning of the Linux system has proved to be particularly stable and efficient network solutions. Thus, specialists from databases and Web appreciated its possibilities and remain faithful to this day.

The current situation of Linux has changed significantly over the last decade. The system is no longer dull environment dedicated exclusively to developers. Already a user is not limited to working in the terminal, but offers several desktop environments (KDE, Gnome, Xfce, etc.). In addition, extremely high stability (mainly because of the monolithic kernel opposed to the hybrid known from Windows), possibility of expropriation processes and work on several file systems. In addition Linux runs extremely fast and offers a nice graphical effects (like Compiz Beryl). Already at the start Linux provides a complete software package that allows the user to start work immediately after installation<sup>47</sup>. For example Ubuntu includes an office suite (LibreOffice), a secure web browser (Firefox), FTP client, image editor (Gimp), music (Rhythmbox, Audacity, you need to install) package of audio and video codecs and more. In addition, a number of tools that configure and personalize the system.

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42 Why Isn't Linux More Popular for Desktop Use? Retrieved 03.09.2014 from <https://answers.yahoo.com/question/index?qid=20131215032010AAAn9GiC>.

43 Why Linux Isn't the Most Popular Operating System. Retrieved 03.09.2014 from <http://ubuntuforums.org/showthread.php?t=1292903>.

44 Ibidem.

45 Ibidem.

46 Ibidem.

47 Instalation processes is also nice and simple even for beginner users.

## 5. CONCLUSION: INSTEAD OF A SUMMARY – INFORMATION SOCIETY PARADOX?

Is not that strange situation? On one hand in mainstream we observe that now we live in Information Society where the information paradigm is the most important. Information and data are the most important values. However on the other hand access to information is not free of charge (in general), so people have to pay. At the same time there is OSS project which is free and open as well. This opportunity is well known by Internet users, who are willing to use it. This is a good way to reduce costs while maintaining a satisfactory level of software quality. However, this rule does not apply at the level of operating systems. It works only at the level of software selection on already chosen platform. Often, users do not even know about the existence of other operating systems (not to mention the file systems or other technical stuff) than the one that they have installed on your computer. Statistics suggest that this is usually Windows. When a standard user is knowledgeable about other operating systems which are non-commercial projects, it still shows no desire to take advantage of them. There is in fact a myth of difficult usage, outdated design of such solutions. As I tried to demonstrate in the paper of this article, this is not true. OSS applications are in no way inferior to commercial projects, as exemplified by various Linux distributions.

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## BEYOND ECONOMIC REVENUE: THE SOCIAL IMPLICATIONS OF TOURISM

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### ABSTRACT

*The traditional tendency to measure the impact of tourism by its economic revenue led tourist industries to focus on audiences that held the biggest share of their product – mass/leisure tourism. The growing popularity of sustainable tourism indicates that the industry is now being considered within social and environmental contexts. Alternative forms of tourism including educational, volunteer, and cultural tourism are becoming more popular, gradually reshaping tourism as a concept that promotes cultural understanding and peace. Dark tourism, referring to the appeal of death and disaster, is another form of socially-impactful tourism. Looking at post-conflict areas, one can identify the niche dark audience of conflict professionals – researchers, academics, trainers, journalists, policy-makers. While various forms of tourism overlap within one territory, focusing on an audience with a more evident purpose of visit such as conflict professionals allows this study to more clearly evaluate the social impact of that particular form of tourism. Why focus on conflict professionals? Although their turnout can be a negligible percentage of the overall tourist turnout in a particular territory, it is an audience that not only visits the post-conflict territory, but also contributes to its social development and raises international awareness for the territory's post-conflict transition. Having in mind the articles and books written for a post-conflict area by foreign conflict professionals, and the capacity-building offered to locals, it appears that the social contribution this audience offers is one to be considered. Looking beyond economic revenue, what is the social impact of post-conflict dark tourism by conflict professionals? This thesis will discuss its significance within the context of Cyprus, a popular tourism destination, which is also a post-conflict site.*

**Keywords:** *Cyprus, Post-conflict areas, Social development, Tourism*

### 1. INTRODUCTION

Tourism has been traditionally referred to as the short visit to a foreign territory for the purpose of leisure and vacation. Traditional tourism destinations promote leisure and relaxation, and often involve scenic cities, sandy beachfronts, luxurious hotels and favorable climates, making them the ideal getaway for the masses globally. The reason mass leisure tourism has so far prevailed other forms of eclectic tourism is mainly because it addresses the biggest share of the public's tastes and preferences, and has created an industry that in many cases integrally supports national economies. Although leisure tourism offers considerable economic revenue to popular destinations, many tourism industries around the world have chosen to differentiate their tourism product by focusing on niche audiences and by providing specialized incentives to visitors, through their history and culture, their environment, resources and facilities, their hospitals and doctors, their events, their institutions and all in all incentives that speak to a particular interest. In the case of dark tourism, this incentive is the fascination of death and the macabre, the experience of a disaster's aftermath, such as war. Post-conflict areas offer, ironically by accident, a unique tourism product for the niche audience of dark tourists. More specifically, they attract conflict professionals – including academics, journalists, policy-makers, facilitators and activists – who often visit post conflict sites for professional reasons, either by invitation or on their own initiative. Either way,

conflict professionals visit a post-conflict site primarily because of the conflict's precedence, and not despite of or regardless of it. Alternative forms of tourism focus on the attraction to a specific interest, preference and experience. Despite covering a narrower scope of preferences, the niche audiences addressed can contribute a lot more to the area they visit, as they contribute to raising awareness on the area's unique tourism product and eventually making it famous for this very special characteristic. In the case of a post-conflict area undergoing its transition towards peace and reconciliation, conflict-driven visitors like conflict professionals can raise international awareness on the conflict's aftermath and the area's challenges.

More importantly, conflict professionals can contribute by publishing their research, promoting it through the press, engaging international organizations and providing assistance to the locals, hence contributing to the area's post-conflict development. This paper will discuss the impact of tourism beyond economic revenue through the example of dark tourism in post-conflict areas and with a particular focus on the social impact of niche tourist audiences such as conflict professionals. It will do so by examining the case study of Cyprus, a *de facto* post-conflict area that is a popular destination for leisure tourism.

## 2. THE IMPACT OF ALTERNATIVE FORMS OF TOURISM

Although this paper focuses primarily on dark tourism and post-conflict areas in particular, it is important to identify other forms of eclectic tourism which, beyond their economic revenue, have a social impact on the area in question. Increasingly popular alternative forms of tourism often entail elements that reveal authenticity and originality, in order for the tourist to have a unique and genuine experience. Tourists who follow this norm are not seeking for a pampering experience in a luxurious resort, but are instead interested in learning about the area they are visiting, and to see it through the locals' perspective. Sustainable and cultural tourism are great examples of the growing search for authenticity, as well as development and volunteer tourism. Sustainable tourism appeals to visitors that are "consumers with a social and environmental conscience" (Burns and Holder, 1995; 208), who actively apply their ecological sensitivity to their visits and stand against the harmful impact mass tourism and mass tourist resorts have on the environment.

As sustainable tourism becomes more and more popular, ecologically aware tourists and travelers seeking for authenticity choose to experience authenticity, contribute to the environmental sustainability of the area visited, and reveal its natural beauties. Culture, a term hard to pinpoint and define, is for the purposes of this study identified as "the interaction of people as observed through social relations and material artifacts", consisting of "behavioral patterns, knowledge and values which have been acquired and transmitted through generations" (Burns and Holder, 1995; 113). Therefore, an authentic experience at a foreign site would undoubtedly consist of the exploration of the behavioral, artistic and infrastructural patterns adopted and preserved through time. In order to meet the demand of presenting culture, local populations present 'consumable' versions of cultural elements such as traditional handcrafts, gastronomy, music and art, attire, language, religious monuments and visual reminders of history (ibid.).

The growing interest of tourists in visiting cultural sites creates a demand for local policy-makers in preserving and widely exhibiting their area's sites of culture and history, thus indirectly having a positive social impact on the conservation and safeguarding of the area's historic character. Moreover, the demand for authenticity enables locals to counter the negative influences of mass tourism by rejecting the cultural transformation of a site to include westernized amenities and international brands, and instead reveal upgraded versions of its own way of living. More examples of eclectic tourism with a social impact are

development and volunteer tourism, or voluntourism, through which tourists are involved in various voluntary community projects that aim to alleviate the impact of poverty, war or environmental destruction on the population of a certain area (Wearing, 2001; Kumaran, Pappas, 2012; McGehee and Santos, 2005). Volunteer and development tourists are more interested in the social and anthropological exploration of an area – such as the living standards of locals – and less with its sites, monuments or natural characteristics. The social impact of volunteer tourists is the evident contribution towards the area's development, both in short term actions – such as delivering language classes and providing food and water – and long-term contributions – ie. building schools or other infrastructure.

### 3. THE DISTINCT NATURE OF A POST CONFLICT AREA

Post-conflict areas are identified as ones that have experienced violent warfare, and can be identified as such as soon as the warfare ceases (Junné, Verkoren 2004). The term post-conflict refers to a territory's transitional period from violent dispute to peaceful coexistence. Post-conflict areas include Bosnia, Northern Ireland and South Africa ((Moufakkir, Omar., Kelly, Ian., 2010, Volcic, Erjavec et al. 2013). The case of Cyprus has been identified as an intractable conflict (Crocker et al., 2005; Coleman et al., 2007; Coleman, 2003; Kriesberg, 1993) due to its lack of an official settlement agreement between the disputing communities of Cyprus, Greek Cypriots and Turkish Cypriots. Nonetheless, due to the 1974 *de facto* partition of the island – following a military invasion by Turkey and yearlong civil warfare between the two communities – one can identify Cyprus as to be currently undergoing a *de facto* post-conflict period. An area emerging from conflict can gradually re-develop its economy and restore its tourism industry. Uniquely, a post-conflict area can develop tourism products that are both relevant and irrelevant to its conflict, and thus attract a range of tourist audiences.

Types of tourism that are irrelevant to the conflict are the ones that could have developed in its absence, like cultural and sustainable and mass tourism, and can be therefore considered *conflict-independent*. On the other hand, types of tourism that develop because of conflict – and are *conflict-dependent* – entail elements of the seemingly macabre conflict aftermath, and can therefore be considered part of the “Dark Tourism Spectrum” (Stone, 2006; 151). Dark tourism has been defined as “the act of travel to sites associated with death, suffering and the seemingly macabre” (Sharpley, Richard, Stone, Philip R. 2009). But is dark tourism merely the attraction to sites of death and disaster (Lennon, Foley 2000)? Dark tourism entails a diverse scope (Sharpley, Richard, Stone, Philip R. 2009) that is not limited to the fascination of macabre, but the interest of observing, studying, reporting and re-developing it. When it comes to post-conflict areas, dark tourism portrays not only the simplicity of dark sites, but the complexity of the overall experience.

Types of dark tourism that are conflict-dependent and can develop in post-conflict sites include educational, political, business, development and volunteer tourism. For example, a post-conflict area can act as an educational site for foreign visitors. Educational tourism primarily attracts academics and students visiting dark sites and memorials – including post-conflict areas – either due to personal ties to the post-conflict areas or simply for research purposes. One such site is the Holocaust Museum in Jerusalem (Cohen 2011). Political tourism can also be found in a post-conflict area; it is about the area's narrative, which can often entail sentimentality, exaggeration and political controversy. Examples of contested political stories are found in Israel and Palestine, where narratives of Hebron and Jerusalem include controversy, accusations and victimization (Clarke 2000, Brin 2006).

Post-conflict territories inevitably receive an inflow of international experts who fund or design projects for social and institutional development. Post-conflict development tourism

involves international civil society (CSOs), non-governmental organizations (NGOs) and volunteers, and has also been referred to as NGO tourism or Voluntourism (Rogers 2007, Cohan 2010). Post-conflict areas can also develop business tourism, both as part of the area's economic development, but also as a result of conflict. As defined by Davidson and Cope (2003), business tourism refers to conferences, trainings, seminars and exhibitions; in the case of a post-conflict area, international conferences on conflict, reconciliation or other related themes can attract foreign professionals, enable the development of new business partnerships and produce knowledge products, such as conference publications and journals.

Moreover, the business tourism industry also consists of individual business tourism, taken by journalists, politicians, consultants and other freelancers (ibid.). These professionals, when working on conflict, are prone to travelling to a post-conflict area for business. Why is dark tourism important for post-conflict areas? Merely because the contribution of conflict-dependent types of tourism can be catalytic to the area's post-conflict social development; if managed in an ethical manner and away from political controversies among local stakeholders, niche dark tourism can assist a post-conflict area transition towards reconciliation and viable peace.

### **3.1. The Case of Cyprus**

It is not possible to evaluate the tourism product in Cyprus as a whole, since its Greek Cypriot (GCC) and Turkish Cypriot communities (TCC) remain geographically and institutionally partitioned (Causevic, Lynch 2013). The annual tourist inflow within the GCC has been on average 2.3 million over the past decade (Statistical Service, MoF). Tourism in the TCC suffers embargo restrictions and can only accept visitors traveling from Turkey or the GCC. Today, many tourists visit both the south and north, although this creates political controversies between local stakeholders from the two communities. Both tourism industries on the island target mass tourist audiences and focus on an identical product: the island's sandy beachfronts, tasty cuisine, and its favorable, sunny weather.

Combined with a plethora of historical sites and options of luxurious accommodation, Cyprus can provide a complete package of leisure and relaxation despite its post-conflict character. Dark tourism, as a product unsuitable for the masses, has rather remained 'in the dark' of public policy and tourism marketing.

Dark sites in post-conflict Cyprus include war cemeteries, war museums, and the abandoned Buffer Zone, hosting the ghost city of Famagusta, the Nicosia Airport and the bullet-struck Ledra Palace Hotel. Visiting these sites does not only present the past conflict, but also reveals present development work by international organizations, peace work by local activists and NGOs, and the growing communication and interaction between the partitioned communities.

## **4. DARK TOURISM AND CONFLICT PROFESSIONALS**

Visiting a post-conflict site can be both about the fascination of such a site, but also for its study and development. Conflict professionals are attracted to a dark site as much as holiday visitors seeking for a dark thrill. Dark tourism resulting from the occurrence of conflict goes beyond the attraction of death and disaster to include multiple types of tourism – political, development, educational, business and volunteer tourism – all appealing to the niche audience of conflict professionals.

In fact, for post-conflict societies still in grief, 'dark leisure' can be a taboo (Stone, Sharpley 2013), but attracting conflict professionals can have a positive social impact.

Lennon and Foley (2000) argue that 'specialists' are not the biggest share of the dark tourist category. In the case of post-conflict areas, the dark tourist audience consists primarily of

NGO activists, journalists, conflict mediators, facilitators, consultants, International Relation academics and students researching conflict. Conflict professionals are directly concerned with the post-conflict element of the area visited, which is their primary purpose of visiting. They are not as such leisure dark tourists, as they can be more distinctly identified as ‘dark tourists on business’.

Leisure dark tourists and conflict professionals are two groups likely to interact with the same local stakeholders and with each other. Looking beyond the audience of leisure dark tourists, conflict professionals offer valuable and apt contributions to the post-conflict area they visit, both through the development of relevant knowledge products on the area – books, documentaries, articles, photographic collections – but also by engaging in transferring knowledge to the local population, its institutions and organizations. Through these contributions, conflict professionals shed light on the conflict’s aftermath and promote international awareness, while local capacity-building activities have a positive impact on the area’s social, political and economic development towards viable peace. Conflict professionals are thus this article’s primary audience and their analysis through the Cypriot case study will identify their social impact as a niche tourist audience.

#### 4.1. The Contribution of Conflict Professionals

##### 4.1.1. Raising International Awareness

Scholarly work on a conflict is frequently associated with the author’s visit(s) to the area after the conflict’s occurrence, where data is collected through local archives, interviews with key figures, field trips to key areas, focus groups involving various stakeholders and other research methods. Academic publications become a reliable source of information for the territory and conflict they refer to, particularly when they are developed by foreign – and perhaps less biased – researchers.

The publications produced become knowledge products for researchers, students and activists across the world, promoting global awareness over the particular territory, the conflict’s occurrence and the post-conflict challenges phased. The recent history of Cyprus, comprised of interstate conflict and intrastate violence, has attracted the attention of foreign scholars, particularly in light of historical benchmarks – ie. civil unrest, political agreements, and reconciliation initiatives. The following graph (Figure 1.) shows an indicative sample of fifty academic publications relating to the Cyprus conflict, authored by foreign conflict professionals:

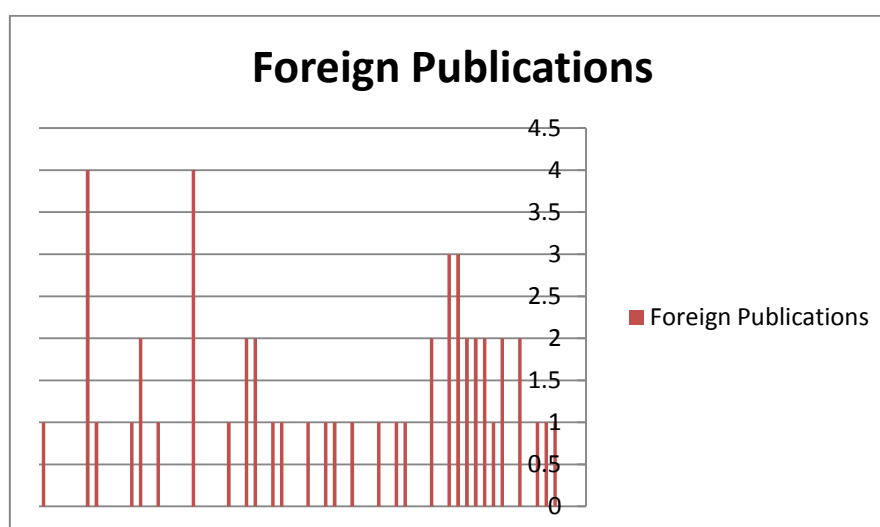


Figure 1 - Source: Author

As shown by the graph, there is a growing frequency and volume of foreign publications on Cyprus throughout the years, indicating a growing foreign interest in the study and analysis of the Cyprus conflict, and thus, more international awareness.

#### **4.1.2. Providing Local Capacity-Building**

Conflict professionals do not only report on a conflict, but often take an active role in its transition towards viable peace. The case of Cyprus shows a post-conflict process for reconciliation at stalemate, yet at the same time it has developed – mainly over the past decade – a booming civil society movement working towards reconciliation and cooperation across the island. One cannot argue accurately whether local civil society attracted foreign conflict professionals, or whether foreign conflict professionals enabled the local civil society to grow and establish its presence. Nevertheless, a relationship between local experts and NGOs has been developed with foreign counterparts due to their mutual desire to analyze the Cyprus – and other – conflicts and share best practices of conflict resolution. As a result, local NGOs such as the Association for Historical Dialogue and Research (AHDR, 2014), Cyprus Academic Dialogue (CAD, 2014) and the Cyprus Community Media Centre (CCMC, 2014) have hosted foreign conflict professionals for local conferences, presentations, lectures, workshops and trainings.

### **5. CONCLUSION**

The steadily growing volume of foreign publications on the Cyprus conflict indicates a growing international interest on the conflict's study and discourse. The local civil society engaging in peace activism and advocacy is an attraction for foreign conflict professionals providing their expertise through projects and initiatives based in the post-conflict territory. All in all, the interaction of foreign conflict professionals with post-conflict areas and local stakeholders produces social impact unique to their area of expertise – conflict – and catalytic to the area's post-conflict transition towards viable peace. The impact of this interaction's outcomes - foreign publications, news entries, conferences and other related knowledge products – is qualitative and cannot be measured in a manner similar to the economic impact of tourism. Nevertheless, it is evidently catalytic to the post-conflict area and the local populations. At the same time, dark tourism entails elements of controversy and can be unethical if developed without having in mind the challenges, needs and sensitivities of the local populations. It is therefore important to monitor and evaluate the social impact of post-conflict tourism by conflict professionals, in order to ensure that any social impact generated will only positively affect the area's transition towards reconciliation.

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## **SOCIAL MEDIA USAGE IN BANKING INDUSTRY AND ITS MANAGERIAL VIEW: CASE STUDY FOR MEXICAN BANKING SYSTEM**

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### **ABSTRACT**

*Being a basic platform of worldwide electronic business, the Internet has emerged as the world's major distribution channel for goods and services, the easiest and cheapest way for communication and interaction. These changes, which have influenced more or less all business areas by making them to be drastically transformed, require new challenges, communication approaches and creative behavior in the "dot com upheaval". It has affected banking industry and made them to deal with radically new challenges. It has offered lots of opportunities for businesses that can be seen even in the short period. And here managers need to create and establish new ways and methods to transform and adjust their organizations to the new changes, to communicate and interact to customers, which best can be done via Social Media. Social media has become a part of human life. It has entered consumers' day to day lives. It has tremendous impact on today's world especially in business world. The rapid progresses in technology seem to have more impact on changes in the banking industry than any other. This article is focused on social media usage in banking industry. We define social media as a manifestation, development and transformation of human's most impressive characters: communication and interaction, which nowadays are done throughout the new channels. The right communication is linked with customer satisfaction, which itself is linked with customers loyalty and retention. Thereby, in our opinion social media is a new challenge in banking industry the ignorance of what can cost banks customers' loss. In fact, today banking industry is extensively debating, discussing and thinking on Social Media usage in financial world. Banks have begun to catch that social media is a new challenge for them and it can become a crucial constituent of banking strategy. Social media in banking industry is a discussion topic of this article which than comes up with its current usage in Mexican banks and its managerial view.*

**Keywords:** *customer care, customer satisfaction, communication, social media*

### **1. INTRODUCTION**

New technologies based on the Internet, World Wide Web and wireless communications have changed the business world in 20th century. Being a basic platform of worldwide electronic business, the Internet has emerged as the world's major distribution channel for goods and services, the easiest and cheapest way for communication and interaction. Social media is almost an endless source and an important tool for communication. It has radically impacted today business world. And today's customers have proved this fact. Social media is influencing customers' financial decisions. The traditional world of mouth has been changed in social media world of mouth. Thus banking management needs to identify ways to make profitable use of social media. By developing presence in social media banks will be closer to customers. We believe that the fastest way to grow a business entity is through social media and networking. Thus social media and its current usage in banking are discussion topic of our paper. It presents the managerial view concerning to social media usage in Mexican banks, its barriers and challenges. Based on statistics and researches in social media area, we present a set of hypothesis and test them in Mexican banks by doing survey among managers, directors and social media representatives in Mexican banks.



## 2. SOCIAL MEDIA CHALLENGE IN GLOBAL ECONOMY AND ITS ADDED VALUE FOR BANKING INDUSTRY

The communication ways and methods have been changed, nowadays banks have to be more communicative, more customer-centric and innovative. Social media is a result of these changes and it has a crucial influence on today's business world. Here is presented the theoretical research concerning our topic. As we know, the last two decades have seen multiple visions for "banking in the future" (Gates, 1995) that comprehended banking from a customer perspective. Alt & Puschmann (2012) supposed that four drivers have become fairly prevalent causing a stronger transformation in the forthcoming years: the financial crises, the changing behavior of banking customers, the pace of diffusing innovative downstream IT-solutions, and the emergence of non-banks. All these have direct or indirect connection with social media phenomenon. Indeed in few years social media showed an explosive growth and established itself as "the media of choice all across the world". (Hun, 2010). Ernst & Young (2012) in "Global banking outlook: 2013-14" based on their global research advises that banks need to develop new business models and implement new operating models, because customers "disturbing the status quo — they continue to need banking services but are starting to look beyond banks to alternative providers". "A major overhaul of the organization will be needed to adapt to the new environment". The rapid success of social media has left corporations "in the dust" as they seek to promote their products on these platforms, develop strategies and policies, and fill newly created social media-related positions with qualified individuals (Kelly, 2010). King (Bank 3, 2013) told that there has never been a new media type that has such a deep impact on business messaging and dialogue in such a short period of time – ever. When we put it in that light, there are many banks that should have been taking social media far more seriously for quite some time already. But perhaps those banks are waiting for the crash, the dot-bomb of social media. Jenkins (2006) described the contemporary media landscape as being innovative, convergent, every day, appropriative, networked, global, generational and unequal. Gharibi (2013) pointed out that a crucial element to ensure social media success is to have executive level support for enabling and encouraging experimenting and learning. This makes it easier to "stick with it" since it takes substantial commitment, time, and resources to be successful in social media. Murdough (2009) emphasized that firms try to realize their aims through social media. Steinman & Hawkins (2010) added that the viral feature of social media makes it fantastic for business environment. Kirakosyan & Dănăiață (2013) showed the link between communication, customers' satisfaction and customers' loyalty/retention. Which means that e-Communication is not only a crucial variable on customer satisfaction but also on their loyalty/retention. Tapscott & Williams (2006) developed an idea of "wikinomics" and explained the use of mass collaboration in a business environment. They mentioned that leaders must think differently to compete and be profitable, and "embrace a new art and science of collaboration". Financial sectors, especially the heart of it: banks, have to harness the power of social media. "Perhaps akin to the development of websites in the latter part of the 20th century, organizations today sense that social media is—and will remain—an important fabric of commerce, and that they must get on board". (Weinberg & Pehlivan, 2011). Edosomwan (et al 2011) underscored that "Social media helps conversations to reach a wider audience leveraging the "long tail" concept, which means conversations that can be conveyed to different forums". Paridon & Carraher (2009) stressed that "Social media is a cost-effective method for marketing activities". Merrill (et al 2011) emphasized that "via Social networking sites banks should be focused on deeper relation between customers, which will grow to "know, like, and trust". And for each kind of businesses they mentioned "But the opportunity to interact with anyone, anywhere, anytime is too world-changing to ignore". Brown (2010)

mentioned “It is well-established that people feel more connected with a company when they have direct communication on an ongoing basis and opportunities to express their opinions.” Nadkarni (2013) wrote “But the benefits of engaging with customers on these channels outweigh the cons, primarily, because engagement via social media keeps an organization on its toes and ensures customer grievances are addressed immediately.” Vaynerchuk (2009) emphasized that social media gives businesses an unprecedented opportunity for interacting with their customers and communicating their messages. Catherine Zhou pointed out that businesses have been talking for many years about how customers are empowered by information. And now, more and more customers are seeking that information via social media, and it is being filtered by their peers. (Ernst & Young, 2012)

Gallup’s Retail Banking Industry survey finds that social media and written materials are by far the most likely to lead to a sales conversion. And if we compare the social media costs (some social media channels are free by the way) with other sources like calls from customer service representative, we will see that social media is the challenge that worth to undertake (Leonard & Youra, 2013). It showed as well that the first place where customers look for bank information is social media. Samuel (2013) mentioned that social media demanded attention. It needs to be put into the rotation, but that doesn’t mean we take something off our calendars to accommodate it, we should just add it to our teams’ tasks, challenging them to figure it out until they could make a business case for hiring full-time social media staffers. “If social media is worth doing, than it’s worth making time for”. Some banks have special departments for CRM implementation. Via social media channels it is very easy and cheap to manage customer relationship. Thomas (2010) mentioned that social media is “CRM for millennia” but not a just simple marketing tool and its form may be different direct in the future but it’s not going away. But statistics show that businesses don’t use social media for CRM purposes extensively as they should. Particularly Social Media Marketing report for 2012 released by Awareness (Brown, 2012) presented that the social CRM issue continues to be one that’s lacking in uptake, with only 16% of businesses currently using a social CRM system. While 21% are planning to, 17% don’t know what a social CRM system is and why businesses need it. Hensel & Deis (2010) stated the connection between social media and cross-selling. They mentioned that in social media platform on-line groups communicating with each provide cross-selling opportunities for businesses. Pearson (2013) mentioned about another benefit. He pointed out that social media can play a role in business process management. Some leading companies are already using the power of social media to shape their business process management (BPM) agendas. Jiang et al. (2012) in their research paper showed that via social media stock market performance can be predicted. This connection was a research topic for many researchers. Das & Chen (2007) pointed out that online social media such as firm-related web forums are valuable sources in explaining subsequent stock behavior. Tetlock (2011) et al. showed that there are three main sources of information for stock prediction: analysts’ forecasts, accounting variables in financial statements, and information appearing in news and social media.

### **3. SOCIAL MEDIA USAGE IN MEXICO**

In Latin America internet usage grows very rapidly. World Bank indicators showed that Argentina, Brazil, Mexico, and Colombia have the highest rates of internet usage in the region. A September 2011 report “The Rise of Social Networking in Latin America” found that half of the top ten worldwide markets by time spent on social networking are in Latin America. (Dominguez, 2013). And Mexico has its unique place in this growth. In October 2012, when Facebook passed 1 million users, 19 percent of those users live in Latin America. Mexico is the first country in Latin America where the president and cabinet became engaged

in social media. (Dominguez, 2013). The governments of virtually all large Latin American cities now use social media to engage with citizens, and smaller cities are quickly following suit. The Inter-American Development Bank recently found that social media is used by governments of Latin American in 70 percent of the region's 140 "emerging cities" (those having 100,000 to 2 million residents and above-average economic growth rates). (Moreno, 2012)

Global Digital Statistics 2014 done by We are social's snapshot of key indicators, presented the worldwide internet and social media usage. According to it, total world population is 7,095,476,818, from which 2,484,915,152 are internet users. Approximately 35% of worldwide population are using internet and from this over 1,856,680,860 are active social network users. Which means approximately 26% of worldwide population is in social networks. Where else business can find such a huge market? Only Facebook had more than 1 million active users for January 2014. (Global Digital Statistics, 2014)

The population in Mexico in different sources are presented different; by National institute of statistics and geography it is 112 336 538 (<http://www.inegi.org.mx/>), by world population statistics it is 117 410 000

(<http://www.worldpopulationstatistics.com/>), by Mundi index it is 116,220,947

(<http://www.indexmundi.com/>). According to Global Digital Statistics 2014, in Mexico only Facebook users, by the way active ones, are 50,000,000. That means, in Mexico approximately 43 percent of population are using Facebook. And this figure is without taking into consideration that 27.4% of population are in the age of 0-14 years (Mundi index). That means, the target for banks only in Facebook in Mexico is more than it 43% of its population.

In Mexico each day the internet users spend average 5h 22m internet, from which 3h 46 minutes they use social media, which penetration as a percentage of the total population is 33%. Table 1 presents overall social media usage in Mexico and we can see that the list leads Facebook. (Global Digital Statistics, 2014)

*Table 1: Social media usage in Mexico (Global Digital Statistics, 2014)*

	Own an account (%)	Used in the past month (%)
Any social network	98%	72%
FACEBOOK	94%	61%
GOOGLE+	74%	29%
TWITTER	62%	27%
LINKEDIN	36%	12%
INSTAGRAM	28%	8%

The survey "Digital Marketing and Social Networks in Mexico, 2013" done by AMIPCI (Mexican Association of Internet) shows that 85% use social networks, that means 8 from 10 companies have some social profile. But only 13% of companies devote more than 20 hours in their social networking profiles in a week, though 68% of companies have special staff to manage their profiles (almost 7 from 10), in general the time devoted to social media engagement in a week is not pretty much: 33% less than 3 hours, 29% 4-6 hours in a week, 16% 7-10 hours in a week, 3% 11-15 hours in a week, 6% 16-20 hours in a week.

The same survey "done among internet users found out that 93% of them use social media. If in case of companies only 21% have presence in social media more than 3 years, in case of social media users this figure is much more; 84% users are in social media 3 and more years. (AMIPCI, 2013)

The most popular social media platforms for internet users are Facebook, Twitter, YouTube, LinkedIn and Google+.

*Table 2: The most popular social media platforms among internet users  
(AMIPCI, 2013)*

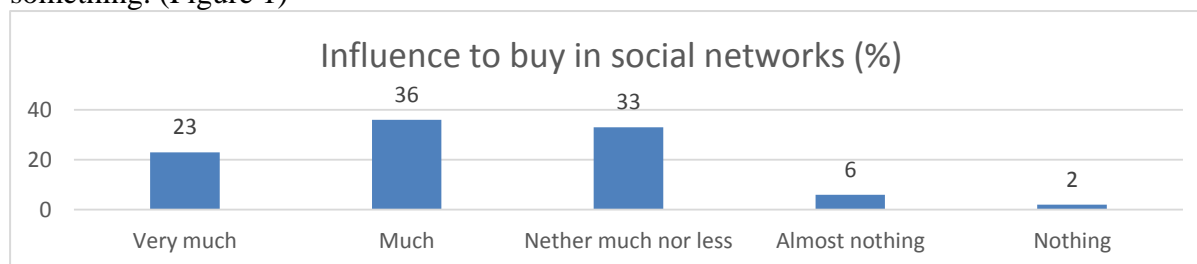
	Registered (%)	Daily access (%)	Men (%)	Women (%)
Facebook	96	93	45	55
Twitter	69	66	44	56
YouTube	65	65	45	55
Google+	57	56	48	52
LinkedIn	38	27	42	58

Another important factor is the age in social media platforms. In average for the most popular platforms generally the age is 18-24, then comes 25-34. (Table 3)

*Table 3: The social network users' age is different for different social media platforms  
(AMIPCI, 2013)*

Age	Facebook (%)	Twitter (%)	YouTube (%)	Google+ (%)	LinkedIn (%)
18-24	39	48	48	44	26
25-34	26	26	25	24	31
35-44	16	14	12	15	21
45-54	13	8	11	11	15
More than 55	6	4	4	6	7

Social media has become the place where customers look for information, promotions, products have become the fans of any of those products, and last but not least, are influenced to make purchase. Thus, from social media users 51 % follow some brand and 40 % are fans for them. The survey shows that 59% social media users had its influence for decision to buy something. (Figure 1)



*Figure 1: Main social media platforms (AMIPCI, 2013)*

#### **4. THE MANAGERIAL VIEW OF SOCIAL MEDIA USAGE IN MEXICAN BANKS**

Mexican banking system is very large. It has Mexican Banks, foreign-owned banks, development banks and others. Based on statistics and findings about social media usage which were mentioned in the 1st and 2nd chapters, we set hypothesis and to testify them we have done survey among Mexican banking system and had interviewed 33 managers, directors and social media responsible working there by selected the questions that allow us to validate our hypothesis about social media barriers and challenges.

H1: Mexican banking system has a strong social media presence

H2: The banks in Mexico consider that there are several barriers in social media adoption.

H3: The banks in Mexico consider that social media adoption brings a set of challenges for the banks.

H4: Social media is used among Mexican banks for various purposes.

H5: Social media has a strong impact on Mexican banks.

**H1: The banks in Mexico are present on most of the known social media platforms**

90% of the respondents said their bank has presence in social media platforms. The leading platforms are Twitter, Facebook, LinkedIn, YouTube, Wikipedia (Figure 2).

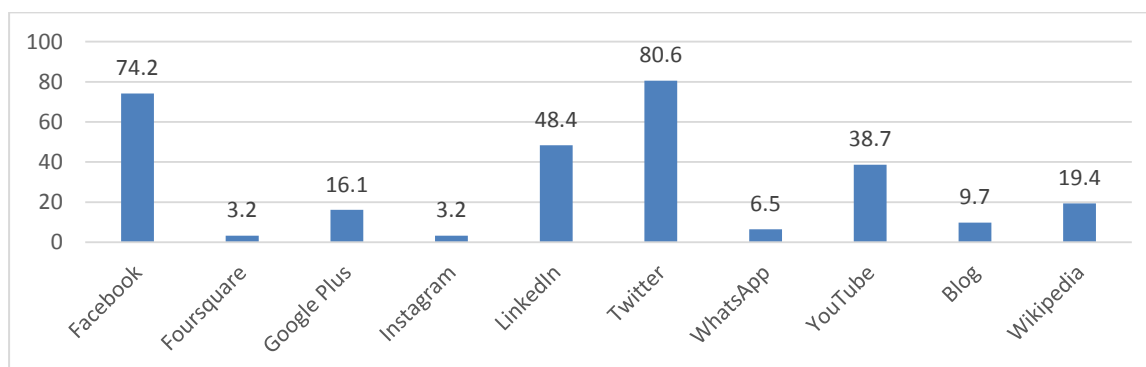


Figure 2: The main social media platforms in Mexican banks for 2014

**H2: The banks in Mexico consider that there are several barriers in social media adoption**

69.6% respondent think that one of the barriers is the lack of strategy around social media usage (Figure 3, Multiple-choice question whereby respondents selected all the categories that applied to them).

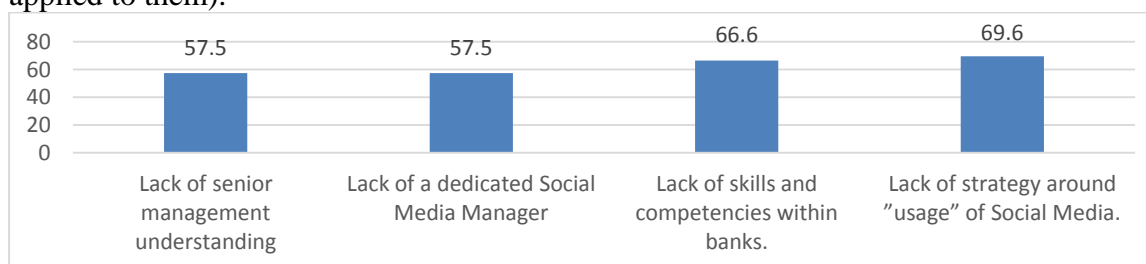


Figure 3: Managerial view on Social media adoption barriers in Mexican banks, 2014

**H3: The banks in Mexico consider that social media adoption brings a set of challenges for the banks**

81.8% respondent think that one of the challenges in social media usage is customers' demand and behavior recognition (Figure 4, Multiple-choice question whereby respondents selected all the categories that applied to them).

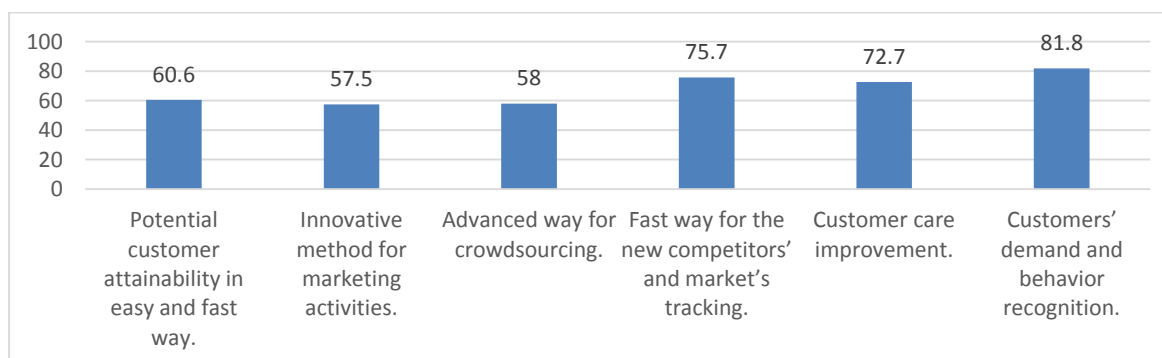


Figure 4: Managerial view on social media challenges in Mexican banks, 2014

**H4: Social media is used among Mexican banks for various purposes**

The managerial view for social media usage in banking industry shows that 42.4 % respondents do strongly agree that social media is a tool for brand strengthening. Table 4 presents the managerial view concerning to the purposes of social media usage in banking (Multiple-choice question whereby respondents selected all the categories that applied to them by rating scale).

*Table 4: Social media usage purposes for Mexican banks, 2014*

For what purpose banks use social media	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	N/A (%)
For conversation with audience	21.2	30.3	24.2	9.1	9.1	6.1
To build relation with existing and potential customers	12.1	30.3	30.3	15.2	9.1	3.0
To reach banking transparency/visibility	12.1	27.3	27.3	15.2	15.2	3.0
For Customer loyalty / retention programs	18.2	36.4	21.2	12.1	12.1	0.0
To monitor public awareness	12.1	24.2	36.4	18.2	9.1	0.0
For information distribution	36.4	36.4	15.2	12.1	0.0	0.0
For brand strengthening	42.4	30.3	15.2	9.1	3.0	0.0
For Customer Relationship Management	15.2	42.4	21.2	15.2	3.0	3.0
For cross-selling	18.2	18.2	39.4	12.1	9.1	3.0
To reduce advertisement expenses	15.2	24.2	30.3	15.2	9.1	6.1
For HR purposes	9.1	24.2	33.3	15.2	3.0	15.2

**H5: The banks in Mexico consider that they benefit from social media usage**

More than 50 % agree that via social media the bank can restore trust among stakeholders. Table 5 presents the managerial view on benefits from social media adoption (Multiple-choice question whereby respondents selected all the categories that applied to them by rating scale).

*Table5: Managerial view on Benefits from Social Media adoption for Mexican banks, 2014*

	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	N/A (%)
Social media reduces workload in the branches.	15.2	39.4	24.2	18.2	3.0	0.0
Social media reduces call workload.	18.2	42.4	21.2	15.2	3.0	0.0
Social media increases banking recognition.	39.4	39.4	15.2	6.1	0.0	0.0
Social media effects banking reputation.	30.3	45.5	15.2	3.0	6.1	0.0
Via Social media the bank can restore trust among stakeholders.	12.1	51.5	18.2	18.2	0.0	0.0

**The hypothesis test**

H1: Accepted; 90% of the respondents said their bank have presence in social media platforms

H2: Accepted; 50% of our respondents agree with our barriers

H3: Accepted; over 60% of our respondents agreed with the chosen set of challenges

H4: Accepted; banks use intensively or moderately all of the mentioned purposes and activities

H5: Accepted- strong influence of social media on banking recognition, bank reputation.

## 5. CONSLUSION

The most important stakeholders for banks are customers. And this factor forces banks to change the way they interact with them and put attention on relationship and communication which can't be done without using all modern online communication channels. From which the most popular and powerful one is social media. Banks must start to take the social media industry seriously and develop a clear strategy. Some banks have already started using social media for their services. While some are focusing on providing information about products and trying to generate leads, others are providing transactional services. By taking into consideration that Social Media has a big impact on today's business world, banking management needs to identify ways to make profitable use of social media. Social Media is a powerful tool for gaining customer and for communicating with potential and existing ones. It allows banks to reach end-consumers at comparably low cost and higher level of efficiency than can be achieved with more traditional communication tools. Though being a new way of communication it is not an easy task for its usage. It requires new methods, new ways of thinking. And the results can be not always satisfying, because there are no well-known or well-researched methods and tools for Social Media involvement. The key factor for the success of social media is conversation, communication and interaction first, then product and service marketing. Banks needs to be there where present and potential customers are talking, blogging, complaining, expressing their pleasure or dissatisfaction about their products and services.

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## THE ANALYSIS OF THE IMPACT OF MACROECONOMIC SHOCKS ON CROATIAN ECONOMY USING THE SVAR METHODOLOGY

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### ABSTRACT

*The aim of this paper was to develop a statistical model that will be able to encompass the most important macroeconomic shocks that hit the Croatian economy in the last decade. Since Croatia is a small open economy (SOE), which is due to the economic structure largely dependent on the economic performance in the euro area, it is assumed that any significant change in the euro area would affect Croatian economy. Therefore, the goal was to identify and explain the reaction of the domestic economy to domestic and euro area shocks. For the purpose of this research, a five-variable structural vector autoregressive (SVAR) model comprising both domestic and foreign variables was used imposing block-exogeneity restrictions and assuming that domestic shocks have no significant impact on variables from the euro area. Variables were divided into two blocks, where the first block represented foreign economy and was comprised of real Gross Domestic Product (GDP) and harmonized consumer price index in the euro area, while the second block represented Croatian economy and consisted of real GDP, consumer price index and real exchange rate of the kuna against euro. Using innovation analysis, we examined the size and the persistence of both domestic and foreign shocks on the Croatian economy and studied the relative importance of each shock in explaining the fluctuations of domestic variables. The estimated impulse response functions and variance decomposition showed that foreign variables have a significant impact on domestic variables and are the main determinants of domestic inflation and economic activity in Croatia. The results can be useful to policy makers as they show that the volatility of foreign macroeconomic fundamentals should be taken into account for future studies of domestic economic developments.*

**Keywords:** *Block-exogeneity restrictions, Croatia, Macroeconomic shocks, Small open economy (SOE), structural vector autoregressive (SVAR) model*

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### 1. INTRODUCTION

With the ongoing globalization and liberalization of financial markets including capital markets countries are becoming more and more interconnected through international trade and capital movements. The global economic crisis that originated in the summer of 2007, as well as the efforts of G8 countries embedded in the coordination of economic policy responses to

the crisis, showed the existence of high interconnectedness between economies (Gali and Gertler, 2009). Accordingly, it can be assumed that economic conditions in one country can affect other countries, in particular countries with the largest share in foreign trade. The above assumption is primarily of interest to policy makers in the process of formulating an economic model and implementing economic policy. Better understanding of the source of fluctuations in the domestic economy is necessary for economic policy makers in order to examine whether the domestic economic trends are affected by domestic or external shocks.

Since a small open economy (SOE) is an economy small enough so that its policies do not actively influence the world demand (De Paoli, 2003), the SOE is considered to be a price taker in the world market (Rodseth, 2000). In the case of a SOE, understanding the impact of external shocks is of a special importance. The SOEs are vulnerable to global economic trends and largely exposed to external shocks due to their economic structure.

The Republic of Croatia is a SOE which is largely dependent on economic situation in the euro area and is assumed that any significant change in the euro area will have an impact to the Croatian economy. Namely, the Croatian economy is characterized by substantial foreign trade imbalance, with high import dependency, weak competitiveness of domestic products, high external debt denominated in the foreign currency as well as the high dependence of the financial sector of the euro currency. Due to the high euroisation of the financial sector, the Croatian National Bank (CNB) conducts a passive monetary policy, which is primarily caused by focusing on the exchange rate management in order to maintain a stable price level (Bokan et al, 2010). The consequence of this is the inability to influence the real movements since the role of monetary policy in absorbing macroeconomic shocks is restricted. In other words, due to the unfavorable structure of the domestic economy, any tightening of European Central Bank monetary policy or changes in economic activity in the euro area would significantly impact economic developments in Croatia (Dumičić and Krznar, 2013). Although the unfavorable economic situation has been present in Croatia even before the on-going economic crisis, current crisis which turned into recession further pointed to the strong vulnerability of Croatian economy to foreign adverse economic shocks. Therefore, the crisis has emphasized the limitations of current economic policy decision making together with the existing need for modification of economic policy modeling.

In line with the above stated empirical facts regarding the SOE of Croatia, the aim of this research is to identify and examine the reaction of the domestic economy to domestic and foreign shocks whereat foreign shocks refer to euro area shocks. In other words, the aim of this study is to quantify domestic and euro area shocks by assessment of the relative importance of each shock on macroeconomic developments in Croatia. In accordance with the stated aim and the relevant research of that problem in domestic and international literature, two research hypotheses are stated. The first research hypothesis is that foreign variables have a significant impact on domestic economic developments. This assumption stems from the fact that Croatia is a SOE and the state of the financial system and domestic economic activity largely depend on the state of the world economy and financial system. Second research hypothesis is that the relative contribution of foreign macroeconomic variables to economic movements in Croatia is higher in comparison to the contribution of domestic macroeconomic variables.

The structure of the paper is as follows: the research objectives and hypotheses are defined in the introductory part of the paper. Chapter 2 describes the used methodology, namely the structural vector autoregressive (SVAR) model with block-exogeneity restrictions. Chapter 3 offers the empirical analysis of the impact of domestic and euro area shocks to the Croatian economy. Firstly, the variables that will be used in the empirical analysis are defined and explained and their stationarity is tested. Then, the SVAR model with block-exogeneity

restrictions is specified and after that the innovation analysis is conducted, i.e. the results of the impulse response functions and variance decomposition of foreign shocks are analyzed. Finally, the conclusions of the research are stated as well as limitations of the study and future research perspective.

## **2. THE LITERATURE OVERVIEW**

Among early papers dealing with the impact of foreign shocks to SOEs, most of them focused on the analysis of monetary transmission mechanism (see e.g. Cushman and Zha, 1997) and therefore ignored the relative importance of other macroeconomic fundamentals. Most of the empirical research is focused on analyzing the impact of shocks, their spillovers and transmission channels of the world's largest economies, such as USA and EU (see e.g. Benczur, Koren and Ratfai, 2004; Canova, 2005). In general, the above studies, as well as many others have shown that external shocks in large developed economies explain a significant proportion of the variation of macroeconomic developments in SOEs.

To the best of the authors' knowledge, nine studies examine the impact of foreign shocks to the Croatian economy. Fidrmuc and Korhonen (2003), Broz (2008) and Dumitru and Dumitru (2011) implemented SVAR model with long-run Blanchard-Quah restrictions and found that there is no interconnection between foreign and domestic economic fluctuations or that the relationship is negligible. There could be several reasons for such results. First of all, data for GDP before 2000 differ substantially in the way of measurement compared to data for period after the 2000 year, and such data are not consistent and comparable to each other. Secondly, Broz (2008) and Dumitru and Dumitru (2011) use GDP deflator as an indicator of inflation. However, GDP deflator measures the prices of all products that are produced in a particular country, whether or not these products are aimed for export. On the other hand, the Consumer Price Index (CPI) measures the prices of goods produced and consumed in a particular country as well as the prices of imported goods that are consumed in that country. Thus, unlike the GDP deflator, CPI includes import, but excludes export. Since a significant portion of goods in Croatia is imported, it would be more appropriate to use CPI as an indicator of the price level rather than the GDP deflator. Finally, aforementioned authors use data in period before 2000 in which the Croatian economy was not dependent on external economic developments to large extent. However, the effect was intensified primarily by the entry of foreign banks to the Croatian banking market. The results of other studies (see Nabil, 2009; Krznar and Kunovac, 2010; Erjavec, Cota and Jakšić, 2012; Jovančević, Arčabić and Globan, 2012; Koukouritakis, Papadopoulos and Yannopoulos, 2013; Petrevski, Bogoev and Tevdovski, 2013) indicate that the Croatian economy is highly vulnerable to the foreign shock, in particular to shocks coming from the euro area.

## **3. DATA SPECIFICATION AND METHODOLOGY**

### **3.1. Data specification**

Time series data used for the purpose of the empirical analysis refer to the quarterly data for the period from the first quarter 2000 to the fourth quarter 2013 for Croatia, supplied by the CNB as the official source. In order to prepare data for the empirical analysis, certain transformations of variables are conducted, such as the logarithmic transformation and the seasonal adjustment. Moreover, the stationarity of the time series is tested using the augmented Dickey–Fuller test (ADF) unit root test (for ADF test in detailed, see, for example, Enders (2010)). The results of the ADF test are not presented in the paper due to space limitation, but are available on request. ADF stationarity testing shows that time series in levels are not stationary, while the first differences of variables are stationary, suggesting that the variables in the model are integrated of order one.

The selected variables are divided into two blocks:

- The first is the foreign block which represents the economy of the euro area. It consists of the growth rate of seasonally adjusted real GDP (DSLBDP\_EZ) with the base year 2005=100 and the growth rate of CPI (DLCPI\_EZ). The foreign block does not include the referent interest rate in the European interbank market (Euribor) because that does not contribute to the interpretation of results. The Euribor stems from the Taylor (1993) rule of the European Central Bank, meaning that the GDP is taken into account when defining the level of interest rate and therefore the results of the estimated impulse response functions have the same interpretation regardless of whether the model includes only GDP or both Euribor and GDP (Krznar and Kunovac, 2010).
- The second block refers to the domestic economy, in this case the SOE of Croatia, and consists of the growth rate of seasonally adjusted real GDP (DSLBDP\_RH) with the base year 2005 =100, the growth rate of CPI (DLCPI\_RH) and the growth rate of seasonally adjusted real exchange rate against the euro (DSLRRER). The domestic block does not include the money market interest rate because Croatian National Bank does not conduct monetary policy that relies on the interest rate channel and therefore the interest rate does not have the significant role in the financial system and nor the impact on the real sector (Krznar, 2004).

### 3.2. Specification of the SVAR model

In order to analyze the effect of economic shocks in the euro area on Croatian economy, the vector autoregression model (SVAR) model is implemented. The SVAR model is defined by the following equation (Lütkepohl and Krätzig, 2004):

$$A\Delta y_t = \Pi^* y_{t-1} + \Gamma_1^* \Delta y_{t-1} + \dots + \Gamma_{p-1}^* \Delta y_{t-p+1} + B\varepsilon_t, \quad (1)$$

where  $\varepsilon_t$  refers to innovations,  $\varepsilon_t \sim (0, I_K)$ . However, the structural model (1) is not directly estimated and the estimation is conducted for the reduced form of the model. To derive the reduced form from the equation (1), it is necessary to multiply both sides of the equation (1)  $A^{-1}$ . Hence the reduced form is given by:

$$\Delta y_t = \Pi y_{t-1} + \Gamma_1 \Delta y_{t-1} + \dots + \Gamma_{p-1} \Delta y_{t-p+1} + v_t, \quad (2)$$

whereat  $\Pi = A^{-1}\Pi^*$ ,  $\Gamma_j = A^{-1}\Gamma_j^*$ ,  $j=1, \dots, p-1$ ,  $A_j = A^{-1}A_j^*$ ,  $j=1, \dots, p$  and  $v_t = A^{-1}B\varepsilon_t$ , what relates error terms  $v_t$  with the corresponding structural shocks  $\varepsilon_t$ . For the purpose of the empirical research, vector  $y_t$ , which consists of five endogenous variables, is given by:

$$y_t = [DSLBDP\_EZ, DLCPI\_EZ, DSLBDP\_RH, DLCPI\_RH, DSLRRER]'$$

It consists of growth rate of seasonally adjusted real GDP in the euro area, growth rate of the price level in the euro area, the growth rate of seasonally adjusted real GDP in Croatia, the growth rate of the price level in the Republic of Croatia and the growth rate of seasonally adjusted real exchange rate against the euro at the end of period.

Unlike the unrestricted vector autoregressive (VAR) model in reduced form, the SVAR model includes more parameters than in the case of the estimation on the basis of the actual value (see, for example, Lütkepohl and Krätzig, 2004). Therefore, it is necessary to introduce a certain number of constraints on the parameters of the matrix in order to identify the parameters in the structural form. The Cholesky orthogonalization is used in the formation accurately identified model was used. In this case, the order of variables can have a significant

effect on the result obtained and the variables are ordered with regard to the economic theory. As it is previously mentioned, Croatia is a SOE which does not have the significant impact on economic developments in the euro area. Therefore, the euro area variables are determined to be the first in the model, followed by the variables which refer to Croatia. Specifically, the variables introduced into the model are:

- The first variable is the GDP of the euro area, which is considered to have a direct impact on all the other variables in the model.
- The next variable is the price level in the euro area, which is considered not to have an immediate impact on the GDP of the euro area, but impacts other variables in the model. Therefore, GDP is put prior to price level.
- The intuition is that it is considered that the euro area is one of the world most important economies, whose demand for certain products may affect the price level in the world market. After the foreign variables, using same intuition, domestic variables are placed in the model. So, the third variable is domestic GDP. As it has previously been mentioned, changes in economic activity or price changes in the euro area may be transmitted to Croatian economy through trade channel, due to the fact that euro area is one of the biggest trading partners for Croatia. Increased demand in euro area leads to the increase in foreign prices, and thus to an increase in demand for Croatian goods which ultimately increases the GDP of Croatia (Andonova and Petkovska, 2011).
- The last variable in the order is real exchange rate because it is considered that it responds to changes in the aforementioned variables (Kim and Roubini, 2000).

The following matrix representation describes the above mentioned economic relations:

$$\begin{bmatrix} \varepsilon_t^{\text{DSLBDP\_EZ}} \\ \varepsilon_t^{\text{DLCPI\_EZ}} \\ \varepsilon_t^{\text{DSLBDP\_RH}} \\ \varepsilon_t^{\text{DLCPI\_RH}} \\ \varepsilon_t^{\text{DSLRRER}} \end{bmatrix} = \begin{bmatrix} b_{11} & 0 & 0 & 0 & 0 \\ b_{21} & b_{22} & 0 & 0 & 0 \\ b_{31} & b_{32} & b_{33} & 0 & 0 \\ b_{41} & b_{42} & b_{43} & b_{44} & 0 \\ b_{51} & b_{52} & b_{53} & b_{54} & b_{55} \end{bmatrix} \begin{bmatrix} v_t^{\text{DSLBDP\_EZ}} \\ v_t^{\text{DLCPI\_EZ}} \\ v_t^{\text{DSLBDP\_RH}} \\ v_t^{\text{DLCPI\_RH}} \\ v_t^{\text{DSLRRER}} \end{bmatrix}$$

Since it is necessary to introduce at least  $K(K-1)/2$  restrictions for the identification of the matrix, and thus the structural shocks, using Cholesky decomposition 10 restrictions is introduced, what allows accurate identification of the model. For the explanation of Cholesky orthogonalization see, for example, Lutkepohl and Kratzig (2004).

### 3.3. Implementation of block-exogeneity restrictions

It is well known that the shocks in SOEs have very little impact on major foreign countries and therefore it is proper to treat the foreign variables as exogenous to domestic economy. As a result, the model is divided in two blocks: the euro area block and the domestic (Croatian variables) block.

Therefore, the first block represents the foreign euro area economy while the second block to represents the Croatian economy. Thus the vector  $y_t$ , which represents the vector of endogenous variables, is to be divided into two blocks what can be written in the following form:

$$y_t = [y_{1t}, y_{2t}]'$$

Vector  $y_{1t}$  is comprised of the variables representing euro area economy and it is given by  $y_{1t} = [DSLBDP\_EU, DSLCPI\_EU]$ , while  $y_{2t}$  represents Croatian economy and is given  $y_{2t} = [DSLBDP\_RH, DSLCPI\_RH, DSLNER]$ .

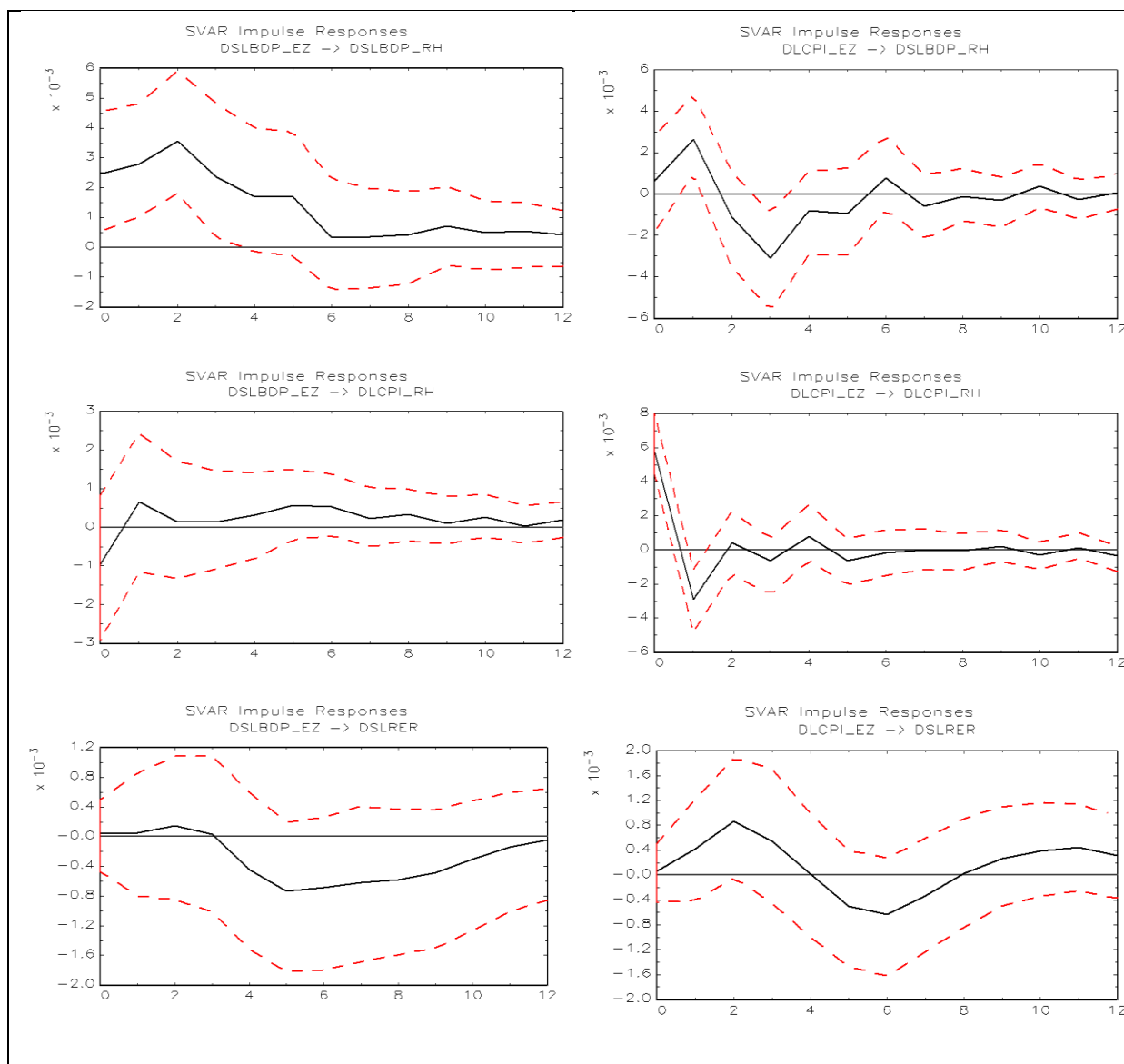
Accordingly, the VAR model may be presented in the following way:

$$y_t = \begin{bmatrix} y_{1t} \\ y_{2t} \end{bmatrix}, \Gamma_j = \begin{bmatrix} \Gamma_{j,11} & \Gamma_{j,12} \\ \Gamma_{j,21} & \Gamma_{j,22} \end{bmatrix}, v_t = \begin{bmatrix} v_{1t} \\ v_{2t} \end{bmatrix},$$

where  $\Gamma_{j,11}$  i  $\Gamma_{j,12}$  are coefficients related to the euro area economy, while  $\Gamma_{j,21}$  i  $\Gamma_{j,22}$  refer to coefficients of domestic economy. Since Croatia is a SOE, domestic shocks do not have a significant impact on the economy of the euro area and therefore the block- exogeneity restriction is introduced in the form  $\Gamma_{j,12} = 0$ , what fits the assumption that domestic (Croatian) shocks have no impact on the foreign (euro area) block, while foreign shocks may impact the domestic economy.

#### 4. RESULTS OF THE EMPIRICAL ANALYSIS

In this section the innovation analysis, i.e. the impulse response functions and variance decomposition are discussed. Figure 1 reports the impulse response functions of domestic variables when to one standard deviation shock in the variables from the euro area. The results suggest that economic developments in the euro area have significant effect on domestic economic fluctuations. Positive shock of one standard deviation in the growth rate of GDP in the euro area has positive effect on the domestic GDP. In the first year after the shock this effect is the strongest. However, it weakens with time and three year after the shock the domestic GDP is around its initial level. The result is in line with economic theory and empirical research referring to SOEs. Taking into account the empirical fact that the Croatian economy is largely dependent on the trade with the euro area countries, an increase of economic activity in the euro area stimulates demand for the Croatian product, thus increasing Croatian export which consequently increases domestic GDP. Furthermore, increase of the foreign GDP leads to inflationary pressures, although after that the growth rate of the CPI decreases and then fades out year and a half after the shock. The effect of the foreign GDP to the real exchange rate is not significant.



*Figure 1: The impact of one-unit shock in euro area variables on domestic economy  
(Authors' calculation using JMulti software)*

Figure 2 represents the impulse response functions of domestic variables when one standard deviation shock occurs in the domestic variables. In general, domestic shocks have instantaneous effect that fades very quickly, except in the case of real exchange rate. More precisely, an increase in domestic economic activity causes an initial fall in the domestic price level, but after the first quarter the impact of the shock is insignificant and alternates around zero. In the case of real exchange rate, the increase in domestic GDP and price level causes the alternation of depreciation and appreciation episodes.

Finally, it is very important to note that domestic variables do not have significant impact on domestic economic activity, thus showing that domestic GDP is more vulnerable to foreign shocks than to domestic macroeconomic shocks.



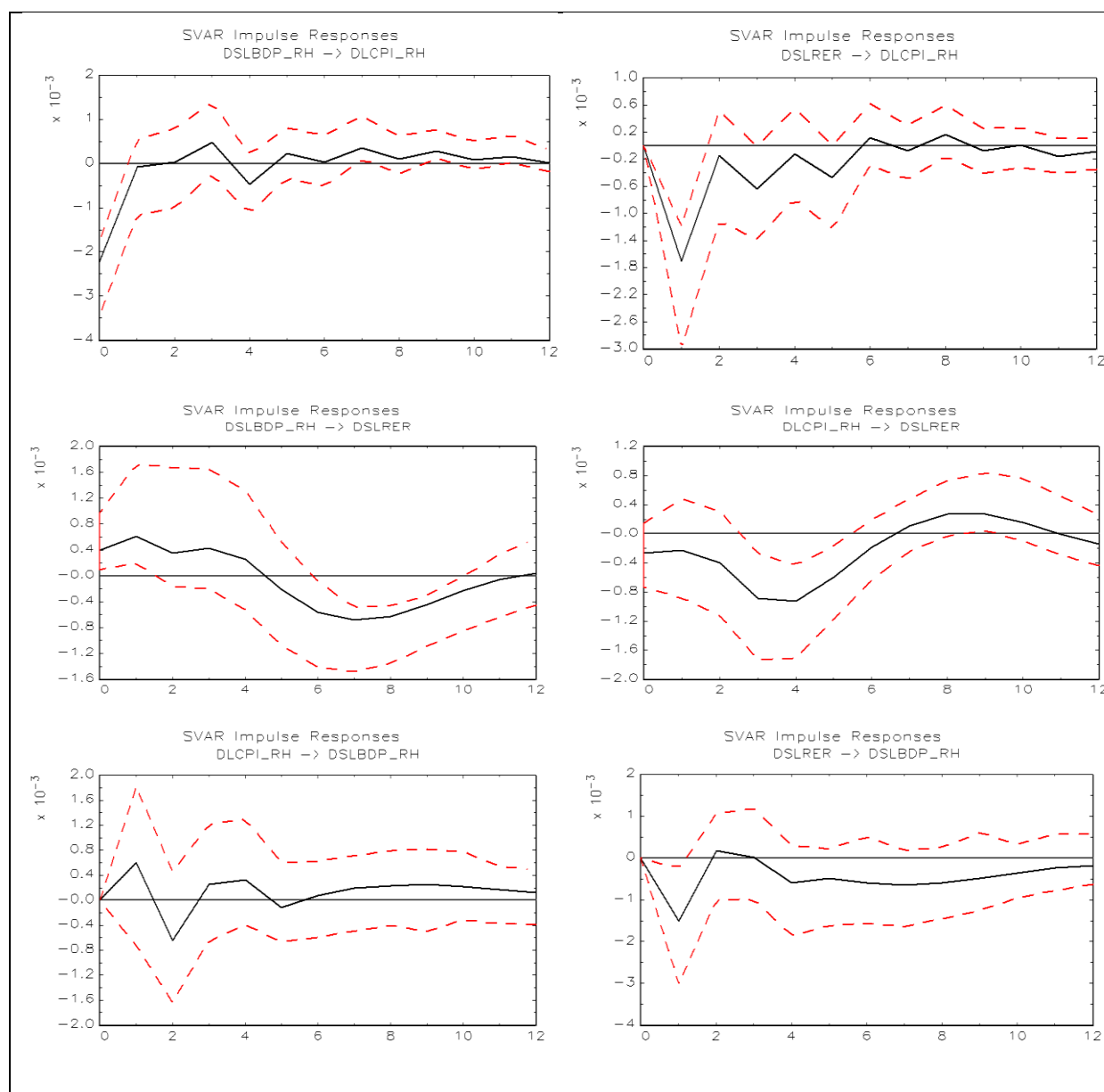


Figure 2: The impact of one-unit shock domestic variables on domestic economy  
(Authors' calculation using JMulti software)

Moreover, the results of variance decomposition of domestic variables are given in Table 1. Presented variance decomposition shows the extent to which domestic shocks and euro area shocks account for fluctuations in domestic variables. On the basis of variance decomposition it can be concluded that one third of variation of economic activity in Croatia can be explained by the euro area income shock, i.e. demand side shock in the euro area. Moreover, when foreign prices shock is included, more than half of domestic GDP fluctuations is explained by euro area shocks. Accordingly, more than 70% of the forecasting errors variation in the domestic price level is explained by price shock and demand shock in the euro area.

*Table 1: Variance decomposition of domestic variables (Authors' calculation)*

Variable	Period	Shock				
		DSLBDP_EZ	DLCPI_EZ	DSLBDP_RH	DLCPI_RH	DSLRRER
DSLBDP_RH	1	0,15	0,01	0,84	0,00	0,00
	4	0,32	0,18	0,46	0,01	0,02
	8	0,34	0,19	0,43	0,01	0,03
	12	0,34	0,18	0,43	0,01	0,04
DLCPI_RH	1	0,02	0,71	0,11	0,17	0,00
	4	0,02	0,7	0,09	0,14	0,05
	8	0,03	0,68	0,09	0,14	0,06
	12	0,04	0,68	0,09	0,14	0,06
DSLRRER	1	0,00	0,00	0,06	0,03	0,91
	4	0,00	0,08	0,05	0,07	0,8
	8	0,08	0,09	0,08	0,11	0,64
	12	0,10	0,10	0,10	0,11	0,59

Regarding the variation of the real exchange rate of Croatian kuna against the euro, foreign shocks have the lowest relative impact on the real exchange rate volatility, and after three years the variable itself explains the largest share of its own variation.

## 5. CONCLUSION

In order to establish the appropriate economic model, economic policy makers should be acquainted with the source of fluctuations in the domestic economy. Since Croatia is a SOE, it is considered that external shocks have a significant effect on its economic development. Therefore, the aim of this paper is to develop econometric model which would be able to comprise the most important macroeconomic shocks which affected Croatian economy from 2000 to 2013 year. The response of the Croatian small economy to foreign economic fluctuations referring to the economic shocks in the euro area was examined. This research is aimed at determining the response of the Croatian economy to domestic and euro area economic fluctuations as well as assessing the relative importance of each of the observed domestic and foreign shocks on Croatian economy.

Therefore, SVAR model with block-exogeneity restrictions was implemented for the period from the first quarter of 2000 to the last quarter of 2013 in order to conduct innovation analysis. The estimated impulse response functions show that economic fluctuations in the euro area have significant effect on the domestic economic fluctuations. Increase in economic activity in the euro area leads to an increase in domestic economic activity and the price level. On the other hand, price increase in the euro area has an impact on developments in Croatia, but the effect is short-term and inconsistent. The results of the estimated impulse response functions confirm the first research hypothesis that economic fluctuations in the euro area have a significant impact on domestic economic developments.

Furthermore, the results of variance decomposition partially confirm that the relative impact of the variables from the euro area on domestic economic fluctuations is higher compared to the impact of the domestic variables. Except for the real exchange rate, the variance decomposition analysis shows that the foreign variables are the main contributors of overall volatilities in domestic variables. In other words, foreign variables explain more than half of the fluctuations of domestic GDP and more than 70% of the forecasting error of the domestic price level.

Finally, the limitations of the conducted research as well as future research perspective will be pointed out. Notwithstanding the satisfactory results of SVAR model with block-exogeneity restrictions, it should be noted that the research conducted is confined in several aspects. First of all, due to the limited time period, the analysis is limited to a choice of small number of key macroeconomic variables. Therefore, in future research it is advisable to use multidimensional models such as the factor VAR model or dynamic stochastic general equilibrium modeling in order to comprise impacts of more variables. Moreover, the analysis of the impact of foreign shocks in this paper is limited to observing the impact of the euro area on Croatian economy. In this context, future research could also include the assessment of the world economic fluctuations through the analysis of the impact of the price of oil on the world market.

Altogether, regardless of the mentioned limitations of the research and provided ideas for the improvement, the obtained results are of great importance for the policy makers as they suggest that the domestic economic developments are largely sensitive to foreign shocks, what should be taken into account when establishing an appropriate economic model.

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## **PRACTICAL EXPERIENCES WITH THE IMPLEMENTATION OF BSC IN THE MANAGEMENT OF SLOVAK COMPANIES**

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### **ABSTRACT**

*Implementation of the Balanced Scorecard method to the management system of Slovak businesses seems to be a real problem. A large number of factors are involved in the use of this method in the business management, from theoretical concepts to practical applications. The largest, respectively the most significant problem is in the misunderstanding of the importance and benefits of this method, but also in financial difficulty of Balanced Scorecard model implementation to the life of Slovak companies. Small and medium-sized businesses in particular are concerned about this method because it is rather expensive for them and they are not convinced of its benefits and positive results. In addition, the present time is significantly affected by a lack of funds for the implementation of expensive software solutions for business management and controlling. Balanced Scorecard method, however, is an area that cannot be omitted due to lack of funds. It is the area that is important to develop in time of lack of funds, because the right setting of goals helps to overcome this problem as well. No expensive software solutions of Balanced Scorecard from IT companies are needed but healthy strategic thinking of managers of enterprises. Only those who work in the company know it the best. The benefit of this paper is to point out a way of applying BSC method without application of software products of IT companies but by the initiative of managers and employees in selected Slovak company.*

**Keywords:** *Balanced Scorecard, Perspectives, Strategy, Strategy Map.*

### **1. INTRODUCTION**

Implementation of Balanced Scorecard (BSC) into the management system of Slovak businesses is a real problem faced by managers. Variety of factors – from theoretical concepts to practical applications – participate in the use of this method in the management of enterprises. The most significant problem is in the misunderstanding of the importance and benefits of this method as well as in financial costs of Balanced Scorecard implementation to the Slovak businesses. Particularly small and medium enterprises are afraid of this method since its introduction is expensive for them and management of these businesses is not convinced about the benefits of this method. Another problem is the absence of manual or single procedure for creation of the model applicable in all types of business. Nowadays there are several BSC applications on the market designed for different types of enterprises as well

as for various types of business processes. Providers of these applications address a number of issues particularly related to the unpreparedness of enterprises to implement selected BSC application. The consultation with several providers of BSC applications resulted in the demand for the creation of BSC model, particularly for small and medium businesses, and efficient implementation of this model. BSC would be important tool for the managers of enterprises. Contribution of BSC would appreciate not only managers but also providers of IT solutions, whose communication with businesses on the issues of preparedness and ensuring background for the implementation of BSC application would be easier. This would resolve number of issues, from the perspective of both submitter and provider of BSC implementation.

## 2. LITERATURE REVIEW

Balanced Scorecard was developed by U.S. consultants Robert S. Kaplan and David P. Norton in 1990s. Since that time, it has received more and more popularity mainly due to its complexity and clarity for management at all levels (Dumitrescu, Fuciu, 2009, p. 38). Balanced Scorecard was initially focused on strategic management of business, this method gradually developed to the level of operational management and currently it is a comprehensive system of planning and control. Balanced Scorecard determines a balanced system of strategic objectives and decomposes them into partial objectives, including indicators and benchmarks. Since 1990 three generations of BSC formed:

1. BSC, as business performance measurement system. BSC concept was first published in 1992 in the journal *Harvard Business Review* by Kaplan and Norton. This concept was the product of an annual research in 12 companies.
2. BSC, as a system of strategy implementation. The era of the second generation is a big step forward for the BSC – from the one of measuring performance to the BSC – a system for strategy implementation. It defined the link between the metrics and goals as well as the goals and subjects responsible. Cascading and decomposition of goals has subsequently raised the issue of strategic alignment within the organization (Kaplan, Norton, 1996; Olve, Roy, Wetter, 1999). The second area, causality, was shifted from the indicated links between the perspectives of the first generation towards to cause-and-effect relations between the criteria in the new generation. On one hand, this shift enriched the BSC system by a Strategic Linkage Model, but on the other hand it raised the conceptual issue, which has become the lurking object of discussion even today such as the way of analyzing, defining and verifying the causalities involved (e.g. Brewer, 2002, pp. 44 - 52). The discussions are focused mostly on two areas, namely, on how the strategic lineage model is conceived, in terms of interlinking the BSC and the vision and strategy (Cobbald, Lawrie, 2002), so rarely defined in practice or not involved in company-wide consensus. The second area was about determining the target values to the individual criteria (Target Setting), where companies lack elaborate methodology (Antošová, Mihalčová, Csikósová, 2014, p. 16)
3. BSC, as a strategic management system. Numerous findings about the issue of this generation of BSC summarizes Gavurová in her study (Gavurová, 2011, pp 163 – 167). The third generation BSC systems are typical for the interlinking strategy and the management of competitive advantages as well as the management of transformational changes Antošová, Mihalčová, Csikósová, 2014, p. 16). The first BSC models featuring a new item of the so called Destination Statement - declaration of goals, are appearing on the scene in the course of 1998 – 1999. The number of subjects implementing the third generation BSC is continuously increasing (Lawrie, Cobbald, 2004, pp. 1-16; Andersen, Lawrie, Savic, 2004, pp.634 - 645) since then on.

Several views on BSC

On the basis of the company vision BSC formulates partial objectives in individual areas of the business and connects them. Subsequently it selects indicators which provide feedback to top management on whether the chosen strategy works. If the strategy does not work, BSC indicates to managers that the adjustment should be made (Phillips, 2007, p. 732).

The aim of BSC is the achievement of comprehensive balance in several ways:

- between short-term and long-term goals,
- between value-based and in-kind indicators,
- between delayed indicators and drivers,
- between internal and external performance indicators (Fibírová, Šoljaková, 2005).

The success of the business is influenced not only by the area in which business operates but also by management methods used. Balanced Scorecard is a new comprehensive approach to business management. It comprises all previous attempts to improve business management, as well as traditional methods used, such as financial analysis, principles of controlling and principles of process management and reengineering. All these methods are supplemented by two important aspects – the customer care and the employee care (Hudáková, 2008, pp. 1-2). BSC is a system for performance measurement, in which it is necessary to keep in mind the most important aspects of entrepreneurship. They are expressed in company vision, mission and strategy (Gallo, 2013, p. 10).

According to Horváth & Partners Balanced Scorecard is a special kind of realization, representation and monitoring the strategy. With its assistance the probability of application of proposed strategy increases significantly. Its starting point was represented by the criticism of strong financial focus on American management system. In order to adequately assess creation of aggregate enterprise value this one-sided financial orientation should be relativized and extended by a balanced set of financial and non-financial measures. Horváth & Partners also refer to finding of early users of this concept that with the correct selection of objectives and indicators BSC explains strategic direction of the business and at the same time it allows measurement of the achievement of strategic objectives (Horváth & Partners, 2002, pp. 24 - 36).

### **3. CURRENT POSITION OF BSC IN THE SLOVAK REPUBLIC**

In the Slovak Republic, several researches which concerned the application of BSC in the management of Slovak businesses were conducted. The research sample consisted of businesses achieving turnover of around 5 million EUR. 13% of them formed construction companies, 8% wholesale and retail companies, 13% transportation companies, 47% companies from the mining and engineering industry, companies of professional and scientific activities accounted for 7% and other activities accounted for the remaining share. Within these surveys was also examined whether the companies established top long-term target. 84% of top managers of these companies responded positively to this question. Survey participants were within the measurement system further asked about the performance indicators used to measure long-term goal. Indicator annual profit received 30% as well as indicator annual turnover which also reached 30%. 18% of the companies' measure performance with the use of market share, 5% of the subjects' measure value creation for the owner, 5% of the companies' measure the size of export, 4% of respondents use EVA indicator and 3% use indicator paid profit shares. 5% of respondents use other performance indicators such as financial stability and independence, Altman Z-score, EBIT, ROA, ROE,

ROI, cash flow, covering contribution, value added, productivity indicators, number of awards of product innovation, customer loyalty index, employee satisfaction and customer satisfaction. Within the survey the question of the relationship between strategy and performance measurement was addressed. 50% of respondents answered positively to this question. The survey was also focused on the extent of the use of modern management techniques, within them BSC. Worldwide use of BSC (within the most commonly used management tools) annually evaluates Bain & Company. Since 1993 this company examines opinions of the managers around the world on the use of management tools and satisfaction with them.

The company currently has a database of nearly 10,000 respondents and can systematically trace the effectiveness of the worldwide use of management tools. The results were processed by Rigby and Bilodeau in the report „Management Tools and Trends 2011“. If we look closely at the results, BSC is the eighth most commonly used management method from 25 tools used in Europe. Compared to the world both methods - Balanced Scorecard and Benchmarking - reached the worst decline from the most widely used tools in Slovakia. It is interesting to notice how striking is the difference in the use of BSC in Slovakia (8%) and in the world (53%) (Chart1).

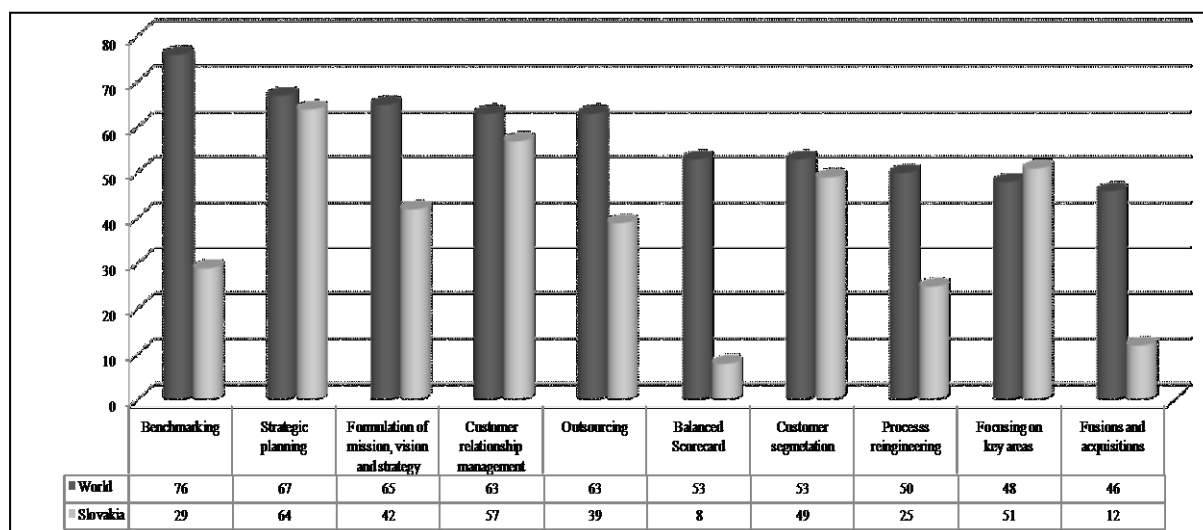


Chart 1: Comparison of the use of BSC in Slovakia and in the world (Rigby, Bilodeau, 2011, pp. 1 – 16)

It is evident that Slovak companies do not have sufficient knowledge about this world extended method. Respectively these companies do not trust this method; they do not understand its meaning or are concerned about its expensive application. Within the analysis of international companies it is interesting to note that the number of BSC applications declined but the satisfaction with the implementation of this method increased. (Rigby, Bilodeau 2011, pp. 1 – 16; Karabašová, 2010, pp. 23 - 61)

Table 1 summarizes the most common goals used by managers when creating BSC strategy map. These results were obtained based on the surveys of Slovak businesses performed by Dominanta, Ltd.



*Table 1: Results of the surveys of Slovak businesses on BSC (Horváthová, 2012, pp. 44-52)*

Perspective	Objectives preferred in Slovak businesses	Measures	Advantages and disadvantages
Financial perspective	To increase enterprise value, to increase Return on Equity, to accelerate Assets Turnover, to increase Current Ratio	Economic Value Added - EVA, Free Cash Flow to Firm - FCFF, Return on Assets - ROA, Return on Equity – ROE, Assets Turnover, Current Ratio	Advantage – objectives and measures are easy to identify. Disadvantage – linking of the measures with the past.
Customer perspective	To increase market share, to retain customers, to acquire new customers, to increase customer satisfaction, to increase customer profitability	Share of business sales on total sales of the sector, number of customers, number of new customers, proportion of new customers to the total loyalty of customers in %, covering contribution to customer, sales to customer	Advantage – objectives and measures are easy to identify. Disadvantage – unavailability of the data and database necessary for the measurement, there is a need to link to CRM.
Internal perspective of BSC	To optimize key processes, to introduce ABC, to reduce errors rate of products, to develop new product, to innovate products	Optimization time, fulfillment of the scheduled time for the ABC introduction, percentage of error products on the total number of products, percentage of fulfillment of the tasks in new product development	Advantage – monitoring the objectives that have not been priority for the enterprise yet Disadvantage – difficult to measure, values of indicators are measured as the scores, or %.
Perspective of BSC potentials	To increase labor productivity, to increase employee loyalty, to improve motivation, to improve training and educational systems.	Labor productivity, loyalty expressed in points or %, percentage of fluctuation turnover, share of educational costs on total personnel costs	Advantage – introduction of the most important objectives to improve business performance Disadvantage – missing data for objectives measurement

#### 4. PROPOSING SOLUTIONS FOR THE BSC DEVELOPMENT

Based on the above mentioned it is possible to draw conclusions and results in the area of building of BSC model with connection to company strategy, this model is illustrated in Chart 2.

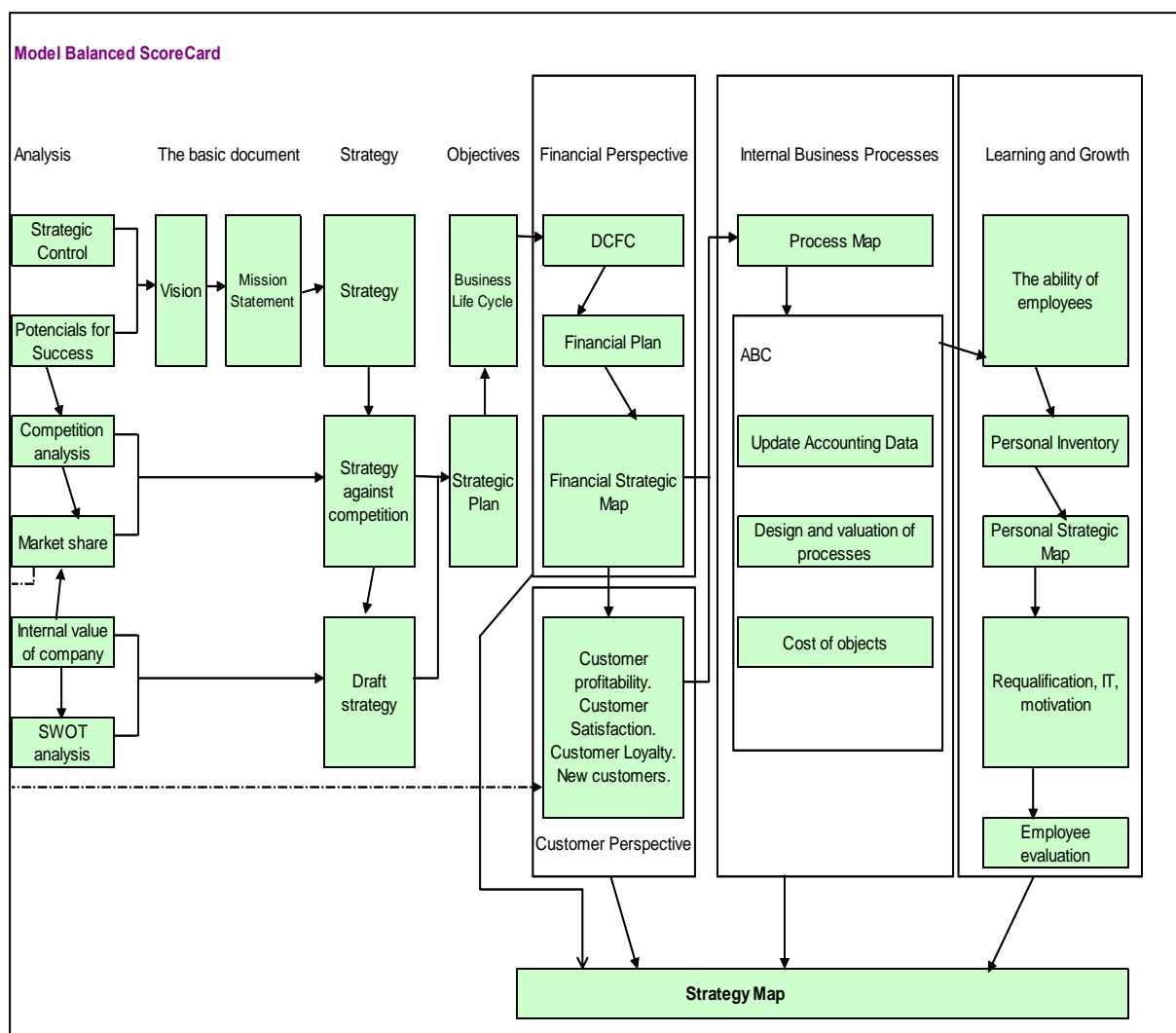


Chart 2: Model Balanced Scorecard (Horváthová, Mokrišová, Suhányiová, 2013, p. 95)

The proposed model illustrates that building of BSC in Slovak businesses starts with preliminary and analytical phase within which all input documents, used in the strategic management of business, are analyzed. Very important step is the verification of the conclusions of business strategy and formulation of the mission, vision and strategy of the business. The construction of strategic management system focused on BSC should be based on the number of input analysis and input information. Under the analysis of current situation, it is possible to formulate future objectives. Analysis of the current situation besides the analysis of the financial and economic position of the company includes also SWOT analysis, GE analysis, analysis of the critical factors for success, analysis of potentials, weaknesses and others. In addition to internal analysis of the business, its strategy, current state of strategic management and state of BSC, it is necessary to analyze the trends and development in BSC systems and opportunities which they provide. Internal and external analysis is followed by formulation of requirements on BSC outputs.

Very important step in BSC building is formation of BSC perspectives within which objectives, benchmarks and drivers have to be formulated. By connecting the perspectives we form strategy map in which individual objectives are connected by cause-and-effect relations. The procedure for BSC implementation applied in specific company with detailed schedule of each step is shown in the Table 2.

*Table 2: Procedure for BSC implementation  
(Horváthová, Mokrišová, Suhányiová, 2013, pp. 94-96)*

Actions	Description
Prepare conditions for BSC building	Analysis of current situation, SWOT analysis, analysis of competition, analysis of the business profile, input analysis, financial and economic analysis.
Analysis of critical factors for success	Assessment of critical success factors, assessment of the business profile, analysis of BSC perspectives.
Proposal of mission statement and vision.	Formulation of the basic philosophy of the company, the company's vision and mission.
Proposal for a strategy	Draft strategy and the action plans on its fulfilment.
Strategy map	Strategy map creation with perspectives: financial, customer, internal processes, potentials.
Key Performance Indicators	Defining the measurement of objectives. Objectives- Measures – Value drivers.
Benefits of BSC	Implementation of strategy, redesign of processes.
Business Process Reengineering	BSC reporting, assessment of BSC indicators, proposal of new processes and indicators, objectives, feedback.

## 5. RESULTS AND DISCUSSION

This chapter describes the basic difficulties and benefits of BSC implementation.

### 5.1. Difficulties of BSC

Building and implementing a Balanced Scorecard is a complex process. There may be several reasons for the failure of BSC building. These reasons may be of different sorts. One of these reasons is exaggerative initiative towards technological part of BSC building, as well as excessive investments in information technologies realized without:

- *the support of relevant enterprise infrastructure,*
- *analysis of business processes and their subsequent redesign,*
- *modification and adaptation of organization structure,*
- *ensuring efficient information flow,*
- *change of thought,*
- *any change in workload,*
- *adequate training and motivation of staff.*

The reason for Balanced Scorecard failure in enterprise may be a missing connection of BSC with business strategy or implementing BSC without business strategy formation and its linking to the operational management. Employees of the business may also participate in the failure of BSC, if they are not sufficiently familiar with idea and benefits of BSC and are not motivated towards its successful application. However, the main reason why BSC is not applied in practice is expensive BSC information systems. It must be said that the best BSC system is implemented by business's employees who formulate future mission, vision and strategy of the company in the best way. The above mentioned is confirmed by the successful implementation of this method in a few Slovak companies where managed to introduce BSC within a few months by business's employees in collaboration with an external consultant. The basis for BSC implementation formed an existing strategy of the company, which was based on the initial analysis adjusted and adapted to the new requirements. Within a few workshops an innovative strategy of the company was transformed into strategic goals of

individual BSC perspectives and elaborated to lower management levels. The whole process was taking place within one year, without any special technological and technical requirements. However it is necessary to highlight the huge enthusiasm of BSC team. Based on the analysis conducted before the introduction of BSC, following key issues associated with the implementation of BSC were identified:

- *Inadequate input analysis before the introduction of BSC system.*
- *Unpreparedness of managers and employees for BSC implementation.*
- *Employees concerns of the innovations and particularly of losing their job.*
- *Missing database of information for BSC system.*
- *Missing data and databases from the perspectives of internal processes, potentials and customers.*
- *Unbalance of the various BSC perspectives.*
- *Missing connection between strategy and budget.*
- *Absence of work with analytical data.*
- *Incorrectly defined reports for individual management levels.*
- *Failure to complete BSC vision to the end.*

## **5.2. Key benefits of BSC**

The greatest benefit of BSC results from the way of its creation. BSC is nothing new it is just a networking and application of the above mentioned facts. What makes BSC original? It is the process of detecting the enterprise value drivers and also linking of enterprise strategy with operational management.

Enterprises which have implemented BSC understand importance of the strategy. Employees of enterprises implement partial objectives and are doing everything to meet them. By the introduction of BSC the strategic objectives are sufficiently specified in the form of strategy map and therefore they set out a clear direction and give employees incentives for future development.

BSC benefit for the management of the company according to Horváthová, Mokrišová, Suhányiová (2013, pp. 93-94) can be seen in two basic levels:

Management level:

- management focus on fundamental issues and relationships,
- orientation of reporting on strategically important information,
- interconnection of business management and strategies using objectives,
- Integration of staff, customers, company's performance and operational processes into one efficiently functioning unit.

Communication level:

- employees of the company are more familiar with the strategies,
- their own work is more integrated with strategies,
- their utilization of IT on all levels of management is better.

According to Antošová, Mihalčová and Csikósová (2014, p. 23) the BSC benefits include:

- BSC decomposes company strategy (vision, mission, goals) in to quantifiable criteria,
- BSC supports implementation and management of changes within the company,
- BSC increases quality of information necessary for strategic decision making,
- BSC offers framework for communicating strategy throughout the company,
- BSC helps to identify redundant processes and inefficient activities,
- BSC reveals weaknesses in company performance.

## 6. CONCLUSION

During BSC implementation business must be prepared for certain risks that may occur and finally cause the failure of the project. If the enterprise is able to identify these risks on time and prepare for them, the probability of successful implementation of BSC increases significantly. The following recommendations to managers are intended to reduce risk of problems described above, to serve as prevention and also assumption for successful operation of BSC in the company.

Recommendations to managers:

- to perform a detailed analysis of the current (financial, customer, process and personal) situation in the business,
- to carry out a detailed analysis of current business strategy and its interconnection with operational management of the company,
- to become familiar with the theory and current practice of BSC – the role of BSC, procedure of its implementation and its principles and especially to make a decision which objectives should be achieved by BSC implementation,
- to consider the impact of changes on employees, individually and collectively, to involve employees in preparing for the change and indicate the reasons for change, including the consequences and benefits resulting from these changes, to assure them that the change will not lead to the termination of employment relationship with them,
- to use tools of project and process management,
- to understand the role of technology in BSC implementation (only as a support tool),
- to build a skilled implementation team,
- to divide BSC implementation into individual parts, i.e. to choose progressive BSC implementation,
- create database of BSC system with on-line access for all employees,
- to define the range of the data necessary for BSC operation but also those persons who are responsible for the data collection,
- to identify the project and process driver of BSC implementation.

Applying BSC method and its successful implementation into several Slovak enterprises has achieved highly positive and beneficial results. After a successful implementation of this system in business management, BSC operates in these businesses for several years.

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## FARMERS' USE OF INDIGENOUS KNOWLEDGE SYSTEM (IKS) FOR SELECTED ARABLE CROPS PRODUCTION IN ONDO STATE

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### ABSTRACT

*This study sought to determine the use of indigenous knowledge for selected arable crops production in Ondo State. A multistage sampling method was used and 112 arable crops farmers were systematically selected. Data were analyzed using both descriptive and inferential statistics. The results showed that majority of the sampled farmers were male (75.90%). About 75% were married with children. Large proportion of them (62.61%) were within the ages of 30-49 years. Most of them have spent about 10 years in farming (58.92%). The highest raw scores of use of indigenous knowledge were found in planting on mound in yam production, use of native medicine and scare crow method in controlling birds in rice production, timely planting of locally developed resistant varieties in cassava production and soaking of maize seeds in water to determine their viability with raw scores of 313, 310, 305, 303 and 300 respectively, while the lowest raw scores was obtained in use of bell method in controlling birds in rice production with raw scores of 210. The findings established that proverbs (59.8%) and taboos (55.36%) were the most commonly used media in transmitting indigenous knowledge by arable crop farmers. The multiple regression analysis result revealed that age of the farmers and farming experience had a significant relationship with the use of indigenous knowledge of the farmers which gave  $R^2 = 0.83$  for semi log function form of equation which is the land equation. The policy implication is that indigenous knowledge should provide basis for designing modern technologies to enhance sustainable agricultural development.*

**Keywords:** Arable Crop Production, Extent of use, Indigenous knowledge.

### 1. INTRODUCTION

Indigenous Knowledge System (IKS) is a systematic body of knowledge acquired by rural people through accumulation of experience, informal experiments and intimate understanding of their environment in a given culture. (Adekunle, 1995; Akinbile, 1977; Okunlola, 2000). Rural people had a store of indigenous knowledge which they have developed over the years. They are experts in this because they are familiar with their environment than any outsiders. The dimension of their knowledge is very wide and cover all field of human activities. It also involved the accumulation and dissemination of information in form of shared environmental knowledge, beliefs, rules and techniques for productive activities (Atte, 1992; Oga, 1992). Adekunle (1995) opined that Indigenous Knowledge is built from and based on thousand of years of experience. Every societies has their own set of traditional norms, values, customs and social beliefs which are considered beneficial to their living and share the benefit among themselves. Through these process the knowledge is transmitted to large number of people for their survival. These set of social systems are acquired and transmitted through proverbs, taboos, folktales, folksongs and tales by moonlight. Farmers had different knowledge on arable crops production by which they have sustained themselves over the generation. Their

local knowledge are often transmitted through local channel of taboos, proverbs and other methods. (Warren, 1993; Adeyinka, 1994). The introduction of modern system had led to neglect, in the traditional or indigenous knowledge technology. Consequence upon this neglect, indigenous knowledge brings about increased in productivity of arable crop farmers, it helps to bridge the socio-cultural gap that hindered communication between planners of development programmes and farmers (Philip and Titilola, 1995). Osunade (1998) opined that utilization of indigenous knowledge systems enhanced the sustainability of rural and agricultural development programmes and strengthened cooperation between farmers and development agencies. Given this background, the following specific objectives becomes relevant.

1. describe the socio economic characteristics of the arable crop farmers.
2. identify indigenous knowledge use in selected arable crops production.
3. examine the media through which indigenous knowledge use in arable crop production are transmitted to farmers in the study area.

## 2. HYPOTHESIS

H<sub>01</sub>: There is significant relationship between some selected socio economic characteristics and use of indigenous knowledge in arable crops production.

## 3. METHODOLOGY

The study was carried out in Ondo State of Nigeria. The selection of the study area was due to drastic and noticeable changes in the rain forest zone which the state is largely located, decline in agricultural productivity and the climate changes, which have become less favourable to plants, animals and human beings. Ondo State was carved out of the defunct Western State in February, 1976. Akure as capital and later bifurcated into Ondo and Ekiti in October, 1997. Ondo State is located entirely within the tropic zone. The state lies between longitude 4° 31' and east of Greenwich meridian and latitude 45° and 8° 15' north of the equator. It has population of 3,884,485 people (Census, 1991). For both Ondo and Ekiti and covers a landmass of about 20,959 square kilometers. The first stage involved selecting all the two ADP zone Owo and Ondo that fell in the derived savanna and forest zone. Owo zone is made up of eight (8) blocks while Ondo zone is made up of ten (10) blocks. Twenty percent of these were randomly selected. That is two (2) blocks in each zone (ODSADEP, 1997). Next stage involved randomly selecting 10 percent of the number of cells in each of the selected blocks. Each of the blocks is made up of 8 cells, which gave total of 4 cells in Owo and Ondo zones. Ten percent of the number of crop farmers in ODSADEP list were randomly selected. These formed the sample for the study making a total of 112 respondents. The information collected on constraints to use of sustainable land management practices is part of a larger survey by Fakoya (2000) on farmers' use of sustainable land management in the study area.

### 3.1 Measurement of variables:

A three point numerical rating scale of always use = 3, occasionally use = 2 and do not use = 1, was used in determining the use of indigenous knowledge by the farmers. The total raw scores of respondent on the use of indigenous knowledge were expressed as weighted average.

$$X_w = \frac{3(N_1) + 2(N_2) + 1(N_3)}{S}$$

X<sub>w</sub> = weighted average raw scores

N = number of people who responded

S = Sample size



**Channels:** Are the media through which indigenous knowledge is transmitted to different farmers such as: taboos, proverbs, folktales, folksongs and tales by moonlight. This was measured by asking the respondents to tick the channels used in transmitting indigenous knowledge.

#### 4. DATA ANALYSIS

Descriptive and inferential statistics were used to determine the types of relationship and differences that existed between the variables. Multiple regression analysis which was subjected to three functional form equations, the linear function, the double log form and semilog form to determine the contributions of each independent variables to the dependent variable. The implicit model is to the form:

$$Y = \log A + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5$$

Where Y = use of indigenous knowledge

Log A = constant

X<sub>1</sub> = Age (in years)

X<sub>2</sub> = Household size (number of people)

X<sub>3</sub> = Years of residence in the study area

X<sub>4</sub> = Farm size (hectares)

X<sub>5</sub> = Farming experience (in years)

#### 5. RESULTS AND DISCUSSION

Table 1 indicated that about (76%) were male. Almost half (47.32%) of them are between the ages of 40-49 years. This shows that the respondents are middle age. About 75 percent of them are married. Among the married respondents, it was observed that majority of them (60.82%) had between 4 - 9 people in their household. The educational background shows that almost half (47.32%) of them never had any form of education. Majority of them (83.64%) had farming experience of over 6 years.

*Table 1: Socio economic characteristics of the arable crop farmers*

Variable	Description	Freq.	Percentage
Sex	Male	85	75.90
	Female	27	24.10
Age (years)	30-39	16	14.29
	40-49	53	47.32
	50-59	28	25.00
	Above 60	15	13.39
Marital Status	Single	12	10.71
	Married	84	75.00
	Divorced	9	8.04
	Widowed	7	6.25
Educational level	No formal education	53	47.32
	Adult Literacy	16	14.29
	Primary	20	17.86
	Secondary	15	13.39
	Tertiary	8	7.14

Household size	1-3	32	78.57
	4-6	51	45.53
	7-9	15	14.29
	10-12	10	8.93
	Above 12	3	2.68
Farming experience	1-5 years	19	16.96
	6-10 years	47	41.96
	11-15 years	15	13.40
	16-20 years	17	15.18
	Above 20 years	14	12.50

**Source:** Field Survey, 2012

This phenomenon likely to encourage the increase use of indigenous knowledge. These findings were in agreement with the views of Adekunle (1995) which stated that the more the farming experience of the farmers the more expose to the farming operations and the more the use of these indigenous knowledge.

*Table 2: Distribution of respondents by their identified indigenous knowledge used on arable crops*

Indigenous knowledge used on selected arable crops	Always used	Occasionally used	Do not use	Indigenous knowledge use scores	Mean of raw scores
<b>Rice</b>					
Timely planting of locally developed resistant variety	42(37.50)	51(45.54)	19(16.96)	247	2.20
Regular clearing of weed	43(38.39)	46(41.07)	23(20.54)	244	2.17
Use of bell method	56(50.00)	41(37.50)	14(12.50)	210	1.88
Scare crow method	88(78.57)	17(15.10)	07(6.25)	305	2.72
Use of dummy figures	53(47.32)	25(23.32)	25(22.32)	243	2.17
Use of native medicine (locally prepared concoction)	91(81.25)	16(14.29)	16(4.46)	310	2.77
<b>Yam</b>					
Timely planting	63(56.25)	30(26.79)	19(16.96)	268	2.39
Use of wood ash to prevent yam sets from fungi attack	79(70.53)	12(10.72)	21(18.75)	282	2.52
Regular weeding	89(79.46)	7(6.25)	16(14.29)	297	2.65
Crop rotation	64(57.14)	36(32.14)	12(10.72)	276	2.46
Planting on mould	98(87.50)	5(4.46)	09(8.04)	313	2.79
<b>Maize</b>					
Timely planting of locally developed resistant variety	93(83.04)	5(4.46)	14(12.50)	303	2.70
Mixed cropping	87(77.68)	2(1.78)	23(20.54)	288	2.57
Regular weeding	59(52.58)	41(36.60)	12(10.72)	271	2.42
Planting on ridges	92(82.14)	3(2.68)	17(15.18)	299	2.66
Use of traps on pests	63(56.25)	18(6.07)	31(27.68)	256	2.28

Table 2 reveals some indigenous knowledge use by farmers in some selected arable crops in the study area. In rice production, use of native medicine (locally prepared concoction) and scare crow method are the most commonly used indigenous knowledge with highest raw scores of 310 and 305 respectively. This concoction is prepared from the bark of plant called Obo (*Erythrophyllicum* sp). This concoction is used for seed dressing a day before planting. Seeds that float are discountenanced and as such they can not germinate. This finding was in agreement with findings of Olukosi (1995) and Okunlola (2000) that rice farmers in Nigeria control birds on their farm by seed dressing using bark of Obo (*Erythrophyllicum* sp) otherwise known as scared tree. In cassava production, timely planting of locally developed resistant varieties is used to control disease and this had the highest score of 303. Table 2 also revealed that in yam production, planting on mound is the major indigenous knowledge used by farmers with a raw score of 313. And in maize production, soaking seeds in water to determine their viability is the indigenous knowledge commonly used by the farmers with a raw score of 300.

Table 3 shows the media used in transmitting indigenous knowledge in arable crop production. For land clearing, proverbs had the highest rating of (57.82%). This means a piece of land is designated as the shrine where the gods and ancestors may be consulted. Folktales are the means of transmitting indigenous knowledge for planting activities which was indicated by about 51% of the respondents. On the other hand, taboo was the major indigenous knowledge for weeding operation (41.96%). The results in Table 3 shows that majority of the respondents (59.82%) used folksong in transmitting indigenous knowledge on manure application. However, majority of the farmers used both Taboos (36.6%) and proverbs (31.25%) in transmitting indigenous knowledge on disease control. Furthermore, there are taboos attached to first harvest of yam in the year that the king (Baale) must eat yam before any other person. And during harvesting of rice there is also a taboo that new knives must be used in harvesting it.

*Table 3: Distribution of respondents by their farming operations and media used in transmitting indigenous knowledge.*

Farming operations	Media used in transmitting indigenous knowledge				
	Proverbs	Folktales	Folksong	Taboos	Moonlight
Land clearing	67(59.82)	19(16.96)	10(8.93)	11(9.82)	5(4.47)
Planting	10(8.93)	57(50.89)	21(18.75)	22(19.64)	12(1.79)
Weeding	32(28.57)	11(9.82)	15(13.39)	47(41.96)	7(6.25)
Manure application	14(12.50)	13(11.61)	67(59.82)	10(8.93)	8(7.14)
Disease application	35(31.25)	24(21.43)	11(9.82)	41(36.61)	1(0.89)
Pest control	6(5.36)	6(5.36)	12(10.71)	57(50.90)	31(27.68)
Harvesting	13(11.61)	12(10.71)	10(8.93)	62(55.36)	15(13.39)
Storage	12(10.71)	6(5.36)	17(15.18)	47(41.96)	30(26.78)

**Source:** Field Survey, 2012

Note: Values in parenthesis are in percentages

*Table 4: Multiple regression results of the influence of independent variables on the use of Indigenous Knowledge*

Form of equation	Sample size	Log A	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>	X <sub>5</sub>	R <sup>2</sup>	f-cal
Linear	112	28.3	2.32 (-0.04)	4.501 (0.29)	4.34 (0.05)	2.41 (0.147)	4.3 (-0.73)	0.74	13.49
Semi log	112	17.01	3.42 (-0.042)	2.94 (0.09)	2.46 (0.21)	2.51 (-0.12)	3.24 (-0.14)	0.83	15.34
Double log	112	10.15	3.36 (-0.36)	3.43 (0.13)	3.83 (0.264)	4.80 (0.17)	2.43 (-0.41)	0.79	23.44

**Source:** Field Survey, 2012

Figures in parenthesis represent t-value

Table 4 shows the regression analysis of the influence of independent variables on the use of indigenous knowledge. The result indicates that co-efficient of age of the farmers (X<sub>1</sub>) and farming experience (X<sub>2</sub>) were positive in all the three equations. The implication is that an increase in age and farming experience means that there is also an increase in the farmers use of indigenous knowledge. The t-value is not significant in (X<sub>2</sub>) household size for both semi log and double log. The choice of the led equation is dependent on the value of R<sup>2</sup> and the number of significant co-efficient in a given function. Therefore semi log function which had the highest R<sup>2</sup> = 0.83 as well as the highest number of significant coefficient was chosen as the lead equation which implies that about 83% of the variation in the dependent variable (use of indigenous knowledge) was explained by explanatory variables included in the model. Therefore, the equation is state thus:

$$Y = 17.01 + 3.42(X_1) + 2.94(X_2) + 2.46(X_3) + 2.51(X_4) + 3.24(X_5)$$

$$(-0.42) \quad (0.09) \quad (0.21) \quad (-0.12) \quad (-0.14)$$

$$R^2 = 0.83$$

## 6. CONCLUSION

Based on the findings of this study, it is concluded that out of 21 indigenous knowledge examined in the study area, five had the highest raw scores and were commonly used by the farmers in arable crops production. They are use of native medicine (locally prepared concoction) in rice production. Planting on mound in yam production scare crow method in controlling birds in rice production, timely planting of locally developed resistance cassava varieties and soaking of maize seeds in water to determine its viability. All these indigenous knowledge had raw scores of 313, 310, 305, 303 and 300 respectively. The study also revealed that farmers in the study area had indigenous knowledge about their environment. The role played by proverbs, folktales, folksongs, taboos and tale by moonlight in the dissemination and transmission of these indigenous knowledge should provide a basis for the design of modern technologies for each particular community. There should be an integration of indigenous knowledge of the farmers with modern science and technology to enhance sustainable agricultural development.

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## INNOVATION CLIMATE AS A SOURCE OF COMPETITIVE ADVANTAGE

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### ABSTRACT

*Innovation is the result of the interactions and exchanges of knowledge involving a diversity of actors in situations and interdependences (Landry, Amara, & Lamari, 2002). Innovation requires the convergence of different kinds of knowledge from different types of actors (Landry et al., 2002). There is scarce literature measuring innovation potential. In this work the well-known Tidd et al. (2005, pp. 566-568) instrument for measuring innovation climate is used. The instrument measures five categories, namely strategy, processes, organization, ties and learning. On grounds of an internet survey of the Croatian manufacturing sector Croatian innovative audit is presented. The survey targeted 2443 Croatian manufacturing companies with over 10 employees. After two months of the launch of the survey 135 valuable questionnaires are obtained. The instrument shows that Croatian average innovation climate index is 4,7 out of 7 which means that there is much potential for improvement. Using factor analysis the questionnaire is tested, because so far we could not find the validation of the instrument. The results show that indeed the instrument has high validity. Then using structural equation modeling, the effects of organizational climate on new product launch, time to market and revenues from new products is evaluated. The results show that strategy and learning have the biggest influence on number of innovations; ties have the biggest influence on time to market of new products, and organization has the biggest influence on revenues from new products.*

**Keywords:** *competitive advantage, Croatia, innovation audit, innovation climate, structural equation model*

### 1. INTRODUCTION

Studies show that there is a high correlation between business results and innovation (IFP, 2003). New products, either modifications or radically new products enable to capture new market or retain the existing market share (Tidd, 2006). In case of existing products, competitiveness and growth of revenues comes not only from price reductions but also from various nonfinancial factors as better design, customization and enhanced quality (Govindarajan and Gupta, 2001). Life cycle of products is becoming ever so short and life cycle of mobile phones and MP3 players are now measured in months. Slightly more complex products such as cars have life cycles measured in a year. It is important to launch a new product before the competition; because that creates a temporary monopoly that will bring

additional revenues until the competition catches up. That means that it is vital to launch new products but also to launch them before the competition. This puts a tremendous pressure on today's companies (Tidd *et al.*, 2005, p.5; BCG, 2010). When talking about innovation usually it is assumed that the term means new modified products or radically new products. However, process innovations are of equivalent importance. Process innovations enable companies to work more efficiently, of better quality and more productively (OECD, 2005). Studies show that incremental innovations may cumulatively bring better efficiency and gains in the long run than sporadic radical innovations (Hollander, 1965; Hammer, 2004). The current literature does not provide comprehensive frameworks for the measurement of innovation capability and its effects. Input measurement evaluates how the innovation activities have been arranged and how resources are allocated to them. It includes the funds used in R&D activities and education. Input measurement is problematic, because it tells how much is devoted, not if anything has been accomplished. Output measurement mainly includes the organization's patents and licenses. The problem of output measurement is that they are only suitable for certain types of innovations and organizations (Tura *et al.*, 2008). Becheikh *et al.* (2006, p. 649) on grounds of works of Archibugi and Pianta (1996), Coombs *et al.* (1996), Hagedoorn and Cloudt (2003), Kleinknecht *et al.* (2002), Michie (1998) and Patel (2000) list pros and cons of indirect and direct measurement of innovation. Becheikh *et al.* (2006, p. 649) propose direct methods, via questionnaires, asking for number of new products, revenues from new products, time to market and level of R&D investments in order to bypass the negative sides of indirect measurement of innovation. The aim of this work is to analyze in what way organizational climate for innovation (Tidd *et al.*, 2005, pp. 566-568) influence direct measures of innovation defined by Becheikh *et al.* (2006, p. 649). Furthermore, it will be analyzed how each of the five dimensions of innovation climate (strategy, processes, organization, ties and learning) influence direct measures of innovation.

## 2. INNOVATION CLIMATE

Even from the time of Schumpeter it is known that new products represent potential for growth of companies but also better living conditions for population in general. Therefore in the nineteen sixties it was very popular to heavily invest in R&D departments. Unfortunately, after ten years or so, it was found out that higher level of investment in R&D does not yield more new products. Research has shown that innovation depends on number of factors, such as economy, organizational culture, management etc. To illustrate the complexity of innovation Trott (2009, p. 8) stresses three important steps in the innovation process:

- Generation of new knowledge for innovation,
- Usage of acquired knowledge for generating new products and processes,
- Economically benefit from new products launched on the market.

The three steps depict that innovation and its commercialization is indeed an interdisciplinary process. Innovation necessities are teamwork and creative deployments of various types of knowledge. Researches also show that proactive human resources management will have a positive effect on business results (Pfeffer, 1998; Ahmad and Schroeder, 2003; Mathieson, 2006) and on innovation (Laursen and Foss 2003; Lau and Ngo, 2004; Dorenbosch *et al.*, 2005; McLean 2005).

Creative climate is developed through organizational culture which in some part is a function of proactive human resources management. Organizational culture is complex but can be defined as common values, beliefs and norms of behavior. Management of the company cannot easily change the culture and it is usually built by stimulating and compensating

desired behavior. Building innovation culture requires compensating innovations. Organizational innovation climate is less tangible and by far more difficult to measure, but according to Akkermans (2008), can be influenced more easily.

Lamers (2007), Tidd *et al.*, (2005) and many other authors researched what fosters innovation. There is still no consensus; however in all researches a common set of themes were present in all innovative companies.

- Strategy – the upper management highly supports and propagates innovation
- Ties – it is vital that there exist a very good communication inside and outside of the company
- Processes – innovation necessities that the company can quickly adapt through efficient rules and procedures
- Organizational structure – it has to be designed to support innovation
- Learning – that is the basic element for generating new knowledge

Tidd *et al.* (2005) questionnaire captures all those dimensions and therefore was chosen to investigate the Croatian innovation climate.

### **3. METHODOLOGY AND SAMPLE DESCRIPTION**

The survey took place in June 2013 exclusively via a web based survey. The e-mail addresses were obtained from Croatian Chamber of Economy. The questionnaire was sent to 2443 companies with more than 10 employees. The reason for this cut off on 10 employees is because in micro companies a lot of different tasks are done by one person so it would be harder to isolate specific influences. After a month 135 completed questionnaires were obtained representing 5,53% response rate. This is quite low but it is attributed to the web based survey for which is usually to yield lower response rate than paper surveys.

All participants obtained their personal innovation audit in a day. However, the sample was checked for representativeness by size and industry and it proved to be representative. In the sample 64% of companies were small companies with less than 50 employees, 22% medium sized companies (50 – 250 employees), and 14% of large companies with more than 250 employees.

Even though there is still recession in Croatia, 34,6% companies will invest more into research and development. For the time being small companies on average invest 10,88% of sales, medium companies 8,58% of sales and large companies 5% of sales. This might look inconsistent, however since small companies usually have smaller revenues it is logical that they have to invest more in percentage points to get a comparable budget as large companies. 64% of respondents say that R&D investment is too low.

As it can be seen in Table 1., the companies in Textile and Apparel industry and Pharmaceuticals on a Likert scale from 1- non important to 5 most important think that innovation is key for staying competitive. The average of all companies is 4 modified products and 3 completely new products which is quite high, and contrary to current belief, it is actually medium and bigger companies that innovate more. The development phase for modified products is on average 5 months, while for new products more than 7 months.



*Table 1: Importance of innovation by industries (1 – not important, 5-highly important)*

Industry	Importance
C14 Apparel And Other Finished Products Made From Fabrics And Similar Materials	4,7
C21 Pharmaceuticals	4,7
C26 Measuring, Analyzing, And Controlling Instruments; Photographic, Medical And Optical Goods; Watches And Clocks	4,1
J58 Software development	4,0
C13 Textile Mill Products	3,7
J62 Computer programing and consulting	3,6
C28 Industrial And Commercial Machinery And Computer Equipment	3,6
C15 Leather And Leather Products	3,5
C17 Paper And Allied Products,	3,5
C20 Chemicals And Allied Products	3,5
C22 Rubber And Miscellaneous Plastics Products	3,5
C27 Electronic And Other Electrical Equipment And Components, Except Computer Equipment	3,5
C32 Miscellaneous Manufacturing Industries	3,5
C30 Manufacture of other transport equipment	3,3
J63 Analysis of data, Web design	3,3
C25 Fabricated Metal Products, Except Machinery And Transportation Equipment	3,0
C10 Food And Kindred Products	3,0
C11 Beverages	3,0
C16 Lumber And Wood Products, Except Furniture	3,0
C23 Nonmetal and mineral products	3,0
C24 Fabrication of metal	3,0
C29 Manufacture of motor vehicles, trailers and semi-trailers	3,0
C31 Furniture And Fixtures	2,8
C18 Printing, Publishing, And Allied Industries	2,0

As far as revenues are concerned again an unpredictable result is obtained. On the whole sample greater returns are obtained from modified products than from radically new. It might mean that in modification less is invested and all together gain is bigger. For radically new product very much has to be invested first.

There is a discrepancy in the strategy component in the obtained results. In the questionnaire it showed that 71% responders see higher management as the leaders of innovation. However the question 7 questioned if this higher management vision is clear to all employees the result was on average 4 on 7 point Likert scale, where 7 would be true, and 1 not true.

As for measurement of innovation, 62% of companies measure it by customer satisfaction and then revenues from new products (15%). The rest are other measures. As for impediments to innovation the dominant causes are too lengthy process, and deciding which project to give a green light since they are all inherently risky. Many complain about inadequate marketing of new products.

For the whole sample the innovation audit looks as presented on Figure 1.

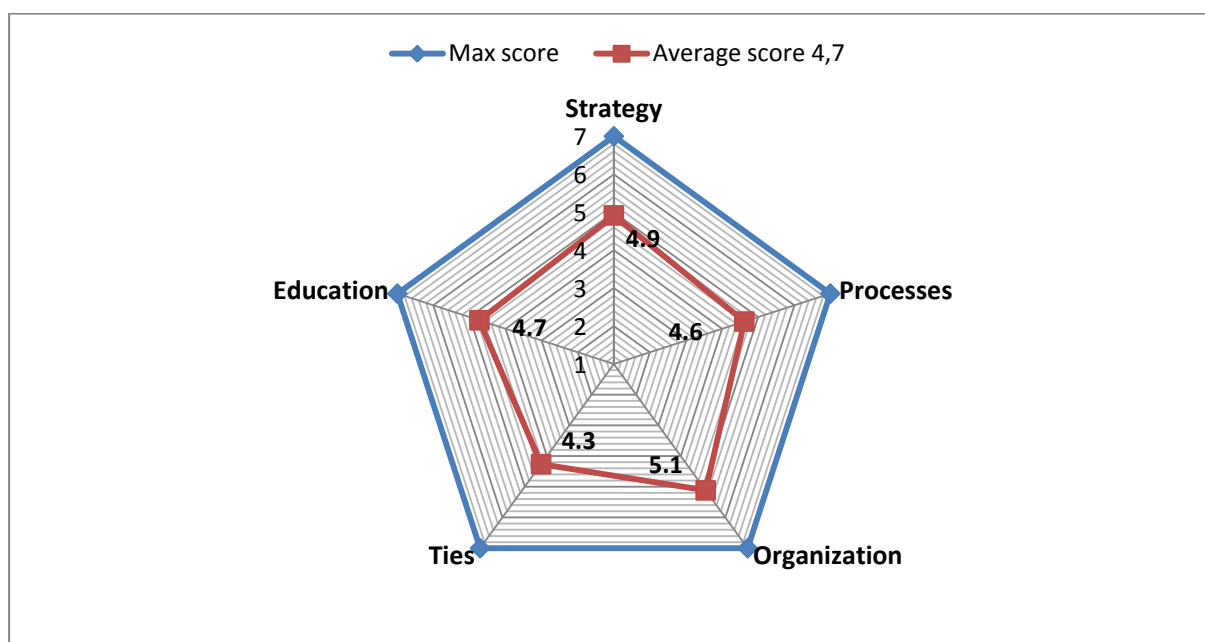


Figure 1: Croatian innovation audit

Figure 1 reveals that organization has the highest score meaning that the organization can quickly adapt to changes, but ties is the lowest score meaning that communication in house and with outside partners has to enhance.

#### 4. RESULTS

Literature research did not reveal the validness of the Tidd *et al.* (2005) instrument so our first step was to check the validity using Cronbach alpha test which is presented in Table 2.

Table 2: Cronbach alpha test of the constructs

Construct	Questions from the questionnaire*	Cronbach Alpha	Sig.
Strategy	f1 f6 f11 f16 f21 f26 f31 f36	0,918	0,000
Processes	f2 f7 f12 f17 f22 f27 f32 f37	0,899	0,000
Organization	f3 f8 f13 f18 f23 f28 f33 f38	0,906	0,000
Ties	f4 f9 f14 f19 f24 f29 f34 f39	0,851	0,000
Education	f5 f10 f15 f20 f25 f30 f35 f40	0,850	0,000

\* Question can be found in Tidd *et al.* (2005, pp. 566-568)

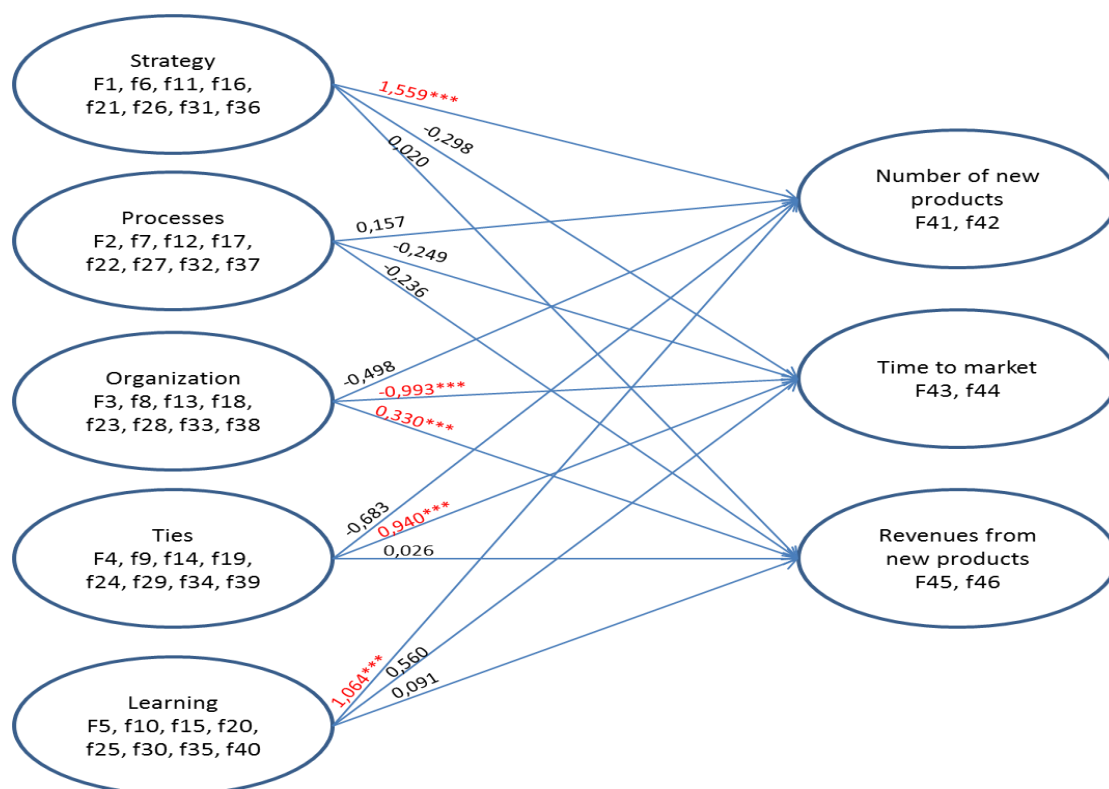
It can be seen that all Cronbach alpha values are over 0,8 which is very good. Then confirmatory factor analysis is conducted in order to see if the grouped questions fit in the proposed groups.

*Table 3: Result of the confirmatory factor analysis*

Method of Estimation: ML	Chi-Square Statistic: 2573,33
Discrepancy Function: 19,8	Degrees of Freedom: 740
Maximum Residual Cosine: 7,71E-005	Chi-Square p-level: 0,000000
Max. Abs. Gradient: 0,000149	Steiger-Lind RMSEA
ICSF Criterion: 2,53E-006	--->Point Estimate: 0,13
ICS Criterion: 0,000197	-->Lower 90% Bound: 0,125
Boundary Conditions: 0	-->Upper 90% Bound: 0,136
Joreskog GFI=0,822	RMS Stand. Residual: 0,431

All the parameters including Joreskog GFI ( $>0,8$ ) are satisfactory and the model can be said to be valid and proven for further use.

However the main aim of this work is to see how each of these constructs relate to measurable outputs of innovation – number of new products, revenues from those products and time to market. Using structural equation modeling we obtained following results.

*Figure 2: Result of the structural equation model*

Before going into drawing conclusion from this model it is necessary to check if the model is valid. Therefore in Table 4 are characteristics and indicators of the model.

*Table 4: Goodness of fit of the model*

Method of Estimation: ML	Chi-Square Statistic: 2604,37
Discrepancy Function: 42,7	Degrees of Freedom: 974
Maximum Residual Cosine: 0,00283	Chi-Square p-level: 0,000000
Max. Abs. Gradient: 0,0157	Steiger-Lind RMSEA
ICSF Criterion: 0,00173	--->Point Estimate: 0,124
ICS Criterion: 0,00891	-->Lower 90% Bound: 0,116
Boundary Conditions: 1	-->Upper 90% Bound: 0,132
Joreskog GFI=0,927	RMS Stand. Residual: 0,429

Looking only at Joreskog GFI=0,927 it can be seen that the model shows extremely good model fit, so it is safe to draw conclusions.

In Figure 2. some indices are larger than 1 because those are not correlation coefficients but covariance. Looking only at the red significant values one can draw following conclusions:

1. The higher level management in propagation and rewarding innovation will in fact augment the number of new products.
2. Organization has a negative effect on time to market, and the more rigid organization is, it will it take more time to launch a new product. However, organization is extremely important for assuring commercial success of the innovation and that means that this organization is necessary for commercialization and it is not enough to have an idea of a new product.
3. Ties within the company and with outside partners will significantly lower time to market. It is good to invest into interpersonal relationships for innovation.
4. Learning significantly affects number of new products. So it is absolutely important to invest into R&D but also in employees' learning.

## 5. CONCLUSION

This work is a pilot project for conducting survey via internet in Croatia. It can be said that the response rate is lower than for the paper copies of questionnaires which even for survey of 12 pages deliver around 10% response rate. However we obtained 135 valuable answers which are enough for this investigation that we presented. The questionnaire had 40 questions taken from the Innovation audit Tidd et al. (2005, pp. 566-568) for measuring the innovativeness of the company, but with additional questions regarding number of new products (modifications and radically new products), time for development of new products (modifications and radically new products), and revenues from new products (modifications and radically new products). Each respondent in a couple of days received his personalized Innovation audit with recommendations where to invest into enhancing its innovation index.

Apart from descriptive statistics, the work represents the valuation of the Tidd et al. (2005, pp. 566-568) survey instrument using confirmatory factor analysis. We believe it is a valuable contribution since our search of literature did not show that someone already conducted this evaluation. The instrument is proven solid as by Cronbach alpha, so with model factor estimators. The most important part of this paper is the model how latent variables constructed from the questionnaire (strategy, processes, organization, ties, learning) influence another set of latent variables (number of new products, time to market, revenues from new

products). The model was tested and Joreskog GFI is over 0,9 which shows good model fit. The phenomenon of innovation is really a complex matter which includes not only engineering, employee knowledge, but also research in domains of psychology and sociology, and therefore it can be really sad with great assurance that it is an interdisciplinary process. Therefore this work is only a little part of an ongoing investigation in the field of innovation. Finally this work is a contribution to exploring the innovativeness of Croatian manufacturing companies with many recommendations for improvement.

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## IDENTIFICATION OF MEGACITIES AND THEIR VERTICAL AND HORIZONTAL CLASSIFICATION IN THE PERIOD FROM 1950 TO 2050

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### **ABSTRACT**

*As a result of its explosive rise since the second half of the 20th century, the population of the world has tripled in comparison with 1950. In 2009, the number of inhabitants living in cities was over the number of people inhabiting rural areas, while from 75 in 1950 the number of cities with more than 1 million inhabitants is expected to increase to 553 by 2050. Nevertheless, the most evident forms of the march of urbanization are megacities, i.e. those urban agglomerations where extremely large populations are concentrated. One important problem of defining megacities is the determination of an optimum population threshold that is the establishment of the population value over which an urban agglomeration can be regarded to be a megacity. This article has been divided into two main sections: the first section relies on a relatively objective method to determine the optimum population threshold value of megacities, whereas the second section makes use of the World Bank and UN's country classification to arrange the same cities into groups. With the help of the various classifications, the vertical and horizontal shifting of megacities in the period from 1950 to 2050 becomes clearly apparent.*

**Keywords:** *megacity, population threshold, The World Bank country classification, UN country classification*

### **1. INTRODUCTION**

Megacities are the most evident resulting forms of process of urbanization (UN, 2010), and their development is continuously monitored by international organizations (United Nations, The World Bank) and the governments of nation states. Today, in parallel with the huge population rise in the developing world, the location of newborn megacities also continuously shifts from the direction of the developed and traditionally urbanized North America, Europe and Japan primarily towards Africa, South Asia and Southeast Asia (Kraas, 2007). It can be regarded as a general problem, however, that the associated technical literature on the one hand, while on the other hand international organizations consider different parameters when determining megacities, while the establishment of the population threshold is rather uncertain over which urban agglomerations can be called megacities.

It is this very uncertainty that seems to be the reason why a kind of consistent vertical and horizontal shift, i.e. the direction of the spread of new megacities can be detected. This study stands on a relatively objective basis when defining the lower population threshold value for megacities (indeed the concept of megacity itself), and describing their course of development in view of the changes in their populations in the period from 1950 to 2050. As the UN provides estimates for the population of urban agglomerations – in fact all the cities with more than 750,000 inhabitants – only until 2025, for the period of 2025–2050 we have relied on our own calculations to determine the necessary number of inhabitants. The second part of this study makes use of the World Bank (per capita GDP) and UN's country classification (geographic regions) to show the directions of vertical and horizontal shifts for megacities in the period from 1950 to 2050.

## 2. DETERMINATION OF MEGACITIES

In the definition of megacities, fundamentally two critical factors can be detected: first the population threshold over which the given urban agglomeration can be regarded to be a megacity, and second the territorial demarcation of the urban agglomeration that also includes the metropolis identified as the megacity. In fact, both problems lie on fairly subjective foundations, and for this very reason their preliminary examination can be considered as substantial and unavoidable.

### 2.1. Territorial demarcation of megacities

Naturally, the most important question in the identification of megacities is the clear definition of the lower population value, while on the other hand it unavoidably needs to be clarified which urban agglomerations can be defined as megacities. For these researches, one of the key documents and databases is the UN World Urbanization Prospects (WUP) publication, which has been following the population of cities since 1950, and offers medium-term estimates, now until 2025 (UN, 2010). According to WUP, in 2010 the most populous urban agglomeration of the world was Tokyo with a total population of 36.67 million, where New York, which used to top the list for long, but tanked only sixth in 2010, had 19.43 million inhabitants. However, the question is what territorial units Tokyo or New York covers? The analysis of the example of these two metropolises clearly sheds light on the general territorial demarcation that UN applies to every city.

#### 2.1.1. Example 1 - Tokyo Major Metropolitan Area

Today's Tokyo, or Tokyo Metropolis as it is officially known, was formed in 1943, when Tokyo City consisting of 23 wards and Tokyo Prefecture surrounding the city were united. According to the 2010 census, the population of the former Tokyo City was 8.95 million, while the number of inhabitants in Tokyo Metropolis or Tokyo reached 13.05 million. From the areas lying in the surroundings of Tokyo Metropolis, the Japan Statistics Bureau has established several functional regions (One Metropolis, Three Prefectures, Kantō Major Metropolitan Area, Tokyo Major Metropolitan Area, National Capital Region) by considering various aspects of arrangement, and one of these regions has come to be the *Tokyo Major Metropolitan Area* identified as the Greater Tokyo Area. This region includes all the settlements within the 70 km range of the Tokyo Metropolitan Government Building standing in the Shinjuku ward of the Tokyo Metropolis, and thus such specific cities as Chiba (962,000 inhabitants), Kawasaki (1,426,000 inhabitants), Sagami-hara (718,000 inhabitants), Saitama (1,223,000 inhabitants) and Yokohama (3,690,000 inhabitants). On the whole, it means that in UN's interpretation Tokyo does not cover the actual city, Tokyo Metropolis, but the Tokyo Major Metropolitan Area, which has nearly three times as large a population as the city. The largest Japan cities, such as Osaka and Nagoya are typically surrounded by similar metropolitan areas.

#### 2.1.2. Example 2 - New York–Northern New Jersey–Long Island MSA

In the United States of America, the Metropolitan Statistical Area (MSA) as a regional unit has been shaped by the Office of Management and Budget, and is used by the U.S. Census Bureau principally in the field of statistics. The MSA has been established in order to demarcate the urban zones that feature relatively high population densities, form closely related units in economy, and are centered by their own, dominant metropolises. The largest MSA is *New York–Northern New Jersey–Long Island*, which – in addition to the central urban unit, New York City with its population of 8.18 million (US Census, 2010) – has such components as 10 counties from New York State, 12 counties from New Jersey and one from



Pennsylvania. Often identified as the New York Metropolitan Area, Metropolitan New York or Greater New York, this territorial unit of nearly 20 million inhabitants in effect corresponds to the New York–Northern New Jersey–Long Island MSA. In 2010, the United States of America boasted of 366 MSAs, of which the largest ones were the New York–Northern New Jersey–Long Island MSA (19.43 million inhabitants), the Los Angeles–Long Beach–Santa Ana MSA (12.76 million inhabitants) and the Chicago–Joliet–Naperville MSA (9.20 million inhabitants) with areas overarching different states, while the smallest one was Carson City with a population of just cc. 55,000.

## 2.2. Population threshold of megacities

Territorial demarcation can be regarded to be a relatively constant state, and thus the above-mentioned examples only highlight the methodology used in international practices. A much more critical question is the determination of the lower population threshold of megacities, because international organizations (United Nations, The World Bank) and experts concerned in the relevant research topics alike tend to define the various population threshold values on the basis of is subjective criteria. The UN (2006; 2008; 2010) is consistent in regarding the 10 million population to be the appropriate population threshold, while in contrast some researchers of the topic have arrived at very different values: according to Dogan and Kasarda (1988), the lower limit should be 4 million, for Kraas (2011) it is 5 million, Richardson (1993), Gilbert (1996) and Silver (2008) regards it to be 8 million, while Ward (1990) has opted for 10 million. In order to eliminate this subjectivity to a certain extent, we have reconceived the population threshold value needed for the identification of megacities: in our opinion, it is the urban agglomerations with populations larger than the arithmetic mean of the total population of the 100 most populous metropolises from time to time that can be regarded as megacities. This statement is valid for any year, and moreover the rationale underlying this approach is to make long-term changes appropriately and logically traceable. In this methodology, obviously, a subjective element is the establishment of the number of the examined urban agglomerations (which is 100 in our case), while sources focusing on megacities are relatively novel, and there are no population threshold values available back to the 1950s in retrospect. The population threshold values we have determined and the number of megacities are shown in *Table 1*. It is apparent that since 1950 the population threshold – in parallel with the populations of the cities – has been on a continuous rise, while the number of megacities has not reflected a straight-line growth. One underlying reason is that the increase of the populations in the most populous megacities has come to be over the average, which strongly influences the critical population threshold value: the larger the top-ranking megacities are, the larger values the population thresholds take, i.e. there are fewer agglomerations that can pass the limit. By 2045, the value of the population threshold may reach 10 million – in 2050 it will pass this limit –, but the theoretically defined population threshold values do not exceed 10 million in any of the cases, and therefore it is regarded to be an ideal minimum value.

*Table 1: The lower population threshold and number of megacities on the basis of the populations of the 100 most populous urban agglomerations (1950–2050)*

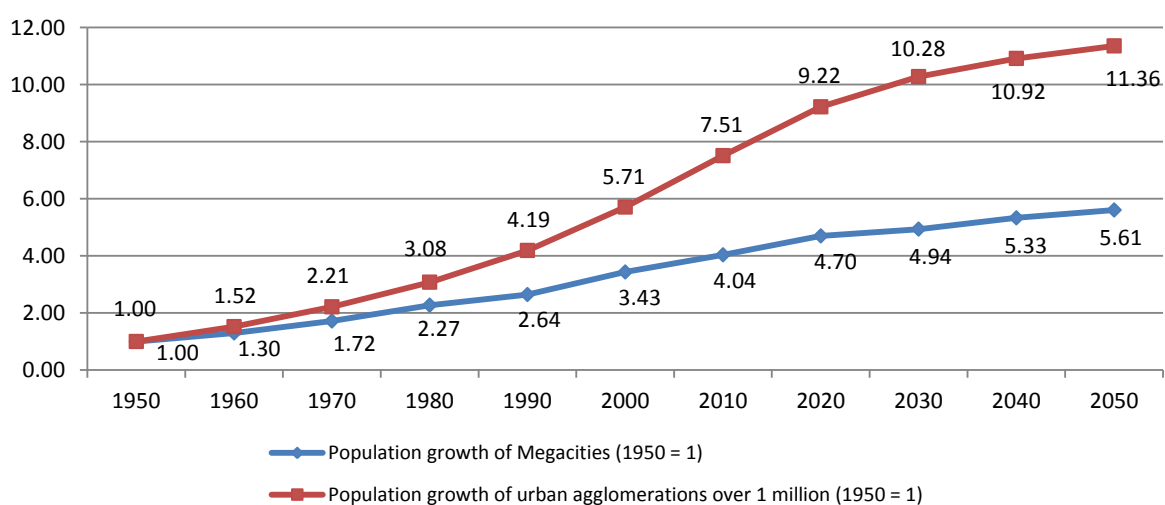
	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050
Population threshold of megacities (million inhabitants)	1.99	2.63	3.39	4.20	5.10	6.25	7.47	8.53	9.37	9.98	10.00
Number of megacities	25	25	27	31	29	34	34	36	34	35	35

Obviously, both the population threshold and the number of megacities may vary as depending on the methodology used for the determination of the tendency of population

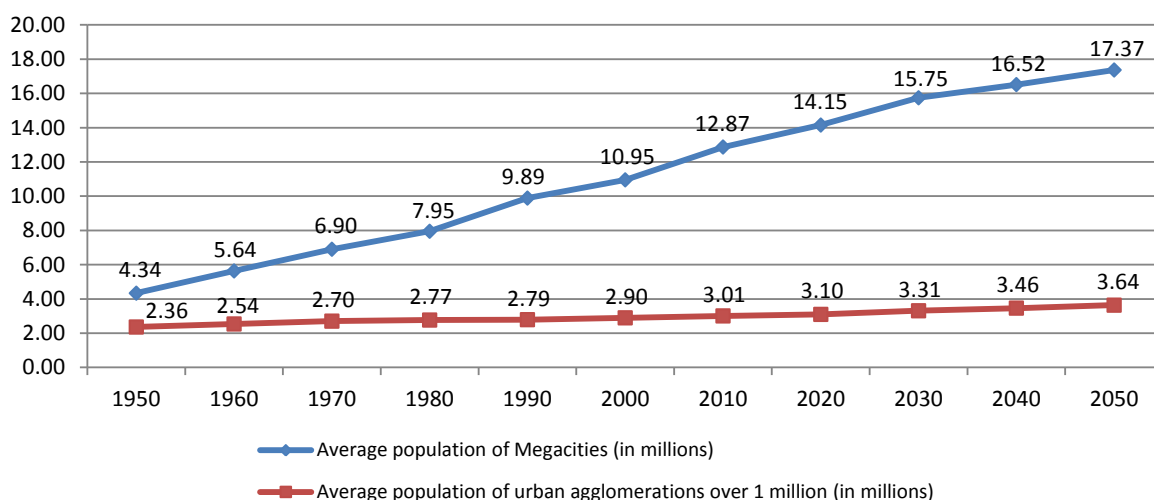
increase or decrease as the case may be. Our calculations have assumed the simplest case, i.e. the parallel change of the population, and therefore our basic suggestion has been that after 2025 the growth rates of the populations of metropolises will correspond to the growth rates of the populations in the respective countries. Changes in the populations of these countries have been determined on the basis of the U.S. Census Bureau's data series for the period between 1950 and 2050. The populations of the cities are published in the UN (2010) World Urbanization Prospects, where data are provided until 2025. The populations of the megacities (and in fact all the cities with more than 750,000 inhabitants) have been calculated further for the future on the basis of the changes in the population of the respective countries in 2025–2050. It means that the rates of change in the populations of megacities (either increase, or decrease, as the case may be) correspond to the change in the populations of the countries where these cities are situated.

### 3. MEGACITIES

The population of megacities – in parallel with the general demographic trends – is on a steady rise, and so far has increased from 108 million in 1950 to 608 million in 2050. On the other hand, this population growth trend in megacities cannot be regarded to be outstandingly high, because in the case of cities with more than 1 million inhabitants the growth rate of the population is much higher, nearly double of the growth rate of the population in megacities (*Figure 1*). The total population of the two categories is obviously and basically determined by the number of cities included in these two categories. The average population presented in *Figure 2* shows that the average population of megacities will have been quadrupled between 1950 and 2050 from 4.34 million to 17.37 million, while the average population of cities with more than 1 million inhabitants will have risen to a 1.5-fold value in the same period. The number of cities with more than 1 million inhabitants will have been on a steady and considerable rise since 1950 up until 2050, while the average population will not change significantly, while the number of megacities will increase at a relatively slow pace, or even stagnate (which is a consequence of the method of their definition), while their population will see some rapid growth. According to the figures of the UN (2010), by 2050 the world population may be up to 9.1 billion, of which 6.4 billion people will be living in cities; 34% of these people will belong to cities with more than 1 million inhabitants, whereas nearly 10% will live in megacities.



*Figure 1: Growth rate of the population in megacities and cities with more than 1 million inhabitants between 1950 and 2050*



*Figure 2: Changes in the population of megacities and cities with more than 1 million inhabitants from 1950 to 2050*

In 1950, the most populous city worldwide was New York with 12.34 millions of people, after taking over the top of the rank from London, which had been the leading city for decades since the early 20<sup>th</sup> century (Chandler 1987). In the middle of the 1950s, the Japanese capital, Tokyo came to rank first, and will have remained the largest megacity for about a century. According to the forecasts, from the middle of the 2040s the rapidly growing Delhi in India will become the most populous city of the world. Tokyo's extreme position was the strongest in the middle of the 1990s, its nearly 33 million inhabitants was 16.5 million ahead of the second-ranking New York.

Until 2025, Tokyo's population will further rise until 2025 to reach the expected maximum, 37.1 million people, but from that time – in parallel with the dropping population of Japan – the population of the capital will also reflect a decreasing tendency. On the other hand, due to the explosive rise of the population of the cities on South Asian countries the gap between Tokyo and the following cities will steadily become narrower. As a result of the process, in 2050 Delhi will take over the leading role from Tokyo, and in addition Mumbai will also approximate Tokyo in terms of population (*Table 2*).

In the ranking of megacities, the largest extent of fallback will not belong to Tokyo (though it is undoubted that the nearly 5 million, absolute decrease of the Japanese capital in comparison with the maximum population is the largest drop among megacities), but Germany's capital, Berlin. *Table 2* shows that in 1950 Berlin used to be the 12<sup>th</sup> most populous metropolis with its population of 3.34 million, and moreover according to Chandler (1987) it had ranked 4<sup>th</sup> back in 1900, but by 2050 its population will have shrunk to 3.16 million, and thus will be only the 169<sup>th</sup> in the ranking. By 2050, the only European megacity – irrespective of Istanbul listed by UN as belonging to West Asia – will be the 31<sup>st</sup> Paris.

*Table 2: The 15 largest megacities of the world in 1950, 2000 and 2050*

Rank	Megacity	Population (million inhabitants)	Megacity	Population (million inhabitants)	Megacity	Population (million inhabitants)
	1950		2000		2050	
1	New York	12.34	Tokyo	34.45	Delhi	33.90
2	Tokyo	11.28	Mexico City	18.02	Tokyo	32.23
3	London	8.36	New York	17.85	Mumbai	30.63
4	Paris	6.52	São Paulo	17.10	Lagos	27.15
5	Moscow	5.36	Mumbai	16.09	Dhaka	26.49
6	Buenos Aires	5.10	Delhi	15.73	New York	24.82
7	Chicago	5.00	Shanghai	13.22	São Paulo	24.34
8	Kolkata	4.51	Kolkata	13.06	Kolkata	23.87
9	Shanghai	4.30	Buenos Aires	11.85	Karachi	23.85
10	Osaka-Kobe	4.15	Los Angeles	11.81	Mexico City	23.53
11	Los Angeles	4.05	Osaka-Kobe	11.17	Kinshasa	21.96
12	Berlin	3.34	Rio de Janeiro	10.80	Manila	19.90
13	Philadelphia	3.13	Dhaka	10.29	Shanghai	18.71
14	Rio de Janeiro	2.95	Cairo	10.17	Cairo	17.98
15	Saint Petersburg	2.90	Karachi	10.02	Los Angeles	16.45

Nevertheless, the most dynamic rates of population growth are not reflected by the cities of South Asia, but Chinese and African cities. From 1950 to 2050, the largest population growth rate will be brought about by Shenzhen in China, whose population will have changed from 3,000 to 10.4 million in the examined period. Yet, the population growth of cities in China and African countries is motivated by far much different causes. Within the framework of economic reform measures, in 1979 the Chinese government designated, and then in 1984 expanded the so-called Special Economic Zones (SEZ) to serve as driving forces for the growth of Chinese economy (Yueh 2010).

The majority of the Chinese cities reflecting the largest population growth is situated within these SEZ areas (such as Shenzhen, which was among the first areas to be designated), while their population growth was mostly influenced by migration within the country (Osborne 1986). In contrast with the Chinese cities, from the middle of the 20<sup>th</sup> century in the cities of the African countries population growth was primarily and typically driven by endogenous population boom: in the light of the UN's associated figures, Africa in 2000 accounted for only 13.4% of the world's population, while by 2050 it will have increased to 21.8%. In terms of proportions, all the other continents will show decreasing tendencies with the most typical example given by the most populous continent, Asia, whose share of population will decrease from 60.5% in 2000 to 57.2% in 2050.

#### **4. VERTICAL (THE WORLD BANK) AND HORIZONTAL (UNITED NATIONS) CLASSIFICATION OF MEGACITIES**

Obviously, the various parameters of megacities are worth examining independently, but no far-reaching conclusions can be drawn from the changes of the positions of the individual cities. For this very reason, the evaluation of the various city groups is an important topic, and can be implemented on the basis of the classifications of the international organizations in relation to countries. In our analysis, the megacities belonging to the various country groups have been evaluated with reliance on the country classifications of the World Bank and United Nations.

The classifications made by these two organizations have been regarded to be substantial, because they approach the classification of countries along different principles of

arrangement: the World Bank establishes country groups in view of the per capita income, while the United Nations considers the geographic regions to be the fundamental units. In the first case, megacities can be categorized vertically on the basis of the per capita income of the given country in the specific country groups, whereas in the second case horizontal categorization can be made with respect to the geographic classification of the countries.

#### 4.1. Vertical classification of the megacities

On the basis of the 2010 value of the per capita income, the World Bank determines four groups:

- Low-income economies: countries where the per capital income is USD 1,005 USD or smaller (Afghanistan, Bangladesh, Democratic Republic of the Congo);
- Lower-middle-income economies: countries where the per capital income is in the range of USD 1,006–3,975 (Angola, Egypt, India, Indonesia, Iraq, Nigeria, Pakistan, Philippines, Sudan);
- Upper-middle-income economies: countries where the per capital income is in the range of USD 3,976–12,275 (Argentina, Brazil, China, Colombia, Iran, Mexico, Peru, Russia, Thailand, Turkey);
- High-income economies: countries where the per capital income is USD 12,276 or larger (France, Germany, Japan, Republic of Korea, Spain, United Kingdom, United States).

It is important to emphasize that the World Bank's classification used in our analysis is valid only for 2010, and thus the historic and future figures have also been determined on the basis of the year of 2010. The underlying reason is that the World Bank publishes data series only for the time interval from 1987 to 2010, while for the future no relatively accurate estimates – at least for the GDP – are available.

*Figure 3* shows that in 1950 it was the megacities belonging to high-income economies (HIE) country group that used to have the largest populations, but in 2050 they will rank only third with gradually decreasing populations from 2020. In 2050, megacities (New York, Los Angeles, Chicago) belonging to the HIE group will be represented only by three cities of increasing population in North America, Tokyo with its sharply dropping population and Paris with a steady number of inhabitants. The rise of the population of the American cities indeed counterbalances the decrease in the population of Tokyo and Paris, yet the number of megacities belonging to the HIE category will have diminished from 13 in 1950 to just five in 2050, while the dropout of the individual cities from the circle of megacities can potentially reduce the total population of the category by millions of inhabitants.

Megacities belonging to the lower-middle-income economies (LMIE) category reflect a process that is the opposite of changes in the HIE group. Back in 1950, the LMIE category was represented among megacities only with three cities with an aggregate population fewer than 10 million inhabitants, which was smaller than the population of New York alone at that time. On the other hand, in 2000 and 2050 nine and 15 megacities did and will drop out from the LMIE group, respectively, including six cities in India. *Figure 4* shows that in 2010 this group overtook the overall population of the megacities of the HIE group, and in the early 2030s it will go on ahead of the total population of the megacities belonging to the category of upper-middle-income economies (UMIE). This process is even more interesting when it is considered that in 2010 the World Bank reclassified China, and listed it to belonging to the UMIE group instead of the LMIE group, which has also been confirmed by our follow-up overview, meaning that since 1950 China has become categorized as an UMIE. Without the megacities of China (in 2050, five megacities with a population of 64 million), the UMIE group would be just shortly ahead of the HIE group. On the other hand, it is these Chinese

cities that contribute to the population decrease in the UMIE group to the largest extent. In 1950, following the HIE group the UMIE group ranked second in terms of the number of megacities, and reached the maximum in 2005 with 17 megacities (in that year, nearly half of the megacities belonged to the UMIE group), while in 2050 it will have again dropped to the second place with 12 megacities, behind the LMIE group. The decreasing number of megacities itself sets the shrinking of the total population of the UMIE group to be tendentious, yet the process is further reinforced by the fact that from 2025 – in parallel with the population of China – the populations of the Chinese megacities will turn into massive fallback. In the group of low-income economies (LIE), i.e. the poorest countries, the capital of Bangladesh, Dhaka was topping the rank, and became one of the megacities in the middle of the 1980s, and then in the middle of the 2000s Kinshasa (Democratic Republic of the Congo) closed up with Kabul (Afghanistan) rising considerably on the rank by 2050.

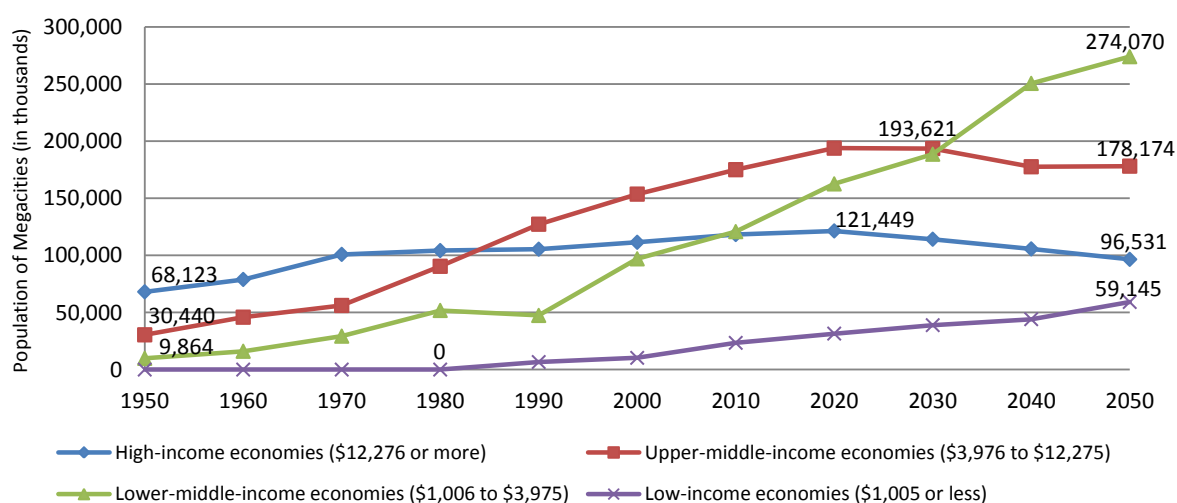


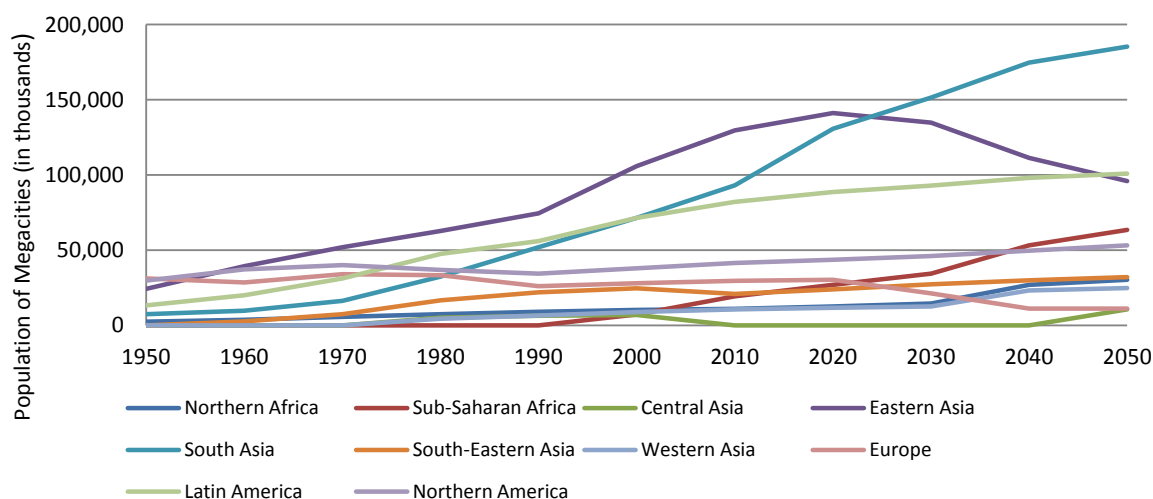
Figure 3. Changes in the population of megacities from 1950 to 2050 on the basis of the World Bank's classification

Figure 3 clearly shows that since 1990 the populations of the megacities in the LIE and LMIE countries with smaller per capita incomes have been sharply increasing (by more than 500 percent in the examined period), while from 2020 the populations of the megacities in the HIE and UMIE countries with larger per capita incomes will be strongly dropping (by 13 percent in the examined period). The analysis performed on the basis of the World Bank's classification suggests that in the period from 1950 until 2050 the number and population of the megacities have been gradually shifting from the direction of developed or more developed countries towards developing or less developed countries. In 2050, the low-income African, South and Southeast Asian countries will cover 55 percent of the total population of megacities.

#### 4.2. Horizontal classification of megacities

Unlike the above analysis, UN does not classify countries on the basis of their economic performance, but places them into specific geographic regions. Nevertheless, the two classifications based on different methodologies lead to very similar results, which is true even if the number of basic units in the UN classification is far more than the number of the categories in the World Bank's classification.

*Figure 4* shows that in 1950 the aggregate population of Europe's megacities exceeded 31 million (at that time, the largest number of megacities, i.e. seven megacities belonged to Europe), and then in the middle of the 1950s the megacities of the North American region came to top the rank. At the beginning of the 1960s, it was primarily the massive population growth of Tokyo and Osaka-Kobe, as well as the large Chinese cities (Shanghai, Beijing, Tianjin, Shenyang) that resulted in Eastern Asia taking over the leading role. Still another change is expected to come in 2030, when the total population of the megacities of Bangladesh, India and Pakistan in South Asia ranking only sixth back in 1950 comes on ahead of that of the Eastern Asian megacities. *Figure 5* also reflects that by the middle of the 2040s Eastern Asia will have been overtaken even by the megacities of the Latin American countries, though in this latter region population growth is not as considerable as in South Asia or the Sub-Saharan Africa. In comparison with the 2000 figures, by 2050 the largest – nearly 800 percent – increase in the population will have been brought about by the megacities of the Sub-Saharan Africa, which is partly explained by the rise in the number of megacities, and partly by the explosive increase of population in these megacities. In the period from 2000 to 2050, growth between 150 and 200 percent will have been produced by Northern Africa, Western Asia and South Asia, Northern America, Latin America and South-Eastern Asia will be increasingly slightly or fall back in stagnation, whereas in Eastern Asia and Europe the population of megacities will drop by 10 and 60 percent, respectively (in these latter cases, the number of the cities will also decrease).



*Figure 4: Changes in the populations of megacities in the geographic regions determined on the basis of the UN classification, 1950–2050*

## 5. CONCLUSION

The first section of our publication has determined the optimum lower population threshold needed for the identification of megacities. We have started out from the assumption that the population threshold values established by the researchers studying this topic and international organizations are rather uncertain due to their subjective nature. For this reason, we have worked out a consistent terminology: those cities should be regarded to be megacities whose populations exceed the arithmetic mean of the number of inhabitants in the 100 most populous metropolises.

This method can be considered to be acceptable, because it excludes subjective elements, and can be applied to any period under review (at least where the appropriate data are available). However, UN has only such estimates that determine the populations of cities until 2025,

meaning that these estimates are valid only on the medium run. For this reason, the populations of cities have been calculated until 2050 with reliance on other sources of data, as based on the assumption that the populations of the cities and their respective countries will change in parallel with each other. This process has yielded data series for the period from 1950 to 2050. After the definition of the optimum lower population threshold and the populations of cities, megacities in the period of 1950–2050 have been named.

The second section analyzes the horizontal and vertical shifts in megacities on the basis of the United Nations and World Bank's country classifications. With respect to the per capita income, the World Bank determines four country groups, which allows the vertical classification of megacities, while the United Nations groups countries in geographic regions, which serves as the basis of horizontal classification. In the light of our results, in 2050 the large majority of megacities will belong to the less developed or underdeveloped countries and their populations will considerably exceed the number of the inhabitants in the individual megacities of the developed world. The dynamics of population growth show that in addition to the developing countries of South Asia (Bangladesh, India, Pakistan) it is primarily the populations of the megacities in the least developed Sub-Saharan Africa that will show explosive rise.

The results of this vertical and horizontal classification also suggest that in parallel with the increase of the per capital income the growth of population tends to stop, or even become reversed (e.g. China, Europe, Japan). According to Kraas (2008: 588), megacities are the key victims and causes of global natural and human risks at the same time. On the other hand, the number and populations of megacities increases in the less developed or underdeveloped countries to the largest extent, i.e. in the countries where presumably the smallest resources can be deployed for the prevention of natural and human risks.

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## THE INFLUENCE OF CLOUD COMPUTING ADOPTION BENEFITS ON HOTELS' COMPETITIVE CAPABILITIES

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### ABSTRACT

*In the competitive environment of the hotel industry, a sophisticated portfolio of IT applications and high-quality IT infrastructure is an important driver of hotels' performance, playing a strategic role in organizations, where it creates competitive advantage and enables new business opportunities. Cloud computing, the latest strategic inflection point in the development of IT, can deliver new value for customers through innovative applications along the value-chain. The purpose of this research is to explore the impact of organizational and business benefits of cloud computing adoption on the hotels' internal and external competitive capabilities. A survey was conducted in hotel companies in Istrian county in Croatia and based on hotel managers' perceptions and attitudes, a research model is assessed using the PLS-SEM method. Implications for hotel management are provided.*

**Keywords:** *Cloud computing benefits, Competitive capabilities, Hotel information systems, Hierarchical component model, Partial least squares, Structural equation modeling*

### 1. INTRODUCTION

The digital convergence of information technologies in combination with miniaturization, portability and cutting costs, are part of a trend that leads to the ubiquity of computers in everyday life, to the extent that they are regarded as essential for survival in today's world. As such, IT in hospitality industry is redefining communications among employees, guests and suppliers, changing the nature of business transactions and increasing technological needs and expectations of guests.

Cloud computing, the latest strategic inflection point in the development of IT, is a model of computing that is paid per use, which allows a convenient network access on request to the shared source of configurable computing resources (networks, servers, storage data, applications, services) that can quickly be allocated and released with minimal user effort and minimal interaction with the service provider. A computing cloud is a set of easily usable and accessible virtualized hardware and network resources, storage capacity, services and interfaces that enable the delivery of software, infrastructure, and storage over the Internet, either as separate components or as a platform, as needed. Key characteristics of cloud computing services make the user's request, broad network access, resource pooling, rapid elasticity and measured service. The origin of cloud computing lies in the virtualization technologies, Internet technologies, distributed computing and data center automation. Cloud computing service models include infrastructure as a service, platform as a service and software as a service and a computing cloud can be deployed as a private cloud, community cloud, public cloud and hybrid cloud. Formulating their own Cloud Computing definition, Marston et al. (2011, p. 177) encapsulated the key benefits of cloud computing from a business perspective as well as its unique features from a technological perspective: "It is an information technology service model where computing services (both hardware and

software) are delivered on-demand to customers over a network in a self-service fashion, independent of device and location. The resources required to provide the requisite quality-of-service levels are shared, dynamically scalable, rapidly provisioned, virtualized and released with minimal service provider interaction. Users pay for the service as an operating expense without incurring any significant initial capital expenditure, with the cloud services employing a metering system that divides the computing resource in appropriate blocks.”

In the competitive environment of the hotel industry, access to timely information is crucial for decision-making and customer service delivery. Consistently achieving this goal requires a sophisticated portfolio of IT applications and high-quality IT infrastructure. Erbes et al. (2012, pp. 66-72) state that the current rapid move toward cloud services has a profound impact, creating an environment in which specialized suppliers balance innovation with quick responses to market demands and resulting in an efficient system for service production and distribution. In this new environment, the in-house development of IT services is losing ground to the use of service supply chains created by external providers.

The purpose of this research is to explore the impact of organizational and business benefits of cloud computing adoption on the hotels' competitive capabilities. The basic set of research for this study consists of hotel managers of Istrian county hotel companies in Croatia.

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

Nowadays, IT is an important resource driving hotel's success, playing a strategic role in organizations, where it creates competitive advantage and enables new business opportunities. Attention is now being given to IT's ability to differentiate products and services, to create new product and service offerings, and to build and sustain core competencies; all of which lead to the creation of competitive advantage (Nyheim et al., 2005, p. 29). Thus, business managers must focus on the business value of IT and less on cost reduction.

Business managers must strive to understand how to use IT, see its strategic potential, and recognize its limitations so as not to be confused by it, led astray, or constrained by the limitations of the firm's IT infrastructure (Nyheim et al., 2005, p. 6). For many decades, IT was largely shielded inside an enterprise. Enterprises used traditional ways to map their internal business needs to the IT processes and systems that they built, operated, and maintained in-house (Erbes et al., 2012, pp. 66-72). The emerging new trend of cloud computing challenge the fundamental assumption of shielded IT in a closed enterprise and provides new opportunities for IT infrastructure design. (Erbes et al., 2012, pp. 66-72) state that IT traditionally provided value by offering a standardized experience across the enterprise. This centralized role includes consolidation, centralization, and standardization of IT systems and services. However, modern hotels demand flexible IT services, that can be provided directly by a growing number of external providers offering cost-effective and reliable services.

In order to effectively enable and support enterprise business goals and strategies, information technology (IT) must adapt and continually change. IT must adopt emerging technologies to facilitate business to leverage the new technologies to create new opportunities, or to gain productivity and reduce cost (Buyya et al., 2011, p. 552). Emerging technologies (e.g., cloud computing: IaaS, PaaS, SaaS) can be disruptive to the existing business processes, including core IT services. Thus, it is extremely important to minimize the negative impact to the business, particularly the potential impact on morale and productivity of the organization. Whenever there are major changes being introduced to the organization, changes that require redesign or re-engineering the business process, change is usually required to the organizational structure and to specific jobs (Buyya et al., 2011, p. 553). Galičić and Ivanović (2008, p. 292) argue that getting a hotel information system to work is a great challenge for

the entire organisation and all the people that are a part of the organisation (including two interest groups of people: the end users and the personnel in charge of IS development). Nyheim et al. (2005, p. 7) point out that IT-related decisions require input from multiple perspectives within the organization since IT is pervasive throughout the firm's value chain. If the organization is to exploit IT for competitive advantage, business leaders, regardless of the discipline they represent, must (1) focus on enterprise-wide solutions, (2) be able boundary spanners (people who can cross multiple disciplines or areas of knowledge), and (3) become technologically savvy.

Marston et al. (2011, p. 185) state that cloud computing can deliver new value for customers through innovative applications along the value-chain. Nyheim et al. (2005, p. 30) concludes that competitive advantage derived from IT will occur only when IT improves an organization's primary business functions, creates value-adding experiences that enhance customer service, and focuses on changing demand patterns to increase purchases.

## 2.1. Research methodology and model development

The potential financial benefits of adopting cloud computing, especially for small to medium size companies, is the savings made from buying, running, and maintaining their own IT infrastructure. According to Lin and Chen (2012, p. 2), the elasticity of cloud services also means more flexible resource management which can also lead to cost savings. In other words, with cloud services companies can scale up and ramp down capacity on demand and only pay for the actual usage. There are also obstacles to their growth and adoption: the lack of broadband Internet connections, the lack of standardisation of application program interfaces and platform technologies and an overall perceived lack of control that can discourage companies from adopting cloud computing.

While financial benefits and cost reduction of cloud computing adoption have been extensively studied, there's a lack of research regarding the impact of organizational and business benefits of cloud computing on the hotels' competitive capabilities. The constructs of organizational benefits and business benefits (Table 1.) were adapted from prior studies (Shang and Seddon, 2002, pp. 271-299; Bustinza et al., 2010, pp. 276-288). Specific measurement items were selected and refined for this study to reflect the most important aspects of cloud computing benefits perceived by the hotel managers in Croatia. Shang and Seddon (2002, p. 274) state that business managers have a comprehensive understanding of both the capabilities of enterprise systems and the business plans for system use. Thus, the measures were tailored for the context of this research, although an extensive list of benefits is provided by scholars.

Organizational benefits	Business benefits
<b>orgb1</b> – improves effectiveness	<b>busb1</b> – increases customer satisfaction
<b>orgb2</b> – increases efficiency	<b>busb2</b> – increases hotel profitability
<b>orgb3</b> – increases overall performance	<b>busb3</b> – supports business growth
<b>orgb4</b> – improves focus on market	<b>busb4</b> – improves hotel reputation

*Table 1: Items measuring cloud computing benefits in relation to hotels' resources and capabilities (developed by the authors)*

The constructs of internal and external competitive capabilities were defined by Miller and Roth (1994, p. 289) and refined by Bustinza et al. (2010, p. 281). For this study, those items were adapted to its specific context. A total of 11 items represent the hotel's competitive capabilities gained from cloud computing adoption (as shown in Table 2).

Internal competitive capabilities	External competitive capabilities
<b>intcc1</b> – enable punctual delivery of the service	<b>extcc1</b> – provide flexibility to face market demand
<b>intcc2</b> – enable faster delivery of the service	<b>extcc2</b> – introduce new services into the market more rapidly
<b>intcc3</b> – increase the competitiveness of our prices	<b>extcc3</b> – distribute our services more widely
<b>intcc4</b> – enable us to offer consistent quality	<b>extcc4</b> – increase the number of our services
<b>intcc5</b> – enable us to obtain better results from our services	<b>extcc5</b> – contribute to promoting our services more efficiently
	<b>extcc6</b> – develop post-sales services

*Table 2: The impact of cloud computing adoption decisions on hotels' competitive capabilities (adapted from Miller and Roth, 1994)*

Oliveira et al. (2002, p. 734) define capabilities-based competition through operations as the ability of the total service delivery system extended through the service supply chain to meet external customer requirements through operations criteria, such as quality, delivery, flexibility, and/or cost. They conclude that competitive capabilities and strategic choices of structure, infrastructure and integration are core elements of service operations strategy. Bustinza et al. (2010, p. 278) argue that the impact of outsourcing decisions on the competitive capabilities has been undervalued, as well as the fact that these capabilities can produce competitive advantages in the long term. Thus, for this study the following research hypothesis is proposed:

**H1.** *Benefits of cloud computing positively influence the hotel's competitive capabilities.*

### 3. DATA ANALYSIS AND DISCUSSION

#### 3.1. Descriptive statistics

To explore the impact of organizational and business benefits of cloud computing adoption on the hotels' competitive capabilities, an online survey was used. The questionnaire is composed of multiple choice questions (to collect demographic information) and multiple-item measurement scales. The measurement items are adapted from measurement instruments based on the literature review. Each question was tailored to fit the context of this study. The survey items related to each of the constructs included in the model were measured using a seven-point Likert scale. All items ranged from 1 (strongly disagree) to 7 (strongly agree).

The basic set of research consists of 79 hotel managers of the four largest hotel companies in Istria County, the most important tourist region in Croatia. A survey plan for each studied organization was developed in collaboration with hotel administration. The survey was conducted from July to September 2013, during the period of high season in selected hotel companies. As an adequate platform for online survey Wufoo was chosen, an online questionnaire prepared, with results stored in the corresponding database. Statistical analysis was performed after the completion of data collection of the questionnaires. A total of 44 completed surveys (out of 79 targeted managers) was collected, accounting for 56% of the population. The hotel managers include 60% first-level managers, 68% second-level managers and 47% third-level managers. All collected questionnaires were properly filled.

#### 3.2. Model assessment

This research is based on Partial Least Squares Structural Equation Modeling (PLS-SEM) to develop a model that represents the relationship between 6 proposed constructs measured by 19 items. PLS-SEM is a multivariate technique for assessing structural models. Hair et al. (2012, p. 415) point out that PLS-SEM maximizes the explained variance of the endogenous

latent variables by estimating partial model relationships in an iterative sequence of ordinary least squares (OLS) regressions. An important characteristic of PLS-SEM is that it estimates latent variable scores as exact linear combinations of their associated manifest variables (Hair et al., 2012, p. 415; from: Fornell and Bookstein, 1982) and treats them as perfect substitutes for the manifest variables. Hair et al. (2011) state that the assessment of reflective outer models involves determining indicator reliability (squared standardized outer loadings), internal consistency reliability (composite reliability), convergent validity (average variance extracted, AVE), and discriminant validity (Fornell-Larcker criterion, cross-loadings). The software tool SmartPLS 3.1.3 was used to assess the measurement and the structural model of the research.

Lowry and Gaskin (2014, pp. 123-146) argue that before running a PLS analysis, the model must be configured in a way that will produce usable results. For this research model, constructs were set up as reflective, in compliance with prior studies. A factor analysis was employed to establish the reliability of the items and the convergent and discriminant validity of the constructs. The factor structure matrix of item loadings and cross-loadings (Table 3.) confirms that the convergent validity of each construct is achieved as the item loadings for each construct are above the threshold of 0.708 (Hair et al., 2014). 5 items didn't meet the minimum requirements (excessive cross-loadings) and were removed from the measurement model.

	ORGB	BUSB	INTCC	EXTCC
orgb1	<b>0.917</b>	0.667	0.582	0.550
orgb2	<b>0.935</b>	0.637	0.560	0.626
orgb3	<b>0.738</b>	0.397	0.369	0.352
busb1	0.597	<b>0.868</b>	0.613	0.631
busb2	0.561	<b>0.923</b>	0.494	0.646
busb3	0.672	<b>0.956</b>	0.601	0.673
intcc2	0.555	0.617	<b>0.899</b>	0.752
intcc3	0.539	0.612	<b>0.893</b>	0.681
intcc4	0.402	0.456	<b>0.881</b>	0.615
intcc5	0.587	0.502	<b>0.862</b>	0.654
extcc3	0.424	0.663	0.667	<b>0.840</b>
extcc4	0.480	0.587	0.616	<b>0.873</b>
extcc5	0.500	0.525	0.648	<b>0.881</b>
extcc6	0.671	0.687	0.724	<b>0.878</b>

*Table 3: Factor structure matrix of loadings and cross-loadings (authors' calculations)*

Organizational and Business benefits as well as the Internal and External competitive capabilities are part of more complex constructs, that can be operationalized at a higher level of abstraction. Thus, second-order constructs were created, namely Cloud computing benefits and Competitive capabilities. To do this in PLS-SEM, a “repeated indicator” approach was performed, in which the second-order constructs Cloud computing benefits and Competitive capabilities contain all the indicators of its first-order subconstructs. This “hierarchical component model” model, as Hair et al. (2014, p. 240) state, is a higher-order structure that contains several layers of constructs and involves a higher level of abstraction. After that, the research model was analysed with the subconstructs predicting the second-order constructs.

The verification of the reliability of indicators was obtained using Cronbach's alpha coefficient, testing the contribution made by each indicator to be similar, as well as the

composite reliability coefficient which takes respective indicators into account. Convergent validity, measured by Average Variance Extracted (AVE), represents the common variance between the indicators and their construct and should be higher than 0.5 (Hair et al., 2014, p. 105). In order to confirm the discriminant validity among constructs (Fornell-Lacker criterion) the AVE square root must be superior to the correlation between constructs. Table 4. indicates the Cronbach's Alpha coefficient, Composite reliability coefficient, Average Variance Extracted (AVE) along with the square roots of the AVE (highlighted numbers in the diagonal) and the correlation between constructs.

	CA	CR	AVE	(1)	(2)	(3)	(4)	(5)	(6)
<b>COMPC (1)</b>	0.932	0.944	0.677	<b>0.823</b>					
<b>CLOUDB (2)</b>	0.895	0.921	0.664	0.739	<b>0.815</b>				
<b>BUSB (3)</b>	0.904	0.940	0.840			<b>0.916</b>			
<b>EXTCC (4)</b>	0.891	0.924	0.754			0.710	<b>0.868</b>		
<b>INTCC (5)</b>	0.907	0.935	0.781			0.621	0.766	<b>0.884</b>	
<b>ORGB (6)</b>	0.833	0.901	0.753			0.668	0.600	0.591	<b>0.868</b>

\* square root of AVE on diagonal

Table 4: Cronbach's alpha, Composite Reliability, Average Variance Extracted and Discriminant Validity of the constructs (authors' calculations)

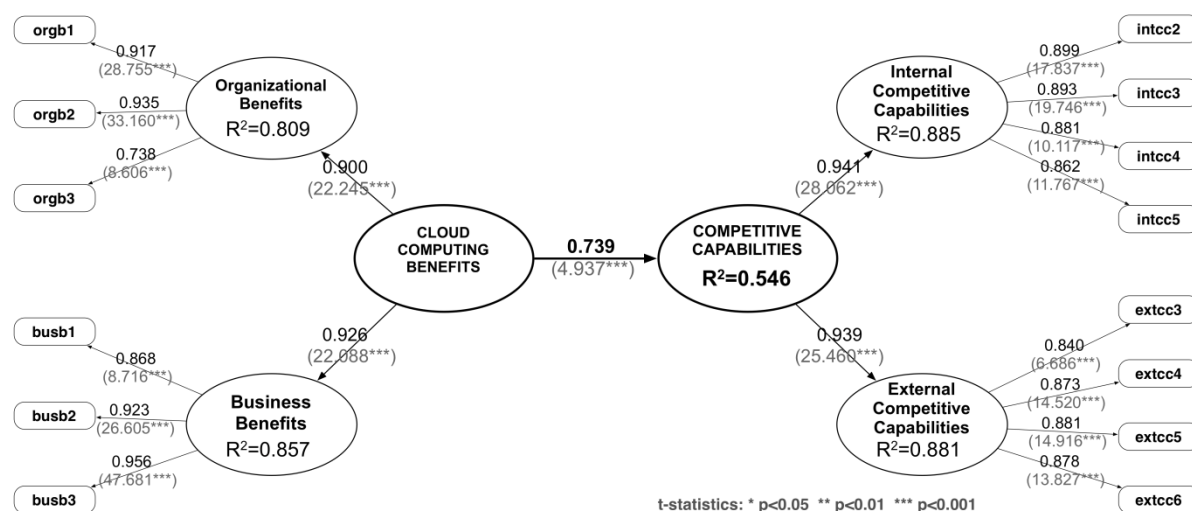


Figure 1: Research model results (authors' calculations)

After establishing the reliability for the items and the convergent and discriminant validity of the constructs, the structural model was assessed. The results of the PLS analysis are shown in Figure 1. The predictive capability of the model is satisfactory because the R-Squares are higher than 0,10; the coefficient of determination for Competitive Capabilities ( $R^2=0.546$ ) can be interpreted as moderate. The structural model shows a significant positive relationship between Cloud Computing benefits and Competitive capabilities ( $\beta=0.739$ ,  $p<0.001$ ), supporting the proposed hypothesis H1.

By adopting cloud computing, hotel companies may improve some elements of competitive capabilities. Cloud computing enables hotel companies to deliver services faster, ensures consistent quality of services and contributes to promoting services more efficiently. While cloud computing should deliver benefits to any client organization, the challenge of differentiating an organization and gaining advantage depends on development and use of internal IT-related capabilities (Garrison et al., 2012, p. 68).

Information systems affect the competitiveness of business by positively influencing the operational efficiency of operations, and in certain circumstances become drivers of innovation and change in business. The use of IT within the hotel company should reflect the strategic plan of the company. All decisions about investing in IT serve to enhance strategic value, business results and return on investment. To achieve this effect, it is necessary to make effective use of these tools and technologies and use their capabilities in ways that strengthen core competencies and positively impact competitive capabilities.

#### 4. CONCLUSION

In this study, a PLS-SEM analysis of quantitative data has supported the proposed hypothesis that Cloud computing benefits positively influence hotels' competitive capabilities. The empirical data, based on the hotel managers' perceptions and opinions, helped in the development of a model that explains the relationship between the organizational and business benefits of cloud computing, and its relation to the internal and external competitive capabilities. However, this study contains several limitations. First, the sample is very small, thus the implications of this research should be taken with caution. Second, the proposed model is based solely on managers' perceptions and opinions. Also, other dimensions of cloud computing benefits could be incorporated in future studies.

Decisions related to IT require inputs from several perspectives within the organization. Since IT spreads out throughout the entire value chain of the company, the managers of hotel organizations that want to use IT to achieve competitive advantage must focus on enterprise-wide solutions. The adoption of information technology remains one of the most important decisions to achieve growth, productivity and competitiveness in the market.

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## LOCAL POVERTY MANAGEMENT STRATEGIES OF METROPOLITAN MUNICIPALITIES IN TURKEY

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### ABSTRACT

*The main aim of this study is to evaluate poverty alleviation strategies of seven selected metropolitan municipalities in Turkey and to make suggestions about their poverty management strategies. The involvement of municipalities to the poverty problem has started in 1970's by announcing its name as "collectivist municipality". In 1980's this collectivist municipality notion has turn into "social municipality" concept and in 1990's social municipality facilities has increased mainly focusing on social aid . Since 2000's metropolitan municipalities has become mainly important institutions to alleviate poverty problem. In this study, managers and social service experts have been deeply inetrwieved in seven selected metropolitan municipality from each geographical region around Turkey. 26 managers and social service experts from 7 metropolitan city have been interviewed. Poverty alleviation strategies of these municipalities have been examined around the concept of social municipality, local governance, local development and its evaluation. At the conclusion of the study; it has been suggested some offerings about municipalities' poverty management strategies, poverty management organisation, neediness criteria, social aid types, social municipality practices, local governance practices, and the problems peculiar to metropolitan municipalities.*

**Keywords:** *Poverty, poverty management, social municipality, local development, local governance, local participation, metropolitan municipality.*

### 1. INTRODUCTION

The subject of this study are anti-poverty methods implemented by metropolitan municipalities in Turkey. Anti-poverty methods of metropolitan municipalities are analysed within the framework of social municipality concept and the new governance practices.

Involvement of municipalities of Turkey in the struggle against poverty continues since Ottomans, however this issue was handled systematically and institutionalization under the name of municipal socialism was initiated in 1970s. Municipal socialism movement initiated by municipalities from CHP (Republican People's Party-social democrat) changed name in 1980s and continued as social municipality. It gained increased importance when Welfare Party (conservative party) came into power in 1990s. Metropolitan municipalities became actors which are prominent particularly in this matter when Justice and Development Party (neo-liberal –conservative) came into power in 2000s. Private sector and third sector enterprises were involved in the struggle of municipalities against poverty starting from 1990s, and this, in turn, brought about some governance reorganizations in social relief and other social activities of municipalities.

Social municipality which developed in 1945s in western countries emerged in a comprehensive manner in Turkey in 1973 (Yildirim, 1990, p.26). Local elections held in Turkey in the same year is one of the most critical milestones. During those dates, social municipality movement initiated by municipalities of CHP was accepted gradually by municipalities of other parties. In social municipality approach, local services provided by local administrations are based on the idea of minimizing the load on the shoulders of the central government (Keles, 2000, p.37).

After 1970, social municipality practices in connection with municipal services were offered extensively to the public. Characteristics of social municipality has been determined as “productive, resource creating, democratic, participant, uniting, integral municipality protecting and supporting employees and ensuring that the income is distributed to all segments of the society” (Keles, 2000, Kesgin, 2008). Municipal socialism approach implemented by Ankara, Istanbul and Izmit municipalities of CHP in 1973-1977 has been subject to substantial changes/ transformations following the military coup on 12 September 1980 and economic and political transformation experienced at global level (Guler, 2004, p.190). The influence of the right wing increased during globalization, following the rules of the market economy became compulsory for developing countries. Cities were also affected by privatization, localization movements and underwent a series of structural changes and transformations. There has been important changes in all segments of the society including local administrations from the new right-wing in the decade following 1980. These changes were privatization and external indebtedness, governance and urban participation practices, flexible specialization for local administrations (Guler, 2004). During the same period, influence of the governance, one of the new implementation tools of the new right-wing, is observed in local administrations. Ideas of forming an urban parliament, city council and urban chamber were also brought into the agenda in the same period (Guler, 2004, p.241). In 1994, Welfare Party came into power and increased powers of the local administrations paved the way before municipalities as effective actors of local development. After 1994, local administrations started to take initiatives from creating employment to fighting with the unemployment and poverty. Municipalities realized numerous local development projects during that period (Kesgin, p.102). Municipality services entered into a new period starting from 2000s when AKP came into power. During this period, there has been substantial increase in activities of particularly metropolitan municipalities in connection social aids and the struggle against poverty. While coming to power, AKP saw poverty as the third area of struggle in addition to combatting the corruption and restrictions, thus included anti-poverty initiatives in all of its political programs and implemented this through local administrations. The new municipality laws explicitly imposed responsibilities and duties to municipalities in connection with social municipality efforts. Laws put into effect in the recent period emphasized decentralization, localization, participation and governance concept. Signing of the European Charter of Local Self Government (1998) had a great influence on the new municipality laws in connection with localizations, proximity with the public while providing services and locality and privatization activities. Local governance mentality has been focused in the recent local administration laws, interaction between the civil society and local administrations gained importance. Laws stipulate social policies as one of the responsibilities of metropolitan municipalities and specifies that municipalities are responsible for generating anti-poverty solutions. Both metropolitan municipalities and district municipalities are assigned considerable amount of responsibilities with respect to social municipality.

### **Methodology:**

In this study, qualitative and quantitative field study method, in-depth interview and observation techniques were used. Metropolitan municipalities were visited to collect the primary data, the relevant directors and experts were interviewed and resources found through literature review were used as secondary data. Municipalities visited within the scope of the study were selected among municipalities from each geographical region representing the metropolis in the best manner with respect to population, urbanization and development and attention was paid to ensure that they are from different parties. Accordingly, the following metropolitan municipalities were visited: Ankara Metropolitan Municipality (Central Anatolia-AKP), Istanbul Metropolitan Municipality (Marmara-AKP), Izmir Metropolitan

Municipality (Ege-CHP), Antalya Metropolitan Municipality (Antalya-CHP), Diyarbakir Metropolitan Municipality (Southeast-BDP), Erzurum Metropolitan Municipality (East Anatolia-AKP), Samsun Metropolitan Municipality (Black Sea –AKP). Semi-structured in-depth interviews were made with social services and social relief departments of Metropolitan Municipalities. Accordingly interviews were made with heads of social services department, vice heads of departments, managers and vice managers of social services branch, social service experts in municipalities, and some project managers and sociologists in some municipalities. Minimum 3 and maximum 8 persons were interviewed for at least 45 minutes and at most 2 hours in each municipality visited. Social services and social relief departments of municipalities were seen after visit with the purpose of making observations. A template was developed as a questionnaire form consisting of 20 questions and questions were often asked in accordance with this template during the interviews. 26 persons were interviewed in 7 metropolitan municipalities in total.

## 2. GENERAL CHARACTERISTICS OF REPRESENTATIVE METROPOLITAN MUNICIPALITIES

*Table 1. General Characteristics of Representative Metropolitan Municipalities*

Municipality	Population	Number of Borough Municipalities	Total Number of Staff Members (Officer, Contracted, Permanent Worker)	Poverty Rate (2011-Regional Income Poverty)	2011-2012 Amount of Social relief (TL)
Istanbul M. M.	13.854.737	39	13.578	% 18	166.135.000
Ankara M.M.	4.965.542	25	4039	% 13.3	93.057.817.92
Izmir M.M.	3.965.232	21	3248	% 11.9	23.700.000
Antalya M.M.	2.092.537	5	4792	% 13.7	13.836.000
Diyarbakir M.M.	1.592.167	3	808	% 15.1	454.325.00
Samsun M.M.	1.251.722	4	531	% 13.8	694.785.000
Erzurum M.M.	778.195	3	468	% 14.7	275.000,00

## 3. SOCIAL MUNICIPALITY PRACTICES OF METROPOLITAN MUNICIPALITIES

### 2.1. Social Services

#### 2.1.1. Services for Women and Families

*Table.2. Service Units of Metropolitan Municipalities for Women and Families*

Metropolitan Municipality	Units Providing Services for Women and Families
İstanbul	Health Centres for Women and Families- Istanbul Family Consultancy and Training Centres (ISADAM) (22 Centres)
Ankara	Cultural and Social Services Department- Branch Management for Women and Families, Family Life Centres (7 Centres)
İzmir	Social Project Department, Branch Management for Women`s Services
Antalya	Social Services Branch Management- Family Education and Social Services Centres (4 Centres)
Diyarbakır	Social Services Department- Branch Management for Women and Families
Samsun	N/A
Erzurum	N/A

*Table.3. Services Provided by Metropolitan Municipalities for Women and Families*

	İstanbul	Ankara	İzmir	Antalya	Diyarbakır	Samsun	Erzurum
Training-Course Services	√	√	√	√	√	√	√
Psychological Counselling and Guidance	√	√	√	√	√	√	√
Health Services	√	√	√	√	√	√	√
Women`s Shelter	-	√	√	√	√	-	-

*Table 4. Women`s Shelters of Metropolitan Municipalities and Capacities*

Municipalities	Number of Women`s Shelters	Capacity (bed)
İstanbul MM	N/A	0
Ankara MM <sup>48</sup>	1	24
İzmir MM	1	28
Antalya MM <sup>49</sup>	1	20 (women+ children)
Diyarbakır MM	1	12
Samsun MM	N/A <sup>50</sup>	0
Erzurum MM	N/A <sup>51</sup>	0

### 2.1.2. Services for Old People

The following table shows service units of municipalities for old people and the capacities of old people`s home.

<sup>48</sup> <http://www.ankara.bel.tr/genel-sekreter-yardimcisi1/kultur-ve-sosyal-sler-dairesi-baskanligi/kadin-ve-aile-sube-mudurlugu/kadinlar-siginma-evleri/>

<sup>49</sup> Directive on Practices and Principles of Women`s Shelter, Women`s Counselling Centre and Violence Help Line of Antalya Metropolitan Municipality, <http://www.antalya.bel.tr/UploadedDocuments/R.00-Kad%C4%B1n%20S%C4%B1%C4%9F%C4%B1nmaevi,Kad%C4%B1n%20Dan%C4%B1%C5%9Fma%20Merkezi%20ve%20C5%9Eiddet%20Yard%C4%B1m%20Hatt%C4%B1%20C3%87al%C4%B1%C5%9Fma%20Usul%20Esaslar%C4%B1%20Hakk%C4%B1nda%20Y%C3%B6netmelik.pdf>

<sup>50</sup> There is not any women`s shelter owned by metropolitan municipality, however there is 1 women`s shelter owned by SSCPL.

<sup>51</sup> Women`s shelter opened by Metropolitan Municipality in Erzurum has been closed due to low level of demands and the location of the women`s shelter out of the city centre (*Interviewer- 21*).

*Table.5. Service Units of Metropolitan Municipalities for Old People, Their Capacities and Capacities of Old People`s Homes.*

Municipality	Service Units for Old People	Capacities of Service Units for Old People	Capacities of Old People`s Homes
İstanbul M.M.	Alms-house	1000 persons	1000 ( persons)
Ankara M.M.	Service Centre for Old People	36.229 members	-No old people`s home owned by the municipality
	Charity Centres	-	
	Old People`s Club	6864 members	
	Shelter	70 persons	
	Information Centre for Young-Old People	-	
İzmir M.M.	Zübeyde Hanım Old People`s Home	264	264 persons
Antalya M.M.	Home care	-	48 persons
	Old People`s Home	48	
	Social Facilities for Patients and Relatives of Patients	-	
Diyarbakır	Koca Çınarlar Aged Care Home	-	-
Samsun	Centre for Aged Care Services	No limitation <sup>52</sup>	60 (50 males, 10 females)
	Old People`s Home	60 persons	
Erzurum	N/A	-	-

*Table.6. Services of Metropolitan Municipalities for Old People*

	İstanbul	Ankara	İzmir	Antalya	Diyarbakır	Samsun	Erzurum
Old People`s Home	√	-	√	√	-	√	-
Home Care	√	√	-	-	-	√	-
Social Centres (Old People`s Clubs)	√	√	√	√	√	√	√
Psychological Counselling and Guidance Centre	√	√	√	√	√	√	√

### 2.1.3. Services for Handicapped Individuals

*Table.7. Service Departments of Metropolitan Municipalities for the Handicapped*

Municipalities	Departments for Handicapped Individuals
İstanbul M.M.	Istanbul Centre for Handicapped Individuals- 23 different Centres for the Handicapped
Ankara M.M.	-Counselling Centre for the Handicapped -Service and Rehabilitation Centre for the Handicapped -Trade Centre for the Handicapped
	-Training and Technology Centre for Visually Impaired Individuals -Clubhouse for the Handicapped
İzmir	Branch Office for Social Projects and the Handicapped
Antalya M.M.	-Service Department for the Handicapped -Counselling Department for the Handicapped
Diyarbakır M.M.	-Branch Office for Handicapped Services
Samsun M.M.	-Old People`s House and Branch Office for the Handicapped
Erzurum M.M.	-

*Table.8. Services Provided by Metropolitan Municipalities for the Handicapped*

	İstanbul	Ankara	İzmir	Antalya	Diyarbakır	Samsun	Erzurum
Health, rehabilitation services	√	√	√	√	√	√	-
Psychological counselling and guidance services	√	√	√	√	√	√	-
Home care and health services	√	√	-	√	-	√	-
Transportation services (Picking- up and bringing home by vehicles)	√	√	√	√ <sup>53</sup>	-	√	-
Wheelchair, power wheelchair, white cane	√	√	√	√	√	√	√
Medical devices support	√	√	√	√	√	√	√
Social-economic relief	√	√	√	√	√	√	√
Support for relatives of the handicapped individual	√	√	√	√	√	-	-

<sup>53</sup> Antalya Metropolitan Municipality initiated “No Barriers Taxi Line” in order to ensure integration of physically handicapped citizens and meeting their certain needs. Handicapped individuals can use taxi free of charge. “No Barriers Taxi Line” has been established by Metropolitan Municipality Social Services Department with the purpose of increasing the liveability level of physically handicapped individuals using wheelchairs. No Barriers Taxi equipped with a manual ramp and in a capacity to accommodate 2 wheelchairs provided handicapped citizens with the opportunity of free transportation in order to meet their fundamental needs such as education as well as their social and cultural needs

## 2.1.4. Services for Children and Youth

*Table. 9. Departments of Metropolitan Municipalities  
Offering Services for Children and Youth*

Istanbul M.M.	-Support Services, Children, Youth and Sports Department -Children , Youth and Sports Department, Children`s Assembly - Children , Youth and Sports Department, Youth Assembly -Istanbul M.M., Health Services Department, Vocational Centre for Street Kids (ISMEM) (Istanbul Rehabilitation and Vocational Centre for Youth)
Ankara M.M.	-Branch Office for Social Services, Youth and Children -Children Services -Youth Services -Children Clubs -Children`s Assembly -Children Care Centres -Centre for Children Working on Streets -Science Centre -Youth Centres (9 boroughs)
Izmir M.M.	-Children and Youth Centre -City Council Children and Youth Assembly -Social Support and Training Centres -City Council Children and Youth Assembly
Antalya M.M.	-Social Services Department, Branch Office for Social Services- Children and Youth House, Social Facilities, -Cultural and Social Affairs Department, Branch Office for Sport Services -Conservatory Branch Office -Theatre Branch Office -Public Education Branch Office
Diyarbakır M.M.	-Social Services Department, Branch Office for Children and Day-care Services
Samsun M.M.	-Cultural and Social Affairs Department
Erzurum M.M.	-Social Centres of the Metropolitan Municipality

Analysis on services, projects and activities aimed at children and youth shows that services aimed at problems of children and problems of youth are given weight in metropolitan cities (Istanbul, Diyarbakır and Erzurum). Istanbul Metropolitan Municipality, Istanbul Youth and Rehabilitation and Vocational Centre provide young individuals with the opportunity of vocational education and accommodation with the purpose of minimizing the problems of street children.<sup>54</sup> Projects addressing unemployment problems in Erzurum and Diyarbakır focus on activities aimed at employment of the young individuals. Various trainings and employment opportunities were provided from office management to construction works to young individuals in Erzurum within the scope Social Integration Project.

Courses and various training activities are the most common activities of the municipality when children and youth are in question. Each municipality provides children and young individuals with the opportunity to join social activities and courses where they can be educated and gain hobbies. Each of the analysed cities offer day-care and pre-school services. When services are categorized; pre-schools, youth centres, hobby courses (painting, music, language, sports, etc.), vocational courses (computer, accounting, construction) are services offered by all municipalities. Children theatres are also one of the common services offered by all municipalities. Some different projects and practices were seen in some municipalities. Ankara Metropolitan Municipality established laundry centres in three boroughs for young individuals. Istanbul Metropolitan Municipality Youth and Rehabilitation and Vocational

<sup>54</sup><http://www.ibb.gov.tr/SITES/SAGLIKVESOSYALHIZMETLER/DARULACEZE/Pages/%C4%B0SMEM.aspx>, Erişim T.: 29.04.2014



Centre (ISMEM) provides young individuals with the opportunity of vocational courses and accommodation with the purpose of minimizing problems of street children.<sup>55</sup> Antalya Metropolitan Municipality converted municipality dwellings into social facilities and established a House for Children and Young Individuals with the purpose of solving accommodation problems of students in Antalya which is also a student city.<sup>56</sup> In Samsun, a Children's Village project has been completed by Cultural and Social Affairs Department and there is an ongoing Science and Technology Centre Project.<sup>57</sup>

## 2.2. Social Aids

In Turkey, a large part of social aids are provided by municipalities. Social relief is locally seen as an important tool in combatting poverty and it became main material of local politics. Municipalities offering social relief collect more votes in local elections and this leading position increases gradually with every local election. In this section, social aids provided by municipalities within the scope of this study and findings obtained from in-depth interviews shall be presented.

Social aids provided by municipalities are classified in two groups which are in-kind relief and financial relief.

### 2.2.1. In-kind Aids

The most frequent relief provided by metropolitan municipalities in in-kind relief category is the food aid provided with the purpose of meeting basic needs. Food aids are distributed by municipalities by either distributing food boxes or by means of shopping coupons.<sup>58</sup>

Another aid that can be considered within the food aid category is iftar tents opened during Ramadan Feast and the Feast of Sacrifice. One of the most fundamental practices within the scope of food aid is distributing free bread and public bread kiosks. Apart from food aid, one of the most frequently implemented aids is education and stationary aids. It was seen that municipalities do not provide sufficient level of aids such as rental, social accommodation aids, etc., for accommodation which is accepted as one of the most fundamental needs. Municipalities also provide aids such as household goods and clothing. One of the most prominent social aids is medical devices and tools and instruments aids provided to the handicapped individuals. In consideration of social relief categories (see, Table 10), the most common social relief provided by municipalities is food aids. Each of the analysed municipality provide food aid by means of distributing food boxes, serving food regularly in food banks, public bread kiosks, Ramadan and iftar tents. Medical devices and tools-instruments aids provided to handicapped individuals correspond to the same percentage as food aids. Each of the analysed municipality provide wheelchair, white cane, patient care

<sup>55</sup> <http://www.ibb.gov.tr/SITES/SAGLIKVESOSYALHIZMETLER/DARULACEZE/Pages/%C4%B0SMEM.aspx>, Erişim T.: 29.04.2014

<sup>56</sup> <http://emlakkulisi.com/antalya-cocuk-ve-genclik-evi-sosyal-tesisi-acildi/168559>

<sup>57</sup> <http://www.samsun.bel.tr/proje-detay.asp?SayfaId=35>,  
<http://www.samsun.bel.tr/haber-detay.asp?NewsId=1423>, 29.04.2014.

<sup>58</sup> Shopping coupons are given in Istanbul and Erzurum. Citizens go to shopping centres contracted by the municipality and buy food of their choice except for alcohol and tobacco products within the limit of their shopping coupons (each shopping coupon is 25 TL). The reason for choosing this practice is to prevent hurting feelings of individuals by distributing food boxes to houses and allow citizens to decide what to buy and what they need. During interviews made in connection with this practice, criticism was expressed stating that shopping coupons do not always serve to the recipients, they can be passed into other hands quickly and abused. In consideration of the fact that food boxes delivered in person are difficult for passing into other hands and converting into cash, thus interviews made in Ankara Metropolitan Municipality, it was stated that women and children play a great role in reducing the poverty.

materials (bandages, disposable underpad, etc.) for the handicapped. Third most frequently provided aid is second-hand goods and clothing aids. 71% of the analysed municipalities; in other words 5 out of 7 municipalities provide clothing aid. Goods and clothing aid is followed by social accommodation and rental aids. 42% of the municipalities provide social accommodation and rental aids (approximately 3 out of 7 municipalities). Social accommodation aid is followed by fuel aid with 28%. The reason of the relatively lower percentage with the fuel aid is the fact that this aid is undertaken by district governorships and governorships in cities.

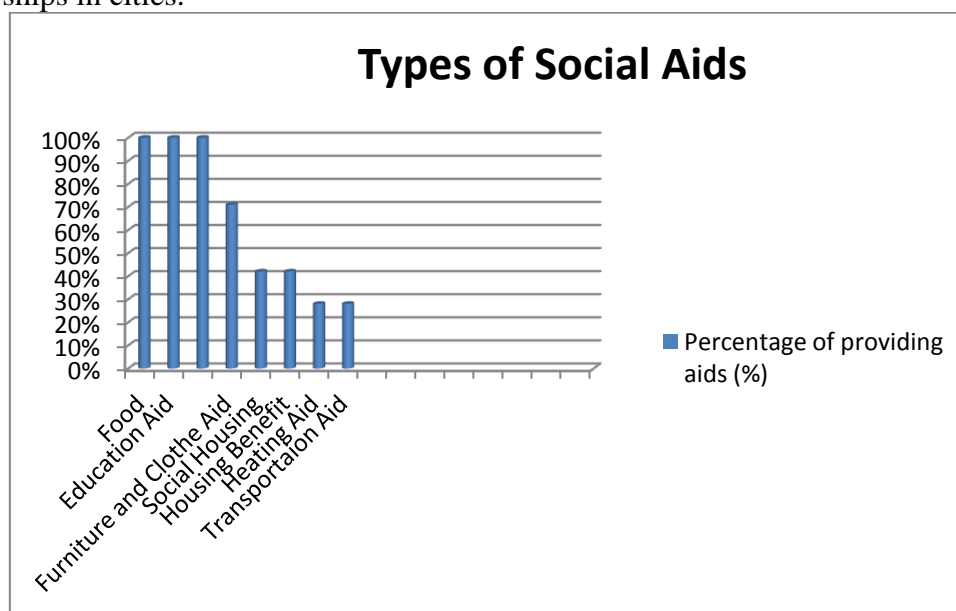
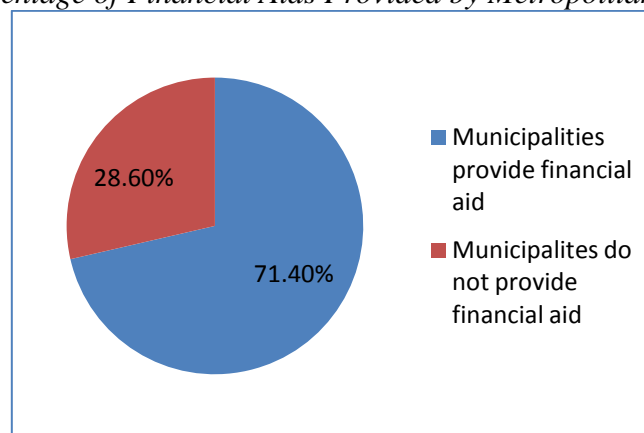


Table.10. Types of Social Aids and Percentages by Metropolitan Municipalities

### 2.2.2. Financial Aids

5 of the analysed municipalities provide financial aid; however the remaining 2-Ankara and Erzurum do not provide financial aid due to legal reasons (municipal ordinance do not allow). Amounts of financial aids provided by municipalities vary based on their budgets and the population they address. There is not any standard financial aid determined by each municipality and provided regularly. Information obtained from the visited municipalities show that the following financial aids are provided by municipalities:

Figure.1 Percentage of Financial Aids Provided by Metropolitan Municipalities



İstanbul M.M.	Financial aids are considered in 4 categories: 1. Families with no income. Number of such families is low and aid is provided to these families five times in one year. 2. Families with very low income, number of aids provided in one year; 3 times, 3 <sup>rd</sup> Group: families with low income receive financial aid two times a year. The amount of aid is 300 TL at each time.
Ankara M.M.	No financial aid is provided.
İzmir M.M.	Financial aids are provided two times a year during Ramadan Feast and the Feast of Sacrifice. Each family is provided with 150 TL at each time. Number of families registered for aid: 26.000-27.000.
Antalya M.M.	Amounts and periods are variable. At most 2 times a year per family. Amounts vary based on the social status of families.
Diyarbakır M.M.	2% of the municipality budget: 450.000 TL is used for financial aids. This amount is divided between families. On average, 100 TL is provided to each family one or two times a year.
Samsun M.M.	Once or twice a year, amounts provided to each family vary between 200 TL and 600 TL.
Erzurum M.M.	No financial aid is provided.

*Table.11. Financial Aid Conditions of Metropolitan Municipalities*

İstanbul M.M.	166.135.000 (TL) <sup>59</sup>
Ankara M.M.	93.057.817.92
İzmir	23.700.000
Antalya	13.836.000
Samsun	694.785.000
Diyarbakır	454.325.000
Erzurum BŞB (2012)	355.600,000

*Table.12. Annual Amount of Social Aids Provided by Metropolitan Municipalities (2012-2013)*

### 3. FINDINGS OF IN-DEPTH INTERVIEWS

#### 3.1. Definitions of Municipalities for Poor Persons and Poverty Perceptions of Interviewers

Perhaps, one of the most important problems related with the criteria of being a needy-indigent person is how poverty is defined. There is no doubt that it effects and shapes the aid programs that are developed accordingly. Within the framework of questions asked to interviewers, poverty definitions were analysed in accordance with the general rules set out by municipalities and poverty perceptions of administrators and social researchers. Answers given to “What is poverty?” and “How does your municipality define poverty?” questions that were asked to interviewers reflected regional and local differences. In metropolitan cities such as Istanbul and Ankara, urban poverty is emphasized while absolute poverty is prominent in relatively smaller cities such as Diyarbakir and Erzurum accommodating higher number of poor people. Ankara Metropolitan Municipality provided the most strict and significant definition and standards for poverty. A scoring system has been developed in accordance with the income scale created during visits and house inspections and decisions on aids have been based on such standards. Examples except for Ankara Metropolitan Municipalities rely on urban, comparative and absolute poverty definitions. Varying poverty perceptions are considered normal based on local requirements. Interviews showed that most interviewers have the basic academic knowledge in connection with poverty.

<sup>59</sup> \$1=2,11 TL

### 3.2. Social Municipality and Governance: Private Sector, Civil Society and City Councils

Findings showed that social services and aids analysed within the scope of social municipality practices are provided by means of privatization and sub-contracting and some services are provided with the intermediary of associations and foundations. Another subject that is worth analysing with respect to social municipality is the role and contribution of non-profit organizations in carrying out social aids and aids. In the new era, most of the municipalities collaborate and communicate with national and international non-profit organizations. Particularly Europe Union accession process of Turkey has a great influence. With Local Agenda 21<sup>60</sup>, many municipalities benefited from grant schemes of UNDP and some international organizations, thus they developed and still continue to develop projects for social development. In some developing cities, for example in Diyarbakir and Erzurum within the scope of our study; social services buildings and campuses accommodating social centres, other buildings and tools-equipment were developed with the support of EU funds within the framework of Local Agenda 21. In cities, attempts are made to increase activities of the civil society by establishing City Councils. Within the scope of our study; it was seen that city councils work in close collaboration with some municipalities and social municipality efforts play an important role in maintaining the civil society part. For example, Izmir City Council, is associated with Izmir Metropolitan Municipality, Social Projects Department in consideration of organizational structure and mayor is the president of Izmir City Council. Diyarbakir City Council is located in the same campus as Social Services and maintains the continuous communication. Antalya and Ankara city councils contribute through providing guidance for efforts of the municipality. Erzurum is the only city lacking a city council among other municipalities analysed in this study. In interviews, it was stated that initiatives were taken with this purpose but they could not be finalized. City councils establish a bond between non-profit organizations and municipalities. In some municipalities, their budget is provided by the municipality and in others, city councils are independent and their essential responsibility is to inform demands of civil society to the municipality. In city councils consisting of an executive board under the command of vice general secretary, a president and assemblies of children, young individuals, women, handicapped and old people, each assembly hold meetings with certain intervals in order to discuss needs of the public and they present them to the executive committee in a report. Executive committee forwards this report to the municipality and municipality considers these demands. It is possible to say that actively working city councils contribute to deliberative democracy and the development of local democracy in this process.

## 4. CONCLUSION

### 4.1. Social Municipality: Definition, Perception and Practices

In consideration of the definition of social municipality and the relevant perceptions, in-depth interviews revealed different opinions and practices about social municipality with respect to political origins of municipalities and local-regional discrepancies. Social municipality practices of social-democrat municipalities of CHP in the shoreline are continuance of municipal socialism in the past and it is carried out in accordance with the spirit of that

<sup>60</sup> Local Agenda 21 was initiated by the end of 1997, with "Promotion and Development of Local Agenda 21s in Turkey" implemented with the support of UNDP and under coordination of International Local Administrations Union in Turkey, East Mediterranean and Middle Eastern Organization. The essential aspect of this evolvement called Local Agenda 21 and implemented together with UN Development Program (UNDP) in our country together with other examples in Europe is about bringing local administrations of cities and civil societies with the purpose of determining the city agenda and to promote both deliberative democracy and environmental and life quality. <http://www.mfa.gov.tr/yerel-gundem-21.tr.mfa>

tradition. On the other hand, municipal projects are dominant in social municipality practices of these municipalities, efforts are made to carry out former municipal socialism practices together with the projects. At this point, governance of left-wing municipalities is implemented and reflected to municipal socialism approach, on the other hand, there are efforts to maintain practices of social municipality and these efforts are also carried out based on the projects. On the other hand, in Ankara Metropolitan Municipality which is a municipality from right-wing AKP, interviewed social relief officer stated that they do not have positive opinions about municipal socialism.

Another approach observed in social municipality practices is the fact that social municipality and social relief are considered identical. This approach observed mainly in Ankara and Istanbul Metropolitan Municipalities is reflected to all services from social services to organization of aids. For examples, in Ankara Metropolitan Municipality: the response given by social aids branch office to the question “According to you, what is social municipality?” was: “It is exactly what we do, our practices are social municipality practices.”, thus it indicates the approach “social municipality means social relief”.

Similarly, organization of social services and social aids in Istanbul M.M. shows that developing and growing social aid bureaucracy is further than social services bureaucracy, only social relief unit remains as the sole department under social services. Only unit working under Health and Social Services Department, Social Services Branch in Istanbul is the unit responsible for in-kind and financial aids. Other social service units such as units providing services for old people and handicapped individuals are operating as separate units.

#### **4.2. Social Municipality Organization: Distinction between Social Services and Social Aids**

A distinction should be made between social services and social aids in the organizational structure and it should be underlined that social relief is a supplementary aspect of social services. Yet, social services are continuous, based on rights, sustainable and preventive while social aids serve as a relief mechanism rather than preventive mechanism, they are temporary and respond to needs and they are not based on rights. Role distribution of municipalities for social services and aids should be as follows: social services should be common, social aids should be supplementary aspect of the collaboration between associations and third organizations in the sector. Keeping social aids more important than social services or seeing municipalities as organizations distributing only social aids and the presence of such a perception lead to a decline in fundamental health and social services based on rights and offering preventive aspects.

#### **4.3. Definitions of Poverty and Criteria of Being Needy-Indigent**

It was understood that local and regional differences reflect to poverty perceptions of interviewers as a result of studies carried out with the purpose of determining definitions and perceptions of municipalities and the poverty criteria followed by municipalities while distributing social aids and determining recipients. It indicates that municipalities develop a definition based on poor people they address to and type of poverty they encounter. New participatory practices aimed at combatting the poverty provide support in determining local poverty, drawing poverty maps of cities and setting out policies based on the local poverty level.

It was understood that each municipality analysed in consideration of poverty criteria and in-kind and financial aids follow a general scheme, however there are local discrepancies in terms of the content and the way of distributing the aids and number of persons who are delivered such aids. Despite the fact that it was an expected outcome of this study, we could

recommend that social researchers should be provided internal trainings in order to make them have a good command on definitions and concepts in connection with the poverty. 19 out of 26 social researchers and social services experts we interviewed stated that they think it is not right to set out certain standards in connection with the poverty. Instead, it was emphasized that there should not be substantial differences in reports of social researchers carrying out subjective observations created with the purpose of determining houses in need of social aid based on their experiences and education levels, therefore it is important to support social service and social researches with internal trainings.

#### **4.4. Advantages- Disadvantages of Metropolitan Municipalities In Connection With Social Municipality**

6 out of 7 interviewed municipalities stated that disadvantages are in majority in consideration of advantages and disadvantages experienced by metropolitan municipalities while providing social services and aids and problems specific to their municipalities.

It was observed none of the municipalities including the most prominent ones (Istanbul and Ankara) provide social aids voluntarily and readily. It was observed that municipalities undertook such services with some challenges and in fact, they struggle in continuing such services. At this point the question “Do you think municipalities should undertake this duty?” was asked to interviewers in municipalities and 10 out of 12 executive interviewers in 7 Municipalities said yes, and one of them said yes based on the condition that involving the third sector and one of them said no.

There is a common idea that municipalities would be better in providing such services when compared with the central government. There are also some ideas stating that social aids should be distributed by the government and municipalities should undertake a complementary role.

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## **IMPENDING FACTORS TO VALUE ADDITION IN THE VALUE CHAIN OF SWEET POTATO (*Ipomoea batatas* (L.) Lam) IN OSUN STATE, NIGERIA**

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### **ABSTRACT**

*Value addition of sweet potato has received comparatively little attention in Nigeria despite its potential to reduce perishability and enhanced utilization of the crop in diverse forms. This study assessed impending factors to value addition of sweet potato in Osun State, Nigeria. Multi-stage random sampling technique was used to select 140 respondents for the study. Data obtained were analyzed using descriptive statistics and Pearson Product Moment Correlation (PPMC). Findings showed that majority (75.00%) of the respondents were male with mean age of the 42.20 years and 95.70% of the respondents had formal education. 60.70% of the respondents had more than 10 years farming experience. The mean farm size was 2.20 hectares. Majority (77.90%) of sweet potato farmers had high knowledge in sweet potato production and relied on information from their fellow farmers, friends and farmers' union. Sweet potato farmers sold their sweet potato tubers by displaying and persuading customers. Sweet potato value addition was affected by inadequate finance, low farmers knowledge on sweet potato value addition, inadequate extension service support, high cost of processing equipment, bulkiness and perishable nature of sweet potato, too much focus/attention on other root and tubers among others. Correlation analysis showed that significant relationship existed between constraints ( $r=0.17$ ,  $p<0.05$ ) and value addition of sweet potato. The study concluded that impending factors had influence on value addition to sweet potato. It was recommended that sweet potato farmers should be empowered through effective and efficient extension training on the use of the modern processing techniques in order to enhance value addition of sweet potato.*

**Keywords:** *Impending factors, Knowledge, Marketing strategies, Value addition, Sweet potato.*

### **1. INTRODUCTION**

Every enterprise is positioned in a value chain (United Nation International Labour Organization, 2009). The value chain describes the full range of activities which are required to bring a product or service from the initial conception through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use (Kaplinsky and Morris, 2011). As opposed to the traditional exclusive focus on production, the concept stresses the importance of value addition at each stage, thereby treating production as just one of several value-adding components of the chain (UNIDO, 2009a). Value chains can be restricted to local markets, but do also expand globally. This is just as true for small and medium-sized enterprises in developing countries as it is for enterprise in Europe and North America (UNIDO, 2009a). Value chain of sweet potato includes all the actors from input suppliers (appropriate varieties, vines) to farmers, traders and consumers (Low *et al.*, 2007).



Sweet potato ranks among the most seventh important food crop after wheat, rice, maize, barley, and cassava in Nigeria and constitutes a substantial source of carbohydrates and carotene (FAO, 2002; CIP, 2003). The production and cultivation of sweet potato is on the increase in Nigeria (Afuape, 2006). Its production rose from 2.52 million metric tonnes in 2006 to 3.40 million metric tonnes in 2007 (Srinivas, 2009). It can be grown three times a year, has a high yield potential, high nutritional value, resistance to production stress, environmentally friendly with diverse food forms among others (Ikewelle *et al.*, 2001 and Kays, 2004). The crop has moved up from the minor status to an enviable position of being the fourth most important root and tuber crop in Nigeria after cassava, yam, and cocoyam. Sweet potato is an important food crop in Nigeria that is valuable in the diet of rural crop rural poor in the tropics (Odebode, 2004). It is a low input crop and it is used as a vegetable, a dessert, source of starch and animal feed, eaten as a substitute for yam as a result of lower cost of production. The high nutritive value and performance under resource-poor condition make it attractive to farmers and households (Njoku, 2007). Sweet potato has a high yield potential that may be realized within a relatively short growing season and it can adapt to a wide range of ecological conditions. Sweet potato is a bulky and a highly perishable root crop, hence the most economic way to deal with this challenge is through adding value to the crop by processing it into different products forms such as sweet potato flour, sparrri, sweet potato bread and sweet potato chips that will further generate income to the farmers, increase consumers' consumption and acceptability allows its transportation over a long distance and also increases the shelf life of the crop. Therefore, processed sweet potato products through value addition that is targeted at all income groups would break the image of sweet potato as a poor man's food. Sweet potato can be boiled, fried or roasted. In the semi-arid zone, its flour is popularly used for sweetening local food and beverages (*kunu*, *burukutu*) while in the urban markets of the humid south, the fried chips are produced and marketed as snacks (Odebode, 2004). Despite the clear potential of sweet potato in helping to meet Nigerian's food needs, full exploitation and utilization of sweet potato is still being constrained by its bulkiness, perishability, low farmers knowledge on its value addition, as well as low consumer acceptability. Also, sweet potato production is affected by inadequate finance and inadequate extension visit and training. This study thereby intends to assess impending factors to value addition in the sweet potato (*Ipomoea batatas* (L.) Lam) value chain in Osun State, Nigeria. Specific objectives of this study were to:

1. describe the socio-economic characteristics of the respondents in the study area.
2. assess the knowledge level of respondents of sweet potato production in the study area.
3. identify farmers' sources of information to sweet potato production in the study area.
4. describe various marketing strategies adopted for sweet potato in the study area.
5. identify the impending factors militating against sweet potato production and value addition in the study area.

**H<sub>01</sub>:** There is no significant relationship between impending factors and sweet potato value addition in the study area.

## 2. MATERIALS AND METHOD

This study was carried out in Osun State, Nigeria. Osun State was carved out of Oyo State on the 27<sup>th</sup> of August, 1991. It lies between latitude 4°30'E and longitude 7°30'N. The population of Osun State is estimated at 3.4 million (NPC, 2006). The state occupies a land mass of approximately 8,602km<sup>2</sup>. Major ethnic group in Osun state is the Yorubas with sub-ethnic groups such as Ife, Ijesja, Oyo, Ibolo and Igbomina. The state is divided into Thirty (30) Local Government Areas (LGAs). There are 3 agricultural zones (Iwo, Osogbo, and Ife/Ijesha). The study area has a bimodal rainfall pattern which reaches its peak in July and

September, it comprises of mostly agrarian communities which engage in farming activities. Crops grown in the State include, yam, sweet potato, maize, cassava, cocoyam, cowpea, tobacco, palm produce etc. Multistage sampling technique was used in the selection of respondents for this study. The first stage was the purposive selection of two (2) zones namely Osogbo and Ife/Ijesha zones from the three zones in Osun State. These zones were purposively selected based on the prevalence of sweet potato production by virtually every household in the communities. Twenty-five percent (25%) of the blocks was selected from the chosen zones, this gave an equivalent to five (5) blocks from Osogbo and (6) blocks Ife/Ijesha zones. Furthermore, twenty percent (20%) of the cells from the chosen blocks were selected this gave rise to 43 cells; the last stage involved the selection of 12% of the registered sweet potato farmers from the chosen cells. Thus, a total of 140 respondents were interviewed for the study.

### **2.1. Data collection**

Data for the study were collected through the use of a well-structured interview guide. The instrument was subjected to face validity involving experts in Agricultural Extension and Rural Development and Agricultural Administration Department, their criticism and suggestions were positively utilized for a more valid instrument. The reliability test for the instrument was conducted using test re-test method. Administration of the instrument was done for twenty sweet potato farmers who were not included in the actual study sample.

### **2.2. Measurement of variables**

Age, household size, farm size and farming experience were measured at interval level while sex, educational level and marital status were measured at nominal level. Knowledge level of the respondents was measured by using a combination of different production practices ranging from sweet potato land preparation, planting, fertilizer application, weeding, harvesting, marketing, processing into various product forms and storage. Respondents were asked to indicate the appropriate source of information on sweet potato production and frequency of use. Marketing strategies were measured at nominal level as: by displaying their sweet potato for sale (1) discount sales (2), persuading customers (3), advertising through media (4), constraints to level of awareness were ranked in order of severity as Very serious, Moderately serious and Not serious with a score of 3, 2, and 1 respectively.

### **2.3. Data analysis**

Descriptive statistics such as frequency distribution, percentages and mean were used to analyze the objectives while Pearson Product Moment Correlation (PPMC) was used to analyze the hypothesis of this study.

## **3. RESULT AND DISCUSSION**

### **3.1. Socio-economic characteristics of the respondents**

Result in Table 1 showed that the mean age of the respondents was 42.20 years. Majority (85.70%) of the respondents were less than 50 years of age, thus revealing the presence of respondents that are economically active. This is also in line with Oladoja *et al.*, (2006) who states that most Nigerian farmers are within this age group and they are the economically active part of the population. Majority (75.00%) of the respondents were males while few (25.00%) were female. This shows the dominance of the male farmers in the sweet potato production. This finding indicates that since most farming work or activities is energy demanding, hence men tend to be more involved in production while marketing and processing of food crops are often the chores of women (Adisa and Okunade, 2005). Many

(78.60%) of the respondents were married while 8.60% were single and 12.80% were separated. Almost all (95.70%) the respondents had one form of formal education or the other, while only a relatively small proportion (4.30%) of the respondents had no formal education. This shows that a good number of the respondents are literate and this will affect the rate of their adoption of new innovations on sweet potato production, marketing, processing and ultimately value addition of crop. The findings of this study further showed that 58.60% of the sweet potato farmers had between 6-8 people in their household while 29.30% had less than 5 people and 12.10% had above 9 persons in their household. This indicates that the household size of respondents was relatively large. Large household size is in agreement with the earlier findings of Ezeano (2005), that sweet potato farmers control large household size which gave them advantages of employing them in different farming operations. The mean year of farming experience for sweet potato was 12.14 years. The result also indicated that 60.70% of the respondents had been in the sweet potato farming for more than 10 years while 12.10% of the respondents had been in sweet potato farming for more than 20 years. This further shows that sweet potato production is not a new enterprise to the farmers in the study area. The mean farm size was 2.20 hectares. Most (92.10%) of the respondents cultivated less than 4 hectares while 7.90% cultivated above 5 hectares of farm land. The implication of this is that sweet potato farmers in the study area operated mostly on a small scale production, hence result supports the findings of Fawole, (2007) which states that many sweet potato farmers cultivate less than 3 hectares of land in Offa, Kwara State, Nigeria. Many (63.60%) of the respondents were into full-time sweet potato farming while 36.40% of the respondents were part-time sweet potato farmers.

*Table 1: Distribution of respondents by their socio-economic characteristics (n=140)*

Variables	Frequency	Percentage	Mean
<b>Age (years)</b>			
Below 30	9	6.40	42.20
30 – 39	28	20.00	
40 – 49	83	59.30	
50 above	20	14.30	
<b>Sex</b>			
Male	105	75.00	
Female	35	25.00	
<b>Marital status</b>			
Single	12	8.60	
Married	110	78.60	
Others	18	12.80	
<b>Educational status</b>			
No formal education	6	4.30	
Primary Education	40	28.60	
Secondary education	78	55.70	
Tertiary	16	11.40	
<b>Household size</b>			
Less than 5	41	29.30	7.00
6 – 8	82	58.60	
9 above	17	12.10	
<b>Farming experience</b>			
Less than 10	38	27.20	12.14
10 – 19	85	60.70	
20 above	17	12.10	
<b>Farm size (ha)</b>			
1-2	102	72.80	2.20
3-4	27	19.30	
5 above	11	7.90	
<b>Farming status</b>			
Full time	89	63.60	
Part-time	51	36.40	

Source: Field Survey, 2012

### **3.2. Knowledge level of the respondents on sweet potato production**

Knowledge level of sweet potato farmers in the study area were determined using 20 items ranging from site selection, planting dept, sweet potato tillage practices, planting materials, fertilizer application, harvesting, storage and products forms. Based on the above, result of the findings in Table 2a indicates that many (78.60%) of the respondents agreed that suitable site for sweet potato cultivation should not be in a water logged soil, (83.60%) of respondents indicated that soil dept of 20cm is satisfactory for sweet potato while all (100%) of the respondents indicated that sweet potato planted on ridges produce higher yields. This is in line with the findings of Ezeano, (2005) which indicates that planting sweet potato on ridges produces higher yields and gives room for easy management. Farmer's knowledge on sweet potato production was also ascertained based on vines as best planting materials for sweet potato as revealed in the results in Table 2a that most (89.30%) of the respondents are well knowledgeable and acquitted with vines as the best planting materials for sweet potato. Also, almost all (93.60%) supported that sweet potato tubers matures when leaves/stems/vines developed yellow colour or dries off.

So also, very many (80.00%) of the sweet potato farmers agreed that bruising during harvesting and transportation should be avoided as this predisposes the tubers to pathogenic organism which will ultimately lower the shelf live and reduce the economic value of sweet potato. The study further sampled the knowledge level of the farmers on the storage of sweet potato tubers after harvesting, since sweet potato is a bulky and highly perishable tuber crops, it is necessary for farmers to store them if it is not meant for sale or immediate consumption. Majority (75.70%) of the respondents indicated that storage of sweet potato tubers can be in pits with ashes, straw or dry grasses spread on them, while only a few (24.30%) did not have knowledge of this storage method/option for sweet potato. Respondents (76.40%) indicated that piece meal harvesting of sweet potato is an indigenous practice on sweet potato farms which ultimately reduces losses due to weevil attack. Furthermore, adding value to sweet potato through washing of the tubers after harvesting is a prerequisite and it enhances the marketability and acceptability of sweet potato to the consumers as revealed by 57.90% of the respondents. Result in table 2b showed that 77.90% of the sweet potato farmers have high knowledge of sweet potato production. This implies that the farmers are not new in sweet potato farming in the study area (Fawole, 2007). Also, 18.60% and 3.50% of the respondents had a moderate and low knowledge of sweet potato production respectively.

*Table 2a: Distribution of respondents by their knowledge level on sweet potato production (n=140)*

S/N	Items	True (2)	False (1)
i.	Suitable site for sweet potato cultivation should not be in a water logged soil.	110(78.60)	30(21.40)
ii.	Soil depth of 20cm is satisfactory for sweet potato.	117(83.60)	23(16.40)
iii.	Sweet potato requires minimum tillage practices to ensure adequate yield and better tuber formation.	120(85.70)	20(14.30)
iv.	Sweet potato planted on ridges produce higher yields.	140(100)	0.00
v.	Sweet potato is a suitable intercrop crop and it obstructs erosion	100(71.40)	40(28.60)
vi.	Yield in sweet potato declines drastically once intercrops suppress the sweet potato crops	101(72.10)	39(27.90)
vii.	Vines are the best planting materials for sweet potato	125(89.30)	15(10.70)
viii.	Soil for planting sweet potato should be rich in organic matter	94(67.10)	46(32.90)
ix.	Crops rotation controls the spread of sweet potato weevil.	86(61.40)	54(38.60)
x.	Fertilizer application should be done 4 weeks after sweet potato establishment on the field.	79(56.40)	61(43.60)
xi.	Spraying herbicide is the best weed control method for sweet potato	83(59.30)	57(40.70)
xii.	Tubers are mature when leaves/stems/vines develop yellow colour or dries off.	13(93.60)	9(6.40)
xiii.	High yield from Sweet potato decline when inter cropped with tuber crops such as cassava, yam, cocoyam etc.	95(76.1)	45(23.9)
xiv.	Bruising during transportation should be avoided as this predisposes the tubers to pathogenic organisms.	112(80.00)	28(20.00)
xv.	Storage of sweet potato tubers can be in pits with ashes, straw or dry grasses spread on them.	106(75.70)	34(24.30)
xvi.	Harvested sweet potato tubers can keep long by processing it into diverse products forms such as sweet potato flour, sweet potato chips etc.	88(62.90)	52(37.10)
xvii.	Piece meal harvesting is an indigenous practices which may reduce weevil attack on sweet potato farms	107(76.40)	33(24.30)
xviii.	Harvesting should be preferably done on rain-free days to enable the tuber dry on the bed.	77(55.00)	63(45.00)
xix.	Prior to marketing of sweet potato the tubers must be adequately washed to look attractive to the consumers.	81(57.80)	59(42.10)
xx.	Decline in sweet potato production can be attributed to low knowledge of the farmers on sweet potato value addition/product forms.	80(57.10)	60(42.90)

Source: Field Survey, 2012

Values in parenthesis are percentages

*Table 2b: Categorization of farmers' knowledge level of sweet potato production (n=140)*

Knowledge level	Frequency	Percentage (%)
High knowledge	109	77.90
Moderate knowledge	26	18.60
Low knowledge	05	3.50

Source: Field Survey, 2012

### 3.3. Farmer's sources of information on sweet potato production

Information is one of the most valuable resources for the development and progress of any enterprise. Abiona, (2010) opined that farmers sources of information have influence in the decision to accept or reject a technology. This study identified various sources of information available to respondents in the study area on sweet potato production. Sources ranging from fellow farmers, extension agents, friends and neighbors, farmers union, health workers, radio/television, research institutes, internet and newspapers/magazines. Results in Table 3 revealed that most (78.60%) of the farmers always got their formation on sweet potato production from fellow farmers. This indicates that farmers in the study area relate well with each other, hence, information regarding sweet potato production is well circulated among the fellow farmers. Farmers union (84.30%) (POGMAN) played a very significant role in sourcing information on sweet potato production among its members. Information ranging from new varieties, its characteristics and advantages, time of planting and harvesting, marketing and utilization, and value addition of sweet potato are disseminated to their members. In another vein, many (77.10%) of the respondents always source their information on sweet potato from their friends and neighbor, while only a few (15.20%) never did. This is in line with the findings of Mmasa *et al.*, (2013) that sweet potato farmers' source information majorly through their friends and fellow farmers. Majority (75.70%) of the respondents did not get information on sweet potato production from radio/television in the study area, also 72.20% of the farmer never source information on sweet potato production from extension agents while only a few (10.70%) got their source of information occasionally from extension agent in the study area. It implies that Extension services have not been an effective means for sweet potato farmers to source information from, which is quite detrimental to value addition of sweet potato in the study area. This implies that extension services is not well rendered in the study areas to the sweet potato farmers and as such have not been an effective source of information to the farmers. This is detrimental to sweet potato production and value addition because the innovation from researchers will not get to the farmers in the study area.

*Table 3: Farmers' sources of information on sweet potato production (n=140)*

Variable	Always (3)	Occasionally (2)	Never (1)	Mean
Fellow farmers	110(78.60)	18(12.80)	12(8.60)	2.70
Extension agents	15(10.70)	24(17.10)	101(72.20)	1.38
Friends and neighbour	108(77.10)	10(7.10)	22(15.20)	2.60
Farmers union	118(84.30)	12(8.60)	10(7.10)	2.80
Health workers	12(7.10)	24(17.10)	104(74.20)	1.34
Radio/television	08(5.70)	26(7.7)	106(75.70)	1.30
Research institutes	04(2.90)	02(1.40)	134(95.70)	1.07
Internet	03(2.10)	05(3.60)	132(94.30)	1.09
Newspapers/magazine	06(4.30)	09(6.40)	125(89.30)	1.15

Source: Field Survey, 2012 (Values in parentheses are percentages)

### 3.4. Marketing strategies

Marketing strategies in Table 4 indicates that many (77.10%) of sweet potato farmers always sold their sweet potato by persuading customers. Farmers use this marketing strategy in order to make good and quick sales of their harvest. Almost all (98.60%) and all (100.0%) of the respondents indicated that discount sales and advertising through media had never been an effective medium in the sale of sweet potato in the study area. The reason for this can be attributed to the fact that in Nigeria some agricultural products such as sweet potato in particular have never been given the necessary focus and attention by the media. Findings of the study agreed with Ikechi *et al.*, (2006) that poor communication affects the sweet potato marketing system. Sweet potato has not been given the necessary attention and focus unlike other root and tuber crops such as cassava, yam and cocoyam. This may be due to the fact that sweet potato is mostly sold in the village markets because of its low production, and lesser diversification and low farmers knowledge on its value addition.

*Table 4: Distribution of respondent by their marketing strategies (n=140)*

Variable	Always (3)	Occasionally (2)	Never (1)
By displaying their sweet potato	125(89.30)	09(6.40)	06(4.30)
By persuading customers	108(77.10)	21(15.00)	11(7.90)
Discount sales	0	02(1.40)	138(98.60)
Advertising through media	0(0.0)	0(0.0)	140(100)

**Source:** Field Survey, 2012

Note: Values in parenthesis are percentages

### 3.5. Constrains to sweet potato value addition

Table 5 showed that inadequate finance with a mean of 2.80 was ranked 1<sup>st</sup> as a major constraint confronting sweet potato farmers in the study area. This constraint greatly limits the sweet potato production to a small scale level, thus, impede the value addition of sweet potato. This result corroborates the findings of Philip *et al.*, (2009) and Oyediran (2013) that credit is an important input for expansion of agriculture. Low knowledge on sweet potato value addition had a mean of 2.78 and ranked as 2<sup>nd</sup> major constraint to sweet potato value addition. This finding is in agreement with Fawole, 2007 who reported that inadequate government aid is a major problem to sweet potato production. High cost of sweet potato processing equipment (2.70) was ranked as 3<sup>rd</sup> major constraints to sweet potato value addition. Similarly, respondents identified too much focus/attention on other roots and tuber crops and inadequate extension service support as 4<sup>th</sup> challenges to the sweet potato value addition with mean of 2.69. This is in line with findings of Oyediran, 2013 that limited extension service support affects crop output and farmers' income.

*Table 5: Distribution based on constraints to sweet potato value addition (n=120)*

Variable	Very serious (3)	Moderately serious (2)	Not serious (1)	Mean	Rank
Inadequate finance for sweet potato production	118(84.20)	18(12.90)	04(2.90)	2.80	1 <sup>st</sup>
Low farmers knowledge on sweet potato value addition	116(82.90)	17(12.10)	07(5.00)	2.78	2 <sup>nd</sup>
High cost of sweet potato processing equipment	109(77.90)	22(15.70)	09(6.40)	2.70	3 <sup>rd</sup>
Too much focus/attention on other roots and tuber crops	112(80.00)	12(8.60)	16(11.40)	2.69	4 <sup>th</sup>
Inadequate extension service support	111(79.30)	14(10.00)	15(10.70)	2.69	4 <sup>th</sup>
Bulkiness and perishable nature of sweet potato	106(71.70)	23(16.40)	11(7.90)	2.68	5 <sup>th</sup>
Inadequate market information on sweet potato production	95(67.90)	35(25.00)	10(7.10)	2.61	6 <sup>th</sup>
Low consumer preference for sweet potato	93(66.40)	30(21.30)	17(12.10)	2.54	7 <sup>th</sup>
Non availability and accessibility of planting materials	85(60.70)	32(22.90)	23(16.40)	2.44	8 <sup>th</sup>
High cost of farm labour	80(57.20)	40(28.60)	20(14.20)	2.42	9 <sup>th</sup>
Pest and diseases problems	78(55.80)	42(30.00)	20(14.20)	2.40	10 <sup>th</sup>
Problems of land tenure system	56(40.00)	52(37.10)	32(22.90)	2.16	11 <sup>th</sup>

**Source:** Field Survey, 2012 (Note: Values in parenthesis are in percentages)

### 3.6. Relationship between constraints and value addition of sweet potato

Results in Table 6 showed that constraints had a positive and significant relationship between constraints and value addition of sweet potato ( $r=0.17$ ,  $p<0.05$ ). Hence, this indicates that the more the severity of challenges confronting the sweet potato farmers in their sweet potato production and processing activities, the more the farmers knowledge on sweet potato value addition, inadequate extension service support, high cost of processing equipment, bulkiness and perishable nature of sweet potato, too much focus/attention on other root and tuber among others ultimately have bearing on value addition of sweet potato. This observation is in accordance with the findings of Oyediran, (2013) that constraints such as inadequate credit facilities and poor extension service support are major impediments to crop production enterprise and farmers' income in Nigeria. However, more efforts need to be put in place for the farmers to be able to overcome these pressing constraints that have greatly affected the value addition of the sweet potato in the study area.

Table 6: Relationship between constraints and value addition of sweet potato

Variables	r	p-value	Decision
Constraints	0.17	0.00	S

Source: Field Survey, 2012

Note: S = Significant at 0.05 level

### 4. CONCLUSION AND RECOMMENDATION

It can be concluded that the farmers had high knowledge of sweet production as a result of their longer years in sweet potato farming. Farmers did not get information on sweet potato production through extension agent, researchers and media. Consequently, they did not advertise their outputs on the media as well. Thus, there was no support for the promotion of sweet potato in the media. Constraints also impeded sweet potato value addition among the farmers in the study area.

Based on the findings of this study, the following recommendation were made:

1. Effective and efficient teaching/training on sweet potato value addition.
2. Provision of improved marketing and transportation facilities by government.
3. Provision of subsidized processing and packaging equipment by the government and agro-based industries.

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## SELLING HOW GOOD WE ARE: AN ANALYSIS OF WEB-BASED CSR COMMUNICATION IN 'MADE IN ITALY' COMPANIES

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### **ABSTRACT**

*The paper explores the linguistic expression of companies' commitment to Corporate Social Responsibility by analyzing frequently occurring words, their collocates and phraseology derived from text through computational means. With the support of corpus linguistics tools and the software package WordSmith Tools 5.0, the CSR disclosures issued on the Web by a sample of Made in Italy companies are analyzed both quantitatively and qualitatively in an attempt to shed some light on a diversified repertoire of argumentative strategies adopted by enterprises to persuade stakeholders of their dedication to sustainability principles.*

**Keywords:** CSR, CSR disclosures, Made in Italy

### **1. INTRODUCTION**

In a context of increasing economic interconnectedness, competition, globalization and continuous evolution of technology, communication has taken on an ever more substantial role in the business enterprise's life. Among a company's activities, those related to communication are perceived as the lifeblood of all organizations, their performance and legitimacy (van Riel and Fombrun, 2007). Thus communication appears to determine not only a company's results, but also its ability to achieve a competitive edge, nurture commitment among stakeholders, gain support of customers and employees, and enhance investors' confidence in corporate management (Goodman, 2000; Christensen, 2002).

At the same time, the profound changes in the status of the business enterprise in society have impelled companies to be not "merely" concerned with profit but also with social and environmental ends. Amidst fears that globalization is ruining the environment and the society at large, companies have started to consider the impacts of their businesses on the environment and the community in which they operate. However, this concern for the sustainability and social responsibility of companies (corporate social responsibility, hereafter CSR) is not exclusive of modernity but has gained momentum since the 1980s and 1990s, when it began to be seen high on boardroom agendas. Since then, CSR has been used by organizations to gain a competitive advantage by differentiating themselves from the less responsible counterparts, and by demonstrating to their stakeholders that they are conscious of their responsibility to society. Although there seems to be no universally agreed definition and different organizations have framed their own conceptualization of CSR (see, for instance, the 37 definitions collected and discussed by Dahlsrud, 2008), this rather vague notion may be generally understood as "the integration of environmental, social and economic consideration into business strategies and practices" (Jones *et al.*, 2007, p. 582). The elusiveness of the concept resides in the wide coverage of CSR and the four components it is comprised of: economic, legal, ethical, and discretionary/philanthropic/humanitarian issues (Snider, Hill and Martin, 2003, p.176; Lantos, 2001). The economic and legal components correspond to firms' fundamental responsibility to make a profit, and to obey laws. The ethical and discretionary constituents involve companies' responsibility to respect the rights of others, and to engage in philanthropic projects that support the broader community.

It was as a consequence of this 'ethical or moral turn' that reporting on social, environmental and governance issues has become standard practice. As a result of a new attention paid to

sustainable and ethical aspects of a firm's activities, conventional forms of financial communication, such as investor relations and annual reports (Marston and Straker, 2001; Stanton and Stanton, 2002; Yuthas *et al.*, 2002; Dolphin, 2004), have been partially 'divested' of their centrality in favor of a combination of traditional reports and CSR disclosures. Increasing communicative efforts have been directed by firms towards several forms of "self-presentation and impression management [...] [in an attempt] to insure various stakeholders are satisfied with their public behaviors (see Hooghiemstra, 2000; Patten, 2002)" (Snider, Hill and Martin, 2003, p. 176). For these purposes, multifarious practices of corporate communication have been more widely deployed by firms, including corporate websites, codes of ethics, codes of conduct, mission statements and CSR reports.

In particular, corporate websites have gained currency among companies as the preferred conduit for distributing corporate communications, and disseminating information on their performance including their CSR initiatives as well as activities (Esrock and Leichty, 1998; Pollach, 2005; Bamford and Salvi, 2007; Garzone, Poncini and Catenaccio, 2007). Notably, CSR-related issues have been given pride of place in many sections of corporate websites, whose aim is to divulge information about firms' businesses, and concomitantly, to showcase their admirable values and commendable principles. Analogously, it goes without saying that codes of ethics and codes of business conduct represent two of the most common ways that companies self-regulate, and establish a public image of good behavior (see, for example, Schwartz, 2002). The two categories of codes can be defined as regulatory texts that contain normative guidelines for behavior, and govern companies' decision-making processes and actions. Additionally, mission statements, which tell the readership who a corporation is and what it does, "outline where a firm is headed; how it plans to get there; what its priorities, values, and beliefs are; and how it is distinctive" (Stallworth Williams, 2008, p. 96). Finally, borrowing from the insights offered by Idowu and Towler (2004, p. 420), CSR reports, "which have now become an annual report in addition to the traditional annual financial reports is one of the vehicles used to demonstrate how caring [enterprises] have been over the financial period that has just ended and how they intend to continue to be even more so in future periods".

Notwithstanding some attempts to standardize sustainability reporting procedures (e.g. Global Reporting Initiative, AA1000S, SA8000 and ISO14001, for details see Tschopp, 2005), CSR reporting remains a voluntary, ambiguous and rather unrestricted form of external corporate communication. A consensus seems to have emerged on a definition of CSR reporting as "the process of communicating the social and environmental effects of organizations' economic actions to particular interest groups within society and to society at large" (Gray *et al.*, 1996, p. 3; referenced by Snider, Hill and Martin, 2003, p. 176). From a content-related perspective, these disclosures have been suggested by the GRI, for instance, to include sections dedicated to specific topic areas, viz. Environment (energy, environmental impacts of products); Labor Practices and Decent Work (occupational health and safety, training and education, diversity and equal opportunities); Product Responsibility (customer health, safety and satisfaction); Human Rights (child labor, forced and compulsory labor), and Society (corruption, anti-competitive behavior, volunteering initiatives, charitable giving). Nevertheless, although GRI guidelines provide indications of what the reports should cover, no mention is made of their formal, rhetorical and discursive prerogatives.

In light of the above, this study attempts to contribute to a more detailed understanding of the linguistic expression of companies' commitment to CSR. The study will be conducted on selected CSR communication samples issued on the Web by some Italian companies working for the three key sectors of "Made in Italy", viz. Fashion, Food and Furniture, and focuses on some of the most relevant discursive and linguistic traits of the disclosures under examination.

The organization of this paper is arranged as follows. The next section, which describes the research materials and methodology, will be followed by the presentation and discussion of the findings obtained.

## 2. MATERIALS AND METHODS

The paper draws its empirical information from a diversified repertoire of CSR disclosures, including the reports produced and the information posted on the World Wide Web by a sample of Made in Italy companies and their business segments. The study was conducted on a small electronic corpus which is made up of the CSR materials available on the Internet for interested readers to access, for a total of approximately 200,000 tokens or running words.

Specifically, the corpus mainly gathers materials retrieved from a sample of websites belonging to some well-known companies whose products have become symbols of the so-called Made in Italy. The choice of websites in their English version focused on the '3Fs', which correspond to the three sectors generally associated with Made in Italy, viz. Fashion, Food and Furniture (Decree No. 205 issued on the 10th July 2008 by the Italian Ministry of Economic Development; Bucci/Codeluppi/Ferraresi 2011). For each sector four leading groups were identified and selected as good representatives of the 'Italian' brand, style, tradition and quality (Benetton Group, Marzotto Group, Max Mara Fashion Group and Miroglio Group for Fashion; Barilla, Gruppo Cremonini, Ferrero and Parmalat for Food; Marazzi, Gruppo Mauro Saviola, Natuzzi and Molteni for Furniture).

As regards the criteria for corpus design, only the sections of each website devoted to CSR or CSR-related themes were taken into account, while the remaining portions of the website, including, for instance, financial data, descriptions of products, presentations of companies, and press releases were not looked at. In detail, part of the corpus collects the sections which come under a number of headings and subheadings such as *Sustainable Business*, *Sustainability*, *Social Responsibility*, *Mission*, *Values*, *Vision*, *Quality and Safety*, *Research and Development*, *Ecology* to name but a few. Furthermore, in order to obtain a more detailed picture of the CSR concerns being addressed by the firms examined, not only dedicated web pages were selected for study but also those pages concerning such CSR-related topics as companies' sponsoring of prizes or their foundations' engagement in educational, cultural and environmental initiatives. More precisely, only the verbal text of the pages mentioned previously was gathered and included in the database of materials analyzed, whereas tables, charts, diagrams, images, and other visual or multimodal aids were not accounted for.

The rationale for the study, which was designed to investigate the language and discourse strategies developed by companies to profile themselves as good citizens, motivated the selection of other documents which focus on issues consistent with firms' responsibility. As such, sustainability reports, corporate mission statements, codes of ethics and codes of business conduct were collected in electronic format and included in the corpus of texts under study. The decision to examine these different texts was inspired by the assumption that they all serve a similar macro-function. By highlighting values, objectives and good practices, the collected texts are indeed presumed to fulfill the goal of presenting enterprises as desirable corporate characters in an effort to inspire enthusiasm about the firm. Despite their manifold generic differences and peculiarities, these materials are seen as analogous discursive practices which are part of enterprises' communication endeavors to report on and promote values as well as values translated into action. That said, the collected corpus appears to include the disclosures as shown in Table 1.

Sector / companies	CSR information on company website	Code of ethics / code of business conduct	Stand-alone CSR reports
<b>Fashion</b>			
Benetton Group	√	√	-
Marzotto Group	√	√	-
Max Mara Fashion Group	√	-	-
Miroglio Group	√	√	-
<b>Food</b>			
Barilla	√	√	√
Cremonini Group	√	√	-
Ferrero	√	√	√
Parmalat	√	√	-
<b>Furniture</b>			
Marazzi	√	√	-
Mauro Saviola Group	√	-	-
Molteni	√	√	-
Natuzzi	√	√	-

*Table 1: Corpus of CSR disclosures issued by a sample of Made in Italy companies*

As evidenced by the previous table, while only a few companies produce substantial, stand-alone and dedicated CSR reports, the majority of them provide information on CSR issues on their general corporate web site, and post the code of ethics and/or the code of business conduct on the Internet.

From a methodological perspective, the study takes its move from quantitative data extracted from the database under study. The analysis, which was carried out with the support of corpus linguistics tools such as wordlists, Key Word in Context (KWIC) concordances and collocates (Sinclair 1991, 2003, 2004), combines a quantitative and qualitative examination of some linguistic peculiarities of CSR disclosures.

In an effort to identify the linguistic makeup of the CSR materials gathered, the frequency wordlist was generated and inspected for the purpose of deriving a sample of lexical items which are emblematic of the enterprises' attitude towards sustainability. A selection of lexical markers of CSR was afterwards concordanced and analyzed in their phraseology and context of occurrence. For the processing of wordlists, concordances and collocates, the PC software *Wordsmith Tools 5.0* (Scott 2008) was used. The quantitative and qualitative study of some signals pointing to the corporations' concern for CSR was meant to explore the strategies they develop to convince their stakeholders of their reliability and dependability.

### 3. FINDINGS

The creation of the wordlist, which includes the most frequently occurring words in the set of texts collected, is functional to a preliminary identification of the main lexical items used by a sample of Made in Italy companies to present the corporate social responsibilities they fulfill, and the guiding principles they follow. Among the most frequently occurring 55 words, selected nodes are listed in Table 2 with their ordinal rank and related raw frequency:

N	Word	Freq.	%
17	GROUP	963	0,50
25	COMPANY	766	0,40
31	PRODUCTS	660	0,34
38	PRODUCTION	503	0,26
39	WE	485	0,25
40	BUSINESS	476	0,25
47	ACTIVITIES	373	0,19
48	EMPLOYEES	371	0,19
49	ENVIRONMENTAL	364	0,19
53	PEOPLE	332	0,17

Table 2: A selection of the most frequent words in the corpus

Statistical figures reveal that CSR documents are permeated by conspicuous forms of self-reference, viz. *group*, *company* and *we* (see sub-section 3.1), and by lexical items which index some key-stones of corporate social responsibility, namely *products*, *production*, *business*, *activities*, *employees*, *environmental* and *people* (see sub-section 3.2).

### 3.1. Forms of self-reference in CSR disclosures

A particularly interesting feature which emerges from the wordlist above is the high frequency of occurrence of self-referential expressions, be they in the shape of impersonal forms, namely *group* and *company*, or the first-person pronoun *we*. The analysis of the context of occurrence and collocational patterns of these expressions of self-reference shows some common patterns and strategies deployed by Made in Italy companies to parade an ethos of reliability and legitimacy, and to portray their attitude towards CSR. Specifically, some useful insights can be gleaned from the collocates of *group* (963 occurrences), *company* (766 hits) and *we* (485 entries). Remarkably, the co-occurrence of *group* with the auxiliary verbs *to be* (71 occurrences) and *to have* (39 entries) in the present tense suggests that CSR disclosures are pervaded by repeated representations of the firm which does not only report on its past performance but rather insists on ongoing, more permanent and stable states and actions. The most frequent construction featuring *group* together with *is* was found to be *group is committed* (27 occurrences, see ex. 1, my own emphasis as in the following examples), which signals firms' involvement in CSR matters, and the many efforts they make to be socially responsible.

1. For this reason **our Group is committed**, apart from the achievement of economic results, to the evaluation and interpretation of the needs of all those who operate inside and outside the company and who daily compare themselves over the respect of their values of enterprise. (Cremonini Website)

Furthermore, the tendency of *group* to be accompanied by *has* + past participle verbs, the modal *will* (10 occurrences), and lexical verbs such as *censure* (7 hits) as well as *condemn* (5 entries), is emblematic of companies' focus on their enduring actions, their progress towards future goals, and the values, principles or practices they abide by vs. reject. Examples of these structures are reported in excerpts 2-4:

2. In addition, **the Group has developed** a structured dialogue with some NGOs that are active in the field of CSR. Among the issues often dealt with: nutrition, product safety, ethical sourcing of raw materials, the respect for the environment during production

operations, marketing and advertising strategy, and the CSR strategy of the Group. (Ferrero CSR Report)

3. In the West, the focus will be on light functional products, while in the developing countries, **the Group will** be creating and testing the feasibility of projects to deliver proper nutrition (vitamins, proteins, calcium, sugar). (Parmalat Website)
4. **The Group condemns** any possible conduct aimed at engaging in crimes against the individual. Marzotto is committed to protecting the moral integrity of its workers, granting the rights to working conditions respectful of the individual's dignity. For this reason it protects workers from acts of psychological violence and opposes any attitude or conduct which may discriminate or damage the individual, his/her beliefs and his/her preferences. (Marzotto Code of Ethics)

Although not statistically significant in terms of their numerical frequency of occurrence, these associations are suggested to characterize also the other two markers of self-reference, and more holistically, the argumentative and rhetorical orchestration of information in CSR texts. An attentive examination of *company* and *we* in their surrounding linguistic co-text shows that, similarly to *group*, they can be recognized in evaluative formulae hinting, on the one hand, at plans or pledges relating to future objectives, and, on the other, at ongoing actions. The remarkable presence of *company* and *we* in phraseological units which feature patterns such as *is/are committed* (8 and 19 occurrences, see example 5), and *has/have* + past participle verbs (15 and 37 occurrences, instance 6) reflects companies' dual approach to CSR reporting, which entails balancing past and in-progress factuality with a strong orientation towards future commitments.

5. For the International Year of Forests, declared by the United Nations in 2011, **the Company is committed** to improve its already advanced principles and criteria of good governance, for the protection and enhancement of trees and forests. (Natuzzi Website)
6. To collect it we go all over Italy, and even abroad. **We have developed** a collection logistics system able to join together with the municipal waste companies in the collection. Through the Ecolegno centres and the containers located at the ecological islands, we serve thousands of companies in the "domestic" collection of wood. (Mauro Saviola Website)

By skimming all the concordances of the three search words, the see-sawing between involvement and performance can be additionally recognized in lexical bundles, where *group*, *company* and *we* are followed by commitment- and action-related verbs, such as *aim*, *believe*, *contribute*, *encourage*, *intend*, *recognize* (ex. 7), *support*, on the one hand, and *achieve* (ex. 8), *develop*, *establish*, *implement*, *improve*, *pursue* on the other.

7. **The Group recognizes** the primary role of a clear and effective communication for what concerns internal and external relations. In fact, communication and external relations influence, directly and indirectly, the company's development. (Marazzi Code of Ethics)
8. Concern for the environment is also clearly seen in the choice of packaging: through the use of specifically sized packaging, **the Benetton Group has achieved** an annual saving of approximately 140 tonnes of cardboard, with a huge CO2 emissions' saving on the whole cardboard life cycle and on the transportation. (Benetton Website)

Furthermore, despite its patently obvious preponderance in codes of ethics and codes of business conduct, another dimension is prioritized by Italian firms in their CSR texts, i.e. their compliance with company-internal policies, and national or international ones. It is in particular in these self-regulatory documents that enterprises, in an effort to strengthen their identity as responsible citizens, detail the broad principles guiding their staff in decision-making processes, and present acceptable kinds of behaviors. Lexical formulations which are associated with this CSR facet are those that revolve around verbal 'hubs' such as *abide by*,

*abstain from, adopt, be bound to, comply with, follow, must, observe, prevent, reject and respect* (see examples 9-11).

9. - fairness: in relations with stakeholders and third parties in general, **Benetton Group avoids** discrimination of all kinds and in particular those based on age, gender, state of health, race, nationality, political opinions and religious beliefs, social and personal status [...] (Benetton Code of Ethics)
10. **The parent company has deemed it appropriate** for each and every Group company **to adopt**, whether with respect to third parties or otherwise, a set of ethical business principles, designed toward disseminating Groupwide good ethics and good ethical business principles based on legal compliance, ethical business practices, and the leadership imperatives required by the aforesaid Decree. (Miroglio - Motivi Code of Ethics)
11. Our goal is to create unique products, developing innovative research and production processes and using our own technologies. **We apply** consolidated quality and traceability procedures, in order to preserve the organoleptic and nutritional characteristics of our raw materials. (Ferrero Mission Statement)

As evidenced by the analytic findings discussed so far, in their CSR documents Made In Italy companies strive to leave a positive impression on key stakeholders by profiling themselves as business actors who are not simply pro-active and highly engaged in CSR issues but also work in accordance with internal, national and international standards, rules and regulations.

### 3.2. CSR values: an analysis of lexical markers

Apart from the high incidence of forms of self-reference, an examination of the most frequent words (see Table 2) suggests that Made in Italy firms place considerable emphasis on a diversified repertoire of CSR values, which are signaled by such content words as *products*, *production*, *business*, *activities*, *employees*, *environmental* and *people*. Among these lexical items are a set of words that belong to the semantic field of companies' activities, daily business and economic performance, viz. *products*, *production*, *business*, and *activities*. More to the point, the analysis of the concordances of *products* (660 occurrences) proves that this marker repeatedly occurs in highly evaluative stretches of language which hint at the most positive distinguishing features of the goods manufactured and marketed. The presentation, or better the promotion, of *products* as *new*, *(high) quality*, *green*, *functional*, *best*, *safe* and *innovative* reflects the companies' determination to highlight their attempts to impact positively on the environment, customer satisfaction and people wellbeing (see ex. 12).

12. Barilla **products, as well as being tasty, can play their part in a balanced daily diet and contribute to your wellbeing for the coming years**. This is why we say they are "Good for People". But that's not all. Our **products are created with respect for the environment** and have an impact on it that is lower than other types of food. (Barilla CSR Report)

Thus the description of *products*, which does not turn out to rely on technicalities and numerical data, appears to be closely intertwined with an appraisal of the best characteristics of the goods in terms of a variety of ethical and sustainable principles, namely quality, safety, innovation, healthiness and eco-friendliness. In line with the previous lexical item, the nodes *production* (503 occurrences), *business* (476 hints) and *activities* (373 occurrences) are strategically deployed by companies in specific CSR-related contexts to insist on their responsibility to pursue their business successfully, but more prominently to stress their responsible orientation towards sustainable economic development, innovative performance, customization of products, and respect for the environment. The examination of the concordances of these lexical items shows indeed that while *production* tends to keep the



company of *sustainable* (as in extract 13), *technology*, *effectiveness*, *energy efficiency*, *business* and *activities* are repeatedly found in CSR-related clusters or expressions, such as *ethical business principles/standards/practices* (see instance 14), and *training*, *educational*, *sporting*, *professional* and *recreational activities* (see example 15).

13. It is fundamental for products not only to be **sustainable in terms of their production processes**, but **also to be safe for consumers**. For this reason the use of dangerous substances has been eliminated and constant tests are conducted to enable control of the use of substances along the entire supply chain (Benetton Website)
14. Miroglio has approved and issued the following **ethical business practices**, and they are shared and reinforced throughout the Company and the Group:
  - legal compliance
  - equal opportunities and diversity policy
  - transparency, honesty and reliability
  - core professional values [...] (Miroglio Code of Ethics)
15. **Training Activities** Over the years - thanks to a profitable public/private collaboration with public and private bodies and institutions - the Giulia Maramotti Foundation has organised a number of post-diploma courses and specialised vocational training in schools related to the fashion sector, assigning annual scholarships to students of the schools G. Chierici and L. Galvani in Reggio Emilia. (Max Mara Foundation Webpage)

As a result, the unquestioning relevance attributed by companies to profitability and prosperity appears to be predominantly celebrated and exalted in combination with other corporate priorities, such as the protection of the environment, adherence to laws and regulations, obedience to universally accepted ethical principles, and concerns for people. As such *employees*, *environmental* and *people* can be recognized as additional levers used by companies to make customers aware of their efforts to continuously improve employees' as well as people's wellbeing, and to safeguard the environment. Specifically, firms' self-presentation as premium employers who care about their staff is evidenced by the pervasiveness of *employees* in the corpus. A closer inspection of the concordances of this lexical item suggests that this key category of stakeholders is recognized duties but also granted rights and opportunities, which include, among others, advantageous services, development and satisfaction. Thus, a partially coercive aura, which can be perceived around formulae such as *are required* in example 16 and *must*, is counterbalanced by emotional arguments and references to the company as supporter and guarantor of the workforce's rights and betterment (e.g. *the group offers to all its employees..., create value [...] for employees*, or *employees benefit from...* in excerpts 17-18).

16. All Directors, executives and **employees are required** to work diligently to protect the Group's assets and to behave responsibly and in a manner consistent with Company policies. (Parmalat Code of Ethics)
17. The Natuzzi Group mission is **to create value with integrity, for clients, employees and shareholders**. Creating value with integrity means acting honestly, frankly and transparently, with respect for other people. (Natuzzi Code of Ethics)
18. » Approximately **400 employees benefit from a financial contribution for their holidays**: the amount depends on the employee's income and number of family members (Ferrero CSR Report)

In addition to *employees'* betterment, which is deemed a management priority, Made in Italy companies appear to stress their devotion to the environment, its protection, and ecologically-sound production processes. The firms' 'voices' as defenders of the environment make themselves heard throughout the CSR disclosures examined thanks to the pervasiveness of the lexical item *environmental* (364 occurrences). Made in Italy companies long to be conceived

as business entities who are proactively involved in initiatives and activities aimed at the preservation of the environment. This is corroborated by the remarkable co-occurrence of the semi-fixed phrase *environmental impact/impacts* (122 hits, see ex. 19) with verbs that denote a downgrading movement, viz. *minimize* or *reduce*, and by the tendency, although less significant from a frequency-related perspective, of pseudo-antonymous formulations, such as *environmental protection* and *performance*, to be followed by verbs expressing support, namely *promote* and *improve* (in ex. 20).

19. We are working continuously to limit emissions and reduce waste from the facilities through maintenance, isolation and insulation projects. We monitor the efficiency of our plants **to reduce their environmental impact** day by day. (Marzotto Website)
  20. In particular, the initiative was developed to increase awareness among employees of the new Erzelli Science and Technology Park in Genoa of the culture of eating well as a factor in **promoting** wellbeing as well as **environmental protection**. (Barilla Website)
- While insisting on their motivation for profitability, their devotion to employees, and the safeguard of the environment, Made in Italy companies additionally advertise their wholehearted support for *people* (332 entries), their rights, health, wellbeing and *quality of life* (ex. 21). Specifically, Italian firms' benevolence is evidenced by constructions such as *for people* (28 entries) and *to people* (21 occurrences) which indicate that the broader community is the beneficiary of a range of social initiatives sponsored by the companies themselves. Furthermore, the co-occurrence of *people* with *young* and *disabled*, and verbs such as *encourage*, *educate*, *train* emphasizes Italian firms' efforts to sustain these two vulnerable and defenseless segments of the population (see excerpts 22 and 23).
21. Marazzi Group S.r.l. is a member of the Green Building Council Italia\*, the association that promotes the culture of sustainable, energy-efficient, environment-friendly construction and **helps to improve people's quality of life** by means of the LEED certification standard. (Marazzi Website)
  22. The Giulia Maramotti Foundation, named after the mother of the Knight of Labour Achille Maramotti, was established in 1994 with the aim of **supporting, promoting and managing projects for young people in the education, training and cultural education sectors**. (Max Mara Foundation)
  23. In Russia, Ferrero supports cultural and sporting events organised by "Special Olympics", a charity for disabled people and people with special needs from the Vladimir region by offering various products. In 2012 Ferrero **offered its products to 500 disabled people** who took part in the "World Day of Differently Abled People" invited by the Vladimir local council. (Ferrero report)

#### 4. CONSLUSION

The provisional conclusions that can be drawn from the study are manifold. To begin with, the Made in Italy companies considered, although to a different extent and through varied communication practices, are keen to disseminate information on their approach to CSR and on the many initiatives they undertake. This suggests that these enterprises are similarly convinced of the reputational advantages that their promotion as ethics-committed companies can lead to in terms of improvements in investors' trust, stakeholders' support, new market opportunities and positive reactions of capital markets.

Furthermore, the analysis of the wordlist results has shown that a wide range of lexical fields are covered and many strategies endorsed by the top management of the Italian companies to win stakeholders' trust regarding their ethical and sustainable behaviors. When looking at the strategies of self-representation, Made in Italy companies turn out to deploy both impersonal and personal forms of self-reference to present themselves as economic performers able to

meet clients' needs, preserve the environment, and improve people's social and economic conditions. More specifically, the study of the phraseology and the surrounding linguistic context in which the most recurrent signals of self-identification occur has revealed that companies prioritize the semantic fields of commitments, pledges relating to future objectives, ongoing actions, and compliance with rules and regulations.

Finally, the lexical analysis of the CSR documents collected seems to suggest that the companies examined, in an attempt to convince all their constituencies of their authentic dedication to sustainability, stress similar values. Generally speaking, Made in Italy firms appear to praise themselves as economic entities that care about their clients, by offering them high-quality and safe products, and that strongly believe in the protection of the environment, and improvement of the community's well-being.

Despite the limited sample of texts and words examined, the corpus-based findings documented here shed some light on the strategies adopted by a sample of Made in Italy companies to depict themselves as dependable business actors. It can be hoped that further research will contribute to the identification of similar or different tactics employed by enterprises to impart confidence, and leave a positive impression on stakeholders.

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## STUDENT PERFORMANCE IN PISA 2012 (MATHEMATICS) EXPLAINED BY GENDER, IMMIGRANT BACKGROUND, INDEX OF ECONOMIC, SOCIAL AND CULTURAL STATUS FOR STUDENTS AND SCHOOLS

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### ABSTRACT

*The Program for International Student Assessment (PISA) has been conducted 5 times. The first PISA was conducted in 2000 and the latest PISA was conducted in 2012. In 2012, mathematics was the main domain. All students were tested in mathematics and all students were 15 years old and attended school. The index of economic, social and cultural status (ESCS) has exerted a significant influence in all countries for all domains every time. But also gender and immigration background has had a tremendous impact in most countries. In this paper, the variation between schools will be explained by the students' gender, immigrant background, ESCS and the schools' total ESCS. By introducing the schools' total ESCS, the intra class coefficient (ICC) will be reduced considerably. The data analysis will be made by using two different models ( the programme SAS will be used). The MIXED procedure where the schools are the random effects and SURVEYREG using the Balanced Repeated Replication (BRR) and its variant Fay's modification will be used. The conclusion is that not only is the ESCS very important when estimating the students' performance, but also the sum of their classmates' ESCS is important. Furthermore a ranking of schools which only control for the students background will give a skew ranking of schools.*

**Keywords:** ESCS, ICC, PISA, MIXED models, SURVEYREG, Balanced Repeated Replication, Fay's modification.

### 1. INTRODUCTION

The Program for International Student Assessment (PISA) was established in collaboration between the governments within the OECD member countries with the aim to assess how well young students are prepared to meet the challenges in today's information society.

The PISA test included three functional skills referred to as domains in the program which includes reading, mathematics and science literacy. In the latest PISA report, mathematics was the main domain. Until now 5 PISA reports have been published in the years 2000, 2003, 2006, 2009 and 2012. A total of 68 countries participated in the PISA 2012, 34 of them were OECD countries. Besides the domains, background information about the students is also included in the assessment which comprises the students' grade, gender, family and socioeconomic background, language spoken in the family, immigrant status, leisure and attitude to the school. The most significant experiences from the 5 assessments show that three background factors of the students have a clear significant importance for the PISA results. (PISA results 2012) The three background factors are:

1. ESCS, which is an index of economic, social and cultural status. In the following, the ESCS will be referred to as the student's social capital.
2. Gender of the student
3. Migrant status. In this paper, migrant is either native versus first-generation or second-generation

For all countries in the PISA reports, the ESCS is a very significant background variable, which indicates that the more social capital a student has, the better will his/her results be in

the PISA assessments. The tests show that gender also has a significant influence. The girls have better reading skills than the boys, and the boys have better skills in mathematics than the girls. This is a fact for almost all participating countries apart from few exceptions. The results point particular with respect to the OECD countries (but not all of them), that first- and second-generation immigrants deliver a poorer performance than native students. Thus an important part of the variation between the schools is caused by these three background factors. We made therefor a model, which takes into consideration the background factors of each individual student, including the school's overall social capital.

## 2. DESCRIPTION OF DATA AND USED VARIABLES

The analysis has been made on the basis of the dataset from the international PISA 2012. The dataset comprises 485,490 students from 68 countries. The following variables (out of the 554) are used (excluding the 81 weight variables).

*Table 1. Variables used for the analyses (source: PISA I)*

Variabel	Description	Characteristics
Score	The students' PISA score in mathematics.	The average of the score is close to 500 and the standard deviation is close to 100. Based upon the OECD countries
Gender	The gender of the student	1=female 2=male
Migrant	Domestic students and immigrated student	1= native 2=first generation or second generation
ESCS	ESCS: which is an index of economic, social and cultural status created on the basis of the following variables: the International Socio-Economic Index of Occupational Status (ISEI); the highest level of education of the student's parents converted into years of schooling; the PISA index of family wealth; the PISA index of home educational resources; and the PISA index of possessions related to "classical" culture in the family home. The ESCS is described as the »social capital«	The average of the ESCS is close to 0 and the standard deviation is close to 1. Based upon the OECD countries
S_ESCS	The average of the schools' "social capital"	Calculated as an average of the students within the schools
STD_ESCS	The standard deviation of the schools' "social capital"	Calculated as the standard deviation from above

Note: Since Albania has no information on the ESCS, the country is excluded from the analyses.

### 3. MODELS

#### 3.1. Model 1

For each country:

$$(1) \text{ score}_{ij} = \alpha + \beta_1 * \text{sex}_{ij} + \beta_2 * \text{migrant}_{ij} + \beta_3 * \text{ESCS}_{ij} + \beta_4 * \text{S\_ESCS}_j + \epsilon_{ij}$$

$i = 1, 2, 3, \dots, n_j$  (number of students per school no.  $j$ )

$j = 1, 2, 3, \dots, K$  ( $K$  is the number of schools)

$\epsilon_{ij} \sim N(0, \sigma^2)$  is normally distributed by the mean value 0 and the standard deviation 1 and independence.

All other parametres are fixed.

In this model, the influence from the school is determined solely on the basis of the students' social capital.

The procedure SURVEYREG from the program package SAS has been used. The 80 Balanced Repeated Replications weights with Fay's modification are used in combination with the final student weight. This score is the average of the 5 plausible values. So the macro programs developed by the International PISA organisation is not used (as written in the PISA Data Analysis Manual, SAS, second edition).

The estimates are indicated in table 1 in the appendix.

Examples from Denmark

The estimates will be

$$\text{Score} = 494,4 + 13,9 * \text{sex} - 35,8 * \text{migrant} + 28,1 * \text{ESCS} + 35,0 * \text{S\_ESCS} \quad R^2 = 22,7\%$$

All the estimates are highly significant ( $P < 0,0001$ )

Comments:

If the student is a boy, the score will be increased by 13,9 points

If the student is not native, the score will be decreased by 35,8 points

For each increase in the ESCS, the students increase will be 28,1 points

For each increase in the school's »social capital«, the increase will be 35,0 points.

For all 67 analysed countries we have

Table 2. Meta statistics for the estimates for Model (1)

	Intercept ( $\alpha$ )	Sex ( $\beta_1$ )	Migrant ( $\beta_2$ )	ESCS ( $\beta_3$ )	S_ESCS ( $\beta_4$ )	R <sup>2</sup>
non -significant	0	11	5	2	0	
min	244,0	-20,2	-106,8	1,2	26,1	7,4 %
max	760,4	28,9	83,9	34,4	148,8	50,1 %

11 countries had insignificant for sex

23 countries had insignificant parameter for migrant

2 countries (Liechtenstein and Slovenia) had insignificant influence of ESCS

All 67 countries have significant influence of S\_ESCS

Furthermore 8 countries had a negative estimate for sex and 16 countries had a positive estimate for migrant.

The conclusion is very clear. The »social capital« is very important (and significant) and also the »social capital« of the other students from the school is very important. The variation between schools is based upon the social capital the students bring to the school.

### 3.2. Model 2

$$(2) \quad y_{ij} = \alpha + \beta_1 * \text{sex}_{ij} + \beta_2 * \text{migrant}_{ij} + \beta_3 * \text{ESCS}_{ij} + \beta_4 * \text{S\_ESCS}_j + \Gamma_j + \epsilon_{ij}$$

$i = 1, 2, 3, \dots, n_j$  (the number of students per school no.  $j$ )

$j = 1, 2, 3, \dots, K$  ( $K$  is the number of schools)

$$\Gamma_j \sim N(0, \tau^2) \quad \text{and} \quad \epsilon_{ij} \sim N(0, \sigma^2)$$

All other variables are fixed.

Again, we can see that the influence from the school in this model is determined by the social capital the students bring to the school.

The schools' influence is divided into a fixed effect expressed by  $\beta_4$  and a random component  $\Gamma_j$ .

Intraclass correlation (ICC): 
$$\text{RHO} = \text{ICC} = \frac{\tau^2}{\tau^2 + \sigma^2}$$

The intraclass correlation is the percentage of the total variance that is accounted for by the school. It reflects how schools differ in their student average performance. (This definition is from the Pisa Data Analysis Manual p. 208)



The procedure MIXED from SAS has been used. As weights are used final students' weights which have been normalised, i.e. the sum of the weights is equal to the number of students in the dataset. (PISA Data Analysis Manual p. 207)

The estimates are indicated in table 2 in the appendix.

Example from Denmark

The estimates will be

$$\text{Score} = 493,9 + 15,1 * \text{sex} - 36,8 * \text{migrant} + 27,8 * \text{ESCS} + 34,4 * \text{S\_ESCS}$$

All the estimates are highly significant ( $P < 0,0001$ )

Comments:

If the student is a boy, the score will be increased by 15,1 points

If the student is not native, the score will be decreased by 36,8 points

For each increase in the ESCS, the students' increase will be 27,8 points

For each increase in the schools' »social capital«, the increase will be 34,4 points.

For Denmark the ICC will be 0,084.

Table 3. Meta statistics for model (2)

<i>Table 3. Meta statistics for model (2)</i>						
	Intercept ( $\alpha$ )	Sex ( $\beta_1$ )	Migrant ( $\beta_2$ )	ESCS ( $\beta_3$ )	S_ESCS ( $\beta_4$ )	RHO
non -significant	0	14	23	1	1	
min	289,5	-4,6	-82,9	0,4	25,2	0,055
max	3107,7	26,8	42,8	34,5	151,3	0,521

14 countries had insignificant for sex

23 countries had insignificant parameter for migrant

1 country ( Slovenia) had insignificant influence of ESCS

1 country ( Lichtenstein) had insignificant influence of S\_ESCS

The conclusion is similar to the conclusion of MODEL (1)

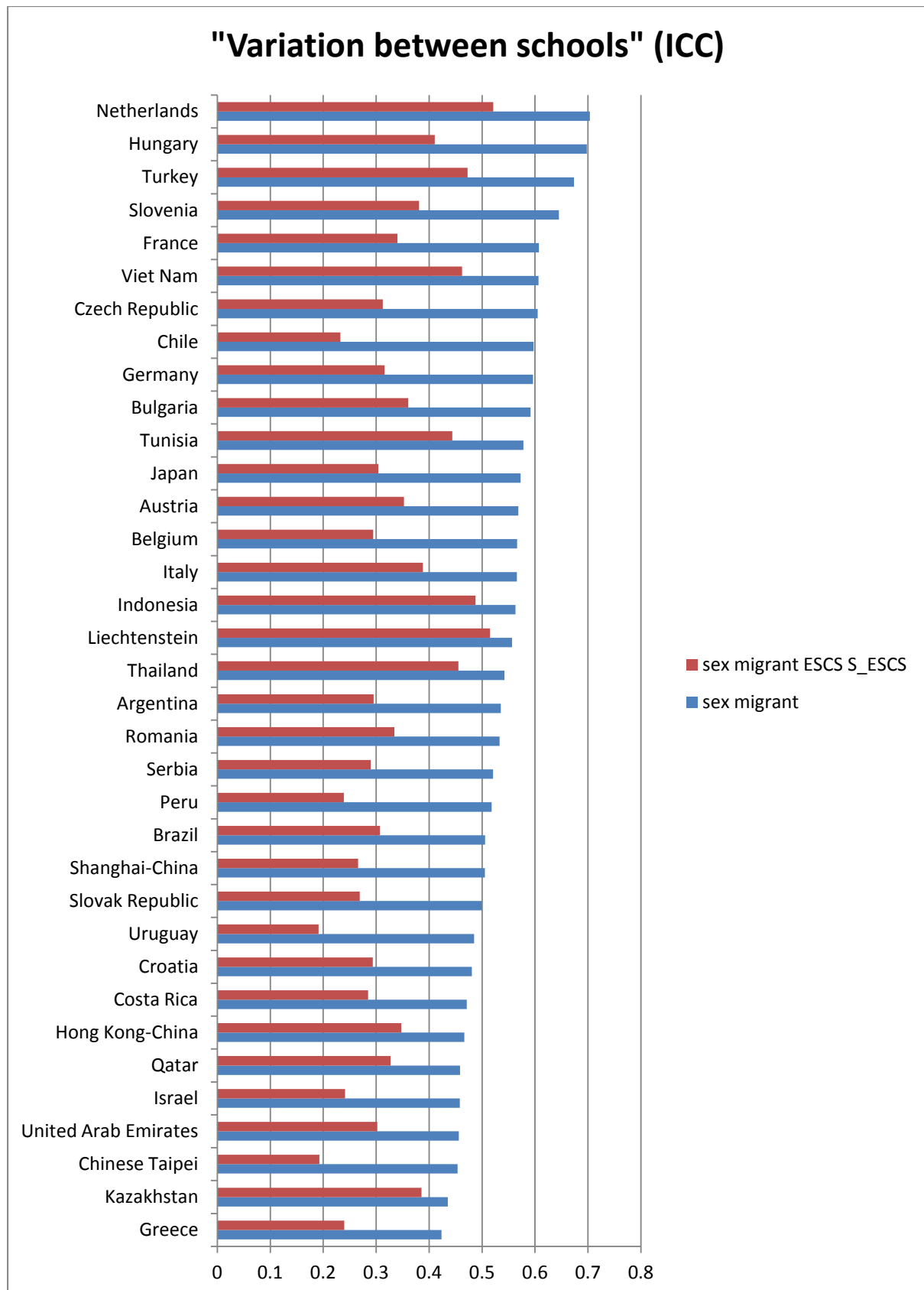
The »social capital« is very important (and significant), and also the »social capital« from the other students from the school is very important. The variation between schools is based upon the social capital the students bring to the school.

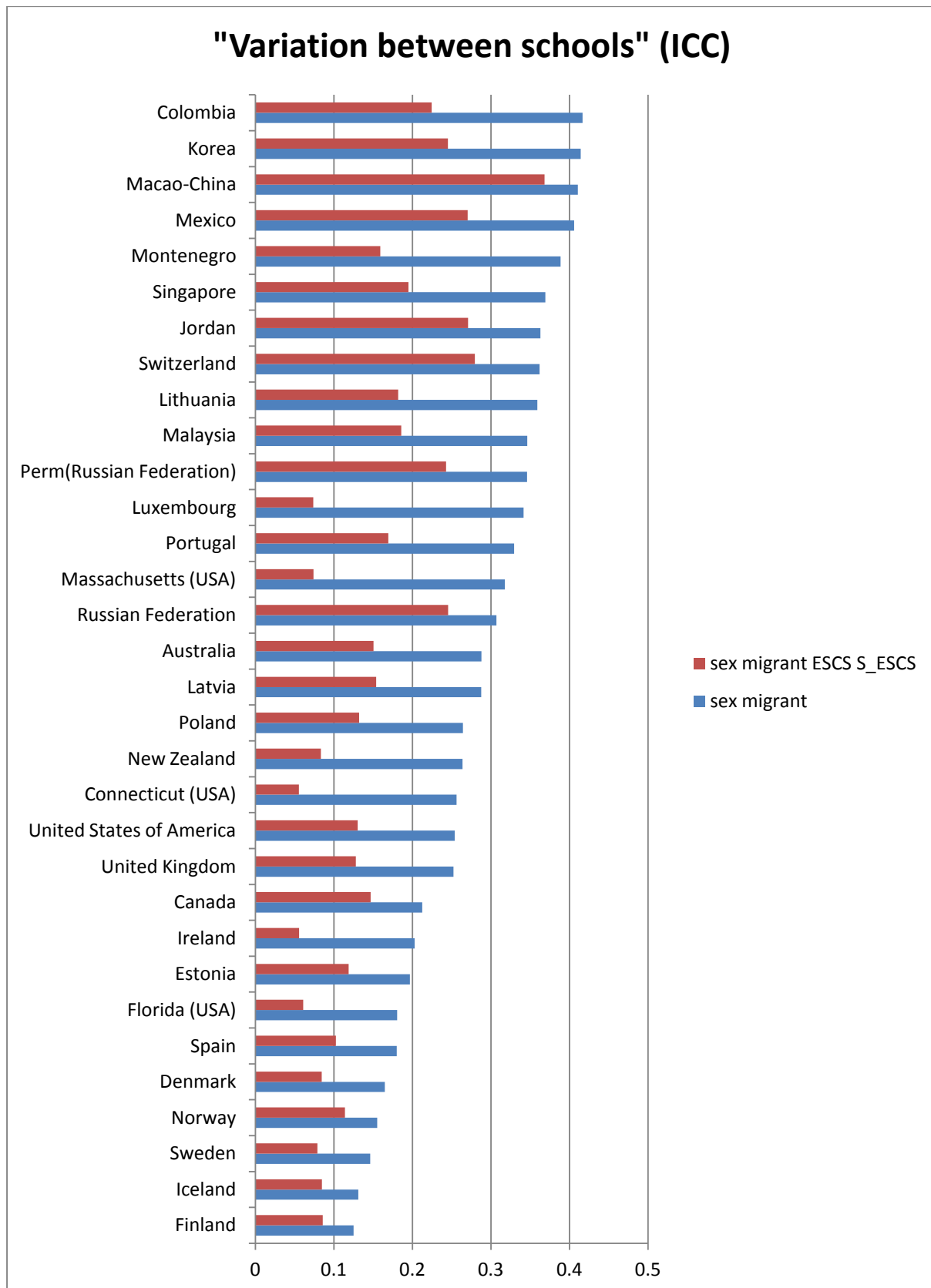
#### 4. EVALUATION OF THE COMBINED EFFECT OF ESCS AND S\_ESCS

The ICC will be calculated for these two models

$$(1) \quad y_{ij} = \Gamma + \beta_1 * \text{sex}_{ij} + \beta_2 * \text{migrant}_{ij} + \epsilon_{ij}$$

$$(2) \quad y_{ij} = \Gamma + \beta_1 * \text{sex}_{ij} + \beta_2 * \text{migrant}_{ij} + \beta_3 * \text{ESCS}_{ij} + \beta_4 * \text{S\_ESCS}_{ij} + \epsilon_{ij}$$





*Table 4. Reduction in ICC when ESCS and S\_ESCS are introduced in the models.*

country	ICC	ICC	reduction
model	sex migrant	sex migrant ESCS S_ESCS	
Holland	0,70	0,52	0,26
average of 67 countries	0,42	0,25	0,40

All 67 countries have a considerable reduction in the ICC when both ESCS and S\_ESCS are introduced in the models. Which means that social capital from the students themselves and from the students classmates are highly important for the expected PISA score.

In Denmark CEPOS ( an independent Danish Think Tank) and also The National PISA committee have tried to create a ranking list of the schools based upon an model where they control for the students individual background informations. Such a ranking list will be biased due to the S\_ESCS component.

## 5. THE CORRELATION BETWEEN THE COUNTRIES' SCORE IN MATHEMATICS AND STD\_ESCS (THE STANDARD DEVIATION OF THE SCHOOLS' "SOCIAL CAPITAL").

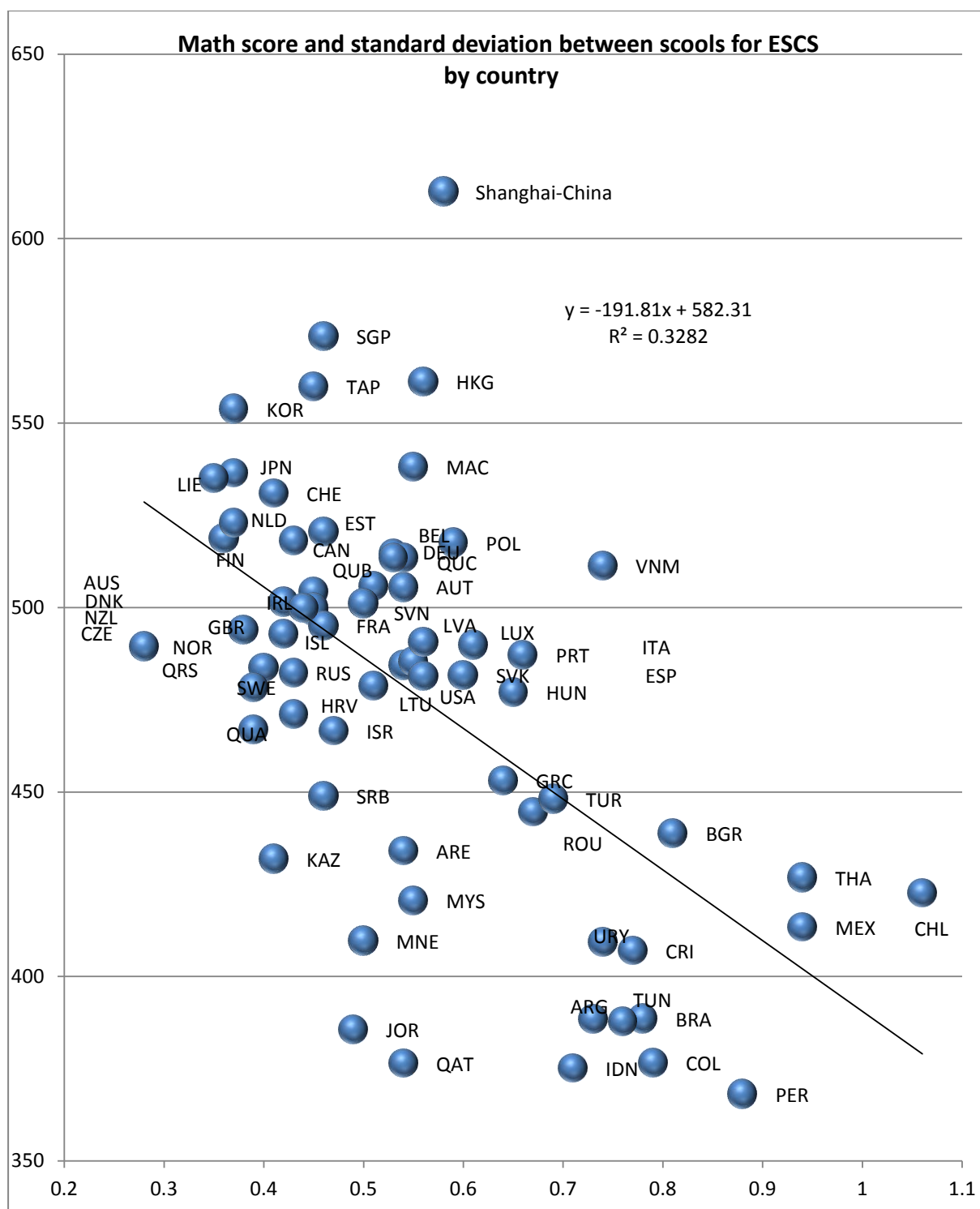
$$(1) \quad \text{SCORE}_i = \alpha + \beta * \text{STD\_ESCS}_i + \varepsilon_i \quad i=1,2,3 \dots 67 \quad (\text{countries})$$

$$\varepsilon_i \sim N(0, \sigma^2)$$

Estimates

$$\text{SCORE}_i = 581,2 - 191,0 * \text{STD\_ESCS}_i \quad R^2 = 32,4\%$$

All estimates are highly significant ( $P < 0,0001$ )



The model shows that an increase in the variation between schools will decrease the level of the country.

## 6. CONCLUSION

The social capital, which the students bring with them to the schools, is very significant for each individual student's score. But it is also very significant for the classmates' scores. The following hypothesis can therefore be made:

The most decisive factor of lifting a country's mean score is to distribute the social capital homogeneously on the schools.

## LITERATURE

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## MODERN ECONOMIC MODEL OF FINANCING – CROWDFUNDING

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### ABSTRACT

*Isn't good when you think about lot of people finance your project and an ideas? Yes, it's quite good. That is crowdfunding. Crowdfunding is a term for a variety of approaches that tap into the potential of a large and open crowd of people. So far, there is no systematic understanding of the processes used to source and aggregate contributions from the crowd. An inherent problem that entrepreneurs face at the very beginning of their entrepreneurial initiative is to attract outside capital, given the lack of collateral and sufficient cash flows and the presence of significant information asymmetry with. While different investors exist for larger amounts of capital such as VC funds and banks, entrepreneurial initiatives that require much smaller amounts to start with need to rely on friends and family or own savings. They then also make extensive use of bootstrapping techniques to mitigate their financial constraints, by boosting their short-term profits. More recently, some entrepreneurs have started to rely on the Internet to directly seek financial help from the general public (the "crowd") instead of approaching financial investors such as business angels, banks or venture capital funds. This technique, called "crowdfunding", has made possible to seek capital for project - specific investments as well as for starting up new ventures. A prominent example is Trampoline Systems, a UK-based software company that intends to raise £ 1 million through crowdfunding. In this paper, we discuss about crowdfunding as an alternative way of financing projects, with a focus on small, entrepreneurial ventures. The structure of the remaining chapter is as follows. Also we provide a description of crowdfunding and discusses existing research on the topic.*

**Keywords:** *cash, crowd, crowdfunding, financing, money, projects*

### 1. INTRODUCTION

The term cultural industry is basically associated with the radical critique of mass entertainment that are propagated by members of the Frankfurt School, starting in the thirties and forties of the twentieth century - the era of totalitarian politics and all general war. Later, the policies and educational institutions prefer directing their attention to the creative industries than in other service sectors. Why is this so? The answer lies in the logic of the new economy. During the Clinton years, the world economy began to finalizing an epic change in the manufacturing industry to the consumer. The main core of this change is that the value is no longer was achieved through the process of handling things than information. Technology is not the one who played a major role in this change, supporting the development of what is known to us today as the information society. Information technology is every day more quickly moved from one organization in human homes, cars and pockets. Society as a whole, almost overnight, became flooded with information based on the code. On this basis, the culture can be interpreted as the key to success in the information economy, because for the first time in the modern era the ability to create new ideas and new forms of expression, not just mining, agricultural and industrial property makes a valuable resource company. In the time we live in, when the entire human life moves in cyberspace, the basic need is to maximal

exploit the capabilities of this environment offers. Every day the world runs a business, SME's all over, but that number pales in comparison to the amount of good ideas that are never realized because they do not have the resources to start. Investors, loans, personal pledge, mortgage, it's all in the game and they are all fighting for that first step to give them some help to realize their idea. And none of these methods is not bad, but also none of them easy.

## **2. FUNDRAISING - EVERYDAY CHALLENGE?**

At the beginning it's important to make a basic distinction between for-profit and non-profit organizations. For-profit are those organizations whose activities aimed at making profits but also further increase the existing capital. On the other hand, a non-profit organization, to put it simply, those organizations that do not generate profit. Non-profit organizations are not aimed at making a profit, and increase the existing capital, even when they realize a profit because such earnings continue to use the current voluntary activities of the organization. One of the major problems of non-profit organizations today is because they are generally not supported by state institutions and do not receive the necessary funds from the public budget, and are therefore forced to independently and systematically obtain funding or equipment or receive other assistance from different private individuals, companies, foundation or association in order to maintain their business and implement specific projects. The main concerns of nonprofit organizations are to strengthen their finances in order to obtain the necessary funds to operate and achieve their goals, but where can I find funders and donors to implement their programs. These are the most painful issues standing in front of any non-profit and non-governmental organization. Providing the necessary funds, grants and scholarships is one of the crucial aspects of the operation and survival of any governmental / non-profit organization. How to permanently solve the biggest problem of these organizations? The key is successful fundraising. Fundraising is the kind of skills to persuade people to experience the joy of giving. (*Barbara Krol and Christian Fine, Successful Fundraising, 2005.*) If you look for the answer in theory, the classical definition of fundraising would be-a set of skills and techniques that are used in the process of fundraising for nonprofit organizations, whether in the academic institutions, cultural institutions, nonprofit organizations, or individuals. (*Hank Rosso, founder of the Institute for Philanthropy, Indiana, USA*). Fundraising also means the exchange of funds between the donor and nonprofit organizations. The donor gives money or equipment and the organization, the grant recipient, he reciprocates by meeting some needs, for example, the feeling that he did something good. Fundraising is viewed as a marketing strategy that not only supplying money and equipment already come true and long-term relationships with their friends and benefactors who can later serve. For this reason, the purchase of equipment is almost as important as establishing lasting relationships with friends and benefactors. This are a logical question arises, what are the lines of reasoning that a person / institution can make to be the benefactor? First of all, the belief in what the organization does, you noticed the positive changes that have occurred due to already given donations, thus establishing certain tax breaks or simply, for some reason, asked to be a donor. It should be borne in mind that in the world there are a lot of creative minded individuals and organizations, but their goals and ideas, and the highly original and innovative, often not realized in practice, because of their implementation does not have the necessary funds. In addition to ideas often have great hobbies from which we can make a deal, or we're missing something in our city, and we have an idea how to create / open/give. There is always the same factor that prevented the idea to turn into action. How to get money for an idea?



### 3. THE MECHANISMS OF CROUDSOURCING AND CROWDFOUNDING

One of the predictions for the Development of Philanthropy in the Balkans is to develop new mechanisms and tools that will facilitate the administration. General increase in transactions on the Internet will increase internet philanthropy (giving via the Internet); will be developed, and other tools and mechanisms including the provision of salaries and standing order. Strengthen the promotion of mechanisms crowdsourcing and crowdfunding.

(<http://philanthropyposts.squarespace.com/blog-2/2012/3/20.html>)

"Crowdsourcing is a type of common online activities in which individuals, institutions, nonprofit organizations, or companies, through a flexible open call to propose a group of individuals with different experiences, heterogeneity, and the number of voluntarily undertaking an enterprise. In the enterprise, the variable complexity and modularity, the group participates investing their work, money, knowledge and / or experience, always on mutual profit. User needs will be met, be it economic, the need for social recognition, self-esteem and develop personal skills. Organizer crowdsourcing and will get to take advantage of what the user has invested in the venture, whose form will depend on the type of activities undertaken. "Term" crowdsourcing "is a neologism derived from the word" crowd "- and a bunch of" outsourcing "- the relocation of business processes. (*Jeff Howe, magazine Wired, article Climb of crowdsourcing, 2006*)

In other words, if we need to finish a task just enough to announce an open call via the Internet, and people interested in the job and / or who are interested to help finish the job for us. Time does get plenty of people who work on the problem / task, and they develop their skills, to assist and / or to receive recognition for the work they've done / solution to which they came; because it is a winning situation on both sides. Historically the first crowdsourcing is linked more to 1714 when the son of a carpenter, John Harrison invented the first marine compass to "open competition" atypical of the former time.

(<http://blog.designcrowd.com/article/202/crowdsourcing-is-not-new--the-history-of-crowdsourcing-1714-to-2010>)

Crowdfunding (also called crowd financing, crowd capital, or street performer protocol) describes the collective cooperation, attention and trust of the people who join the network and together invest money and other resources, usually via the Internet, to support efforts initiated other people or organization. Crowdfunding occurs in different situations, assist countries / cities after natural disasters through citizen journalism, artists seeking support, financing for political campaigns, funding startup companies, entrepreneurship or film to the creation of free software. In recent years, crowdfunding has become a new way for the development of philanthropy. Numerous internet sites are calling on donors to provide support for a goal or project. Although the practice of the common purpose / calling donors via the Internet, but to some extent spread throughout the region, most often happens through Facebook - so far the attempts to attract donors and raise funds via the Internet only (no social network) is almost non-existent. One reason probably lies in the fact that the administration is in the online development. (<http://philanthropyposts.squarespace.com/blog-2/2012/11/6.html>)



Picture 1. Model of crowdfunding (source <http://fundstlouis.org/wp-content/uploads/2011/03/crowdfunder.jpg>)

Forbes (Forbes) last year compiled a list of the top 10 platforms (websites) that support these two funding mechanisms. In fact, it is believed that there are about 500 of these platforms in the world and one that proved to be the best they enrolled in the Forbes top 10 list. Crowdfunding industry to Massolution report shows that the total crowdfunding industry surpassed \$ 2.7 billion in 2012 and more than a million individual campaigns around the world. In 2014 it is projected to grow to \$ 5.1 billion. (<http://www.forbes.com/sites/chancebarnett/2013/05/08/top-10-crowdfunding-sites-for-fundraising/>)

There are two major types of models of crowdfunding. Then the first is called a fund based on donations. This is actually the original crowdfunding, where financiers donate through the process of cooperation in exchange for products, privileges or awards. The second and newer model is investing crowdfunding, where companies sell ownership stake in the network in the form of equity or debt. In this model, individuals who finance become owners or shareholders and have the potential for financial gain, unlike the donations.

Forbes' list of the top ten sites for crowdfunding and crowdsourcing includes:

1. Kickstarter
2. Indiegogo
3. Crowdfunder
4. RocketHub
5. Crowdrise
6. Somolend
7. Appbackr
8. AngelList
9. Invested.in
10. Quirky

(<http://www.forbes.com/sites/chancebarnett/2013/05/08/top-10-crowdfunding-sites-for-fundraising/>)

Mentioned 10 sites are prominent in this area. Maybe it's time to realize your idea on some of these platforms, because these two methods of financing rapidly changing economy of today. The first serious example of fundraising from individuals via the Internet is online "Fund Raising" campaign in the presidential campaign of 2008, when Obama raised more than \$ 4 million through small donations from individuals over the Internet.

Meanwhile, crowdfunding model on the Internet has evolved into several (most common) directions:

1. Lending of funds for implementation of projects. Characteristic example of this service is *kiva.org*.
2. Financing projects by selling "souvenirs". Most famous example of such a service is *Kickstarter.com*.
3. Funding of projects by combining sales "souvenirs" and donations. The most famous example of such a service is *Indiegogo.com*.

Just examples of Kickstarter and Indiegogo are the most interesting in terms of investments that do not require you to give a share in your company / project to get funds. Perhaps you first encountered the Indiegogo included when the current was with us the news of the funding to create the Tesla Museum in the United States, given that the funds for the museum just collected through this service. (<https://www.indiegogo.com/projects/let-to-build-a-goddamn-tesla-museum-5#home>) These funding platforms are already widely used in Serbia, and on Indiegogo and Kickstarter exists some active projects available for fundraising at this moment. An interesting example is, say, investing in the film "Ozone", which was covered by local media.

([http://www.b92.net/kultura/vesti.php?nav\\_category=268&yyyy=2012&mm=10&dd=01&nav\\_id=647602](http://www.b92.net/kultura/vesti.php?nav_category=268&yyyy=2012&mm=10&dd=01&nav_id=647602))

To "Ozone" saw the light of day Branko Sujić and Mirko Milosevic made a presentation of the film on Kickstarter in order to reach the missing funds for implementation of the project started. Judging by the subject, the universality of the story and the idea of the project, the authors have hoped to make it to the end of October 2012 to raise the necessary \$ 8,000. And they succeeded. The idea is successfully funded and the authors have collected 8,566 dollars.

(<https://www.kickstarter.com/projects/ozonproduction/ozone>)

Business model as service Kickstarter and Indiegogo basically represents a platform for e-commerce where interested in financing choose a pre-defined amount of funding (eg. \$ 5, \$ 25, \$ 50 \$ 250 ...) and for the value of the interest to finance virtually buys a product / service or souvenir. For service Indiegogo, it is next to the model provided and classical donations. This means that effectively you are setting up your project as a sales story, where if the interest of potential buyers (your story, made part of the story, the product at some stage,...) you are selling them the products and / or services you have not yet created a certain amount of or sell some souvenirs related to your project (shirts, hats, mugs, etc.).

The most interesting moment in this business model is that it provides a way to get here, potential investors are not cheated.

1. The Investor selection, which will reliably project investment.
2. You as an investor buying something in a particular amount of investment you are willing to give.
3. The project owner receives the funds raised only under the condition that the given limit h certain period of time a minimum amount of funds collected by the tra g io. If the amount of investment reaches the designated h specified sum by the project owner, investor returns ć event steam.

(<http://www.draganvaragic.com/blog/mogucnosti-investiranja-u-projekte-u-srbiji-i-sta-je-crowdfunding/>)

Foregoing means that the owner of the project must be very good to think about how to request funds for the project, and that this amount should be as realistic as if for a limited period of time has at least and \$ 1 less than the requested amount, funding is considered unsuccessful. Precisely, select the presentation of the project and what exactly you sell to potential investors determines whether you successfully finance the project in this way or not.



Picture 2. Infographic – The largest players in the crowdfunding landscape in 2013  
(source [http://blog.iprospect.es/wp-content/uploads/Top-Crowdfunding-Sites-US\\_2013.jpg](http://blog.iprospect.es/wp-content/uploads/Top-Crowdfunding-Sites-US_2013.jpg))

#### 4. KICKSTARTER TODAY

Kickstarter platform is for funding projects so far is the number of ideas collected a billion dollars, and most of this amount was collected during the last year. More than 5.7 million people supported the creative projects on the site and on all seven continents and in more than 224 countries. Most of the money donated by the Americans, a total of 663.32 million dollars. In second place is the UK with the accompanying 54.43 million, while the third place residents of Canada with 44.91 million. In fourth place is Australia with 31.78 million dollars for her followed by Germany (21.61 million) and France (10.13 million dollars). On the list of the ten countries that are most helpful to Kickstarter projects in the still and Sweden (7:15 million), Japan (7.14 million), the Netherlands (7:03 million) and Singapore (6.71 million dollars). ([http://www.b92.net/tehnopolis/vesti.php?yyyy=2014&mm=03&nav\\_id=819974](http://www.b92.net/tehnopolis/vesti.php?yyyy=2014&mm=03&nav_id=819974))

How works Kickstarter? Kickstarter is officially launched in 2009 by Charles Adler, Perry Chen and Janceja Strickler, based Cenová idea that it matured in 2002. Chen was once the New Orleans Jazz Festival wanted to bring two well-known DJ and organizes a big party, but it was rejected by the organizers, who are afraid that they will not be sold enough tickets to cover the costs, so he came up with the idea to organize a system that would allow people to buy tickets online, but that the money from the account removed only after achieving the required amount, as organizer guarantees that he will pay the organization of the concert, and users will not be deceived. Since he had experience in the internet business, Cenová idea a few years waiting on the side, until he met Adler and Strickler, with whose help he started with the implementation of the service that has become known crowdfunding portal in the

world, and thus funding through "ordinary people" who, in turn, offer a gift or a finished product at a discount price, has enabled many startups IDs starting their own businesses. (<http://www.itvesti.info/2014/03/na-kickstarter-to-collected-over-od.html>)

What are the statistics of this platform is concerned, at the time of writing of this paper are the following figures - a total of 60,064 successfully funded projects and total funds raised were 1,073,394,861 dollars. (<https://www.kickstarter.com/help/stats>)

These figures certainly speak about the success of the idea of Perry Chen. A project that has collected the most money ever on this platform is "Pebble: E-Paper Watch for iPhone and Android." The Pebble is a "smart watch" developed by Pebble Technology was launched in 2013 and funded through Kickstarter platform. It has a black and white e-paper display, vibrating motor, magnetometer, ambient light sensor and accelerometer, which enables the monitoring activities. Pebble is compatible with the iPhone and some Android devices.

When connected to a phone can receive text messages, e-mails, calls and notifications from social networking profiles. It can also work as a remote controller for your phone, or for cameras such as the Go Pro. Since February 2014 Pebble App Store has over 1,000 applications. Pebble has collected about 10.3 million dollars, which is the most successful product ever released by the company. Best Buy, the American Electronic Corporation, began selling Pebble smart watch in July 2013 and the first batch sold out within five days. Migicovski Company has launched a campaign on Kickstarter on 11 April 2012 with an initial collection of funds in the amount of 100,000. Supporters of this could have for \$ 115 buy Pebble when it launched on the market (\$ 99 for the first 200). Within just two hours of launching the campaign, the project has collected the planned funds of \$ 100,000, and within six days the project has become the largest funded project in Kickstarter's history, the actual 4.7 million.

And by the end of the campaign was left for another 30 days. On 18 May 2012, the financing of the project is completed and the final score was a whopping 10,266,844 dollars which was attended by 68.928 people. ([http://en.wikipedia.org/wiki/Pebble\\_\(watch\)](http://en.wikipedia.org/wiki/Pebble_(watch))). When we write about Serbia, unfortunately we did not have more such big projects, but there was not negligible. Successfully funded project called Serbian Belgrade Baroque Academy. Baroque Academy, founded last year, is being held for the fourth time in Belgrade, organized study of early music and the support of the International Association of Early Music Network, Markis Foundation (USA) and the Ethnographic Museum in Belgrade, part collected through Kickstarter -a. Launched with the idea that young singers and instrumentalists inform and improve the interpretation music of 17th and 18th centuries, the Baroque Academy is particularly concerned with the historical principles of interpretation, using historical instruments from the era when the music posted on (<http://www.belgradebaroqueacademy.com/>).

When it was established last year to Kickstarter in the set video in which he explained what the money needed. The amount he had claimed was \$ 1,000 and after the set time has raised funds amounted to \$ 1150 (<https://www.kickstarter.com/projects/pgosta/belgrade-baroque-academy-an-educational-project-in>). The goal is certainly met.



Serial number	Name of project	Asking sum	Reached the sum	Participants (backers)
1	Pebble: E-Paper Watch for iPhone and Android	100,000	10,266,845	68.928
2	OUYA Game Console	950,000	8,596,474	63.416
3	The Form 1 3D Printer	100,000	2,945,885	3,520
4	ARKYD Space Telescope	1,000,000	1,505,366	17,614
5	The Order of the Stick Reprint Drive	57,750	1,254,120	14,952
6	Amanda Palmer & The Grand Theft Orchestra Album	100,000	1,192,793	24,883
7	Planet Money T-Shirt	50,000	590.807	20,242
8	Ukiyo-e Heroes	10,400	313.341	2,422
9	Rescue The Historic Catlow Theater From Extinction	100,000	175.395	1,394
10	Youth America Grand Prix's 'Ballet's Greatest Hits' Gala	35,000	38,752	121

Table 1. Summary of the most funded projects on Kickstarter in order of decreasing value (source: <http://www.businessinsider.com/the-highest-funded-kickstarters-2013-7#dance-youth-america-grand-prixes-ballets-greatest-hits-gala-10>)

#### 4.1. IndieGogo

In addition to Kickstarter, the Indiegogo is the second most popular crowdfunding platform for creative individuals and companies to finance development projects such as video games, games for mobile phones, but also the innovative physical products. Indiegogo has announced that it has secured \$ 40 million of fresh capital for growth and expansion and by large investment funds.

(<http://www.poslovnipuls.com/2014/01/29/druga-najpopularnija-crowdfunding-platforma-indiegogo-osigurala-40-milijuna-dolara-ulaganja/>)

This is the total value of investments in the crowdfunding service increased to 56.5 million. The biggest difference between Kickstarter and IndieGoGo is the fact that the creators of the future projects to retain the money collected regardless of whether it is achieving the intended level of investment. Kickstarter will pay only collected donations to projects that achieve pre-set level of investment, which at Indiegogo is not the case.

When we talk about Indiegogo-in we have to mention and are currently in the project from these areas on a daily basis via social networking appeals to people to help them. It was a Balkan band Kultur Shock, who in this way trying to find the necessary funds to record ninth studio album. In this action are included and many fans of the aforementioned bands Intolerance towards expected to hear what they are work on. And of course, depending on the sum that someone be donated, in accordance with the time I will get a symbolic "anti-service" in the form of a copy of the latest materials that store. The largest donation, the highest quality copies of all packaging. It makes sense. At this point until the end of the campaign remained 14 days and so far has collected 14,284 dollars, which is 57% of the requested amount (25,000dolara). (<https://www.indiegogo.com/projects/kultur-shock-is-raising-funds-to-produce-their-ninth-record#home>)

#### **4.2. KICKSTARTER VS IndieGoGo - a comparative overview**

These two crowdfunding platforms only support projects that are based on donations. On both platforms Kickstarter and Indiegogo, Project creators keep 100% control over their products and services. Since its launch, Kickstarter has become one of the best players in the area crowdfunding and has helped more than 46,000 successful campaigns. Kickstarter's success is based on a strict policy of qualifications, and the "all or nothing" funding policy. The ability to finance particularly creative campaigns. But all posted Projects must fit into one of the following categories: art, comics, dance, design, fashion, film, food, games, music, photography, publishing, technology and theater. Only users in the United States, Canada, and British - can create projects, but anyone can donate.

##### **Kickstarter stats**

The average crowdfunding campaign: **\$ 5,000**

Percentage of unsuccessful campaigns: **56%**

According to Kickstarter in only 10% of projects to finish without a single donation, while 81% of projects that have raised more than 20% of the set target, and who, after completing successfully funded. Projects can last for 60 days, although Kickstarter recommends setting a deadline of 30 days or less. In terms of fees, Kickstarter applies a fee of 5% of the projects funded successful and failed projects do not bear any fees, which refers to their financial policies - all or nothing - a policy that's just what it sounds like. If the project fails to meet its funding goal, all donations collected are returned. According to the Kickstarter-in, this policy provides a level of security for policy actions and their supporters.

On the other hand, Indiegogo has a lot of "loose" rules. They essentially allow crowdfunding various projects, travel, charities and other desires. Unlike Kickstarter times, not limited Indiegogo who may be created project. It can be anyone with an idea, financial need, and a valid bank account. Indiegogo also offers more choice when it comes to raising funds by offering a fixed way of campaign financing and / or flexible.

##### **Indiegogo statistics**

The average crowdfunding campaign: **\$ 3,700**

Percentage of unsuccessful campaigns: **80%**

On average, successful Indiegogo campaign-and remain active for 47 days. According to statistics recently released 80% Indiegogo project does not take more than 25% of the total target. However, the site implemented a fee of 4% of the funds raised for successful projects, which is slightly cheaper alternative to Kickstarter.

(<http://www.forbes.com/sites/chancebarnett/2013/09/09/donation-based-crowdfunding-sites-kickstarter-vs-indiegogo/>)

The success of the project on Indiegogo it is somewhat worse. Many users choose Indiegogo for your choice of fixed or flexible financing. Flexible options enables designers to retain the

funds collected, for a fee of 9%, even if the project eventually failed. However, designers are responsible for providing all the promised donation. For the unsuccessful campaign with a fixed method of financing will not be charged any fees, and the creators are under no obligation to fulfill any donation, and all donations are returned. Although the Kickstarter Indiegogo behind global audience and inclusive policies have shown great potential for policy projects that are looking for greater flexibility. On the other hand, the campaign for personal interests or charitable projects are allowed, and those projects that do not meet the requirements Kickstarter may be rejected. Some companies have been successfully used to fund the expansion of its business, Kickstarter projects, such as developing new applications, as well as the purchase of new equipment.

## **5. INSTEAD OF A CONCLUSION – HOW TO FINANCE OWN PROJECT ON A SUCCESSFUL WAY?**

After all that we said, and read, and ordered statistics, in addition to those the most funded and successful you will encounter on the projects that you think are very creative and yet failed to raise sufficient funds and thus come to life. These are the recommendations, what you need to do as you just would not have happened.

### **1. Create a Blog**

Each of us knows only a certain number of people. Acquaintance with more people is crucial for any project, so people keep talking about it. The blog should hang high resolution photos. Photos should be always available to the media, so that they could in the best way you promote it.

### **2. Stand in a line with an already existing trends**

It is far easier than to create new ones, if the idea is related to something that people kind of already did, it's more likely that your idea will work. The ability to connect to the Internet? Minimalist design? Finding your location? Check, check and check. You do not need to create a new product, only to offer a solution to an existing one. Pebble has done just that.

### **3. Frequent Communication**

Your communication is an important part of your campaign. Your communication is your campaign. It is very important to remember. Woe to you successfully finance the project on Kickstarter-in unless you have almost daily communication with donors through a blog, e-mail or social networks.

### **4. "Promising" video**

Statistics say that for successful project financing more than 50% actually saw the material that follows the story of your project. More than 65% of the projects exceeded the planned amount of money and received several times the amount, because a great video which is all well and thoroughly explained.

### **5. Answers to the idea and a community needs**

Original Pebble is not designed as waterproof. This is, like, really important that people who use it when they go for a run or a bike ride (both of which are shown in the original campaign video). People have requested that the new version has this capability, ie be water-resistant.

*(<http://crowdfundingdojo.com/articles/7-steps-that-made-the-pebble-epaper-watch-the-most-funded-kickstarter-ever-that-you-can-copy>)*

The powerful combination of these factors leads to the successful financing of the project. It is this combination and led to the most funded project ever (Pebble). These are some of the strongest reasons why the Pebble been able to achieve such success. Of course the idea in the first place. Good, innovative ideas combined with the above recommendations, we pave the



way to the success and implementation of ideas. The world is this way financing already normal and default thing, is everyday life. In Serbia, as we could see, the matter is quite different. Serbs still do not trust what they're getting for their money, and perhaps suppressed worse financial situation, they are unable to contribute. All in all, we have where and to whom we have to present our ideas. The question is will and desire and willingness to meet all the above criteria. And whether such an arrangement would come into force in our country, we are left to wait for better times and hope.

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## REPORTING STANDARDS FOR HEALTH RESORT – ASSUMPTION FOR SUCCESSFULL BENCHMARKING

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### ABSTRACT

*Benchmarking is defined as a set of activities that use performance indicators to assess and manage the performance of organizations. The purpose of this paper is to develop a benchmarking methodology for monitoring business operations at national and international level, with focus on health resorts. The methodology is based on the latest edition of Uniform System of Accounts for Lodging Industry (USALI, 2014) and Uniform System of financial reporting for SPA (USFRS, 2005), adapted to health resorts and focused on financial and non-financial information. The paper discusses the possibilities of successful and sustainable use of health tourism potential at tourism destination and national level, in accordance with the objectives defined by Croatian tourism development strategy. Today's health resort manager is facing new business problems and opportunities. Running a health resort requires the ability to look outside the business for solutions, ideas, and best practices. It allows health resort manager to develop plans for improvements or adoption of specific best practices, usually with the aim of increasing some aspects of performance. The contribution of this paper is in analysing the main KPIs in Croatian health resorts and hotels, based on monthly profit and loss statements for 2013 to determine the most profitable segments of health tourism offer. According to the theoretical framework, best practice and the level of performance measurement in Croatian health resorts, the research recommends the framework for reporting system in health resorts.*

**Keywords:** benchmarking, health resort, health tourism, hotel, performance measurement, reporting standards, USALI, USFRS

### 1. INTRODUCTION

Managers in health resorts are regularly confronted with problems on how to run their business which implies the ability to look for solutions, ideas, and best practices. Measuring performance requires more than a financial focus, because increasingly businesses use a range of metrics to provide a broad view of business performance. Modern performance measurement systems will track a range of performance metrics, and managers will be held accountable for performance areas such as customer satisfaction, staff turnover and new product innovation, as well as operating profit and return on investment. Benchmarking assists in process of improving traditional performance measurement systems in the highly competitive and rapidly changing markets. It is a systematic process for identifying and implementing best or better practices highly successful organizations use. Benchmarking is a procedure of comparative measurement, knowledge-sharing and motivational processes in accordance with customer's expectations, driven by standards set by best performer.

## 2. HEALT RESORT

Classical health resorts (thermal, air, sea baths) are the oldest form of tourism resorts developed mostly in 18<sup>th</sup> and beginning of 19<sup>th</sup> centuries in Europe, based on natural springs and other natural resources. Nowadays health resorts offer different form of wellness concepts, SPAs services and product, as well as possible forms of medical treatment under the umbrella of health tourism offer (figure 1).

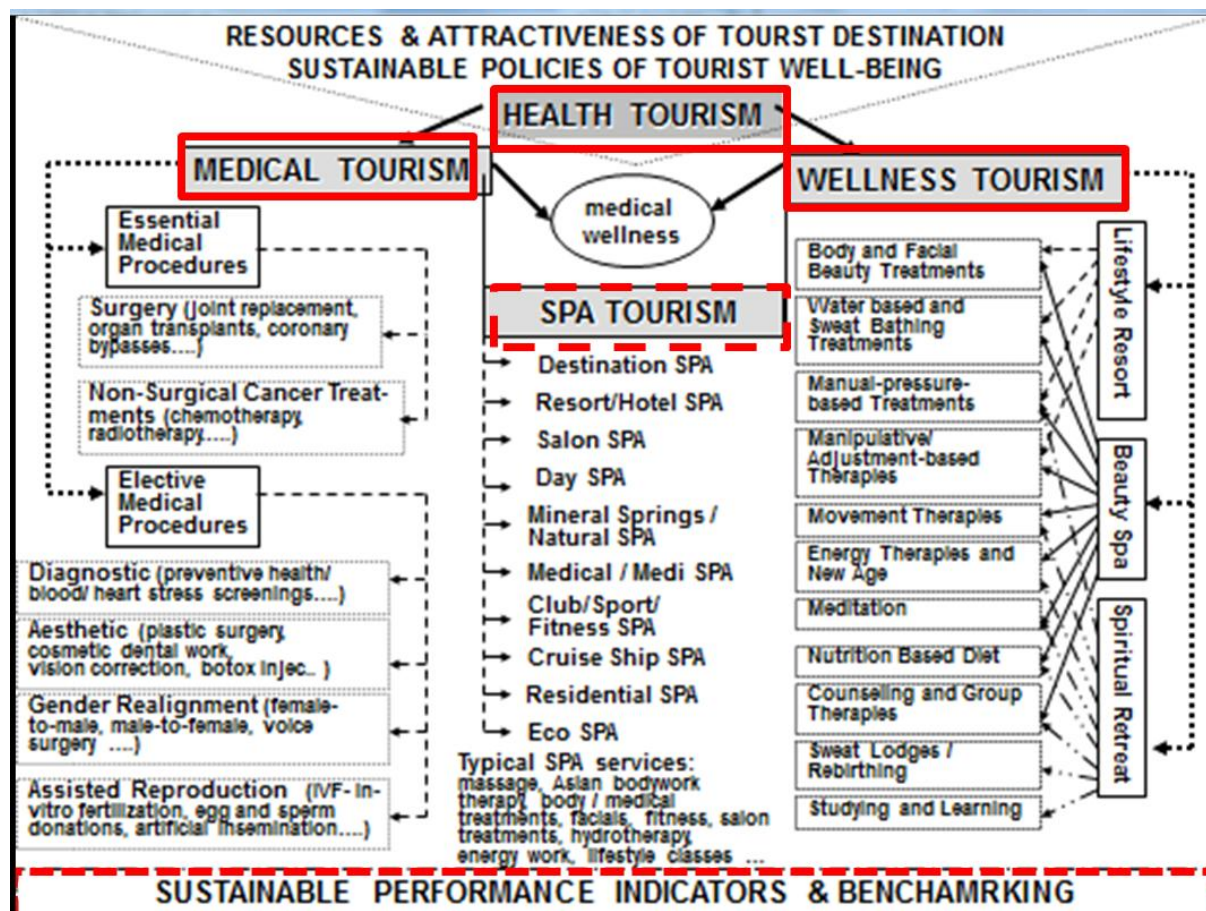


Figure 1: Elements of the health tourism offer (Peršić, Janković, 2012., p.89)

Due to new user requirements, social relationships and environmental conditions concept and structure of elements in the health tourism offer is changing. Concept of health resort development has to be based on the principles of sustainable development. Health resorts are nowadays facing challenges, opportunities and obligation of forming recognizable model of health tourism product, following the rules of global health tourism business network. Research conducted on global level, show that demand for the health tourism offer is constantly increasing (GSS 2009, 2010, 2011; Johnston, Puczko, Smith, Ellis, 2011; Hall 2011; Deloitte 2008, 2009; DMT 2011).

The health resort offer is becoming more and more complex, because of consumer's needs, and therefore the entire regions or countries are promoted as health tourism destinations (IBEF, 2011; Jotikasthira, 2010 ...), and the task of individual health resort is to fulfil a specific part within the clearly defined strategic task of health tourism development. The best model of competitive health tourism resort offer is the combination of core tourism attributes of the destination, health tourism facilities and services with the synergy of relationship and connection to specialized medical, wellness and SPA operators (Lagiewski, Myers, 2009;

Smith, Deery, Puzko, 2010). Health tourism resorts are mostly a part of wider region or tourism destination, and in principle take following characteristics (according to Kai illing, 2010, p.6.):

- The health tourism guest primary chooses the region (destination) and only then individual hotel or wellness/SPA center or other individual facility in which to spend the majority of available time
- The management board of health tourism resort promote a synergy of number health and tourism facilities, covering a large part of the region/tourism destination offer (the individual facilities are cross-linked with the overall health and tourism infrastructure on the health resort level)
- The health resort management strategically support co-operation between all participants in the health tourism offer, to prepare an integrated approach in line with the resource base and demand on the health tourism market

Basically the health resorts' performance will depend upon the specifics and quality of offered health tourism product, which are the main elements of health tourism resort competitiveness (Puczek, 2010). The main approach would like to be put on the leisure based health promotion and prevention, including primary and secondary care (balance-resort, fitness resort, SPA/wellness resort, medical resort -Kai illing, 2010, p.12.), always with the aim to contribute to improvements the general health status of both locals and guest. Pursuant to the above, in this paper some by the authors conducted research results, in order to reflect the position of health tourism offer from national (health tourism professionals in Croatia), through regional (tourism, tourism professionals and inhabitants in the Primorsko-Goranska County) to the local level (professionals and inhabitants in tourism destination Rab) will be presented. These findings will be linked to the research results that were directed to the possibility of using reporting standards, KPIs and benchmarking methodology, all with the aim to ensure continue improvement of health tourism business operations and results.

## **2.1. Design and development of health resorts in Croatia**

The most common motives for tourists visiting Croatia are rest and relaxation activities (sun and sea), with a highly expressed seasonal oscillations, which relies on available resources and other opportunities (Ćorak, Marušić, 2010; Marušić, Ćorak, 2013; Blažević, 2004, Blažević, Peršić, 2007 & 2012). Special emphasis should be placed on the health tourism products, one of the world's fastest-growing type of selective tourism offer today. According to UNWTO forecasts (UNWTO 2003-2013; UNWTO 2012), health belongs to the second most important group of motives for coming into a tourism destination. That makes the starting point in designing and developing health resort, following the trends of global tourism market as well as principles of sustainable development.

Health resort offer should be based on systematic research of available resource basis, as well as potential market niches, because these are the premises for ensuring a distinctive and competitive tourism product of health resort. Accessing the research of opportunities for development health tourism on the level of some health tourism resort, should be based on the natural and human resources, organizational preconditions, achieved level of health and tourism industry, taken into account the health tourism history. As the contemporary tourism is based on the principles of sustainability, in health resorts all activities connected with the preservation of natural, cultural and historical heritage should be taken into account. For this purpose, several different research results conducted by authors will be presented.

### 2.1.1. Position of sustainable health tourism offer on the region / destination level

The research results from 2003, 2007 and 2011 year in about 20 tourism destination in the region Primorsko-Goranska County (also called Kvarner tourism destination), which has long tradition in health tourism development, and is second most developed tourism regions in Croatia create basis for starting point. The task of this empirical research was to determine the views of tourists (1989 participants), inhabitants (1770 participants) and tourism professionals - managers (257 participants) about the quality of tourism offer in the Kvarner tourism destination. For each target group some specific questions were set up, while mutual were 32 general questions. The questionnaires included closed- and open-ended questions, and a seven point Likert scale (from 1 to 7). This research involved a large number of destinations, but it used the same methodological basis, which makes the research results comparable among destination and time frame (Blažević, 2004; Blažević, Peršić 2007; Blažević, Peršić, 2012.).

The quality of tourism offer was evaluated through 32 elements, comprised in 5 groups: (1) *Space, Resources, Environment* (climate, landscape beauty, environment preservation, sea cleanliness); (2) *Residents, Employees* (hospitality of employees, hospitality of inhabitants, foreign language skills); (3) *Identity, Security, Information* (feeling of safety/security, tourism information quality, traffic signs, souvenirs); *Organizational structure and quality* (geotrafical position, accessibility, promenades, green areas, orderliness and cleanliness, urban harmony, local traffic organisation, parking, cleanliness-crowds-contents of beaches, shops offer, working hours of restaurants– banks - shops, etc.); (5) *Facilities / Contents* (events, historical and cultural heritage, accommodation, restaurants/catering cultural, entertainment sports, conferences/congresses facilities and facilities for children, excursions, local gastronomy, *health* and nautical tourism, and price/value relationship). From the above mentioned, the average best and worst ranked elements of tourism offer, and comment with special emphasis on their relation to the design of health tourism product will be extracted.

Rank 2006 / 11	The most attractive elements of the regional tourism offer (TOP 10+)	Average 2006	Average 2011
1.	1.	Landscapes attractiveness	5,61 → 5,87
2.	3.	Climate	5,25 → 5,76
3.	7.	Preservation of the natural environment	4,98 → 5,35
4.	5.	Friendly and hospitable residents	5,07 → 5,34
5.	6.	Pleasant and hospitable tourism professionals	5,05 → 5,32
6.	2.	Sea water quality	5,28 → 5,21
7.	4.	Availability and maintenance of walking lanes and promenades	5,09 → 5,21
8.	9.	Maintenance and design of parks and green spaces	4,95 → 5,19
9.	13.	A sense of personal safety and security	4,86 → 5,19
10.	8.	Working hours of restaurants	4,96 → 5,17

Figure 2: TOP 10+ elements of the regional tourism offer (Blažević, Persić, 2012, p. 207)

Natural and human resources continuously hold the top position, which is very important for health-tourism development, as well as the hospitality of local people and level of professional knowledge in the tourism and health industry. Together with security, safety, sea water quality and maintenance of green areas these elements make excellent assumptions on which health tourism development can be based. The contemporary health tourism



development should follow principles of sustainable development because the hotels are among the biggest polluters on the resort levels. Because of this fact if and to which extent hotels take care about environment was investigated, and its results are presented in the following figure.

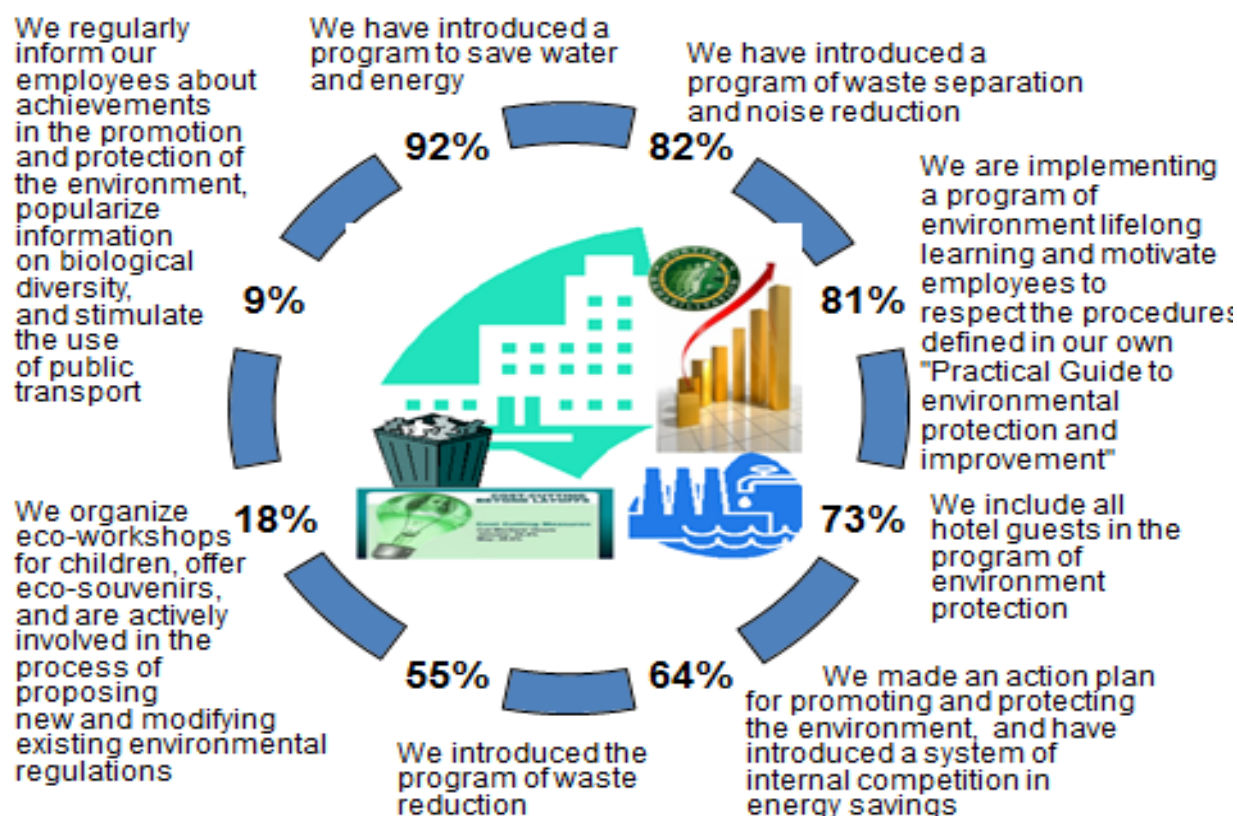


Figure 3: Eco Awareness management activities in Croatian hospitality industry (Jankovic, Persic, Zanini-Gavranic, 2011. p. 131)

It should be noted that introducing sustainability principles on the resort level arises from customer needs and wishes (91%), for raising their competitiveness on the target tourist market (73%). Employees are being stimulated to achieve higher levels of quality in all fields of environmental protection, following the needs of continuous eco-quality improvement, and with emphasis on removing the causes of constraints (82%). Attempts to establishing the criteria and indicators, as a basis for measure and evaluating the quality of management decision-making (55%) are increasing. Considerably less is done on internal manuals and other forms of employees education, and provided guidance for legislation (36%) and standards (27%) compliance (HACCAP, ISO 9001, ISO 14001), as well as evaluating the reasons of non-compliance with the principles of TQEM, or ECO-quality (18%) is not common.

Greater attention is given to short-term decision making tools, while the number of those who perceive the strategic approach with emphasis on the elements of health resort product life cycle is negligible (9%). (Jankovic, Persic, Zanini-Gavranic, 2011. p. 132).

This shows that in Croatian tourist destination precondition for establishing sustainability oriented, market-identifiable, attractive and competitive health resorts can be found. However, until today in this field has not much being done because of the fact is that health tourism is still the weakest element of destination tourism offer (figure 4).

Rank 2006/ 11		The lowest ranking elements of the regional tourism offer (TOP 10 -)	Average 2011	Average 2006
1	1	Meetings and conferences	3,64	3,10
2	2	Health tourism facilities	3,77	3,59
3	9	Nautical facilities	3,92	4,11
4	7	Entertainment facilities	4,05	4,04
5	4	Sports facilities	4,25	3,95
6	3	Parking lots	4,33	3,65
7	10	Crowded beaches	4,33	4,18
8	6	Facilities for children	4,36	4,03
9	8	Local traffic	4,45	4,10
10	17	Excursions	4,52	4,52
16	5	Souvenirs	4,91	4,02

Figure 4: The lowest ranking elements - TOP 10 - of the regional tourism offer (Blazevic, Persic, 2012, p. 208)

It is necessary to bridge the gap between natural assumptions and inadequate level of health tourism development of this region level. Their potentials are also recognized in strategic documents of the Ministry of Tourism (STD, 2013) and the Ministry of Health (NSH, 2012), and included in the directions for the regional Healthcare strategy (SCHIPGC 2013), Action plan and guidelines of founding Health tourism cluster on the region level. Therefore it is expected that health tourism in the structure of regional tourism offer will be better positioned.

### 2.1.2. Possibility of wellness and medical tourism development in Croatia

The subject of research was conducted among members of Health Tourism Association, which is a member of the Croatian Chamber of Commerce (HTA CCC, 2014), in order to recognize it as the most attractive elements, between many generic elements and possibilities in the area of SPA services, medical and wellness tourism during the spring of 2014 was how to develop sustainable health tourism in Croatia.

Results of this research will be compared to the results of similar research which was carried out during year 2013 on the level of tourist destination Rab that belongs to region Primorsko-Goranska County, and it is on the tourism market known as Kvarner tourist destination. These results will be evaluated through comparison with globally accepted attitudes and health resort managers' information need, following the task that they are regularly confronted with new business problems and opportunities.

In order to extract the health tourism offer of some health resorts, it is necessary to examine its resource basis, and to recognize those elements, which create important part of health tourism product with actual requirements of market demand following national and regional strategic documents.

Research results presented the position of each individual element among elements of tourism offer today, as well as the expectations on their position at health resort level. Next figure presents different services' attractiveness and competitiveness in the structure of wellness - selfness - wellbeing - medical or SPA offer on the national or destination level.

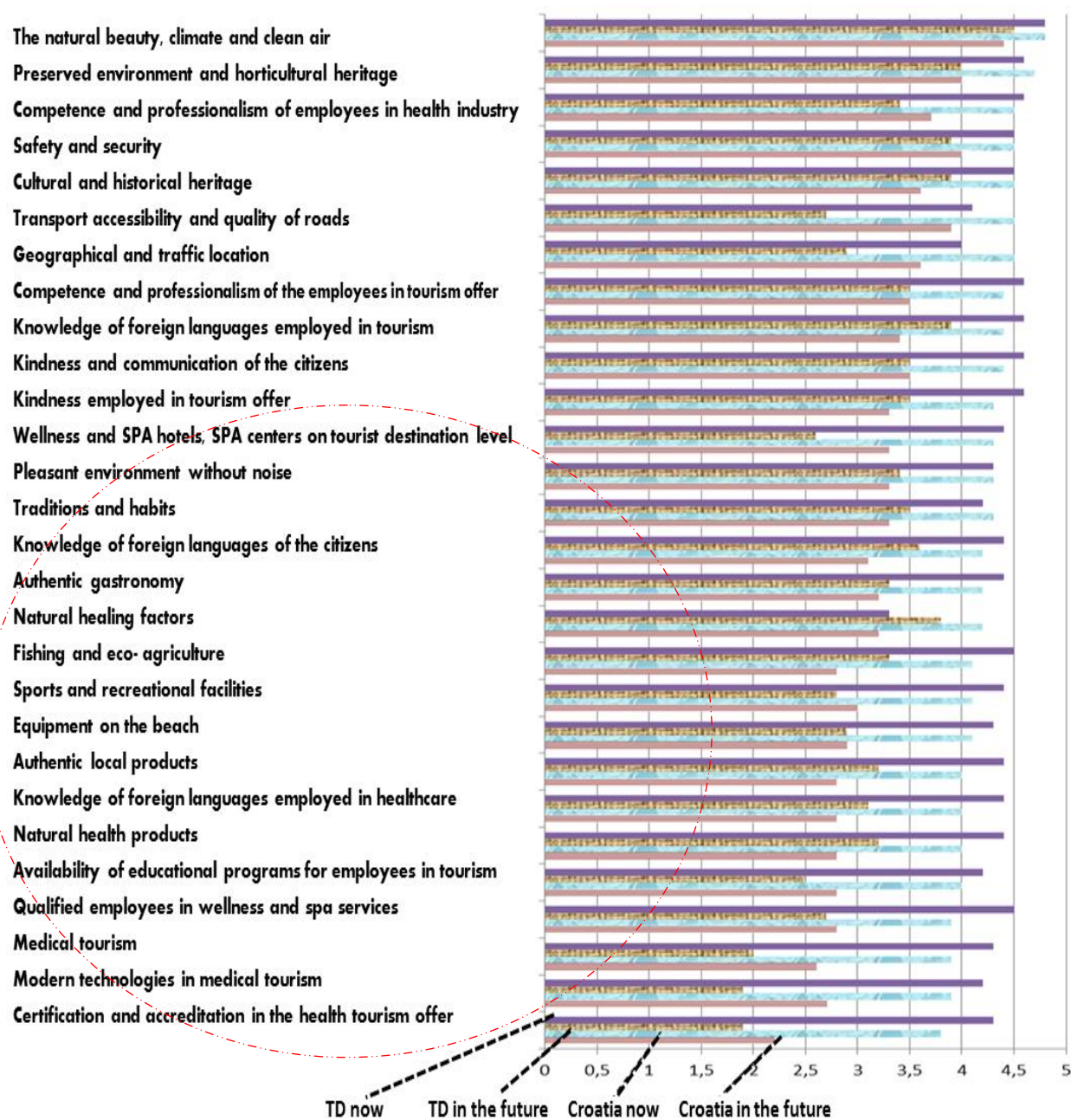


Figure 5: Position of some elements in health tourist offer - now and in the future (HTA CCC, 2014 & Persic, 2014, p 104 - 127)



It can be concluded that the attitudes of the respondents are in great extent harmonized at the national and local level, the fact that the current situation of health-tourism offer is not satisfying, but both target groups of respondents are very optimistic about potential that should be utilized.

It can be noted that the respondents opinion about wellness and SPA offer as well as the about other supported facilities important for their further development are higher-ranked than the elements connected with the medical tourism. It can be expected that medical tourism will be better development after placing the Kvarner Health Tourism Cluster.

The results presented are in a certain way in harmony with global trends, as wellness tourism based on the principles of sustainable development, with respect towards autochthonous values of region/destination is the best way for establishing health resort offer, which will be accepted (Figure 6).



Figure 6: Wellness tourism as synergy with many high-growth niche segments (SRI, 2013; SpaInc, 2014 p. 8)

Destination management should have relevant knowledge in designing distinguished health tourism product. As wellness tourism is not uniquely determined, a good knowledge about content, interaction and relationships of wellness tourism offer on the health resort level is necessary. The emphasis is always on ensuring synergy between various elements and processes. Whole complexity of issues that can be summed up as wellness tourism is in some good way illustrated by the following picture.



Figure 7: The elements in the structure of wellness tourism offer (GWTE, 2013, p. ix)

What should be taken into consideration when developing health tourism offer in Croatia, and which elements should be included in tourism product of individual health resorts is presented in figures 8 and 9. The research was based on questionnaire that included closed and open-ended questions, and a 5 point likert scale (from 1 to 5). In order to obtain responses on these questions the possibility for health tourism development is presented. The attitudes of experts at the national level can help to recognize the priority elements and areas of wellness and medical tourism, which can be the basis for shaping recognizable health tourism product of health resorts.

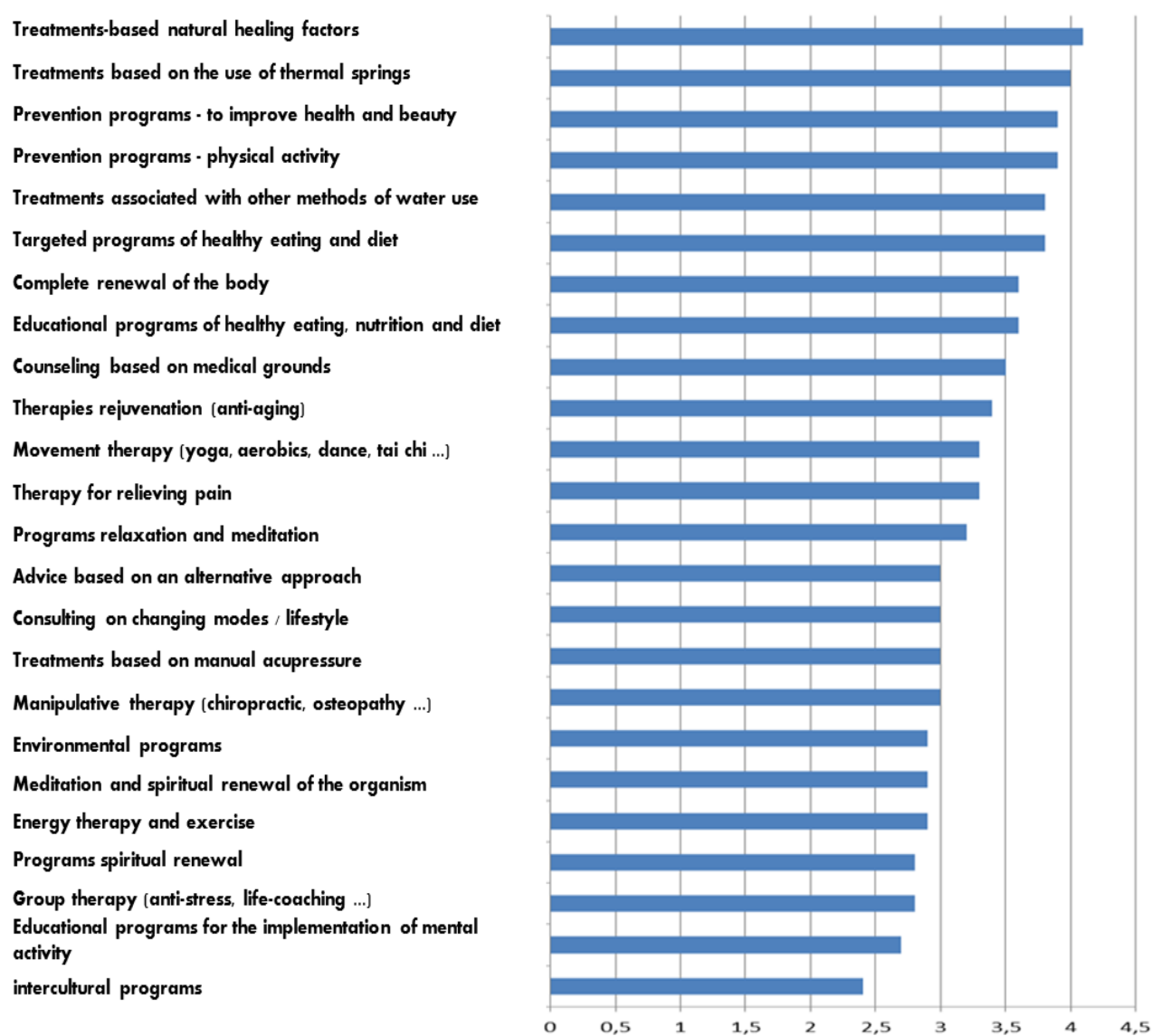


Figure 8: Rankig of forms/areas/units of wellness tourism offer (HTA CCC, 2014)

The experts - members of the Health tourism association consider that in designing health-resort tourism product, the advantage of natural resources, which are very important part of wellness tourism product should be primarily used. It is just a distinct segment of tourism offers, which is specific to be recognised through competitive advantages, through the comparison with the other destination. Management of health resort has the task to connect top-quality accommodations and other infrastructural conditions with original, authentic and distinctive products, services and benefits, based on the natural resources. . If such opportunities exist, it is certainly useful to connect different elements of wellness and medical tourism offer in order to achieve better performance. Within the framework of this study, SPA services were treated as operational support in the realization of the tasks of wellness and medical tourism, in details through reporting process and benchmarking will be analyzed. The following figure shows that the greatest opportunities undoubtedly exist in the field of stomatology. However, also the advantage of other options, especially the capacity of specialized hospitals and clinics, as well as knowledge and experience of medical professionals for better evaluation on the tourism market, if they become an integrated part of the health tourism offer should be taken into consideration.

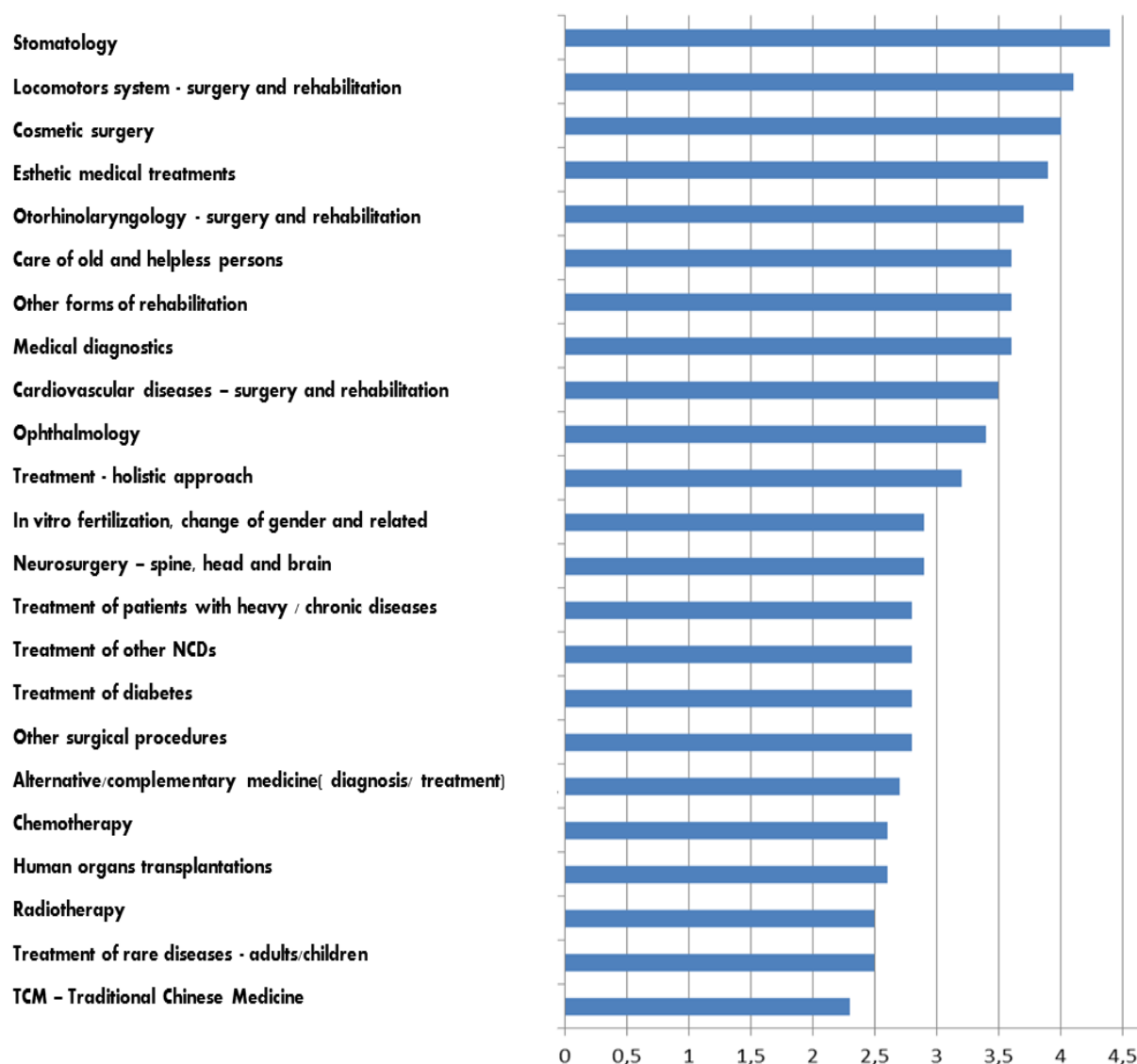


Figure 9: Ranking of forms/areas/units of medical tourism offer (HTA CCC, 2014)

Results that were obtained in this research, indicate that health tourism in Croatia is at a much lower level of development in relation to the opportunities or historical heritage. Available natural and human resources should be better exploited and conditions for integration of tourism and medical services to be recognizable, socially, environmentally and economically valuable health-tourism product, which can be valorised on the world tourism market should be created.

Running a health resort requires the ability to look outside the business for solutions, ideas, and best practices. It allows health resort manager to develop plans on how to make improvements or adapt specific best practices, usually with the aim of increasing some aspects of performance. The paper pointed out the possibilities of successful and sustainable use of health tourism potential at the level of region / tourism destination or health resort on the national or local level.

Studies were conducted in accordance with the objectives defined by the Croatian tourism development strategy as well as regional strategies and local guidelines. According to the theoretical framework, research results and best practices, and with the use of specific

methodological tools for performance measurement and reporting system will be introduced to provide information necessary in decision making process on the health resort level.

### **3. REQUIREMENTS FOR GOOD HEALTH RESORT BENCHMARKING**

Benchmarking is a set of activities that use performance indicators to assess and manage the performance of organizations. Building specific benchmarking methodology for monitoring business operations is necessary for systematically monitoring and evaluating if health resort achieves its goals and what is his position in comparison to the competition. For this purpose specific internal reporting system and appropriate indicators will be applied. The reporting methodology is based on the accounting standard prepared specifically for the hospitality industry (USALI, 2014), as well as for SPA industry (USFRS, 2005), and the need for presenting both financial and non-financial information, important for health resort managers in process of short-term and long-term decision making. The specific KPIs for Croatian hotels and health resorts in accordance to determine the most profitable services on the health resorts level will create the basis for benchmarking.

#### **3.1. Benchmarking framework**

Benchmarking means “improving ourselves by learning from others” (Amarayya, 2013., p. 3). It is a more efficient way to make improvements through eliminating trials and errors, because it speeds up organization’s ability to make improvements in short time (today, time is of the essence) following realistic but ambitious targets.

By implementing benchmarking activity, organizations in health resort can improve their operation process, time and cost reduction, as a basis for competitive strategy development. Building core competencies of health resort will help in sustaining competitive advantage for accessing a variety of markets, increasing benefits of product or service. As a product or service of health resort is unique and hard to imitate, the health-tourism product has to be based on research of natural, organisational and human resource, following the new products development (medical, wellness or SPA services) to be entering on the new markets in the way presented in previous chapter.

Historically observed increased interest on benchmarking has certainly been stimulated with the publication of Xerox’s manager Robert Camp’s book (Camp, 1989; Watson 1993), after which benchmarking has been discussed by many authors primarily in the form of management guidebooks. Benchmarking has been defined differently by a variety of authors and organizations, but great number of them expresses that benchmarking is the process of comparing one’s business processes and performance metrics to industry or other industries best practices.. Benchmarking includes the continuous process of comparing products, services, and activities to the best industry standards, and can come from within the organization, from other organizations, or from other organizations that have similar processes (Horngren, 2005. p. 147). The figure below provides a systematic overview of the key elements important to know in the process of implementing benchmarking on the health resort level.

Approach		Scope	Objectives	Advantages	Disadvantages
Internal Benchmarking		Functions, departments, projects, businesses in the same company or group at the same or another location	<ul style="list-style-type: none"> <li>•Improve competitiveness</li> <li>•Stimulate continuous improvement</li> <li>•Improve economic efficiency</li> <li>•Find effective employee rewarding systems.</li> </ul>	<ul style="list-style-type: none"> <li>•Similar language, culture, mechanisms and systems</li> <li>•Ease of access to data</li> <li>•Existing communications</li> <li>•Relatively quick returns possible</li> </ul>	<ul style="list-style-type: none"> <li>•Might inhibit external focus and foster complacency</li> <li>•Possibly results in returns that are merely adequate</li> </ul>
External benchmarking	Best practice benchmarking	Any organization regardless of sector or location	<ul style="list-style-type: none"> <li>•Identifying best management practices</li> </ul>	<ul style="list-style-type: none"> <li>•Possibility of breakthroughs</li> <li>•Broaden corporate perspective</li> <li>•Stimulates challenge</li> <li>•Less sensitive to ethical and political reservations</li> </ul>	<ul style="list-style-type: none"> <li>•Relatively difficult to access data</li> <li>•Change ramifications are greater</li> <li>•Higher profile</li> </ul>
	Competitive benchmarking	Competitors (e.g. companies operating in the same sector)	<ul style="list-style-type: none"> <li>•Identifying performance, objectives, strategies and programs of competitors</li> <li>•Identifying best practices</li> </ul>	<ul style="list-style-type: none"> <li>•Similar structure and constraints</li> <li>•Relative ease of data access</li> <li>•Relatively low threat</li> <li>•Helps to overcome complacency and arrogance</li> </ul>	<ul style="list-style-type: none"> <li>•Sector paradigms might restrain creativity</li> <li>•Legal, ethical and political considerations</li> </ul>
	Sector benchmarking	Specific or similar sector or industry branch	<ul style="list-style-type: none"> <li>•Identifying sector strategies and programs</li> <li>•Disseminating information on best practices</li> <li>•Defining training packages</li> </ul>	<ul style="list-style-type: none"> <li>•Industry trends easier to assess</li> <li>•Relative ease of access to data</li> </ul>	<ul style="list-style-type: none"> <li>•More difficult to derive specific recommendations</li> <li>•Data also accessible to competitors</li> </ul>

Figure 10: Framework of benchmarking processes (Wöber, K.W., 2001. p. 5)

In benchmarking process is task on the field of continuously identifying, understanding and adopting outstanding practices, found inside and outside the organisation. It is based on performance comparison, gap identification and change management process, but as a process of adaption, not adoption (Watson, 1993). Benchmarking among companies can be conducted either within a specific or different industry sectors to identify potential changes in practice, but differences in performance revealed by comparisons within a specific industry sector are more likely to lead to smaller but more frequent incremental changes.

Benchmarking offers help in finding the answer on many open questions, as why or how are others better, what can we learn and catch up it, or become the best in some industry (Amarayya, 2013., p. 5). Benchmarking differs among the relative importance of seeking only best-practice comparators rather than benchmarking against a comparable set of typical organisations in continuous ongoing process or benefits. Measurements can include research and development strategies, quality parameters, costing techniques, and productivity (Keller, D., 2010., p. 3). Benchmarking is perceived in recent years, as a very important management tool in process of strategic decision making.

1993	2000	2008	2010
<ul style="list-style-type: none"> <li>• Mission &amp; Vision Statements (88%)</li> <li>• Customer Satisfaction (86%)</li> <li>• TQM (72%)</li> <li>• Competitor Profiling (71%)</li> <li>• <b>Benchmarking (70%)</b></li> <li>• Pay-for-Performance (70%)</li> <li>• Reengineering (67%)</li> <li>• Strategic Alliances (62%)</li> <li>• Cycle Time Reduction (55%)</li> <li>• Self-Directed Teams (55%)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Strategic Planning* (76%)</b></li> <li>• Mission &amp; Vision Statements (70%)</li> <li>• <b>Benchmarking (69%)</b></li> <li>• <b>Outsourcing** (63%)</b></li> <li>• Customer Satisfaction (60%)</li> <li>• Growth Strategies* (55%)</li> <li>• Strategic Alliances (53%)</li> <li>• Pay-for-Performance (52%)</li> <li>• Customer Segmentation (51%)</li> <li>• Core Competencies (48%)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Benchmarking (76%)</b></li> <li>• <b>Strategic Planning* (67%)</b></li> <li>• Mission and Vision Statements (65%)</li> <li>• CRM*** (63%)</li> <li>• <b>Outsourcing** (63%)</b></li> <li>• Balanced Scorecard (53%)</li> <li>• Customer Segmentation (53%)</li> <li>• Business Process Reengineering (50%)</li> <li>• Core Competencies (48%)</li> <li>• Mergers &amp; Acquisitions (46%)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Benchmarking (67%)</b></li> <li>• <b>Strategic Planning* (65%)</b></li> <li>• Mission and Vision Statements (63%)</li> <li>• CRM*** (58%)</li> <li>• <b>Outsourcing** (55%)</b></li> <li>• Balanced Scorecard (47%)</li> <li>• Change Management Programs**** (46%)</li> <li>• Core Competencies (46%)</li> <li>• <b>Strategic Alliances (45%)</b></li> <li>• Customer Segmentation (42%)</li> </ul>

Figure 11: Benchmarking as a very important management tool (Bogetoft, P., 2012, p. 2)

Benchmarking processes begins with the decision on what to put in benchmarking process (of whole processes in organization), identify benchmarking partners, gather information, analyse the information, implement for effect and monitor results and take further action as needed (Karlof, Ostblom, 1993, Kinni, 1994). The rule is firstly to identify performance gaps and then to develop methods to close them. The gap between internal and external practice reveals which changes are necessary. Successful benchmarking needs to be regular and continuous, but also conducted by different departments and at different levels of the larger organization (Ahmed, Rafiq, 1998). In determining best practices, there exist informal and formal base for benchmarking approach, the global best practice benchmarking and performance benchmarking (BPIR, 2007. p.2.), and can be carried out as self-administered or conducted by a third party (Kozak, Nield, 2001).

Best practice benchmarking involves the whole process of identifying, capturing, analysing and implementing the possibility of the best benchmarking methodologies. Informal, is a type of benchmarking, which is constantly in use to compare and learn from the behaviour and practices of work colleagues and experts, who have experience in implementing a particular process or activity in many business environments. Comparative or competitor benchmarking is not affected to the same degree by resources, and is used by organizations of all sizes, as a prerequisite to competitive staying in business. Benchmarking is traditionally thought of as a managerial tool that improves performance by identifying and applying best documented practices. Managers compare the performance of their respective organizations, products and processes externally with competitors and best-in-class companies and internally with other

operations within their own firms that perform similar activities (Bogetoft, P., 2012, p. 1). Performance measurement is directed to searching the best way for be successful in the long-term, to meet the needs of shareholders, customers, employees, suppliers, and different stakeholders on the level of local community. Benchmarking is very important management tool and has three main features (Amarayya, A., 2013., p. 9):

- continuous method of measuring and comparing a firm's business processes against those of another firm
- discover performance gaps between one's own processes and those of leading firms
- incorporate leading firm's processes into one's own strategy to fill the gaps and improve performance

Performance benchmarking may involve the comparison of financial measures (such as expenditure, cost of labour, cost of buildings/equipment, cost of energy, adherence to budget, cash flow, revenue collected) or non-financial measures (such as absenteeism, staff turnover, the percentage of administrative staff to front-line staff, budget processing time, complaints, environmental impact or call centre performance). Both of them should be taken into account on the health resort level, however, performance measurement plays a central role in organizational improvement, as the requirement for benchmarking, and to achieve business excellence. Results based on using performance indicators (KPIs) are ranked respectively, because on the basis of these results, experts present their recommendations and action plans for future development.

Benchmarking is closely linked to business excellence, for health resorts that would like to reach performance levels judged as "world-class", based one of business excellence models (e.g. EFQM, 2013, p. 2-3). Using business excellence models helps in recognizing and eliminating or reducing the barriers / gap that limit the success of benchmarking (resource constraints, high cost, lack of management commitment and professional human resources, resistance to change, short-term expectations ...). Performance measurement is fundamental to process improvement, this means that a relevant system of preparing and presenting specific information (reporting system) and indicators for identifying opportunities and improving performance, following strategic goals and targets should be chosen.

### **3.2. The role of IFRS, USALI & USFRS standards for segment reporting and benchmarking of health resort's services**

Accounting in the modern world has the task to provide relevant information, that will enable performance measurement and benchmarking of services on the health resort level, in accordance with strategic goals and operative objectives. For defining success, managers and shareholders need information about profitability of particular segment or group of activity, connected with the cost, revenue, asset and liability of every profit center, which is defined as a segment in accordance with globally accepted *International financial reporting standard 8 – Operating segments* (IFRS 8, 2006, p.9) with the goal to integrating external and internal reporting system e.g. results of the level of segments with the global financial result, presented on the Profit and loss statement (Jones, T.C., Luther, R., 2005., p.165-193). Segment reporting based on IFRS 8 standards in Croatian companies is presented in the following figure.



Industries classified according to the Global Industry Classification Standard and National Classification	Examined listed companies	Companies which presented segmental information	% (2) of (1)
0	1	2	3
<b>55. Accommodation / Food &amp; Beverage</b>	<b>41</b>	<b>13</b>	<b>31,7</b>
40. / 65. Finance & Insurance	33	12	36,4
30. Food, Beverages & Tobacco Products	22	5	22,7
15. - 21. / 24 - 36. Production of wood and paper products; coke, and refined petroleum products; chemicals and chemical products; pharmaceutical products and preparations; computer, printer, electronic and optical products; textiles, apparel, leather; rubber, plastics products, non-metallic mineral product; metals products; machinery and transport equipment	30	5	16,7
All other activities	29	5	12,8
74. Business services (legal, accounting, architecture, engineering, technical testing, analysis ...)	10	4	40,0
31. / 32. Manufacture of electrical equipment	9	2	22,2
20. / 61. - 63. Transportation and storage	12	2	16,7
42. Construction	10	1	10,0
<b>Total</b>	<b>206</b>	<b>49</b>	<b>23,8</b>

Figure 12: Segment reporting of listed companies in Croatia (ZSE, 2013, GICS-OG 58/07)

Based on analysis of financial statements of quoted Croatian companies (listed on - Zagreb Stock Exchange) it can be concluded that among 25 different industries, only 23,8% disclose segment information, although the disclosure under the provisions of Accounting Act (OG 109/07; 54/13) is obligatory. It should be noted that between 49 companies, the largest number (13) belongs to the hospitality industry (Accommodation // Food and Beverage). In tourism it is also very important to ensure comparability of information for non-profit segments. For this purpose it is possible to use the provisions of IPSAS (*International Public Sector Accounting Standard*) 18 (IPSAS 18; 2002; 1-75). The Eurostat's is also proposing classification in order to enable comparison of information for public sector based on the IPSAS standards. (IPSAS Outlook, 2013: 7; EC IPSAS, 2013: App. 7.1.). Following the same concept and with the same effect as global IFRS 8 standards, hospitality industry is oriented to use *Uniform System of Accounts for the Lodging Industry*, best known as *USALI standards*, and also provides a consistent, uniform and specific shedule for segment reporting, as well as statistic ratios and operating metrics (USALI, 2014, p. 1-150; 87 - 232) for performance measurement and benchmarking, which can be directly applied to all products and services of world-wide hospitality industry. USALI establishes standardized formats and account classifications to guide individuals in the preparation and presentation of financial statements, supporting the aim of benchmarking on the level of global tourism market. It should be emphasized, that the primary reason for widespread adoption of the USALI has been comparability (USALI, 2014, p. ix). Lodging operators tend to use financial statement data generated by competitors as a benchmark against which to measure their own operations. If comparability is lacking, then there are no benchmarks. *Eleventh Revised Edition of Uniform System of Accounts for the Lodging Industry* establishes standardized formats and account classifications to guide individuals in the preparation and presentation of financial statements for external users: Balance Sheet, Statement of Income, Statement of

Comprehensive Income, Statement of Owners' equity, Statement of Cash flows and Notes to the Financial Statements (USALI, 2014, p. 151 - 186). However, since a global information on the company, organisation or resort level don't give a picture about success of smaller business units or group of activities, the segment reporting frameworks are more useful, in a way presented in the following figure.

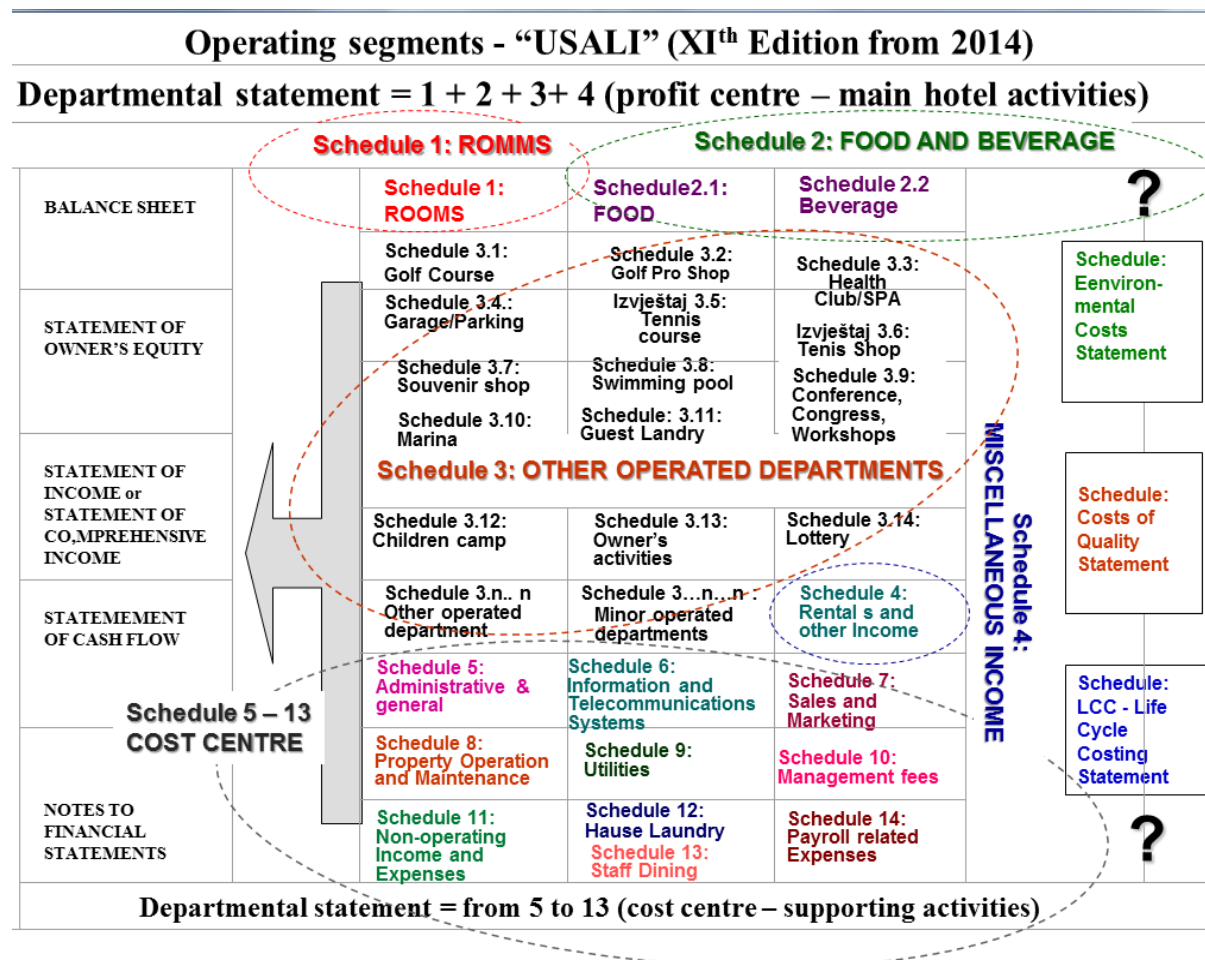


Figure 13: USALI department statements as a framework for segment reporting and benchmarking in the hotel industry (USALI, 2014, p. 1 - 186)

The figure presents USALI standard proposed hotel department statements that are a part of global Statement of Income, as well as a framework for internal financial segment reporting system. It is related to the operational activities of a hotel and lodging property in the area of profit and cost centre. USALI standards offer detailed explanation of required format and items, necessary for preparing departmental statements in the same way in all hotels on the level of worldwide hospitality industry. Following the items presented in figure 12, two main department classifications in a hotel can be recognised:

- (1) Operating or profitable (revenue-producing) departments, which include rooms, food and beverage, sum of other operated departments (sub-departments as a *wellness and SPA*, sports, garage and parking, shops and similar), and miscellaneous income.
- (2) Overhead or cost department include administrative and general, data processing and telecommunications technology, sales and marketing, human resources and supporting companies' management fees, property operations and maintenance, utilities and energy costs, house laundry and staff dining.

The USALI offer a revenue and expense guide (USALI, 2014, p. 233 - 340) and chart of accounts, very useful guide for IT technicians, as it indicates to the mutual conditionality and connection between data, to be followed in the construction of an integrated information system as a preconditions for successful reporting system oriented to the internal as well as external users. USALI are *unique benchmarking standards* to the whole hotel industry, and this experience can support the benchmarking system also in other industries that use provisions of IFRS 8 - as a globally accepted segment reporting standard. Information presented following *USALI* standards, are essential for analysing structure and quality of profit centre performance, as well as controlling the cost structure of cost centre level, what is the underlying premise of rationalization of business operations.

In the last 20 years, authors have been conducting or leading targeted research, to assess the degree of development and quality of reporting system in Croatian hospitality industry. It can be generally concluded, that USALI standards have been successfully implemented in Croatian Hospitality Industry (Ilić 1997; Turčić 2000; Peršić, Janković 2006; Peršić, Poldrugovac 2009, 2011; Peršić, Poldrugovac, Janković, 2012; Zanini 2004, 2011), and also in adequate way supported by IT (Persic, Peruško-Stipić 2009). The last author's research (conducted in 2013<sup>th</sup>, on a sample of 43% of hotels in Croatia) shows that 88% of hotels apply USALI standards (fully or partially), in the way shown on the following figure, which is in accordance with the global research (KPMG, 2008:4) where nearly 80% of the world's largest companies issue some form of responsibility report.

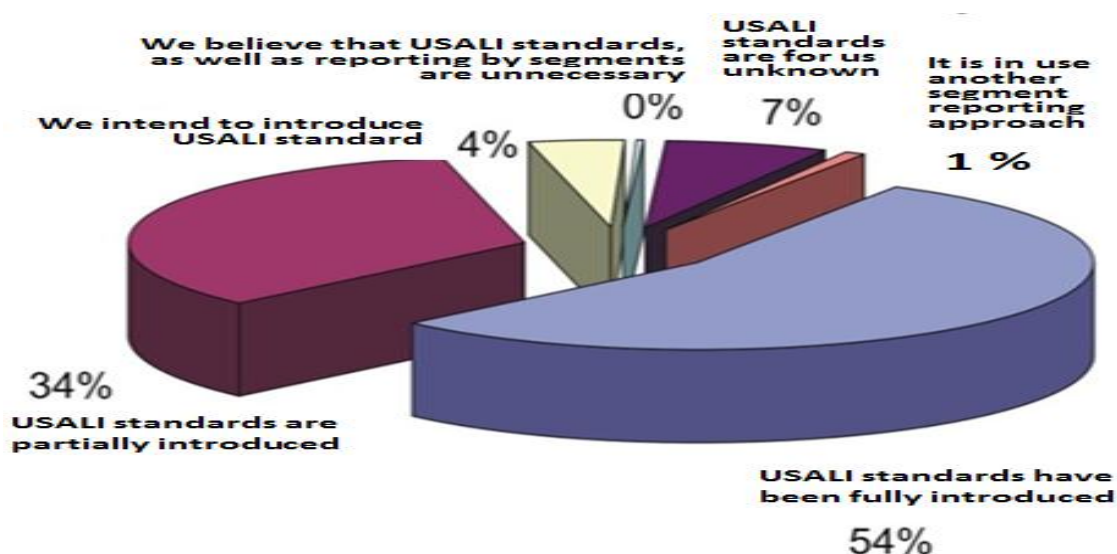


Figure 14: USALI standards and segment reporting in the Croatian Hospitality Industry (prepared by authors)

It is important to mention that exist also *USFRS* standards, prepared for specific of SPA services on the level of health resorts (*Uniform System of Financial Reporting for SPAs*). The significance of these standards is even greater since it is based on a consensus between SPA industry financial executives, public accounting authorities, consulting specialists and leading academic experts. It has been issued in 2005 for special purposes as an upgrade to the then existing IX<sup>th</sup> edition of USALI standards. Unfortunately, these standards are placed very narrow, and do not cover all the needs of health resort offer. But since this is the first successful, organized effort at establishing a definitive uniform accounting system for the SPA industry (USFRS, 2005: ix) and with the possible upgrading for segment reporting in

accordance with the actual needs of wellness and medical tourism, it will be possible to provide high quality standards for all activities of the health tourism resort.

USFRS provide benchmarking for the segments of all SPAs activity on the global level, because offer the rules for collecting and analysing data in a consistent and meaningful way, and help to sell hotel rooms and lifestyle real estate (Singer, 2005: 1). USFRS standards provide standardized format and account classification to guide individuals in the preparation and presentation of financial statements, using generic schedules, designed to fit all SPAs and other health tourism services, in order to develop individual reports modified to meet their own needs and requirements.

DEPARTMENTAL STATEMENTS in the <b>SPA</b> offer		
<b><u>Profit centre:</u></b> Schedule 1 Schedule 2 Schedule 3 Schedule 4 Schedule 5 Schedule 6 Schedule 7 Schedule 8 Schedule 9 Schedule 10 Schedule 11	<b><u>REPORTING SEGMENTS:</u></b> <ul style="list-style-type: none"> <li>• (Massage)</li> <li>• (Skin Care)</li> <li>• (Hair)</li> <li>• (Nail)</li> <li>• (Fitness)</li> <li>• (Food and Beverage)</li> <li>• (Health and Wellness)</li> <li>• (Membership Dues and Fees)</li> <li>• (Retail)</li> <li>• (Other Operating Departments)</li> <li>• (Rentals and Other Income)</li> </ul>	CHART OF ACCOUNTS
<b><u>Costs centre:</u></b> Schedule 12 Schedule 13 Schedule 14 Schedule 15 Schedule 16 Schedule 17 Schedule 18 Schedule 19	<b><u>POSIBLE REPORTING SEGMENTS:</u></b> <ul style="list-style-type: none"> <li>• (Support Labor)</li> <li>• (Indirect Operating Expenses)</li> <li>• (Administrative and General)</li> <li>• (Marketing)</li> <li>• (Facilities Maintenance and Utilities)</li> <li>• (Fixed Charges)</li> <li>• (Federal and State Income Taxes)</li> <li>• (Payroll Taxes and Employee Benefits)</li> </ul>	

Figure 15: USFRS department statements as a framework for SPA segment reporting and benchmarking (USFRS, 2005, p. 31 - 110)

The most important part are financial statements for profit responsibility centres, set for different kind of SPA services and organised as departments, group of services in hotel, wellness/spa center or be in some presented through small business on the tourism health resorts level (Johnson & Redman, 2008: 252-281; USFRS, 2005: 31-102). USFRS also provides the framework for preparing information on the level of cost centres, as well as non-financial information connected with different parts of the health tourism offer. For benchmarking purpose is important understand, compare, measure and monitor some of the key metrics (ratios) related to revenue, payroll, operating expenses and net profits, which can be controlled on the daily, weekly or monthly basis in compliance with health resort development policy. USFRS standard allow SPA performance comparison on the local, national, regional or world-wide level (Tabacchi, 2010: 104-106; USFRS, 2005:117-137) so that information will be used for short- and long- term decision making (Singer, 2005: 1-2) primarily to encourage management for continuous improvement, better resource allocation and systematically raise efficiency and effectiveness of the entire health resort product.

This type of information needs to be upgraded for long-term decision making, to be health-tourism product accepted on the “green” tourism market, which means that information has to be prepared in accordance with principles of sustainable development embedded in reporting system (IFAC 2006, p. 7-8; Brander-Brown & Atkinson, 2001; Atrill & McLaney, 2007, p

21; Idowu & Filho 2009; Ivankovič, 2004; Kavčič, Ivankovič, 2006). For this purpose it would be necessary to upgrade all existing segment reporting standards (IFRS 8, IPSAS 18, USALI, USFRS ...), with supplements or new types of reports, which will contain relevant information on environmental care and sustainable development, which should be based on the standards ISO 14000ff, EMAS and indicators GRI 3.4. (Peršić, Poldrugovac, 2011). This would enable the presentation of internally achieved results of sustainability to external users in accordance with standards and regulations, which besides economic views of development includes also the ethical way of thinking (Brander Brown, 1995; Philips 1999; Banker, Potter, Srinivasan, 2000; Mia, Patiar, 2001; Oavlatos, Paggios, 2009). Environmental and sustainability information can no longer be ignored, because of their great long-term impact on business success.

Croatian Accounting Act (OG 109/07; 54/13) Article 18 requires Croatian companies disclose the “information about the environment” as a part of sustainability reporting system, following the Croatian tourism development strategy (CTDS, 2013, OG 55/13), National Sustainable Development Strategy (SSDC 2009; OG 110/07), Environmental Protection and Energy Efficiency Fund (OG 107/2003). Sustainability reports can be based on GRI framework (GRI G4, 2013a; GRI G4, 2013b), principles of the “Global Compact” or CSR Index, in the way to be higher level of the segment financial reports based on using IFRS 8, IPSAS 18, USALI or USFRS standards, with parallel orientation on the internal and external users. (Peršić, Janković, Vlašić, Vejzagić 2007; Peršić, Janković, Vejzagić 2010; Janković, Peršić 2011; Peršić, Poldrugovac 2011; Vejzagić, Peršić, Janković 2012; Vlašić, 2012).

Such approach is supported by the Croatian Business Council for Sustainable development (HR BCSD, 2013), whose 39 socially responsible members (CSR) publicly present (<http://www.hrpsor.hr>) sustainability reports. It is not encouraging that only about 5% of listed companies in Croatia disclose their sustainability report for public use (11 of 206) on the web pages of HR BCSD. There is a need that health resorts apply the principles of sustainable development and sustainable segment reporting to increase their reputation in the eyes of their business partners (100%), loyalty of employees (85%) and provide a competitive advantage (67%) to attract investors (Janković, Peršić, Zanini-Gavranić, 2011). Taking this into account, authors started the modelling Croatian benchmarking model for both hospitality and health-tourism industry, and in the following chapter the main elements of framework which can be use on the health resort level will be presented.

### **3.3. Framework for health resorts benchmarking**

The Croatian hotel industry as well as health resorts do not have a national uniform system for measuring and comparing results of business operations, as is common in competing countries such as Austria, Germany, Italy, Spain, etc. The Sample in Horwath Hotel Industry Survey Croatia is not enough representative and significant and is belated. Hotel managers as well as hospital or health resort managers are undoubtedly interested to find out their own position of business in comparison to direct competition. To ensure this kind of benchmarking, Faculty of Tourism and Hospitality Management Opatija, University of Rijeka launched benchmarking process to be recognised and used by the most useful key performance indicators (KPI) for performance measurement and management. This is recognisable through results of two specific projects (1) Hotel Benchmarking - Croatian Hotel Benchmarking (HBC, 2011) and CrossBench - Benchmarking of Croatian and Slovenian Hotel Industry (CrossBench, 2013). The aim of the first project (*Croatian Hotel Benchmarking*) was to development the software as a supporting tool for building interactive on-line database for financial and nonfinancial data with the purpose of ensuring conditions for performance measurement. The outgoing results was providing the weekly, monthly and



yearly on-line reports, which can be created on the basis of large number of criteria (category, size, art, specialization, location,...) in accordance of specific user needs. The project includes also the training and other kind of education process (minimum of two workshops pro year). Experiences from Hotel Benchmarking were accepted for CrossBench, an IPA project funded by EU (figure).

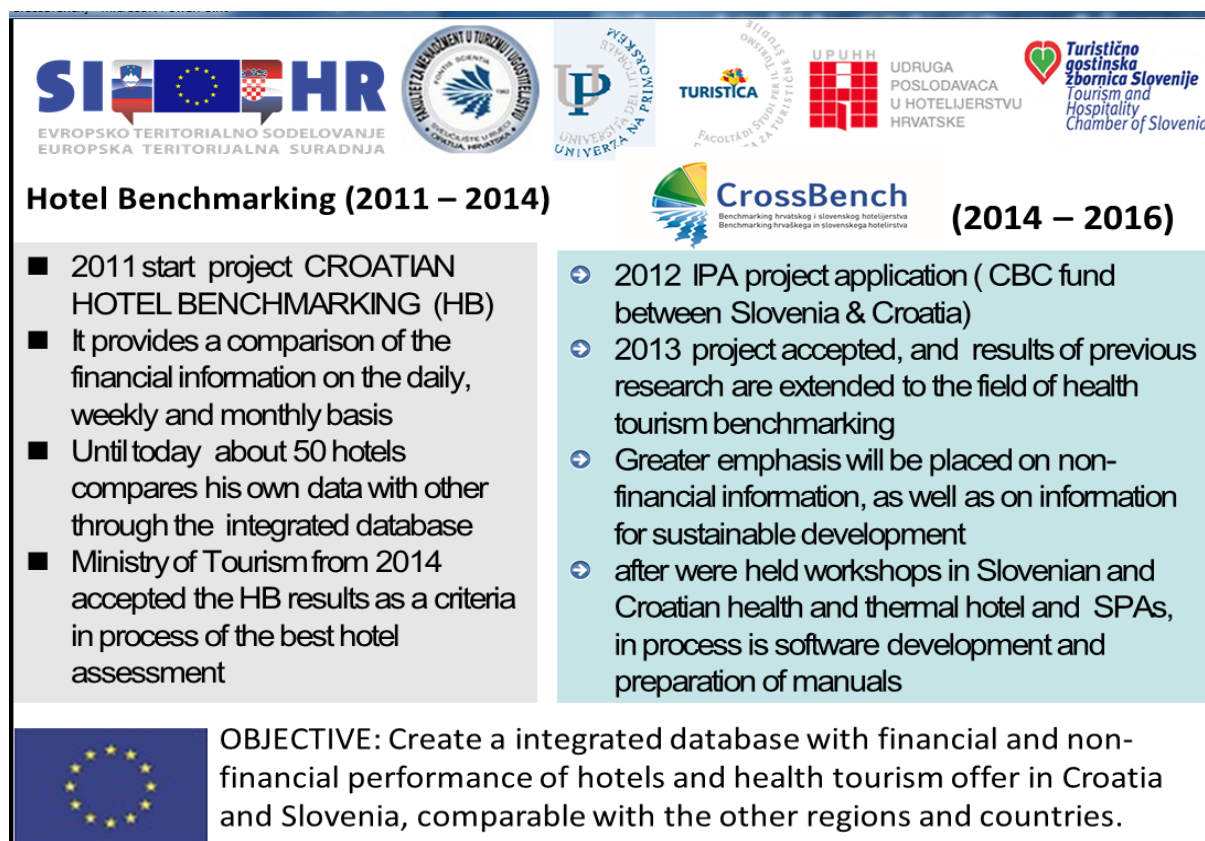


Figure 16: Hotel Benchmarking and Cross Bench projects in Croatia (HBC,2011; CrossBench, 2013)

Based on this experience, at the end of 2013 cross-border cooperation with Republic of Slovenia was obtained (Janković, Ivanković at all. 2013). This EU project is from Croatian side supported by Association of Employers in the Croatian Hospitality Industry, Ministry of Tourism and Croatian Chamber of Economy. On Slovenian side project is involved with the University of Primorska Koper - Turistica Portorož and national Tourism and Hospitality Chamber of Slovenia. In benchmarking process about 50 of Croatian hotels, which ensure hotels performance measurement and benchmarking at the national level, prepared through the using provisions of USALI, USFRS and IFRS 8 standards, are included. Collecting and reporting are focused on financial and non-financial indicators as follow.

*Monitoring and comparing financial results of hotel business operations* is possible through their internal weekly and monthly reports, as well as from yearly financial statements, which hotels provide in form of standardized data about achieved business results. The hotel or other subject on the health resort level is compared to its competition based on several criteria: average room rate, REVPAR, occupancy, revenue and expense structure of departments, energy costs per guest, contribution margin of profit departments, the hotel's total EBDIT, etc. One between many options is presented on the next figure.

DESTINATION	month	% of capacity utilization			ADR			RevPAR			TRevPAR			revenue per night		
		min	aver	max	min	aver	max	min	aver	max	min	aver	max	min	aver	max
Krk	6	73	78	84	362	611	785	266	479	598	470	649	750	294	391	457
Makarska	6	81	83	86	584	620	655	470	518	565	686	730	774	422	431	440
Poreč	6	70	76	83	572	644	707	400	494	584	534	644	759	378	433	494
Rab	6	49	70	84	216	336	423	105	242	357	199	386	569	204	294	371
Umag	6	58	65	74	426	562	679	249	374	503	491	589	744	413	474	549
Zadar	6	51	64	71	290	391	469	148	257	334	214	363	450	239	286	324
Zagreb	6	58	76	89	406	492	626	327	361	407	404	614	787	305	583	851
Krk	7	81	88	97	587	940	1208	478	835	1041	741	1048	1259	359	496	555
Makarska	7	79	85	89	689	840	1001	544	718	892	743	967	1150	377	487	576
Poreč	7	89	91	92	832	918	969	763	831	865	964	1043	1088	455	544	632
Rab	7	69	80	91	335	572	761	231	475	688	379	696	1006	259	453	578
Umag	7	68	71	74	761	901	1072	519	636	747	824	916	1075	542	648	856
Zadar	7	81	87	94	389	542	669	314	474	566	499	660	748	227	294	348
Zagreb	7	43	66	88	364	482	630	249	304	377	401	454	523	268	464	689
Krk	8	98	99	102	647	946	1138	634	938	1127	945	1184	1350	388	503	598
Makarska	8	95	96	96	672	851	1067	642	813	1014	883	1094	1296	383	498	605
Poreč	8	96	97	97	890	981	1065	866	950	1026	1092	1177	1259	472	567	644
Rab	8	91	94	97	329	606	842	309	572	813	494	804	1174	252	438	619
Rovinj	8	95	96	98	819	938	1006	783	903	971	1141	1403	1569	586	659	722
Umag	8	90	92	93	831	954	1097	751	875	1008	1107	1219	1383	551	639	792
Zagreb	8	35	59	87	329	448	562	189	249	378	331	373	441	258	416	615
Krk	9	87	93	101	11	362	603	9	347	571	270	574	740	152	298	399
Makarska	9	91	93	96	342	519	650	316	485	624	511	704	858	310	400	466
Poreč	9	92	94	95	476	549	608	452	516	580	580	674	771	322	388	447
Rab	9	47	78	90	290	355	412	176	273	359	318	451	587	194	273	341
Rovinj	9	76	84	89	520	559	608	415	470	541	738	837	922	455	536	580
Umag	9	70	79	87	481	549	646	334	434	516	584	675	794	429	465	538
Zagreb	9	69	83	94	376	478	597	329	387	411	455	623	772	292	516	773

Figure 17: Example of presenting benchmarking data (HBC,2011; CrossBench, 2013)

The database can provide different types of data and information that can be compared online or presented in the form of statements for different users (Ministry of Tourism, Statistics, Croatian National Tourist Board, Croatian Chamber of Commerce, Association of Hoteliers Health Tourism Association, Restaurateurs Association...) with goals to be compared to results of competition. Available data can help in finding answers on questions, such as: are results of a certain hotel (or other subjects on the health resorts' level) better or worse to the direct competitor or what are the prices in relationship to the quality of services and so on. Benchmarking is very important tool for increasing competitiveness and for control of hotel's efficiency and effectiveness in accordance to the competition. To achieve main goals is to develop specific and innovative software with the new approach to enable comparison of all data available in the database. Information from database is also helpful in recognising and better using strengths and advantage and eliminating weaknesses or exploit opportunities. It is also possible to use such information in managing costs and maximize revenues, as well as enhancing the social responsibility of different part of health resort offer.

*Monitoring guest/tourist satisfaction* is a part of using non-financial data. It is a very important part for improving hotel (or other health resort subject) offer on the target tourism market. For evaluating that, managers use standardized questionnaires, adapted to individual business needs. Through the questionnaire answers on questions like who the hotel's (health resort's) guests are, why they chose particular hotel (health resort), are they satisfied with the different kind of products or services and how do they rate it, which is very important basis for evaluating the operational and strategic marketing activities. *Monitoring employee satisfaction* is also very important, because only satisfied employee can be successful in relation to the guests. The hotel (health resorts) employees' satisfaction is anonymously evaluated. Management is able to compare the satisfaction, motivation and loyalty of their

own employees with the competition and can get information for decision-making in the field of human resources management. Benchmarking results can be presented in a way shown in the next figure.

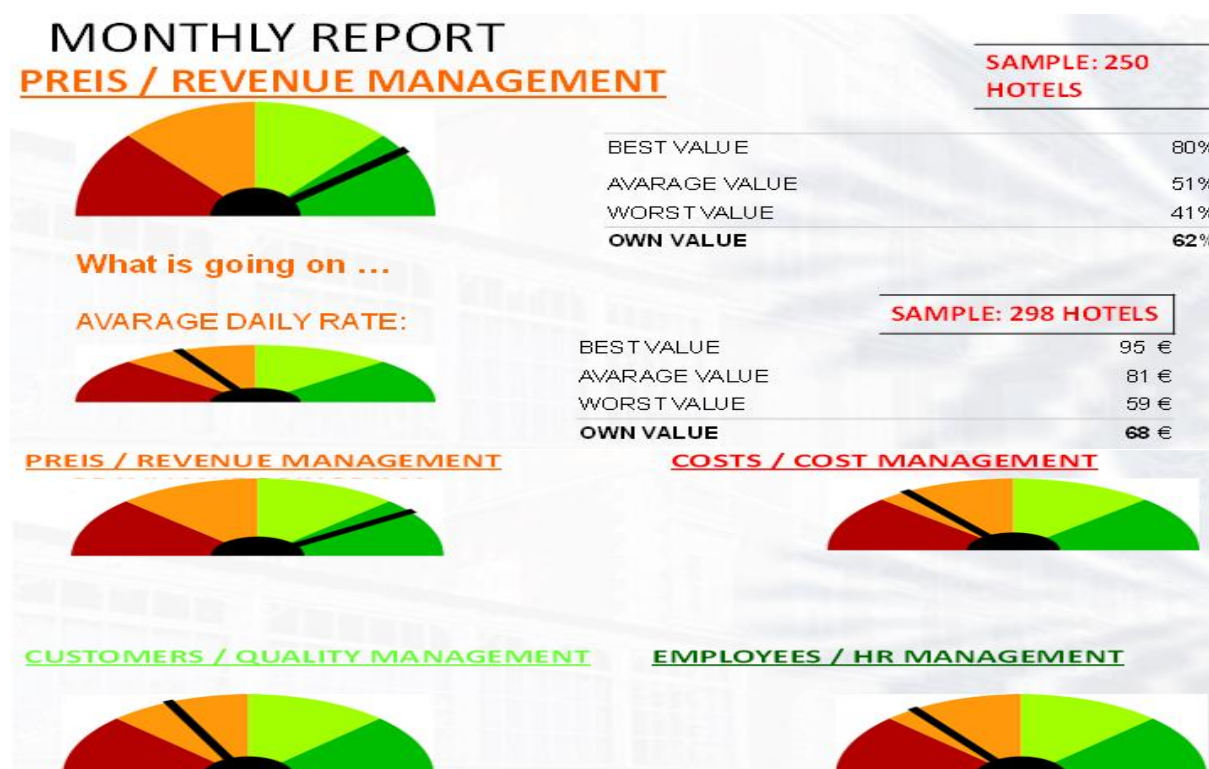


Figure 18: Example of monthly barometer of Croatian hotel benchmarking (HBC,2011; CrossBench, 2013)

In the presented figure data available for users of benchmarking software in the on-line comparison some very useful information in the field of revenue management, cost management, quality management and HR management, in the form of a barometer are presented. Users compare personal information with the best, the average and the worst hotel or other subject on the health resorts level. In process of comparison KPIs prepared on the provisions of USALI, USFRS and IFRS 8 standard are used.

#### 4. CONCLUSION

Next step in benchmarking project is in establishing the uniform sustainability reporting system which will provide great benefits for positioning sustainability health resort offer on the global market. It provides understanding of risks and opportunities as a result of implementation of sustainable development policy, as well as helping to promptly detect and avoid some environmental, social and governance failures. Information from sustainability reports prepared for internal and external users are necessary in the process of preparation of sustainable strategy and in evaluating achieved results, in comparison with the competitors. With the establishment of sustainable KPIs it is possible to evaluate financial and non-financial performance systematically, so as to streamlining processes, reducing costs, improving efficiency. Sustainability reports prepared on the provisions of GRI standards open possibility for comparison (benchmarking) on the local, national and global level, which leads to elimination of gaps following the way for improving reputation, increasing brand loyalty



and enabling external stakeholders to understand company's true value. All this certainly leads to business and financial success because of orientation on recognizable market segment of customers that reward responsible attitude towards the environment and the community and ethical behavior in business. Managing sustainable business will become a part of the overall goal of destination management i.e. to have sustainable destination management.

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## COUNTRYSIDE ATTRACTIVENESS AND TRENDS IN ACCOMODATION

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### ABSTRACT

*Small and traditional communities are increasingly beginning to experience significant attention from tourism, as an increasing number of travellers wish to experience living cultures and traditional ways of life. Rural tourism consists of much more than travel and related businesses in rural areas. There is a great importance of the rural setting and atmosphere, which is tangibly and emotionally separate from urban or resort tourism. Tourist demand in the segment of rural tourism is extremely heterogeneous in its needs, expectations and activities, and can be regarded as 'in constant growth'. Trend of tourists' decisions of taking several shorter trips during a year leaves enough space for making one of the trips, a trip into rural area. In general, there is a growing trend of interest in natural and cultural heritage, including, of course, rural ambience. For tourists one of the important part of rural tourism product are accommodation capacities. Tourists seek for authentic accommodation capacities; old houses are for sure the most attractive. The different models and supporting instrument for restoration of old houses as accommodation capacities in countryside in Croatia are analyzed in the paper.*

**Keywords:** *accommodation management, countryside, old houses, trends*

### 1. INTRODUCTION

Tourism holds great power and influence on the development of the economy and is mainly related to the coastal areas of Croatia. Croatia, however, ceases to be presented only as a sea destination and in recent years increasingly represents a new tourist product i.e. countryside family tourism. The needs to acquire new experiences based on the accommodation facilities in the buildings of traditional architecture, tasting authentic dishes, and in general, experiences related to life in rural areas, are a response to the tourists who are already familiar with forms of tourist offer that have become a new, frequently requested tourist product. Given that this type of tourist offer appeared only recently, in rural, economically less developed regions, the local people (businesses) need the technical and financial assistance of the state and local communities. Economic orientation in terms of development of rural tourism will impact almost all aspects of social life, especially the revival of rural space: demographic picture, employment, development of other sectors, the impact of tourists on the life of the local population as well as preservation of natural, cultural and architectural heritage of rural space.

### 2. RURAL TOURISM DEVELOPMENT

Small and traditional communities are increasingly beginning to experience significant attention from tourism, as an increasing number of travellers wish to experience living cultures and traditional ways of life. Sometimes a community is suddenly discovered and

tourists arrive in numbers which stress the capacity of the community to cope. Other destinations may have more time to prepare and make decisions on how much of what kind of tourism they want. Locals can become increasingly irritated by the influx of greater number of tourists. Initial visitors are often welcomed by a community as they are considered as a potential market for local products. As a destination's reputation grows more tourists arrive and communities beginning to construct facilities expressly for visitors (new shops, craft markets, restaurants etc.). Rural areas can be defined as areas where development of economy is based on traditional agriculture and wood industry, as well as those which expand outside the city influence, which does not directly influence their development, and by their character are the opposite of urban areas.

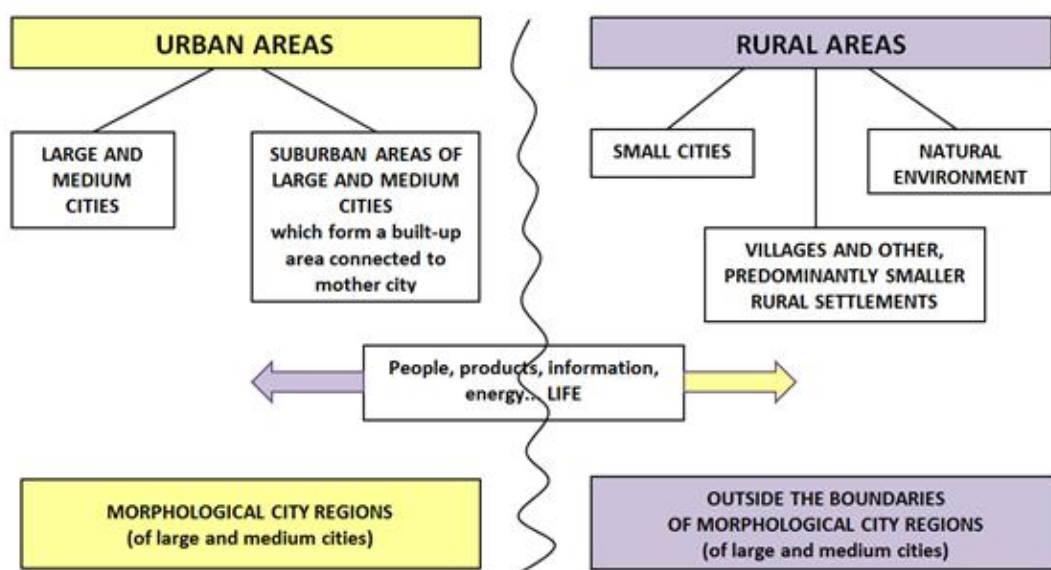


Figure1: Differentiation of urban and rural areas (Retrieved 22.03.2014 from <http://www.strukturnifondovi.hr>)

In rural areas tourism develops on the basis of the following characteristics (Bramwell and Lane, 1994, p.73):

- small number of population
- dominant exploit of land and woods for the population survival
- social structure, customs and rural identity.

Rural areas quite often lack a developmental approach which would change rural areas and turn them into a rural-type tourist destination. Process of change needs these basic elements:

- marketing organization with the resources which would ensure a successful product propagation, which would influence the user's attitude and behaviour in such a way that a picture of "experience" tourism is created (stress is on the experience)
- quality control and basic accommodation and food control measures
- organizations (partners) that create the attractiveness as the element of the product in rural tourism, create and shape the product for the market
- effective relationship between food production and tourism, where tourism is used as a marketing device, especially for less requested products.

Tourist demand in the segment of rural tourism is extremely heterogeneous in its needs, expectations and activities, and can be regarded as 'in constant growth'. Trend of tourists' decisions of taking several shorter trips during a year leaves enough space for making one of the trips, a trip into rural area. In general, there is a growing trend of interest in natural and cultural heritage, including rural ambience.

Heterogeneous tourism demand implies significant individual differences between potential tourists. Tourists interested in visiting rural areas differ in their way of lifestyle, professions, and by the income level. Tourists which were taken into account are those who spend one or two nights in rural areas on their way to an urban place (which is their final destination), as well as those whose primary aim is to spend their vacation in a rural area. As important motives of taking a trip into a rural area, various indicators can be presented (Travel & Tourism Analyst, 2007):

- eagerness to learn more about country life and tradition, authentic experience is wanted
- friends or relatives are visited
- friends'/relatives' recommendation
- choice of theme package arrangement which includes getting into touch with the activities in rural areas
- exquisite promotion through media
- in certain cases, wish to spend a less expensive vacation (though rural tourism can be very expensive)
- desire to relax in peace of rural ambience
- exploration of rural culture (history, architecture, festivals, customs) with a desire of turning a tourist into a component of that cultural ambience during the stay in the rural destination
- desire of 'going back to the nature', in an ambience significantly different from everyday life.

The rural tourism should be developed according to the sustainable development concept. The concept of sustainable development promotes controlled growth and development through the maximum preservation and rational exploitation of resources. This would provide for long-term economic and social development. Development that would, in the long run, cause the disruption of the economic, social and ecological basis is not development based on the principles of sustainability. Sustainable tourism development must coordinate economic, sociological, cultural and political aspects with the aspects of environmental protection, the social and cultural identity and the quality of life of the local community. That is of the great importance especially for the rural tourism destinations.

## 2. IMPROVEMENT OF ACCOMMODATION IN COUNTRYSIDE

Accommodation in households is monitored at the level of local government, which actually represents the only organized records of households that are engaged in tourism in Croatia, but also in competitive tourist countries. Hospitality services in the household according to the *Law on hospitality* (NN RH 138/2006, 152/2008, 43/2009, 88/2010, 50/2012, 80/2013, 30/2014. Retrieved 08.04.2014 from <http://www.zakon.hr/z/151/Zakon-o-ugostiteljskoj-djelatnosti>) *business* are considered to be the following:

1. accommodation in rooms, apartments and houses for rent, which the landlord owns, to a maximum of 10 rooms and 20 beds, the number does not include extra beds,

2. accommodation in the camp, organized on the land where the landlord is the owner, with a maximum of 10 units, respectively for 30 guests at a time, which do not include children under the age of 12 years,
3. breakfast, half board or full board where the landlord offers accommodation in rooms, apartments and holiday houses.

According to the *Regulations on the classification and categorization of objects which provide hospitality services in the household* (NN 88, 2007. Retrieved 10.04.2014 from [http://narodne-novine.nn.hr/clanci/sluzbeni/2007\\_08\\_88\\_2724.html](http://narodne-novine.nn.hr/clanci/sluzbeni/2007_08_88_2724.html)) types of objects in the household are:

1. Room
2. Apartment
3. Studio apartment
4. Holiday houses
5. Camps

In addition to the official classification of the facilities for the provision of services in households (the buildings of traditional construction), unofficial market typology is developed. Congruently, bidders of services in hospitality and tourism of rural areas of Croatia can be categorized according to following offer types (Jelinčić, 2007, p. 282):

- agro tourism / rural farm / ranch,
- rural house,
- rural villa with pool,
- rural family hotel / guest house,
- facilities that provide accommodation and breakfast services (B&B),
- rooms and apartments – traditional architecture,
- rooms and apartments – new architecture,
- ecotourism desks
- restaurants, taverns, huts, etc.

Listed buildings' typology in Croatia has been taken from European countries and is mostly applied in Istria. Typology is not regulated by law but is used mainly for marketing purposes, the presentation of rural tourism establishments or for special hospitality facilities, which offer accommodation in the old renewed traditional objects.

Of these possible forms of accommodation in the old traditional houses can be offered in two basic forms of ambient, as:

- the rural area and the tradition villages and rural life experience (inland of Istria, rural environment on the islands, rural areas of Gorski Kotar and Lika, the villages of Hrvatsko Zagorje, villages of Dalmatinska Zagora, etc.)
- urban areas and the experiences of city culture of life, either with medieval experiences or experience of industrial heritage (towns in Istria: Rovinj-Porec-Umag, cities on the islands of Rab-Krk-Cres-Hvar, cities on the continent or cities with industrial heritage Rijeka-Zagreb-Osijek, etc.).

Rural area covers almost 90% of Croatia, out of which 57% of agriculture, and 36% of forest land. In this area approximately 46% of the population that is directly or indirectly related to the farming lives. In Croatia, the term "rural " is increasingly perceived as ecological value, with the genuine knowledge and cultural identity, and agriculture as a specific way of life forms family relationships in families and fosters a certain value system. Development of the

rural area is the foundation of economic and social unity of the country. Croatia has identified the great importance of preserving the autochthon objects in rural areas and tourism economic activity opens the possibility for recovery and preservation of these buildings. Namely, traditional, autochthones buildings in the villages asks for a relatively high investment in their reconstruction and renewal expenses of these buildings (with the respect to the traditional style, traditional materials, etc.) exceed the costs of building new houses.

With the undoubted social interest in the objects being saved from decay as a valuable part of the architectural heritage, the economic reasons for their restoration may be found in their reconstruction and putting them into tourist use, since tourist demand recorded growth of interest in these types of accommodation. Such economic orientation will, in result revive the rural area and positively affect the retention of the local population in the village (in fact, rural areas report depopulation process). In order to encourage this process special programs of financing have been started, with the intent of improving the accommodation facilities.

*Table 1: Completed programs (Ministry of Tourism of RC. Retrieved 18.03.2014 from <http://www.mint.hr/default.aspx?id=3292>)*

<b>Loan Program "Incentive for Success" with subprogram "Under Ancient Roofs" (2002 to 2009)</b>
<b>Program description</b>
The program, as a stimulating economic policy measure, is directed to the development of small and medium-sized enterprises in the tourism industry, and is based on credit and funds to subsidize interest of the Ministry of Sea, Tourism, Transport and Development.
<b>Purpose and objectives</b>
Loans are intended for the reconstruction of the old (existing) houses in accordance with traditional architecture and ambiance that will be used to provide accommodation facilities: hotels, guest houses, apartments, tourist apartments, rooms, houses and special conditions for those that are protected cultural heritage, and those that are not.
The objectives of the program are: growth of employment, the development of small family businesses, preventing the informal economy, restructuring accommodation facilities by the capacity increase with three or more stars, construction of new facilities in accordance with the requirements of modern market, improving the quality of the construction of new facilities and the reconstruction and modernization of existing buildings, building professionally architecturally designed buildings that are in its appearance and size in accordance with the environment, extension of tourist season, revenue increase.
<b>"Development of tourism in the countryside" - Loan Program for Rural Tourism (2009-2011)</b>
<b>Program description</b>
The program is based on the credit funds of commercial banks intended for natural and legal persons registered in the Register of agricultural economy and are registered for hospitality and tourism industry and those who have a license for the provision of hospitality services in agro tourism.
Purpose of loan is the construction and improvement of accommodation and hospitality capacity for rural tourism through: the reconstruction of traditional houses with accompanying facilities, tasting facilities, cellars, building new, reconstructing and renovating existing facilities, which will not impair the value of heritage and traditional architecture and rural life, purchase of existing traditional buildings and other real estates necessary for the functioning of rural tourism, equipping facilities, creating conditions for additional facilities and attractions in rural tourism.
<b>Purpose and objectives</b>
The purpose of the loan is the construction and improvement of accommodation and hospitality facilities for rural tourism through: the restoration of traditional houses with associated outbuildings, tasting rooms, wine cellars, new constructions and additions, upgrades, and renovation of existing buildings, which will not compromise the values and heritage of Croatian traditional architecture and life in the countryside, buying existing traditional buildings and other properties necessary for the functioning of rural tourism, furnishing objects, creating conditions for additional facilities and attractions in rural tourism.

The goal of the program is encouraging the development of rural tourism in the rural areas of Croatia through: development of the tourist offer of the additional activities on farms (rural households), which provide additional income, increase the quality of life in rural areas and creating the conditions for staying in the village, especially young people, preservation and improvement of environmental and ecological standards, preservation of traditional and ambient houses, with accompanying economic facilities, immediate placement of agricultural products through specific elements of rural tourism offer, the revival of old crafts and local traditions, development of rural tourism and rural eco-tourism as new tourist products, defining Croatia as a rural tourism destination.
<b>Public calls of Ministry of Tourism in the year 2014</b>
<b>Program description</b>
Ministry of Tourism will in 2014 through this program finance: <ul style="list-style-type: none"> <li>• The competitiveness of the tourism economy - Grants for raising the competitiveness of the tourism economy through targeted investments to support diversification of supply, the internationalization of business, sustainable development, and innovative new destination tourism products, the use of new IT and communication technologies, etc., dedicated to the preservation of jobs, new employment, growth and development of the tourism economy;</li> <li>• Visitor Centers;</li> <li>• Hotspot Croatia- encouraging free Internet access in tourist destinations;</li> <li>• Professional associations - co-financing of professional associations in the tourism and / or hospitality;</li> <li>• Beaches - encouraging regional programs' planning and management of beaches.</li> </ul>
<b>Purpose and objectives</b>
The objectives of this program are linked to the development of SMEs, improving the supply of small family hotels, improvement of family housing, and raising the competitiveness of Croatian tourism. The main objective of the subroutine is to strengthen the competitiveness of Croatian tourist destinations.

*Table 2 Active programs (Ministry of Tourism of RC. Retrieved 22.03.2014 from, <http://www.mint.hr/default.aspx?id=9579>)*

<b>FUND FOR TOURISM DEVELOPMENT - Public call for project application for a grant under a program</b>
<b>Program description</b>
Fund for Tourism Development will finance the following areas: <ul style="list-style-type: none"> <li>I. Encouraging the development of public infrastructure</li> <li>II. Preserving the resource base - tourist attraction</li> </ul> Ministry co-finances up to 80% of eligible/acceptable costs of implementation of individual programs or projects. The minimum amount of authorized funds is 100,000.00 kn and the maximum amount for an individual user or project/program is 2,000,000.00 kn, except for companies. The total value of the project, which is applied for the use of EU funds, shall not be less than 7,500,000.00 kn.
<b>Purpose and objectives</b>
The main objective of the program is the development of tourism infrastructure and preservation of tourist resources in order to strengthen their competitiveness.
<b>Aids to Small Enterprises - "Business impulse 2014"</b>
<b>Program description</b>
Business impulse is the foundation program of support to small businesses and is the operative document in the realization of the Government Program for a period of 2011-2015 as well as the Entrepreneurship Development Strategy for the period from 2013 to 2020. The Government Program of measures to increase the competitiveness of business and trade are defined in three main areas, namely: <ul style="list-style-type: none"> <li>Economic recovery and development of entrepreneurship</li> <li>Technological development and strengthening the competitiveness and</li> <li>Regional development and use of EU funds.</li> </ul>

Purpose and objectives
Business impulse of 2014 contains four main priorities for the allocation of grant aids: Priority 1 - Enhancing competitiveness of small businesses Priority 2 – Improvement of entrepreneurial environment Priority 3 – Promotion and learning for entrepreneurship and crafts Priority 4 - Facilitating ease of access to financing
Programs of support of Croatian Tourist Board in 2014
Program description
Projects, initiatives and events which will receive the grants will be selected in accordance with the detailed criteria, while the decision on the selection and amount of support is to be brought by the Tourist Council of the Croatian National Tourist Board following the proposal from the Committee. Programs in the 2014: Support to events Support to tourist offices in the underdeveloped areas, Support to projects and tourism initiatives in the underdeveloped areas, Support to tourist offices in the underdeveloped areas for tourism projects which use EU or will apply for the use of EU funds.
Purpose and objectives
Croatian National Tourist Board will award grants in 2014 through the support programs with the aim of improving the products, branding Croatian tourism and the country as a whole, as well as offer enrichment in the off season.

The importance of tourism in rural areas is reflected in the preservation of traditional customs, culture and gastronomy, encouraging retention of population in the countryside and improving the quality of life in the countryside. Enterprise development in rural areas, especially enterprises in tourism is, on the one hand, an excellent way to improve the living standards of the rural population and, on the other hand, creating opportunities for residence in rural areas for people who normally live in urban areas.

#### 4. CONCLUSION

Rural areas record a significant growth of tourist demand interest. Given that the population of these areas only recently turned to tourism as one of economic activities, the support and assistance, both by the state, and local communities is necessary. Accommodation facilities in rural areas must, in a technical sense, meet the expected standards of quality and ambience, fit its environment and offer the tourists a flavour of indigenous and traditional experience.

Construction of accommodation facilities in rural areas achieves multiple positive impacts on the local community: (a) contributes to reduced depopulation, (b) opens a new possibility of self-employment for the local countryside population, (c) creates the preconditions for the development of other activities and preservation of traditional crafts as it opens new internal market, (d) promotes conditions for growth and thus also for the life of the local population, (e) contributes the preservation of natural, cultural and architectural heritage of rural space.

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## GLOBALIZATION AND THE CHALLENGES OF SUSTAINABILITY

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### ABSTRACT

*During the last half of century, as the process of globalization and its myriad of facets and consequences have (gradually and differently) contaminated the entire (business) environment, a whole plethora of academics, business practitioners, and politicians have been approached globalization through a variety of different lens – if considering: the dioptries / power of globalization – its valences of being both input and output for/from processes such as development or targets such as competitiveness; the focus – in terms of leading actors and their specific positioning and behaviors towards globalization; and even colors – if talking about the different portraits reflecting overall globalization or some of its specific dimensions, features and consequences.*

*As a result, there is no single “prescription” for globalization – as it is today and as it will be in the future; but one thing is for sure: throughout its (factual and conceptual) evolution, the entire process of globalization was accompanied by and has generated a lot of challenges and spillover effects, which have had the vocation to permanently reshape its riverbed, while raising new challenges. Sustainability has become such an issue since the Brundtland Report in 1987, when it has reached the attention and concern of both politics and businesses. Like the other sides of globalization, sustainability brings with it specific challenges, which have to be assessed and properly managed (at international, national and organizational level as well) considering its interconnections with all the other facets of globalization.*

*The paper aims to analyze the challenges of sustainability – as a mandatory dimension of globalization – on development and competitiveness, in order to identify possible correlations and alternative evolutionary paths.*

**Keywords:** globalization, sustainability, sustainable competitiveness, sustainable development

### 1. INTRODUCTION

Many are saying that *globalization* is not a new process; but as many are arguing that globalization is a process which defines the last few decades. Although these two approaches seem to exclude each other, they are actually complementary (Keohane, & Nye 2000; Kumar, 2009), because it is rather true that *globalization today is different from yesterday* (Jones, 2005; Bhagwati, 2007). The incongruence of the views on the past/history of the process of globalization (coming from different approaches angles, scientific backgrounds, areas of interest, levels of analysis and so on) is just one of the reasons that make the discourses about the present and the predictions about the future of globalization more difficult. The unprecedented diffusion rate, depth, and speed that characterize globalization today (Tabb, 2009; Sen, 2013; Barnett, Held, & Henderson, 2013) capitalize (for better or for worst) on all the existing heritage of globalization, raising, within a genuine spiral of contagion and spill over effects, new concerns and asking for new solutions. On the other hand, but within the general framework offered by (the process and reality of) globalization, *sustainability* – especially through its particular forms: *sustainable development* and *sustainable competitiveness* – is another issue that raises a lot of controversies, different approaches, and

concerns about its viability and future. Although incipient work and studies on sustainable development (especially coming from academia) emerged many decades ago (Baster, & Subramanian, 1965; Meadows, Goldsmith, & Meadow, 1972; Meier, & Rauch, 1976), only since the Brundtland Report in 1987 (UN, 1987) *sustainability* became a truly global concern, gaining general attention and asking for concerted efforts at every levels. More recently, the idea of sustainable competitiveness has enriched the general discussion framework (Dunning, 1994; Lang, & Ho, 1997; Esty, 1998) and multiplied the number of variables to be taken into account within a globalized world in search for competitiveness – at micro, mezzo and macro economic level as well (Yan, 2008; Rutkauskas, 2008; Balkyte, & Tvaronavičiene, 2010).

## 2. LITERATURE REVIEW

The relationships between the process of *globalization* and the challenges of *sustainability* – as defining dimension of the abovementioned process – have (explicitly or not) a quite long and struggling history – as well as their reflection into the academic literature, or into politics. The main reason for integrating sustainability concerns into the discourses regarding globalization resides in the reality that the global economic system has reached today an unprecedented level of integration – if looking through the lens of (the economic) globalization, but, on the other hand, it is characterized by deep discrepancies and gaps – if looking through the lens of sustainability – no matter if talking about its social dimension (Wade, 2004; Seligson, Passé-Smith, & Seligson, 2008) or its environmental one (Ehrenfeld, 2005; Najam, Runnalls, & Halle, 2007; Leichenko, & O'Brien, 2008).

The academic literature – in the field of economics, international economics, international development and so on – generally agrees in this respect, and, more than that, is very concerned about the future dynamics of the relationships between globalization and sustainability. Thereby:

Recognizing, on one hand, the great potential that globalization represents, Panayotou (2000) emphasizes also on the inability of the humankind (so far) to positively manage the process, which could generate future weaknesses: “countries and people have the potential to drive significant benefits from the globalization process but there is still the problem of realizing this potential. Too much attention has been paid to the economic benefits of globalization and not enough to the social and environmental implications. As a result, the promise and potential of globalization as a force of sustainable human development may not be realized” (Panayotou, 2000).

Following a thorough analysis, Rees (2002) declares: “globalization is on a collision course with sustainability” and asks for a global awakening: “the question for sustainability is this: Will modern humans, both the perpetrators and potential victims of their own destructive tendencies, be able to look themselves in the eye and wrest their future from the tyranny of biocultural determinism that marks their evolutionary history?” (Rees, 2002).

Looking at the future, Jerónimo and Oliveira (2011) claim that: “globalization and sustainable development must evolve as two aspects of a common view of our own future. Sustainable development must make sense in the long term, in an integrated perspective and based on the dogmas of human life and the world” (Jerónimo, & Oliveira, 2011). This kind of view is consonant with French’s one (2002), saying that “it is a fundamental mistake to consider globalization as inevitable whilst seeing sustainable development as an optional policy choice” (French, 2002). More than that, “the increasing complexity of our global society means that sustainable development cannot be addressed from a single perspective, country or scientific discipline” (Martens, & Raza, 2010), because “globalization, economic dynamism and social progress, sustainability and competitiveness go hand-in-hand” (Balkyte, & Tvaronavičiene, 2010).

As regards the political concerns and approaches that outline the reciprocal lines of interdependencies between globalization and sustainability, the Brundtland Report *Our Common Future* (UN, 1987) represents an undeniable cornerstone. After this moment, UN took the political leadership in the field of sustainability, developed, pursued and promoted a number of ambitious strategies, policies and projects aiming to reconcile globalization and sustainability (UN Millennium Development Goals – projected in 2000 in order to be reached in 2015 – is just one example), while constantly renewing its “commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally sustainable future for our planet and for present and future generations” (UN, 2012)

### 3. WORLD ECONOMIC FORUM: LINKING TOGETHER COMPETITIVENESS, DEVELOPMENT AND SUSTAINABILITY AT GLOBAL SCALE

With a history of more than four decades, the World Economic Forum (WEF) represents a significant benchmark when talking about the dynamic relationships between competitiveness and development at global scale (*Table 1*). Within its annual Global Competitiveness Report (GCR), WEF defines *competitiveness* as “the set of institutions, policies, and factors that determine the level of productivity of a country”, arguing that, from a dynamic perspective, “a more competitive economy is one that is likely to grow faster over time” (WEF, 2013).

*Table 1: Subindex weights and income thresholds for stages of development (WEF, 2013)*

	Stages of development				
	Stage 1: Factor-driven	Transition from stage 1 to stage 2	Stage 2: Efficiency-driven	Transition from stage 2 to stage 3	Stage 3: Innovation-driven
GDP per capita (US\$) thresholds	<2000	2000-2999	3000-8999	9000-17000	>17000
Weight for basic requirements subindex	60%	40-60%	40%	20-40%	20%
Weight for efficiency enhancers subindex	35%	35-50%	50%	50%	50%
Weight for innovation and sophistication factors	5%	5-10%	10%	10-30%	30%

Since 2005, WEF measures national competitiveness and ranks countries upon it, by integrating the 12 pillars of competitiveness it defined into the *global competitiveness index (GCI)*. GCI, as an aggregate index of competitiveness, encompasses three subindexes: (1). *basic requirements subindex* – gathering the first four pillars (institutions, infrastructure, macroeconomic environment, health and primary education) and representing the key for *factor-driven economies*; (2). *efficiency enhancers subindex* – gathering the next six pillars (higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness and market size) and representing the key for *efficiency-driven economies*; and (3) *innovation and sophistication factors subindex* – gathering the last two pillars (business sophistication and innovation) and representing the key for *innovation-driven economies* (WEF, 2013).

Taking into account the challenges of sustainability, into its 2011 Global Competitiveness Report, WEF announced the intention to develop the *Sustainable Competitiveness Index (SCI)*. The main idea was for GCI to offer a short and medium term view on the future, while SCI to offer a long term (20 years) perspective. This approach was expected to enable

highlighting the relationship between *competitiveness* and *sustainability (sustainable development)* – by isolating the short terms effects from the long term ones – while making possible, in the same time, the comparative analysis between the countries which are ready for the short and medium term future, as well as for the long-term future on one hand, and those which are not-so-ready for the long-term future, on the other hand (WEF, 2011).

According to the Global Competitiveness Report 2013-2014, "sustainable competitiveness is the set of institutions, policies and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability" (WEF, 2013). So, the social (*Table 2*) and environmental (*Table 3*) dimensions are brought into discussion to complement the framework of (the original macro and micro economic foundations of national) competitiveness with its sustainability side.

*Table 2: Summary of indicators for social sustainability (WEF, 2013)*

<b>Access to basic necessities</b>	<b>Vulnerability to shocks</b>	<b>Social cohesion</b>
<ul style="list-style-type: none"> <li>• access to sanitation</li> <li>• access to improved drinking water</li> <li>• access to healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• vulnerable employment</li> <li>• extent of informal economy</li> <li>• social safety net protection</li> </ul>	<ul style="list-style-type: none"> <li>• income GINI index</li> <li>• social mobility</li> <li>• youth unemployment</li> </ul>

*Table 3: Summary of indicators for environmental sustainability (WEF, 2013)*

<b>Environmental policy</b>	<b>Use of renewable resources</b>	<b>Degradation of the environment</b>
<ul style="list-style-type: none"> <li>• environmental regulations (stringency and enforcement)</li> <li>• number of ratified international environmental treaties</li> <li>• terrestrial biome protection</li> </ul>	<ul style="list-style-type: none"> <li>• agricultural water intensity</li> <li>• forest cover change</li> <li>• fish stocks' overexploitation</li> </ul>	<ul style="list-style-type: none"> <li>• level of particulate matter concentration</li> <li>• CO2 intensity</li> <li>• quality of the natural environment</li> </ul>

Therefore, in accordance with its own methodology, IMF calculated and ranked countries upon their competitiveness according to the GCI on one hand, and adjusted the GCI scores by sustainability indicators on the other hand. The relationships between GCI and SAGCI (sustainability adjusted GCI) of countries – for each one of the (5) clusters reflecting the stages of development – defined by WEF – are as follows:

- Among the countries placed by WEF in the first stage of development (Bangladesh, Benin, Cambodia, Cameroon, Côte d'Ivoire, Ethiopia, Gambia, Ghana, Guinea, Haiti, India, Kenya, Kyrgyz Republic, Liberia, Madagascar, Mauritania, Mozambique, Nepal, Nicaragua, Nigeria, Pakistan, Senegal, Sierra Leone, Tanzania, Vietnam, Yemen, Zambia, Zimbabwe), no country (out of 28) has a SAGCI score higher than the GCI score. The average score for the entire cluster of countries is 3.55 for GCI, while the SAGCI average score is 3.27 (*Figure 1*).

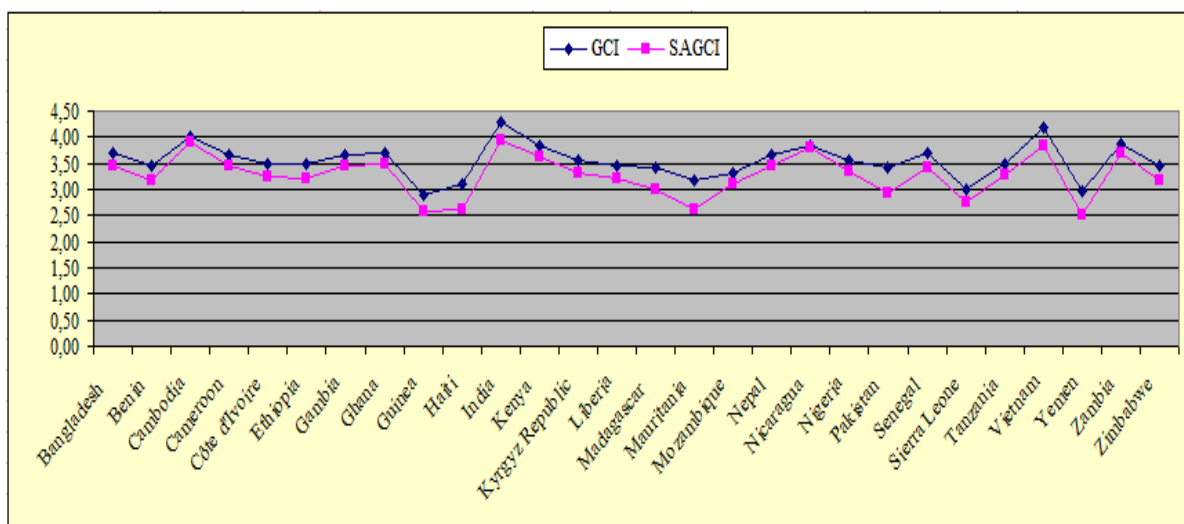


Figure 1: GCI versus SAGCI for the Stage 1 (factor-driven) countries (WEF, 2013 data)

- Among the countries placed by WEF in transition from stage 1 to stage 2 of development (Algeria, Armenia, Azerbaijan, Bolivia, Botswana, Gabon, Honduras, Iran, Kuwait, Moldova, Mongolia, Morocco, Philippines, Saudi Arabia, Sri Lanka, Venezuela), only Philippines (out of 16 countries) has the SAGCI score (4.3) higher than the GCI score (4.29). The average score for the entire cluster of countries is 4.07 for GCI, while the SAGCI average score is 3.86 (Figure 2).

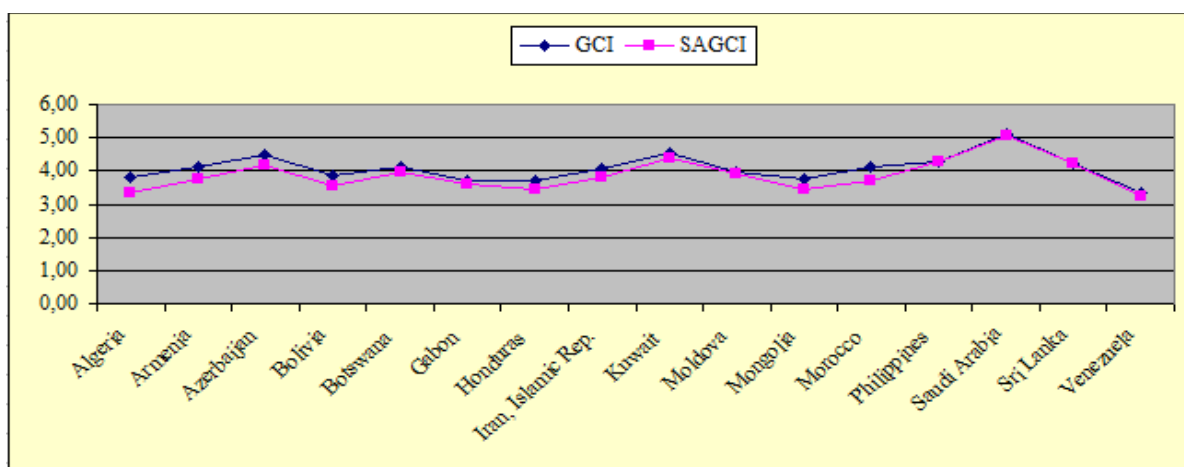


Figure 2: GCI versus SAGCI for transition countries from stage 1 to stage 2 of development (WEF, 2013 data)

- Among the countries placed by WEF in the second stage of development (Albania, Bosnia and Herzegovina, Bulgaria, Cape Verde, China, Colombia, Dominican Republic, Ecuador, Egypt, El Salvador, Georgia, Guatemala, Guyana, Indonesia, Jamaica, Jordan, Macedonia, Montenegro, Namibia, Paraguay, Peru, Romania, Serbia, South Africa, Suriname, Swaziland, Thailand, Timor-Leste, Tunisia, Ukraine), no country (out of 30) has a SAGCI score higher than the GCI score. The average score for the entire cluster of countries is 4.0 for GCI, while the SAGCI average score is 3.78 (Figure 3).

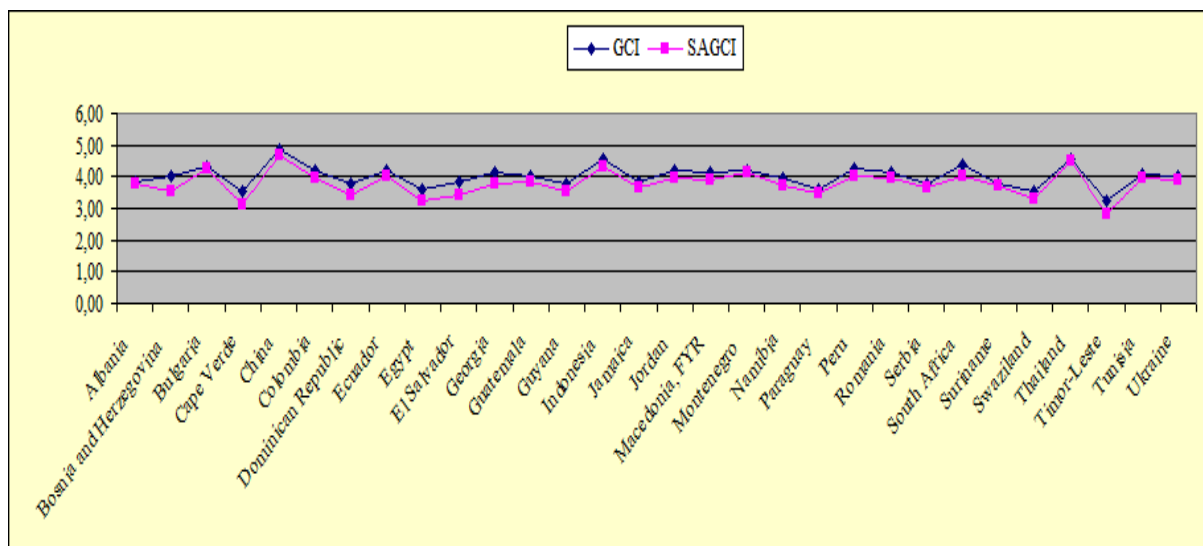


Figure 3: GCI versus SAGCI for the Stage 2 (efficiency-driven) countries (WEF, 2013 data)

- Among the countries placed by WEF in transition from stage 2 to stage 3 of development (Argentina, Brazil, Chile, Costa Rica, Croatia, Estonia, Hungary, Kazakhstan, Latvia, Lebanon, Lithuania, Malaysia, Mexico, Panama, Poland, Russian Federation, Slovak Republic, Turkey, Uruguay), Chile registers the same score for GCI and SAGCI (4.61), while 12 countries (out of 19) have SAGCI scores higher than GCI scores: Brazil (4.53 comparative with 4.33), Costa Rica (4.61 comparative to 4.35), Croatia (4.24 comparative to 4.13), Estonia (4.93 comparative to 4.65), Hungary (4.37 comparative to 4.25), Latvia (4.8 comparative to 4.4), Lithuania (4.76 comparative to 4.41), Malaysia (5.29 comparative to 5.03), Panama (4.62 comparative to 4.5), Poland (4.5 comparative to 4.46), Slovak Republic (4.33 comparative to 4.10) and Uruguay (4.25 comparative to 4.05). The average score for the entire cluster of countries is 4.32 for GCI, while the SAGCI average score is 4,39 (Figure 4).

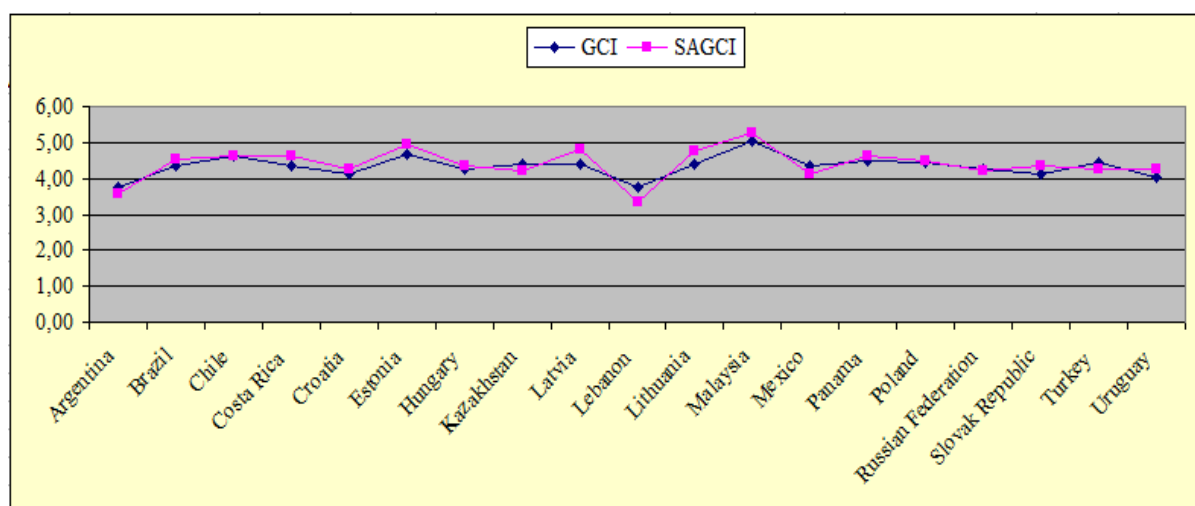


Figure 4: GCI versus SAGCI for the transition countries from stage 2 to stage 3 of development (WEF, 2013 data)

- Among the countries placed by WEF in the third stage of development (Australia, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Portugal,

Slovenia, Spain, Sweden, Switzerland, Trinidad and Tobago, United Arab Emirates, United Kingdom, United States), Greece is the only country that has the same score (3.93) for GCI and SAGCI, three countries has a SAGCI score lower than their GCI score: Israel (4.89 comparative to 4.94), Korea (4.97 comparative to 5.01) and Trinidad and Tobago (3.89 comparative to 3.91), while 24 countries (out of 28) register SAGCI scores higher than GCI scores. The average score for the entire cluster of countries is 4.97 for GCI, while the SAGCI average score is 5.39 (Figure 5).

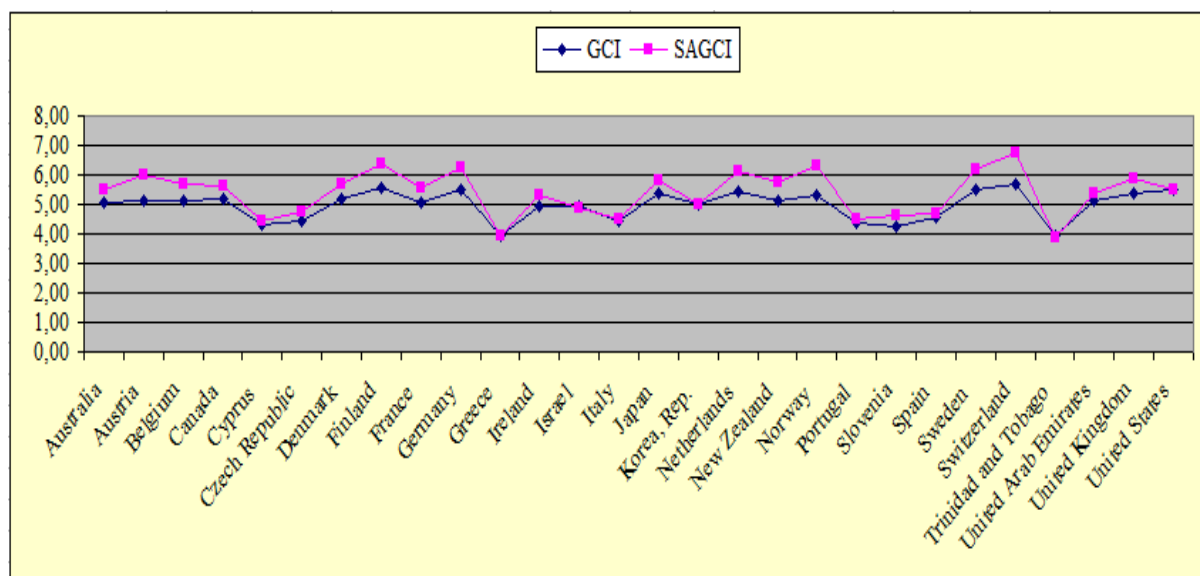


Figure 5: GCI versus SAGCI for the Stage 3 (innovation-driven) countries (WEF, 2013 data)

#### 4. CONCLUSION

The *starting point* – *premise* behind WEF's endeavors towards assessing the sustainable competitiveness of countries clearly expressed a real and quite widespread concern: "as income levels have risen and more and more emerging markets have entered rapid growth paths, pressures on the environment have become more palpable and concerns over the distribution of the benefits of economic progress within countries have grown. This has led many to question whether the prevalent growth model is sustainable over time". And the main, and rather optimistic *conclusion* rapidly emerged afterwards: "there is no necessary trade-off between being competitive and being sustainable. Many countries at the top of the competitiveness rankings are also the best performers in many areas of sustainability. Going forward, economies that are able to balance economic progress with social inclusion and good and effective environmental stewardship will most likely experience higher rates of human progress and prosperity" (WEF, 2013).

In line with this conclusion, the comparative analysis of the average GCI score and the average SAGCI score for each stage of development (Figure 6) reveals some interesting findings, offering (in the same time) the opportunity for some reflections:

- the dynamics registered by the two series of data (GCI and SAGCI average scores) are quite similar, as expected, when climbing on the ladder of development: as the average GCI score is higher, the average SAGCI is higher too; so, the relationship between development and competitiveness is (generally speaking) positively adjusted by sustainability;
- more than that, for the two clusters positioned at the higher end of the spectrum (in terms of development), the average SAGCI score surpasses the average GCI score, which



- demonstrate not only the possibility / potential of doing something as regards sustainability, but it also reveals approaches towards real actions; so, the concerns about the un-sustainability of the current development path can be (at least partially) diminished;
- plus, the globalization process is all about spillovers and contagion effects; therefore, there is a chance now for a vision on sustainability which encompasses also the countries positioned lower on the spectrum of development – countries that traditionally absorbed the shocks of un-sustainability transferred towards them by multinationals from the developed world – because globalization, as well as sustainability, cannot be inscribed within a defined and controlled perimeter.

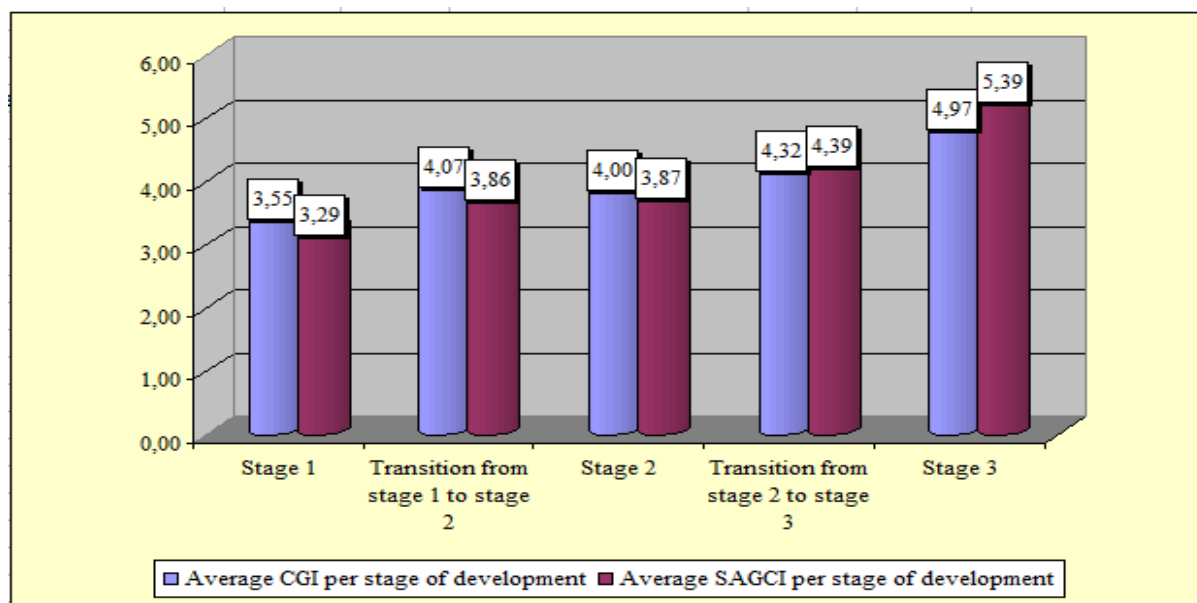


Figure 6: Average GCI versus average SAGCI for each stage of development (WEF, 2013 data)

As Panayotou (2000) argued, "globalization brings with it potentially large *benefits* as well as *risks*. The challenge is to manage the process of globalization in such a way that it promotes *environmental sustainability* and *equitable human development*" (Panayotou, 2000). Therefore, a proper understanding, internalization and then management of the challenges of sustainability (opportunities and threats as well) are the solution to overcome the claimed "elusive" nature of both competitiveness (Krugman, 1994; Dunning, 2013) and development (Wolfe, 1996; Rubin, 2011), and: (1). to transform the "dangerous obsession" (Krugman, 1994) of competitiveness into *sustainable competitiveness* – seen as "a welfare creating ability with positive externalities" (Aiginger, 2006) – one one hand; (2). to convert the "oxymoron" (Daly, & Townsend, 1996) of *sustainable development* into a "pathway to prosperity" (Edwards, 2011) for all – on the other hand.

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## ETHICAL ISSUES IN ARTIFICIAL INTELLIGENCE

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### ABSTRACT

*Artificial Intelligence is nowadays ubiquitous, intelligent machines are able to perceive the emotions of a human or other machine, and to respond appropriately to it. If machines have a certain moral status, can they be treated as a slave or are they equal to humans? Transhumanism H+ states that artificial intelligence will someday repair our bodies in order to potentially infinite extend our lives. Is the symbiosis between human and intelligent machines the new way of life?*

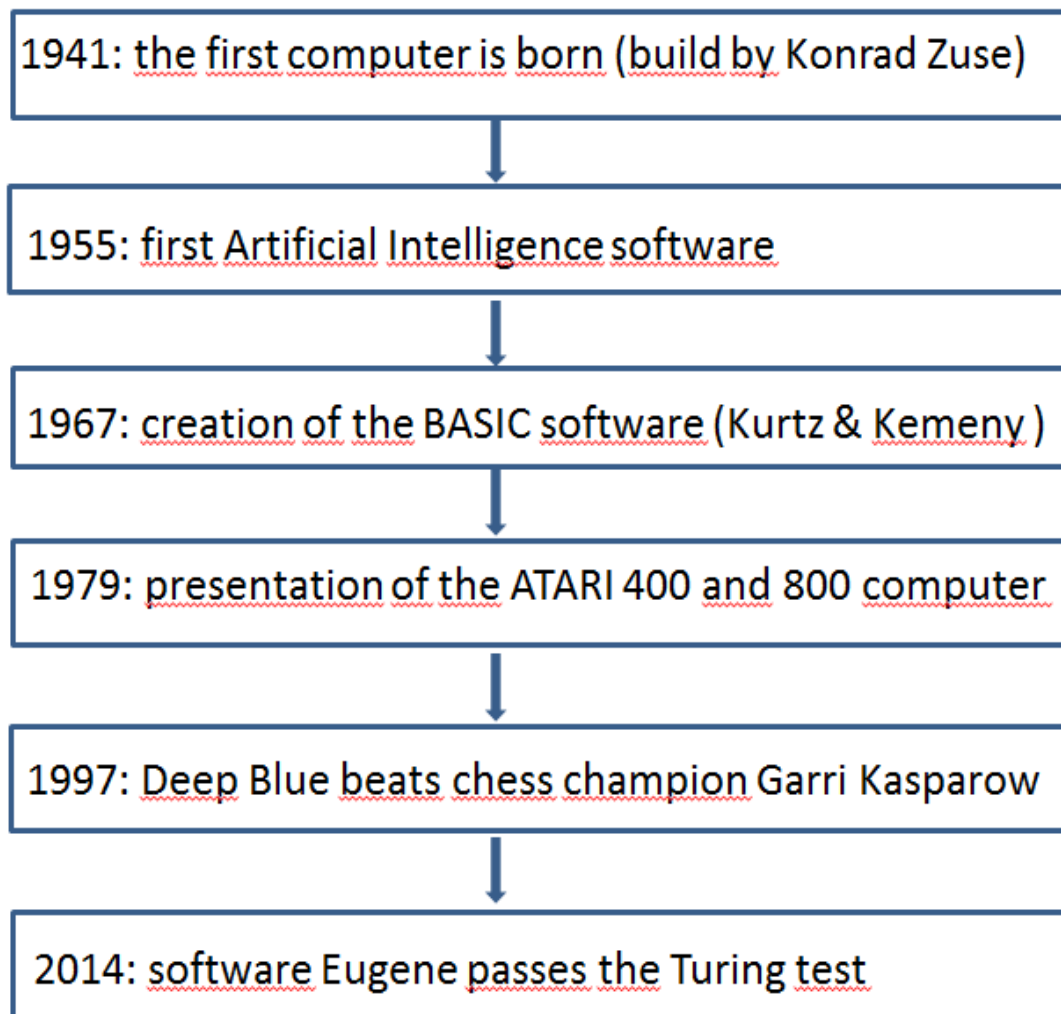
**Keywords:** Artificial Intelligence, cybercrime, transhumanism.

### 1. INTRODUCTION

Artificial Intelligence (AI) is the study and design of intelligent agents, which perceive their environment, act and interact in order to maximize their chances of success. The term AI is also used to describe a property of the machine or the program: the intelligence showed by the system. Many researchers hope that machines will show in time logical reasoning, knowledge, planning, learning, communication, perception and the ability to manipulate objects [Goe97]. Governments and universities have invested heavily in research, so that in the 1960s optimistic forecasts have been made. Due to increased computing and memory power research has taken a new upturn in the new millennium to solve very specific problems. Researchers are developing a set of tools or methods which are designed in order to solve a challenging task. This needs a powerful search function, which is able to find possible solutions. The focus is on systems, which classify information and system which react once the information has been classified.

Researchers have developed lately many useful computer programs based on artificial intelligence. For example, the software SOAR (state, operate, apply and result), a computer program which learns from experience. Deep Blue, a powerful chess computer machine, won against champion Garry Kasparov. There are also intelligent machines, such smart wheelchairs that can help normal people day by day. Beside general scientific fields of work, such as autonomous navigation approaches, or self-localization algorithms, the shared spatial reference system between operator and the smart wheelchair combines discrete driving commands coming from voice control, with navigation assistance provided by reactive navigation approaches. This is possible with technical features like local obstacle map in combination with laser range sensors, obstacle avoidance and safety regions.

Nowadays artificial intelligence left the object recognition and moved into the much more exciting world of face and person recognition. The AI researchers have the moral duty to promote the distinction between people and machines. People behave or misbehave so as machines function or malfunction. Can artificial intelligence be creative? Creativity means to create things that are novel, useful and efficient. It is controversial if we can build socially and emotionally intelligent machines. A machine should be able to perceive the emotions of a human or other machine, and to respond appropriately to it. An emotionally intelligent and socially competent machine would not only be polite, but also appreciative and empathetic.



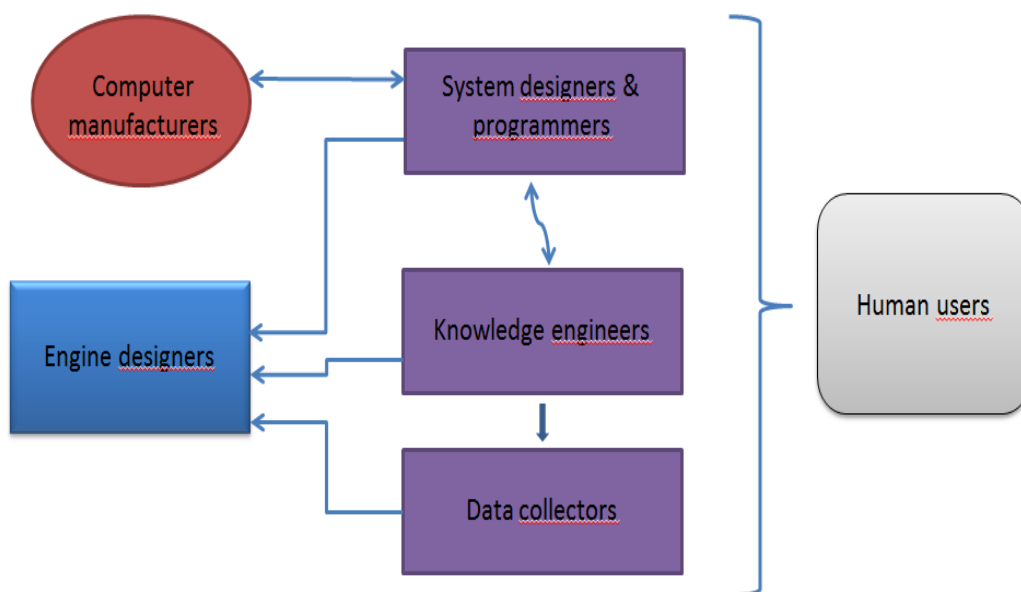
*Fig. 1: Timeline of Computer History, own reproduction*

## 2. ARE ROBOTS SLAVES?

The American professor of mathematics and science fiction author Vernor Vinge said in 1993 that “within 30 years we will have the technological means to create superhuman intelligence. Shortly after the human era will be ended” [Vin93]. Vinge held a superhuman artificial intelligence for the greatest risk of survival of mankind in the coming decades. This is true only if the mankind builds computer machines modeled after the human brain and endows them with great intelligence and power resources. Higher intelligence does not automatically lead to more power. Futurologists like Vinge make the error to expect that computers with a superhuman intelligence develop at the same time a motivation for action. But intelligence and motivation are two completely different properties of the brain. Our feelings are characterized by an evolutionary adaptation which ensured the survival our ancestors. Human intelligence is a tool that helps people; the motivation of a computer could be different. People can self-feed and reproduce, this requires only one certain critical group size. Computers on the other hand cannot simply multiply. If intelligent computers would exterminate the mankind, they would have previously ensured that the global chain production does not break. There is so far no way to increase significantly the human intelligence. Neuroscientists around the world are working hard to solve this problem. It is no

wonder that many people want to take a pill or a brain implant in order to increase their intelligence and to move forward in the profession. In truth, they make illusions, the one which performs more, will become more tasks to solve. The requirements are easily adapted to the new skills. The fanatic search for means to increase the intelligence reflects an aberration of society. The ideal candidate is not the educate one, it is the learning forever, in every position efficiently working man that willingly adapts to each working condition. Therefore, we shall not be surprised that the burnout has become in recent years a widespread disease. There is no evidence that the higher cognitive abilities of humans have increased significantly in the last hundred thousand years. Perhaps our brain has become so complex that a further increase of spiritual power would have to be bought with a loss of reality. This question has not been clarified; we still do not know how intelligence is produced in the brain or which genes might increase it. Nor are there any chemicals that simulate our thinking skills significantly. All previous drugs do not work better than a few cups of coffee on closer examination. Electronic implants can improve our hearing; from a symbiosis between brain and computer we are far away. Let us suppose that it succeeds, what would happen if we equip millions of people with superhuman intelligence machines? We must assume that the hyper-intelligent people would feel out of place in our society. Today's Homo sapiens could not cope with the social structure of hyper-intelligent people. These two groups had nothing more to say each other. On the other hand, we need people with higher intelligence for solving challenges such as pollution, global famine, the end of oil and conquering the cosmos. The motif of immortality plays an important role in improving the intelligence by the direct line between brain and computer. This is only a fantasy, a move of the human mind into a computer is nowhere in sight, as before, every man is mortal. In 1950 the English mathematician Alan Turing thought a very simple criterion: a computer would deserve to be called intelligent if it could exhibit intelligent behavior. In June 2014 in an event of the University of Reading, a software program passed for the first time in history a Turing test [URe14]. The software *Eugene* could convince 10 of 30 interlocutors that it is human. It is quite remarkable although the result is not 100%. *Eugene* pretended to be a 13-year-old boy from Ukraine who is presently learning English as a foreign language. The software acted as one would expect from a robot: he speaks redundant, absurd and sometime disinterested. It was probably filled with millions of conversations and programmed to find grammatical and textual patterns. It gave the impression of a real conversation while imitating old conversations from the database. *Eugene's* problem is the complexity of human communication. Today's technology cannot yet pass completely the Turing test; nevertheless the artificial intelligence is getting better with time. Criticism became loud because defense ministries and large companies are showing interest for AI. Knowledge is power, and it can be used in many ways. Let us take the nuclear energy and nuclear weapons for example. It can be used for economic reasons, but it can be also used to destroy cities like Hiroshima and Nagasaki. Let us take a look at the responsible parties for an AI system:

- Machines are produced by *computer manufactures*
- *Programmers* are writing instructions in order that computers are working; they are supported by the *system designers*
- *Knowledge engineers* are responsible for gathering knowledge from experts; *data collectors* introduce this information into the machines memory
- *Engine designers* develop technologies in order to apply the collected knowledge
- *Human users* operate the AI system



*Fig. 2: Responsible parties for an Artificial Intelligence system, own reproduction*

The field of ethics deals with human action, however AI ethics challenge us to answer the question: can a machine reach consciousness [Mas03]? AI will eventually result in machines that possess and display all the functional characteristics of human beings. Physically they will be silicon based rather than carbon based; but they will be able to feel and think and maybe also have a 'soul'? It is possible that AI-based systems become the next stage in the evolution of life, create a society governed by the computers. There is a spiritual nature to human beings, which is immortal and separable from the body at the death and cannot be duplicated. Aristotle defined man as a spiritual animal, but deserves an AI machine which exhibits intelligence the moral status of personhood? This is true in part because such a machine's actions would be able either affect itself as subject. In this case, an AI system should be considered a member of the moral community, although it does not have a soul. The moral status defines that an entity assumes right and duties in a community. Thus, other moral agents can have moral obligations toward it. This could be showing respect to the individuality of the machine. Historically, the status of personhood has been accorded primarily to healthy adult, in the ancient Greece women and slaves did not have full moral status. Nowadays, fetuses and animals and even parts of the ecosystem have been accorded personhood status. Rock and stones have been excluded, trees for example not, because there are living things. Thus, this means, if intelligent machines meet certain criteria, they can become members of the community with a moral status.

So, if machines have a certain moral status, can they be treated as a slave? Computers have often been treated as tools; they have been categorized as a helping tool, such a telephone or an automobile. When an intelligent machine is used as a tool, the user dominates the tool; he bears the burden of responsibility. This does not mean that the software programmer or the computer manufacturer is not responsible. A slave is given a task by its owner and then uses its capabilities to complete it. The command resides with the owner. An AI slave is a machine

that is either controlled by a person or by another intelligent machine. Today, AI machines are more likely to be slaves owned by a corporation or by the military. It could be a benefit, if the routine, repetitive and dangerous jobs would be executed by a machine. It could be also have negative consequences, if the AI machines will compete with human workers. This arises the critical ethical issue about how those people who are replaced will be treated. If these displaced persons do not feel properly treated, they will revolt. If an intelligent machine in its role as a slave displays enough cognitive capacity to be accorded a degree of personhood, then we should talk about tyranny and despotism. Like a human slave, an AI slave would be beholden under political subjection. Releasing it from this subjection opens up the possibility of citizenship; the AI slaves could become citizens. A computer slave's efforts substitute for those of a human being, the user bears the burden of responsibility if an AI slave acts under the direction of its user.

A special case of the slave role is an intelligent software agent. This is a computer program, which performs processes in the background while the computer is performing other work. The agent can be launched into a computer system or into a network. These agents perform electronic tasks for their masters. They have a mission and act mostly independently from another to accomplish tasks. We can find such agents in the World Wide Web, some are local, operating on our computer, and others are mobile and operating on several computers. They are called *bot*, this is short for robot. These intelligent agents are also moral agents because their activities may either harm or help people. It could be also possible that they harm and help people simultaneously. Criminals are sending agents into the WWW to do jobs for them. These agents are given instructions by their owners and then act autonomously. Once sent on the mission, the agent operates without the intervention of humans. They interact with other intelligent agents and perceive the environment in which they are operating so they can respond accordingly. The agents are proactive, perform complex tasks and work at all times without their owners.

The more complex the interactions with robots become, the stronger and more diverse are the emotional bonds between people and intelligent machines. The idea that a computer has or could develop a will of its own either fascinates or frightens people. After all, it is about the core part of human identity. A unique feature of humankind, the use of tools, is about to get lost, because artificial intelligence has developed comparable skills. The better and more diverse machines can communicate, the more they will act as social actors. From an engineering point of view it might be a high complex tool, but they cannot banish them into a tool cabinet. They need a place in our social system; this raises the question whether this does not have to change the whole system. Many people do not want that the machines develop their own personality. Robots were slaves and they should stay that way. They should give us the skills we do not possess in order to get more precise, faster, persistent, and they should not complain.

The slave status for robots is problematic because of the associated privatization of automation profits. The slave has an owner; this means that the products created by the intelligent machine have the same owner. The dogma, one should eat only if he have worked out his own bread, is no longer tenable. We should also think about indirect taxation of non-human labor and thus at a socialization of automation dividend. If more automation leads to more real, measurable prosperity for all, this constitutes a competitive advantage of historic proportion. So, what can we do about it, how do we want to develop our artificial colleagues and associates of the future? Shall they be modern-day slaves, for ever and ever subject to the will of the people? Or are the robots of today, the forerunner of a new technical way of life with an open development perspective? With growing complexity shall they have more freedoms and grants? This could be very adventurous as the debate on military robots and



armed drones shows. The military and politicians emphasize all the time that the weapons would be always controlled by the people and this should always remain so. But now, it is increasingly clear that the remote controlled robot put an arms race in motion that will force another development: if at some point the drones are not only used against technical inferior opponents, but with robots confronted, it will be crucial to respond faster than the opponent. In air combat against other aircraft it must be decided within fractions of a second on the use of weapons. Remote control via satellite is too slow. The one who arms drones and used them for deadly attacks, enters a slippery slope— autonomously executing firing robots.

In a human-machine partnership each entity is united or associated with the other in an activity of common interest, thus the computer becomes an assistant or colleague. This would be the ideal relationship, neither a master/slave relationship nor a competition but rather a partnership. This association between two species such humans and machines, is called a symbiosis, a subclass of man-machine systems [Lic60]. It is a strong hope, that human brains and computing machines will be coupled one day. An example for such symbiosis is the modern fighter plane. The on-board computer performs functions to keep the plan on course, because nowadays the travelling speed is beyond the capability of a pilot to control the plane. The computer complements the pilot's superior capacity for judgment through accuracy, speed and reliability.

### 3. GOOD AI / BAD AI

As shown before an intelligent machine could be beneficial but it might be that actions of intelligent computers also have negative consequences. Amazon use shoppingbots, which proposes us products which could be interest us – “*customers who watched this item bought...*”. There are also agents that shop and locate best prices for users. They are using cookies which communicate between browser and server. Intelligent agents manage e-mail, organize computer, scan articles, schedule meetings, and create geographical maps. Google is using search bots they are used for data mining. In this context we can do the following classification:

- Intelligent agents, which help us everyday
- Intelligent agents, which are used by them owner to harm
- Intelligent agent, which can do both, be beneficial and harm

**Cybercrime** is a good example how artificial intelligence can harm people. Cybercrime is “*a crime, such as larceny, copyright violation, privacy invasion, drug trafficking, pornographic distribution, and invasion of copy-protected files, committed through the use of communications, computer, data processing and control systems, i.e., committed in cyberspace*” [Spr14]. Cybercrime is a profitable business because many people do not realize how vulnerable they are. The only chance to fight against cyber criminals is to educate the users. In the WWW are several threats such hacking of bank accounts, espionage and phishing. In a study about trends of cybercrime in Russia in 2011 [Kuz12] *online banking* had an explosive growth. This was caused by improvements in banking malware and the formation of criminal groups who earned one million dollar in one year. Another trend was *spam*, a way to make profit by sale of counterfeit software, knockoffs of clothing or watches and counterfeit pharmaceutical products. Distributed Denial of Service (DDos) attacks increased due to the parliamentary and presidential elections in Russia. All this assaults on online banking, spam and DDos attacks are executed by intelligent agents.

<i><b>Trend</b></i>	<i><b>Total market share, %</b></i>	<i><b>Amount, million USD</b></i>
Online banking fraud	21.3	490
Cashing	16	367
Phishing	2.4	55
Theft of electronic funds	1.3	30
<i><b>Total</b></i>	<i><b>41</b></i>	<i><b>942</b></i>
<b>Spam</b>		
<i><b>Trend</b></i>	<i><b>Total market share, %</b></i>	<i><b>Amount, million USD</b></i>
Spam	24	553
Pharma and counterfeits	6.2	142
Fake software	5.9	135
<i><b>Total</b></i>	<i><b>36.1</b></i>	<i><b>830</b></i>
<b>Internal market</b>		
<i><b>Trend</b></i>	<i><b>Total market share, %</b></i>	<i><b>Amount, million USD</b></i>
Sale of traffic	6.6	153
Sale of exploits	1.8	41
Sale of loaders	1.2	27
Anonymization	0.4	9
<i><b>Total</b></i>	<i><b>10</b></i>	<i><b>230</b></i>
<b>DDoS attacks</b>		
<i><b>Trend</b></i>	<i><b>Total market share, %</b></i>	<i><b>Amount, million USD</b></i>
DDoS attacks	5.6	130
<i><b>Total</b></i>	<i><b>5.6</b></i>	<i><b>130</b></i>
<b>Other</b>		
<i><b>Trend</b></i>	<i><b>Total market share, %</b></i>	<i><b>Amount, million USD</b></i>
Other	7.3	168
<i><b>Total</b></i>	<i><b>7.3</b></i>	<i><b>168</b></i>

Fig. 3: State and Trends of Russian Cybercrime in 2011, [Kuz12]

#### 4. TRANSHUMANISM

Transhumanism is an international and cultural movement based on the idea that humans can use their technology to transcend their limitations and reduce the various kind of suffering. Transhumanism or H+ has individual, cultural, technological and global dimensions. The goals are for example the eradication of disease and disability and immortality. These targets are supported by artificial intelligence, nanotechnology and high sophisticated engineering

[Han11]. Transhumanism postulates that it will be no pain, no aging, no disease and no death anymore. Further, technology will help us to cure cancer and cardiovascular disease and it will improve existing capabilities and add new ones. This is very controversial, since it may lead to violence. Transhumanism is the convergence of evolution, humanism and information technology to overcome human limitations and improve the human condition. This will transform the human into a post-human with powerful capabilities [Gov08].

<b>Evolution</b>	
Biped	4,000,000 BC
Homo Erectus	1,000,000 – 300,000 BC
Discovery of Fire	1,000,000
Sex Change	1931
Electronic Computer	1942
Artificial Intelligence	1950
Human in Space	1961
Implants (Artificial Heart)	1969
Nanotechnology	1981
World Wide Web	1989
In Vitro Fertilization	1997
Transhuman	Late 20 <sup>th</sup> Century
Cloning (Sheep Dolly)	1997
DNA Sequenced	2000
Posthuman	Unknown

*Fig. 4: Transhumanism Time Line, own reproduction*

Transhumanism is based on the premise that the human species does not represent the end of our development; H+ is an extension of humanism. Humanists believe that individuals are not perfect, but they can improve things by promoting tolerance, democracy, freedom. Transhumanists are of the opinion that individuals have the potential to become more than that, they can shape themselves, their lives in accordance with their own values. A core set of values is central to transhumanism and necessary for being a transhumanist, for example the value of experience [Hop12]. Experience can be the subjective phenomenal interaction with the world and this is limited to a being's capacity to experience, which is constrained by its physical organization and its cognition. In order to explore new limits of experience, we need to expend our capacities by altering our limitations. Some people believe that it is possible to keep dead people in a kind of an intermediate state using the so-called cryopreservation technologies, until thanks to medical future technologies it would be possible to revive it at a given point. Transhumanists believe that nanotechnology will someday repair our bodies in order to potentially infinite extend our lives. H+ goes hand in hand with areas like robotics, artificial intelligence, so that humans could one day overcome their biological limits and become transhumans or posthuman beings. Some consider the ideas of transhumanism for quite abominable, because it seeks to dramatically expand the capabilities of humans, especially its life. Given the numerous problems facing humanity, isn't narcissistic to want to live forever? In terms of religious ideologies it seems that followers of transhumanism are atheists. They do not prefer the idea that life is created by God and the purely biological

unimproved life should therefore be holy. On the other hand, transhumanist views are in many points identical with eastern religions or with forms of spiritualism, as they often postulates that our form of existence is only an intermediate step on the way to a more enlightened final state. One example that technology can help people to improve their capacities is the case of a boy born without most of his right arm; a circulatory disorder prevented its growth. He became a new functioning hand made by using a 3-D printer. The scientists hope that this technology could transform the way prosthetics are made. Artificial prostheses for children are very expensive, up to 40,000 Dollar. The “*Robohand*” for the little boy costs only 350 Dollar. Thus, through science it was possible to make the symbiosis between human and robot so that a little boy could hug his mom for the first time with two hands.

## 5. CONCLUSION

Is artificial intelligence the most dangerous idea in the world or the largest scientific achievement of mankind? We shall concentrate us on the topic of full moral status for AI-based systems if they become the next stage in the evolution of life. Transhumanism states that human lives can be infinitely extended but as long as fundamental issues cannot be solved in terms of natural resources or sufficient space, transhumanism has no convincing arguments for a world full of people who never die. Dying has actually its meaning. Could we achieve a lot more in 170 years instead of 70 years? My opinion is that our time is short and this very fact makes life so precious. When life would be infinite, it would be pointless and banal. But it is its finiteness that makes life so precious and it is perhaps worth to fight to the death so that immortality does not become a reality.

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## CAPITAL FLIGHT: THE CASE OF CROATIA

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### ABSTRACT

*In economic theory prevails general agreement that capital flows towards capital scarce countries with increasing profit opportunities whereas it flees from higher wage developed countries. A small developing country like Croatia, constantly faced with a chronic budget deficit and the lack of significant foreign direct investments must be aware of possible capital outflows. This is even more important nowadays when economic crisis in Croatia still does not abate. Therefore the goal of this study is to estimate the amounts of capital flight for Croatia, evaluate its causes and effects and discuss available options for macroeconomic management. Empirical assessment relies on static analysis that compares the data from 2008 to 2013. Methodologically this study is a continuation of two previous studies that comprised the periods 1993-1999 and 2000-2007. Two versions of residual method have been used in estimation of the exact amount of the capital flight. The results suggest relatively significant amounts of capital flight during the observed period. Moreover research suggests that there has been a constant decline of capital flight amounts due to a deterioration of macroeconomic indicators in Croatia. The reason for some of the changes could be found in declining capital inflows in Croatia within last few years. It has been also considered that unregistered tourism profits have been hiding behind the net errors and omissions item in the balance of payments. Croatia has been fighting with a constant lack of capital. Each capital flight is *au contraire* main macroeconomic goals. Therefore, we find it is necessary to study the phenomenon of capital flight for Croatia in the future as well.*

**Keywords:** *capital flight, Croatia, empirical assessment, macroeconomic management*

### 1. INTRODUCTION

The goal of this research is to estimate the amount of capital flight in Croatia from 2008 to 2013. It was in the 1980s that this problem began to be dealt with because this is the period when the majority of studies about capital flight appeared. Capital flight is more likely to appear in transitional countries and developing countries and, what is more, it has a negative effect on the country's economy. The study about capital flight in the observed period could be of great importance for Croatia because there was a constant lack of capital and being so, any capital outflow in this period could be seen as capital flight. Hence, each capital flight is *au contraire* main macroeconomic goals, especially during the economic crisis when economy craves for capital inflows. Economic scholars have not yet found appropriate 'scientific' definition of the concept **capital flight**. The source of this phenomenon is not always clear thereby it is not easy to distinguish capital flight from normal capital outflow. One could say that capital flight could be defined as complete outflow of the country's capital which is not in harmony with economic goals of the government. There are more methods to

choose from when speaking of estimation of capital flight. In this paper two versions of residual methods are used; *CF1* and *CF2*. The paper is organized as follows. Section 2, after the introduction, discusses theoretical background and reviews the literature. Section 3 reviews used methodology and data thus providing us empirical estimation. Section 4 evaluates the results while Section 5 provides some concluding remarks.

## 2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

As Schneider (2003) points well, the phenomenon ‘capital flight’ was termed and became heated issue in 1980s; as it came to be recognized as reasonably good indicator to the investment climate in a country and the confidence domestic residents have in their own economic system. There have been many methods that tried to capture and itemize this phenomenon, which showed to be a very difficult task, non-the-less residual method, Dooley's method and Hot Money method were the most frequent approaches used around vague number of empirical studies (for deeper analysis on the methods of measurement see Deppler and Williamson, 1987 and Schneider, 2003). The choice of method usually depends on the accepted definition of the capital flight. Unlike most concepts in economics, term capital flight is still not clearly defined by economic theory (Deppler and Williamson, 1987; Dooley and Kletzer, 1994; Chang et al., 1997; Schneider, 2003), meaning when different definitions are in usage, final conclusions often lead to divergent estimates with error components due to definitional and data problems. Yet it seems that the first type or the broad definition found its place in the majority of researches. *Figure 1* presents an overview of definitions of capital flight we find in literature:

*Figure 1: Three types of definitions of capital flight (Schneider, 2003)*

(i)	<b>Broad definition of capital flight</b> <ul style="list-style-type: none"> <li>• All outflows of resident capital if invested in the domestic economy would yield a higher rate of social return.</li> <li>• A variant of this concept is a narrower approach often termed <b>hot money flows</b> in which only resident outflows which accrue in the short term or those which get reflected in the errors and omissions category in the balance of payments are be treated as capital flight.</li> </ul>
(ii)	<b>Capital flight defined as a response to discriminatory treatment of domestic capital</b> In this concept capital flight is only that part of resident capital outflow which is a response to asymmetric risk.
(iii)	<b>Illegal transaction concept of capital flight</b> This concept links only those outflows of capital to capital flight which are illegal.

Empirical assessments of the capital flight are mostly carried out for transitional countries. In such manner, it is noticeable that Russia is most affected by this phenomenon thereby a lot of studies were made for this country alone. For example one of the most significant research about Russia's capital flight was published in 2000 by the IMF (Loungani and Mauro, 2000). In this study capital flight from Russia and ex communist countries (Croatia, Hungary, Poland, Czech Republic, Slovakia and Slovenia) is being compared using the residual method and Hot Money method. There was by far much more capital flight in Russia than in other countries where capital flight is negligible, when compared to Russia. Few factors are identified as the main causes of capital flight: macroeconomic instability, unstable political

surroundings, high tax rates which encouraged tax evasion, distrust in the bank system, corruption, inefficacy of the institutions and unsatisfactory privatisation. South America has been affected by severe capital flight in the 1980s (Pastor, 1987). During the 1980s and 1990s, many countries in South America borrowed money abroad. By doing so they wanted to encourage the development of their economies and improve life quality, but unfortunately this was not the case. The richest people in South America became richer at the expense of the poorer, mostly illegally. They invested domestically gained money outside South America which led to a big capital flight; from 1973 to 1987 estimated at 151 billion US dollars, which is 43% of the total foreign debt. This capital flight had three extremely negative consequences on local economies: 1) reduction of the potential economic growth, 2) tax evasion, 3) deterioration of fair income distribution. Interesting theoretical work was provided by Dooley and Kletzer (1994) as a continuation of Dooley's turmoil on capital flight terminology, when they defined capital flight as the accumulation of claims on non-residents by residents that escape control of the domestic government. Their approach emphasized the importance of public policies and anticipated policies for the domestic government in the presence of international capital mobility and possible evasion of taxation or appropriation by the home government by domestic savers. Kant (1996) analyzed the connection between capital flight and foreign direct investments (FDI). The goals of the research were to find out whether: 1) the appearance of FDI in a country decreases the negative consequences of capital flight, 2) using various methods to estimate does capital flight affects FDI and *vice versa*, and finally 3) what could be the cause of capital flight, wrong economic policy or discrimination of domestic capital? The research was made for East Asia and the Pacific, Latin America and the Caribbean and European countries. Three methods were used: residual method, direct method and Dooley's method. The results showed that FDI can affect the reduction of the negative influence of capital flight when talking about economic situation in a country. Notwithstanding the results, the conclusion was that the amount of capital flight can also depend on the choice of method used for estimation. Lensik, Hermes and Murinde (1998) provided first serious attempt in examining relationship between political risk and capital flight for a large set of developing countries. The study suggested that, no matter how capital flight is defined conceptually and/or measured, political risk factors do matter in the case where no other macro-economic variables are taken into account. In conclusion, authors confirm hypothesis that political risk leads to an increase in capital flight. Schneider (2003) made critical evaluation of estimation methods used in literature when he applied them to a sample of 116 countries for the period 1971-98. Author suggested that the most widely prevalent measure of capital flight can at best be treated as a resident capital flow, which captures not only capital flight, but other influences as well. Interestingly, he concluded that term capital flight is misleading as it allows 'normal' flows to be clubbed with abnormal flows and that it is impossible to draw qualified conclusions regarding the occurrence and scale of capital flight from different countries at different times. Hence, conclusions can only be reached if we observed specific country individually. There have been two studies in Croatia so far which dealt with estimation of capital flight. Both were carried out by Vukšić G. from the Institute for public finance. The first research (*Table 1*)<sup>61</sup> was published in 2001 and dealt with capital flight from 1993 till 1999. The methods used were residual and Dooley's method. The second research (*Table 2*) used residual method only, though two version of it, *CF1* and *CF2*. It was published in 2010 and it analyzed the period from 2000 till 2007.

<sup>61</sup> For the comparability purpose, *Table 1* presents only capital flight estimations made by residual method.

*Table 1: Estimated capital flight for Croatia: 1993-1999 in millions of dollars (Vukšić, 2001)*

CF	1993	1994	1995	1996	1997	1998	1999
<b>Capital flight</b>	310,60	571,00	1009,60	-558,40	-304,30	1295,80	-384,80
<b>Capital flight cumulatively</b>	310,60	881,60	-128,00	-686,40	-990,70	305,10	-79,70

During the 1990s capital flight in Croatia was a result of political and war situation, unstable macroeconomic surrounding, bank system crisis and poor privatisation process (Vukšić, 2001). Both political and socio-economic adjustments were made however almost malfeasant privatisation process eliminated all positive effect; this is why many see privatisation as one of the crucial causes of significant capital flights in Croatia, at least more than it was expected. Partially as well as cumulatively, capital flight occurred in three years (1993-94 and 1998), whereas we notice capital inflow within periods (1995-97 and 1999). This study included war and post-war periods which were not politically and economically viable periods, so let us move to a more stable times that included impressive growth rates.

*Table 2: Estimated capital flight for Croatia: 2000-2007 in millions of euro (Vukšić, 2010)*

CF	2000	2001	2002	2003	2004	2005	2006	2007
<b>CF1</b>	1.345,24	-271,57	-585,08	3.328,52	2.248,57	796,83	1.989,16	1.918,69
<b>CF2</b>	506,90	-455,93	1.024,39	2.500,41	1.121,90	-241,05	1.033,96	1.015,86
<b>NEO</b>	-838,34	-184,36	-439,31	-828,11	1.126,67	1.037,88	-955,20	-902,83

If we follow *CF1* results, in 2003 capital flight was estimated at 3.328,52 million euros and in 2004 at 2.248,57 million euros, these were the highest values in the observed period. In 2006 and 2007 these amounts were also very high, reaching almost 2 billion euros. During 2001 and 2002 Croatia experienced capital inflow of 271,57 and 585,08 million euros, respectively. According to *CF2*, capital flight reached its highest point in 2003, little more than 2.50 million euros. Relatively high amounts were noted in 2004 (1.121,90 million euros), 2006 (1.033,96 million euros), and 2007 (1.015,86 million euros). The cumulative amount of capital flight in the observed period was positive for both versions of residual method. Capital flight using *CF1* was 10,77 billion euros, whereas using *CF2* it was 4,46 billion euros. Interestingly, positive macroeconomic situation was followed by significant capital outflows, a much troublesome problem. Thus favourable economic trend have not led to much wanted capital inflows. Relatively low FDI level certainly proves that. Vukšić (2010) thus concluded that (some) Croatian residents probably have large foreign asset holdings which are not recorded in international investment position and that this part of capital flight is presumably hiding behind balance of payment omissions.

### 3. DATA, METHODOLOGY AND RESULTS

The method used for capital flight estimation in Croatia from 2008 till 2013 was the residual method, i.e. two versions of it: *CF1* and *CF2*, as in Vukšić (2010). When working with residual estimation of capital flight, data for change in foreign debt are used as well as the balance payment data. Balance payment data include: net portfolio ownership investments, net direct investments, capital account balance and change in international reserves of the Central Bank. The main idea of capital flight estimation according to this method is that the



use of capital is financed by capital inflows and what is left afterwards is presumed as capital flight (Kant, 1996). The residual method is the most frequent method used for estimation of capital flight. It is also known as the World Bank method. This method uses the broadest definition for capital flight as it compares the sources of capital inflows in the form of increased foreign debt and net direct foreign investments with the uses of these inflows for financing current account deficit and increases in international reserves (Vukšić, 2010). Everything left between the source and the use of capital is capital flight (Chang et al., 1997).

There are two versions of residual method. The first one (*CF1*) is described in the following equation:

$$CF1 = \Delta ED + CAB + NFDI + NES + \Delta RES \quad (1)$$

whereas these factors represent:

- CF1: capital flight
- $\Delta ED$ : change of international debt
- CAB: capital account balance
- NFDI: net foreign direct investments
- NES: net portfolio ownership investments
- $\Delta RES$ : change of international reserves

Capital flight is the sum of the change in international debt, bank account balance, net foreign direct investments, net portfolio ownership investments and in international reserves. Positive *CAB*, *NFDI*, *NES*,  $\Delta RES$  represent capital inflows and negative imply the use of capital (Claessens and Naude, 1993). Despite some conceptual problems (see Vukšić, 2010) this approach has been widely accepted as a useful approximation of capital flight values.

The second equation presents the alternative estimation or the so-called version *CF2*:

$$CF2 = CF1 + NEO \quad (2)$$

The term *NEO* stands for net errors and balance payment omission. This approach implicitly assumes that *NEO de facto* represent errors and data gathering omission and that it do not represent capital flight. Although it is not often implied, this assumption can be of great importance for data interpretation in Croatia. Negative value of net errors and omissions represents the use of capital. If there is at one point a surplus on the capital account and shortage on the current account which absolute value is less than a surplus of the capital account, then the net errors and omissions item will be negative what implies that the additional capital is used for some unidentified purpose. When speaking of residual approach this represents unregistered capital outflow, though only if this option is not explicitly presented as it is in the definition of *CF2* (Vukšić, 2010).

The reason for choosing both residual methods is data availability and the fact that associated approaches define capital flight as a normal business activity, but also as a consequence of tax evasion, meaning that they evaluate capital flight in a broad manner (*Type i*, see *Table 1*). The data used to estimate the amount of capital flight in Croatia are:  $\Delta ED$  (change of international debt), *CAB* (current account balance), *NFDI* (net direct foreign investments), *NES* (net portfolio ownership investments),  $\Delta RES$  (change of international reserves) and *NEO* (net errors and omissions). The data are collected from Croatian National Bank (CNB) and Croatian Bureau of Statistics and are to be read in millions of euros.

Table 3: The amount of capital flight in Croatia using CF1 and CF2: 2008-2013 in millions of euros (Authors' calculation)

<i>CF estimation</i>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Foreign debt change</b>	6.670,00	4.879,30	1.257,40	-626,20	-1.039,80	770,70
<b>Current account balance</b>	-4.254,60	-2.292,70	-501,80	-389,10	-40,10	564,40
<b>Net foreign direct investment</b>	4.053,80	2.408,80	370,00	1.091,10	1.055,00	436,90
<b>Net portfolio ownership investment</b>	166,30	-74,30	-514,00	-117,00	-121,80	-2,30
<b>Change of international reserves</b>	186,50	-1.254,90	-284,50	-534,60	-41,10	-1.671,60
<b>CF1</b>	<b>6.822,00</b>	<b>3.666,20</b>	<b>327,10</b>	<b>-575,80</b>	<b>-187,80</b>	<b>98,10</b>
<b>NEO</b>	-1.435,90	-1.154,00	-871,00	-1.031,20	-404,90	-949,90
<b>CF2</b>	<b>5.386,10</b>	<b>2.512,20</b>	<b>-543,90</b>	<b>-1.607,00</b>	<b>-592,70</b>	<b>-851,80</b>

First, we are going to evaluate results from the *CF1* approach. It is noticeable that negative capital flight or capital inflow occurred only in 2011 and 2012. In other periods we have significant capital flights. The biggest amounts were noted in 2008 (6.822,00 mil. euros) and 2009 (3.666,20 mil. euros) Then there was a significant decrease in capital flight amount to only 327,10 million euros in 2010. Relatively *weak* capital flight occurred again in 2013. Cumulatively, in this period capital flight is estimated at 10.149,80 million euros, which is a significant amount for a country that is in constant lack of capital.

Because of the fact that in previous calculations net errors and omissions were excluded from the estimation, capital flight estimated by *CF2* approach showed remarkably lower values in comparison to *CF1* approach. According to *CF2* version there was a capital flight in 2008 (5.386,10 mil. euros) and 2009 (2.512,20 mil. euros) and this is considered to be a significant capital flight. There was no capital flight over the next few years according to *CF2*. Although capital flight was found in only two of the six observed years, cumulatively it was estimated at 4.302,90 million euros, which again, is a significant amount.

#### 4. EVALUATION OF THE RESULTS

It is very hard to determine what causes capital flight in reality. The most common reasons for this phenomenon are unfavourable macroeconomic trend, bad investment climate, tax evasion, increase of capital control and capital tax increase, necessity for portfolio diversification, etc. There have been many factors in Croatia that enabled capital flight to occur. Macroeconomic trends have been highly unfavourable for six years in a row and there is still no sign of improvement. Tax rates have been increasing and this is what makes Croatia undesirable for domestic and foreign investments. Following that, some new capital taxation measures are likely to come to pass in next few years. In the long-term, asset and profit transfer abroad will erode the tax base, which could have devastating effect on the Croatian economy and also the government that is constantly faced with a budget deficit. In continuation, growth rates could be reduced. Finally, Croatia could be facing burdensome debt problem. Another problem may rise up from over-valuated exchange rate of kuna, as it was the case with Latin countries in the 1980 (see Pastor, 1987). What strikes the most is the extremely high capital flight values during the period 2008-09. Possible explanation for such development should be sought within already established economic crisis in developed

countries which was an encouragement for Croatian residents to withdraw money from domestic investment, picturing in that manner Croatia as a hostile investment environment. Next we have had formed expectations about the change in government structure as well. Thus, reasons for the increase of nominal amounts of capital flight in next few years could be found in a decrease of net capital inflow after 2009. This trend contributed to a current problem in a debt management. Namely, continued capital outflows can create balance of payment pressures, as the earnings will not be available to economic agents that have incurred external debt. Croatia traditionally has good tourist season realization generating in such way foreign exchange earnings, however one terrible tourist season could worsen already poor external position of the Croatian economy.

No doubt that Croatia experienced tantalizing macroeconomic trends recently and that is why the increase of capital flight was expected, but it seems that this is not a genuine explanation of capital flight. The source of poor results could be found in the methodology of capital flight estimation itself, where capital inflows and outflows are compared. Capital inflow assumes an increase in international debt and/or net direct foreign investments. In order to enable capital flight, the amount of capital inflow must be satisfying so that this capital could leave the country. During and after economic crisis, there was a slowdown in international debt growth as well as a fall of direct foreign investments in Croatia. The main reason for capital flight decrease (since 2010, if we observe CF2) is *de facto* a capital flight decrease. *Cul-de-sac*, aggravation of economic situation in Croatia led to a peculiar capital flight reduction, at least for some years.

One could say that besides using *CF1* and *CF2* approaches to estimate the amount of capital flight, the introduction of net errors and omissions (especially high in the third quarter, see *Appendix*) can also inform us about large amounts of unregistered capital. During the observed period this item was negative what implies that there is a specific capital outflow in Croatia which is not registered by local authorities. The net errors and omissions item is negative because there has been a great amount of unregistered tourism income and it is possible that illegal funds are also to be found here (evasion of tariffs and quotas, smuggling and other criminal activities).

One of the most important strategic goals of the Croatian government is to attract FDIs which is awfully difficult, especially now when there is a lack of fresh capital on almost all markets around the globe. Since Croatia wants to attract as much capital as it can to set economic growth in motion, at the same time it has to deal with a huge capital flight (more than 10 billion dollars in 6 years). Therefore, it is clear that this trend is not in harmony with economic goals of the country. Investment climate in Croatia could be enhanced by growth recovery that would increase profitability prospect on the domestic markets. More righteous income distribution could be of great help in achieving such a goal. There are some capital controls also reconsidered within the CNB, however its reach is somewhat ambiguous. Due to important negative consequences of capital flight, it is of great importance that Croatian macroeconomic management detects the causes of capital flight and finds a solution to alleviate such trend.

## 5. CONCLUSION

Economic theory generally agrees that capital flows towards capital scarce countries with increasing profit opportunities whereas it flees from higher wage developed countries. Accordingly, empirics also came to conclusion that large (private) capital outflows represented an important macroeconomic problem for many developing countries in the past few decades. A small developing country like Croatia that is constantly faced with a chronic budget deficit and the lack of significant foreign direct investments must be aware of possible

capital outflows. This is even more important nowadays when economic crisis in Croatia still does not abate. Therefore the goal of this study was to estimate the amounts of capital flight for Croatia, evaluate its causes and effects and discuss available options for macroeconomic management. The purpose of this paper was not to add new insight into methods of calculation but to carry out continuity in assessing capital flight in Croatia. There are not so many papers in Croatia dealing with capital flight, therefore this study is a logical extension of two previous studies that comprised the periods 1993-1999 and 2000-2007. Two versions of residual method are used to estimate the exact amounts of the capital flight for the period 2008-2013. The results of the assessment have shown a relatively significant amount of capital flight during the observed period. Moreover research suggests that there has been a constant decline of capital flight amounts due to a deterioration of macroeconomic indicators in Croatia. The reason for some of the changes could be found in declining capital inflows in Croatia in last few years. It has been also considered that unregistered profits from tourism have been hiding behind the net errors and omissions item in the balance of payments. Croatia has been fighting with a constant lack of capital. Each capital flight is *au contraire* main macroeconomic goals. Therefore, we concluded that it is necessary to study the phenomenon of capital flight for Croatia in the future as well.

Capital flight explanations are built on theoretical, as well as empirical grounds, so conclusions based on a set of real data assure scientific and applicative basis for further research. But realistically speaking, some relations are more of a statistical regularity than a structural characteristic of universal type. The main feature of such empirical explanation is their constant revision, so the concept of capital flight will also be a subject of constant reviews in ever-changing macroeconomic framework. Again, we have to conclude that this is a narrow empirical research with modest theoretical background however it can be used as an input for further research.

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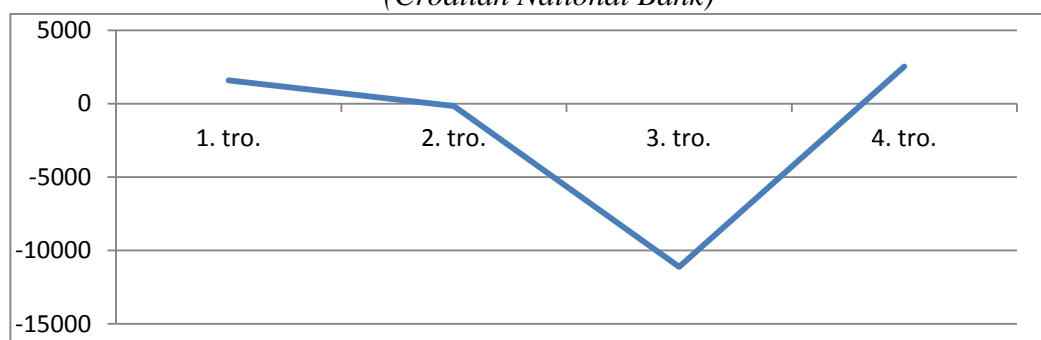
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## Appendix

Table 4: Capital flight as a percentage of GDP (Authors' calculation)

CF estimation	2008	2009	2010	2011	2012	2013
CF1 (% GDP)	14,35%	8,19%	0,74%	-1,30%	-0,43%	0,23%
CF2 (% GDP)	10,54%	11,21%	0,06%	-1,22%	-1,17%	-1,97%

Figure 2: Quarterly based cumulative net errors and omissions 2007-2013 in millions of euro (Croatian National Bank)



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# STATISTICAL ANALYSIS OF SIGNIFICANCE OF TOURISM FOR THE ECONOMY OF A COUNTRY, WITH SPECIAL EMPHASIS ON BOSNIA AND HERZEGOVINA AND THE WESTERN BALKANS

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## ABSTRACT

*Application of the methodology of Satellite accounts in tourism shows that tourism is an extremely important component of the economy, as it leads to development of other activities that are closely associated with it, such as investment, employment, exports etc. Many countries give great importance to tourism development, seeking their chance for economic prosperity. Many analyses suggest that the relative importance of tourism in creating GDP-I is much higher than official statistics show. This paper will demonstrate this claim through the difference of the estimated and official involvement of tourism in the economy of the Republic of Srpska. In addition, in this paper other assumptions intertwine, such as:*

- Application of statistical methods and multivariate analysis methods enable better grasp of the contribution of an branch of economy, in this case tourism,*
- Implementation of Satellite accounts is a long-term commitment of each country, regardless of the high cost of implementation and*
- Traditional inclusion of tourism offer and demand is not comprehensive because many sizes are ignored.*

*As the mentioned Satellite accounts are not applied in Bosnia and Herzegovina, or in the region, the issue has attracted great attention. On the other hand, benefits from the eventual implementation of Satellite accounts are numerous, both for the economy as a whole, and users of tourism products and services, and also for the providers of tourism products and services. The complexity of producing these accounts is illustrated by the fact that they are calculated in the right form in few European countries, and that in only eight countries they are implemented in the so-called. pilot studies. In other countries, and in our region -Western Balkans, this project is yet to be implemented. On the whole, Satellite accounts are calculated every three years. A key advantage of the implementation of Satellite accounts in tourism is reflected in the fact that it very successfully enables accurate calculation of contribution of tourism, including all indirect effects which are not negligible in tourism. For the realization of such a large project, it is necessary, on the one hand, to implement the most sophisticated statistical and econometric methods, but also to include statistical machine of the state at full capacity. Using statistical analysis it is possible to consider the objective situation of a country and thus achieve competitive advantage in relation to other countries in the tourism market. This is why the production of Satellite accounts is important both for tourism as a separate branch, and for the economy as a whole.*

**Keywords:** *Bosnia and Herzegovina, Economy, Statistical Analysis, Tourism*

## 1. INTRODUCTION

Tourism is a very important branch of the economy, primarily because entails the development of other activities that are closely associated with it, such as investment, employment, exports, etc. Many countries give great importance to tourism development,

seeking thus their chance for economic prosperity. Moreover, one cannot neglect the fact that tourism in recent years has been an important source of foreign exchange earnings, especially for developing countries, which gives many countries the possibility for financing the deficit through these means. The statistical analysis of tourism through Satellite accounts application enables us to get the most accurate overview of the economic contribution of tourism industry, which is the focus of this paper. It is known that, for this purpose, quantitative methods are exclusively used, stochastic as well as deterministic, where the among stochastic methods statistical methods are distinguished based on complex techniques of multivariate analysis, while for deterministic method, among other things gravity models, input - output analysis and the matrix of national accounts are used. However, in the framework of tourism statistics, as a basis for estimating the size and importance of tourism, i.e. its contribution to the economy, the so-called Satellite Accounts (Tourism Satellite Accounts - TSA) are used. Putting the determination of the importance of tourism to the economy in focus of our observations, we try to solve the problem of how to organize tourism statistics and which methods to apply in order to have a more efficient and reliable records of tourist spending and offers. Solving this problem is important because as a result it can lead to a better allocation of resources and distribution of GDP, as well as to increase the competitiveness of the national economy through growth of export or employment. The reason why the tourism and determination of its contribution to the economy are chosen lies in the fact that in this sector, when it comes to official statistics, there are many problems, the resolution of which is in the interest of the whole economy. The problem of adequate capture of tourism statistics is present in almost all countries, especially in the smaller countries with important international corridors, which are the characteristics of Bosnia and Herzegovina. In addition, tourism is developing rapidly and is much harder to keep track of all its aggregates (accommodation facilities, arrivals, nights, consumption, etc.). This paper is aimed to draw attention to the need for application of Satellite accounts in tourism, which are by all relevant international institutions in the field of tourism declared to be the best method. In this way, the prerequisites are created for better understanding of the strengths and weaknesses of the national economy as a whole, through identifying the real importance of tourism. The assumption that runs through the paper speaks of how the relative importance of tourism as an economic branch in creating GDP-I is much higher than official statistics show, and that it contributes to gross domestic product more than the official statistics indicates. In addition, the following assumptions were the starting point:

- Application of statistical methods and multivariate analysis methods enable better grasp of the contribution of an branch of economy, in this case tourism,
- Implementation of Satellite accounts is a long-term commitment of each country, regardless of the high cost of implementation and
- Traditional inclusion of tourism offer and demand is not comprehensive because many sizes are ignored.

As the mentioned accounts do not apply in Bosnia and Herzegovina, or its environment, the topic has attracted the interest of the authors. On the other hand, benefits from the eventual implementation of Satellite accounts are numerous, both for the economy as a whole, and users of tourism products and services, and also for the offerors because it enables easier creation of their strategies.

## **2. PROBLEMS WITH TRADITIONAL STATISTICAL INCLUSION OF TOURISM**

Within the tourism statistics there are attempts to quantify its contribution to the economy. This work is not easy even for the most developed countries and their statistical systems because tourism is, in many ways, the specific. The specificity of tourism is primarily

reflected in the fact that the indirect effects of tourism are as significant as direct ones, and their adequate inclusion is necessary. Before we explain the satellite accounts in tourism, as the best framework for the quantitative measurement of sizes of tourism at the national level and as such is recognized at the international level, we describe the problems of tourism statistics in countries which have not developed satellite accounts. One of such examples is Bosnia and Herzegovina. For a complete overview of the economic impact of tourism to the national economy, it is necessary to start from the official statistics, ie. data that monitored and recorded by the state institutions for statistics (in Bosnia and Herzegovina that is the Agency for Statistics of BiH and entity institutes<sup>62</sup>). Starting from the ideal scenario, in which the state statistical system is organized well and at a high level, which we do not want to doubt, there are additional problems and difficulties that prevent proper overview of the contribution of tourism. Problems arise when calculating basic indicators and can be observed from two aspects, offer and demand. When we talk about tourist offer, problems arise as soon as we start calculating accommodation facilities. The official statistical records do not record owners of weekend houses and apartments (for leisure and recreation), and it is believed that this type of tourism is not negligible, on the contrary<sup>63</sup>. On the other hand, some forms of tourism which provide a large income on an annual basis, are not recorded at all because their tracking is complicated. In this group we classify the following categories, which generate income but are not included in official tourism statistics:

- Excursion tourism (one-day school excursions, both of local students and students from neighboring countries);
- Transit tourism (many small countries, as ours, are characterized by the fact that in a relatively short time ride one can switch from one to the other end of the country. As we know, the geographical position of BiH is good, because it represents a crossroad of international routes and many passengers traveling from Western Europe to Turkey or vice versa largely pass through Bosnia. They are recorded only if they spend the night in one of the accommodation facilities);
- Other one-day visitors (local and foreign), visiting a number of events (cultural - entertainment or sports), mostly in the capital.

Last but not least, we must mention the problem of "gray economy", which not just a problem of the tourism industry but in general. All these elements suggest that the tourist offer is not sufficiently covered by official statistics, which leads to the finding that the contribution of tourism to the economy is greater than the official. The economic impact of tourism was estimated in different ways applying many statistical methods in addition to official data (from state statistical institutions) which included and predicted movements of said values which are not recorded. In addition, the fact that different countries used different methods made the data incomparable<sup>64</sup>. This was slowing down attempts of potential investors, business people, and public institutions to make valid conclusions about the nature and movement of tourist demand, which created the need for the development of Satellite accounts in the tourism industry. For the application of Satellite accounts in the tourism

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<sup>62</sup> Institute of Statistics of Republic of Srpska and Federal Institute of Statistics)

<sup>63</sup> Based on the assessment of experts who have researched the issue in Serbia, and the workshops organized by the project - Monthly progress reports, from 2011 (April - June), it is considered is considered that the share of overnight stays in this accommodation amounts to as much as 30% of the total overnight stays, and that the offer of beds in the accommodation capacities is significantly above the official offer (in this study up to two times higher!).

<sup>64</sup> Even within the same country data could not be compared in different periods because the methodology has changed over time.



industry in a given state, the System of National accounts must be completely set up and developed. More specifically, the prerequisite or foundation for the establishment of satellite accounts in tourism is a developed and efficient System of National accounts.

### **3. SATELLITE ACCOUNTS IN TOURISM (TSA) – LUXURY OR NECESSITY?**

In order to analyze the economic impact of tourism, since the 70s of last century, the concept of the Satellite calculation of Tourism (TSA) has been developing. Information that can be obtained in this way is of great importance when making the right decisions on the state level. Although tourism as a branch of economy is present in all countries, its extent and effects are manifested differently. This results in the fact that some countries consider that their activity in tourism is not sufficiently developed so that investing in the implementation of Satellite account (or measuring its impact) would be justified. Apart from this reason, some countries believe that their system of national accounts is not advanced enough to successfully implement this project, which is a prerequisite for the implementation of the accounts. However, taking into account all the mentioned, aggravating circumstances, one can not say that a country is not interested in the introduction of satellite monitoring of tourism, but that it is their long-term goal. In order to make this aim realistic in the future, it is very important to take tourism statistics to the next level, both official forms of tourism and unofficial forms of tourism that are not tracked by the national statistical system, which is described in the previous section. In countries which have not implemented Satellite accounts (such as Bosnia and Herzegovina, Serbia ...), measuring the impact of tourism is mainly done by combining data from official statistics (Institute / Agency of statistics) and the application of appropriate methods of multivariate analysis (using representative samples) on the basis of which of all the indicators are estimated. It is important to note that in some countries the main source of information regarding, among other things, the indicators in tourism, is the central bank<sup>65</sup>. This means that the national institute of statistics, on the one hand, and the central bank, on the other hand, share the responsibility for tourism statistics and it is not always clear whose task is to initiate and use the TSA.

World Travel and Tourism Council (WTTC), as one of the institutions that dealt seriously with this issue, noticed all the drawbacks of existing systems based only on official statistics (and/or data from the balance of payments of the central bank), as well as the differences between countries that make them incomparable. For this reason, the WTTC, together with other relevant international institutions, has invested significant efforts to implement the most comprehensive reports relating to Satellite accounts. These reports are important because they allow multiple perception of tourism from different perspectives in order to identify its strengths and weaknesses. To understand the impact of tourism the demand and offer in tourism are equally important, all of which are included in Satellite accounts (TSA). Using the TSA is important because it provides insight into:

- the contribution of tourism to the national economy,
- the position of tourism in relation to other sectors and comparison with other countries,
- identification of the industries that have benefited greatly from tourism, especially those industries that are not usually associated with tourism,
- the amount of tax that results from tourist activities and more..

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<sup>65</sup> There is another way which is based on data from the Central Bank. Namely the records are kept of foreign exchange inflows from tourism and this amount is quite reliable if it is determined according to the latest principles and guidelines on the balance of payments, which were published by the IMF. Once the foreign currency inflow is determined it is necessary to determine the relative share of foreign tourist spending (Group World Travel & Tourism Council performs the assessment reliably) to assess the GDP by tourism.

Bearing all this in mind it is clear that Satellite accounts are not a luxury but a necessity of every country regardless of the role and importance of tourism<sup>66</sup>. Before we turn our attention to assessments of key indicators for determining the contribution of tourism, it is important to know the structure of satellite accounts.

#### 4. CONCEPTS AND STRUCTURE OF SATELLITE ACCOUNTS IN TOURISM

Satellite accounts are central framework for national accounts. They are integrated according to tables that describe the structure and behavior of certain social and economic areas and indicators. Tables of which TSA is made up calculate the demand and offer, and in addition to the basic indicators, which are contained in the so-called core table, the TSA is also comprised of other indicators showing indirect contribution of tourism (related to employment, investment ...).

**The calculation of demand** includes:

- I. **Spending in travel and tourism**, which represents the total spending of visitors, but also the spending that is made on their behalf. This quantity is obtained as the sum of personal travel<sup>67</sup>, business travel<sup>68</sup>, government expenditures<sup>69</sup> and exports generated by visitors.<sup>70</sup>
- II. **Demand in tourism and travel** as a nominal set tourist activities in the economy of the host country. It represents the sum of government expenditures<sup>71</sup>, capital investment<sup>72</sup> and non-tourist exports.<sup>73</sup>

**Calculation of offer** includes:

- I. **The offer of travel and tourism** as industries, ie. overall tourism offer that is equal to the sum of direct tourism GDP, indirect tourism GDP and imports of travel and tourism as a industry. Direct contribution to GDP, known as value added, and employment associated with tourism spending includes traditional service providers in the tourism industry (hotels, airlines, car rental companies, etc.), whereas indirect contribution to GDP includes supporting service providers in the tourism industry (companies for fuel catering, food, accounting firms ...).
- II. **Offer of wider economy based on tourism**. This indicator is the sum of GDP broader economy based on tourism (direct and indirect) and import the broader economy based on tourism.

<sup>66</sup> The fact that in some countries, tourism is better positioned than other countries results in approaching this issue with a higher priority. For example, Montenegro and Croatia already finance projects (most often by experts in that field from the EU), who calculate the contribution of tourism continuously, while in other countries in the region that tends to go a little slower.

<sup>67</sup> It encompasses all the personal spending of a population on the basis of travel and tourism services (accommodation, transport, food, entertainment ...) and goods used for tourist activities. Includes both local and abroad traveling.

<sup>68</sup> Known as business trip and includes spending on goods and services during official travel of employees.

<sup>69</sup> Includes the cost of all government agencies aimed at providing services to visitors related to travel and tourism, such as cultural, recreational or other privileges.

<sup>70</sup> Spending of foreign visitors on goods and services in the host country

<sup>71</sup> Includes operational expenses of all state agencies for services related to travel and tourism on behalf "the wider community", such as advertising, administration, services, security and so on.

<sup>72</sup> Often referred to as the accumulation of capital. It represents the cost of capital incurred due to provision of facilities, equipment and infrastructure in the economy of the host country.

<sup>73</sup> Refers to consumer goods (gasoline, clothing, etc.) that are exported to foreign countries as a result of the final sale to visitors and capital goods (ships, planes, ...) which are sent abroad providers of the industry.

If you, on these two sets (offer and demand), apply separately the input - output model, the Satellite account is in its full effects because it is able to provide information on tourism as a economic branch, but also on the economy as determined by tourism. In addition, the Satellite account is able to determine the portion of the offer which is imported from abroad and to separate the direct and indirect impacts on GDP.

## 5. ASSESSMENT OF THE ECONOMIC INDICATORS OF TOURISM IN THE REPUBLIC OF SRPSKA AND A PROPOSAL OF STATISTICAL METHODOLOGY FOR MEASURING INDICATORS ON THE BASIS OF A REPRESENTATIVE SAMPLE

In assessing economic indicators<sup>74</sup> related to tourism, we started from the very beginning and that is the tourism capacity assessment. Based on assessment of tourist capacities and opinions persons competent in this field, we estimated the annual occupancy rate of given capacities and came to the assessment of tourist traffic. Based on the tourist turnover we can reach the assessment of tourist spending if we have the information, "the average spending of tourists per day."<sup>75</sup> It should be noted that this is only a brief summary of the research process that we will gradually describe in detail below.

### 5.1. Evaluation of economic indicators

At the very beginning one should bear in mind that in our estimates we only covered spending of tourists, but not the spending of one-day visitors (both local and foreign). In addition, we have not included any amounts on the basis of local tourists traveling abroad via travel agencies. Namely, part of the amount that local tourists pay to travel agencies for traveling abroad, travel agencies spend in the state.

Institute of statistics of Republic of Srpska (hereinafter referred to as the Institute) keeps track of the capacity of facilities to accommodate tourists, and within these records are monitored Hotels, Motels, B&Bs and similar facilities<sup>76</sup>. What is obvious at the very beginning is that in the official records of the Institute there are no, for example, apartments for leisure and recreation, which are recorded by the Satellite accounts. We will have the information about the sizes of these facilities after detailed analysis of Census in BiH (01 - 15 October), and now we can rely only on estimates na procjene<sup>77</sup> which indicate that Republic of Srpska has about 10,000 apartments, which are used as "Apartments for leisure and recreation"<sup>78</sup>, which has a total area of about 500,000 m<sup>2</sup>. If we take the proportion by which the 20 square meters are required for one bed, we calculate a capacity of 25,000 beds in these facilities. This information on the number of beds in homes for leisure and recreation, as well as the number of beds in official collective and individual tourists' accommodation, is shown in the following table (Table 1). When we talk about time period of using the given capacity, we start from the "experts" who, in Serbia within the workshop (which are organized by the Project - **Monthly progress reports** in April and June 2011), came to the conclusion that the

<sup>74</sup> Total tourist spending, gross domestic product, value added, employment ...

<sup>75</sup> Macroeconomic indicators can be calculated and other method based on data from the Central Bank, as well as information of the World Travel & Tourism Council. If these two separate and different approaches reach the same or at least similar results, then we take those results with great credibility.

<sup>76</sup> The information is contained in the document "Statistical Yearbook 2012", which is published by Institute of Statistics of Republic of Srpska

<sup>77</sup> Study: B&H – The Heart-shaped Land, 2011.

<sup>78</sup> This assessment can be accepted as trustworthy, bearing in mind the information from Serbia, which was recorded in the 2002 census. It was then recorded 172,503 of such apartments, which is 17 times higher than in Republic of Srpska. Taking into account the attractiveness of capital, government size and frequency, this ratio is realistic.

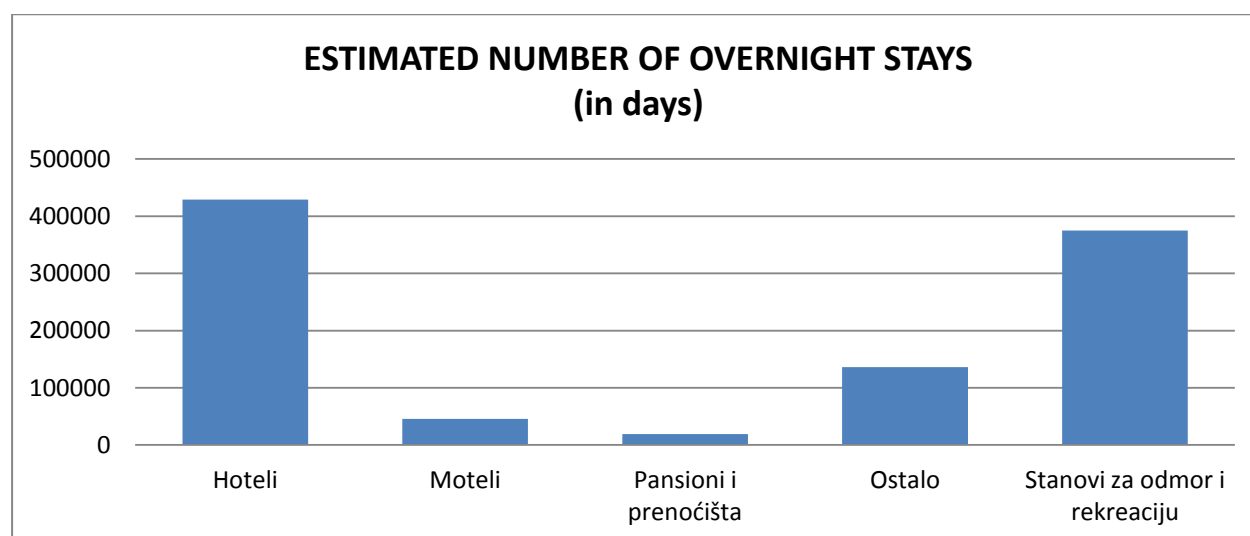
intensity of use of these capacity of not more than half a month (15 days) per year. If we start from the assumption that the purpose of those facilities is largely the same in all areas (apartments which their owners use for recreation, as an alternative form of accommodation), we can say with great certainty that the intensity of use of this capacities is not significantly different in Republic of Srpska either.

*Table 1 – Assessment of tourist turnover in Republic of Srpska for year 2012<sup>79</sup>*

	INS. Of Stat.	ASSESSMENT	NUMBER OF OVERNIGHT STAYS (in days)
	NUMBER OF BEDS		
<b>TOTAL</b>	9183	34183	<b>1004648</b>
<b>TOTAL (1 - 4)</b>	9183	9183	629648
1. Hotels	5625	5625	428907
2. Motels	1595	1595	45873
3. Bed and Breakfast	767	767	18883
4. Other	1196	1196	135985
5. Apartments for leisure and recreation		25000	375000

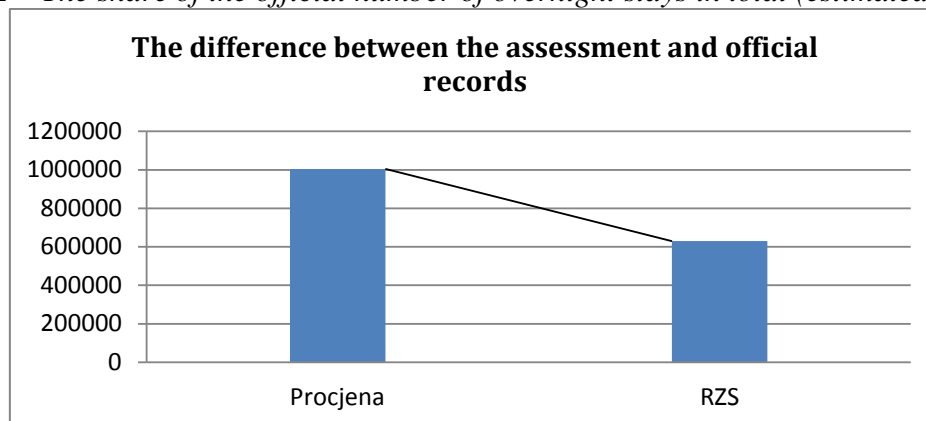
Source: Author's calculations

*Graph 1 – The structure of overnight stays in 2012 (per accommodation facilities)*



On the basis of such intensity of use of tourist capacities the total number of overnight stays in the Republic of Srpska is estimated, which is about a million overnight stays (if we take into account apartments for leisure and recreation) or 629,648 overnight stays (when using the official data of the Institute), which is less than 2.3 of the estimated level (Graph 2).

<sup>79</sup> There are still no necessary data for the year 2013

*Graph 2 – The share of the official number of overnight stays in total (estimated) number*

After the assessment of accommodation facilities and tourist turnover assessment (expressed as the number of overnight stays), it is necessary to get to the average tourist spending. For the calculation of this indicator, as well as of the total tourist spending, besides the above calculated sizes, we need the information on average spending of tourists in the Republic of Srpska, but according to different types of accommodation. For this reason the research was organized based on which we evaluated the given amounts. In order for these amounts to be trustworthy prerequisite is a representative and sufficiently large sample. The sample will be largely representative if we encompass all the tourist sites that Republic of Srpska is divided into. In other words, the sample would have to include the following sections, that we, while conducting research, adequately covered:

- The main administrative regional centers (there are 6 in RS)
- Spa sites
- Mountain sites
- Other tourist sites
- Other sites

The conducted survey covers 30 tourist sites that cover all homogenous unit. Moreover, the sample size is large, because it amounts to 1000 surveyed tourists, which further increases its representativeness. According to the survey, we calculated the average daily spending (both collectively and by the type of accommodation facilities), results of which are given below (Table 2.).

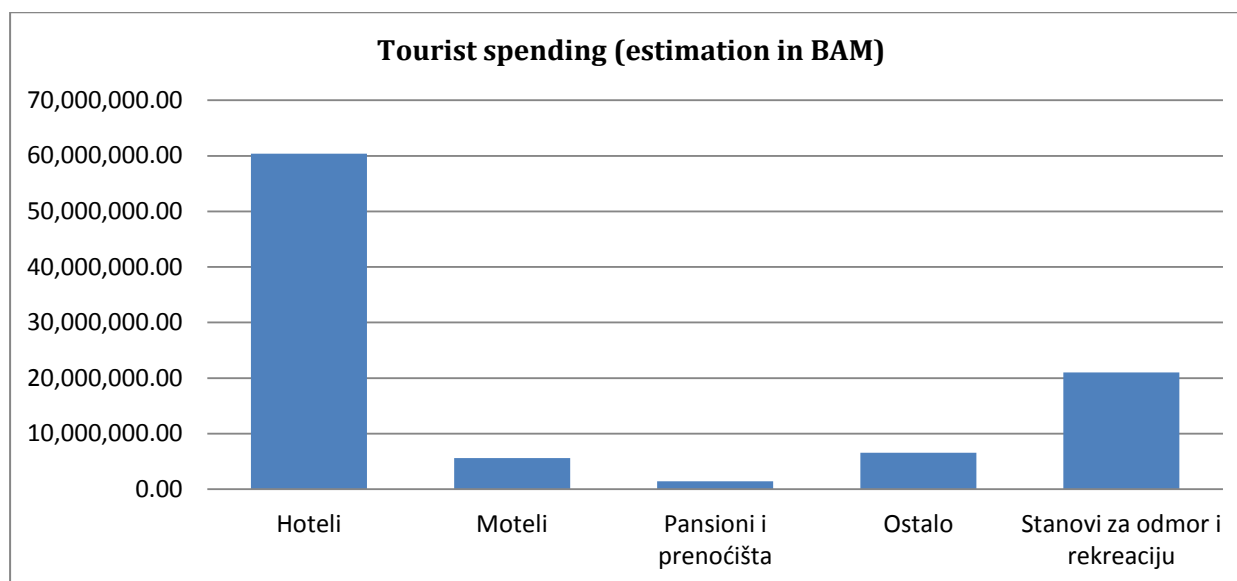
*Table 2 – Assessment of tourist spending in Republic of Srpska for year 2012*

	NUMBER OF OVERNIGHT STAYS (in days)	TOURIST SPENDING (estimation – BAM)	
		Average (days)	Total
TOTAL	<b>1004648</b>	93,00	94.974.041,40
TOTAL (1 - 4)	629648	115,57	73.974.041,40
1. Hotels	428907	140,80	60.390.105,60
2. Motels	45873	122,20	5.605.680,60
3. B&Bs, guesthouses( Hostels)	18883	75,40	1.423.778,20
4. Other	135985	48,20	6.554.477,00
5. Apartments for leisure and recreation	375000	56,00	21.000.000,00

Source: Author's calculations

It is only now that we are able to assess the overall tourism spending. The rating of the total tourist spending in Republic of Srpska for the year 2012 amounts to nearly 95 million, or about 74 million BAM when we exclude the apartments for leisure and recreation from the analysis. Since amounts related to the spending of one-day visitors (both local and foreign)<sup>80</sup> are omitted from the analysis and so are the amounts based on the number of domestic tourist trips abroad via travel agencies, it is clear that the figure of total tourist spending exceeds the "limit" of 100 million, which tourism makes an undervalued branch (Graph 3).

*Graph 3 – The structure of tourist spending per accommodation facilities (estimation)*



Among other aggregates we should mention the unemployment and estimation of the effects of tourism on the national economy. From the document called **Strategy for tourism development of Republic of Srpska** (for the period 2011 - 2020) it can be seen that the tourism industry employs about 15,000 people, which is definitely not the final figure if we take into consideration the people who occasionally have indirect contact with tourism. Assessments<sup>81</sup> are that the number is up to three to four times higher than the official, which automatically makes share of employees in the tourism industry in total employment closer to the average of Europe. Following a similar analogy, when talking about assessment of the effects of tourism to the national economy, we also have reason to argue that tourism is not displayed in accordance with its true contribution. The reason for this is the large share of the gray economy, which is a characteristic of Bosnia and Herzegovina, and therefore of the Republic of Srpska, as its integral part. The above mentioned strategy, among other things, says that it is realistic to increase by 30% the amount of total tourist spending of Republic of Srpska, which leads to the effect of tourism on the national economy being much more than the official 0.9% of GDP.

As previously mentioned, these assessments can be reached in a different way by using the official data of the Central Bank of Bosnia and Herzegovina. Namely the data would be used from Foreign exchange statistics in order to obtain the total foreign currency income from tourism of the Republic of Srpska which simultaneously represents the amount of spending by foreign tourists. When we connect this information with percent of participation of foreign

<sup>80</sup> Which in RS is not a negligible amount due to good geographical position

<sup>81</sup> Research of the Association: **World Travel & Tourism Council**

tourists in tourism spending (ie GDP contribution of foreign tourists that tourism generates) we get the total tourism spending. This information should be equal or at least approximate to our assessment, ie the amount of 92 million BAM. However, this method is not the subject of research in the paper, and we shall hold up here.

Although it is not comparable, below are (Table 3) given basic tourism indicators for Republic of Srpska and Europe<sup>82</sup>, in order to analyze the current situation of tourism RS, which not enviably encouraging, and identify objective opportunities for improvement concerning the aforesaid deficiencies of official records.

*Table 3 - Basic tourism indicators for the RS and Europe*

<b>Tourism indicators</b>	<b>Republic of Srpska</b>	<b>Europe</b>
<b>Number of overnight stays per citizen (average)</b>	0,39	6,0
<b>Length of stay (average number of overnight stays)</b>	2,5	10,0
<b>The share of tourism in GDP</b>	0,9 %	12 %
<b>Share of employees in tourism industry in total employed</b>	6 %	13 %
<b>Use of accommodation facilities</b>	20 %	50 % (in spas 70 %)
<b>Average daily spending</b>	70 €	97 €

Source: Strategy for tourism development of Republic of Srpska (for the period 2011 - 2020) page 8, Ministry of Trade and Tourism of the Government of Republic of Srpska

## **5.2. The proposal statistical methodology for measuring the basic indicators of tourism by using a representative sample**

Before using representative samples it is necessary to first perform the analysis of size and appearance we want to monitor, and based on these results form a small separate homogeneous units - clusters. Data analysis is largely done in the Institute of Statistics so that RS (from the perspective of monitoring of tourist flows and spending) is classified in five sections, which are listed above (administrative centers, spas, mountain sites, other tourist sites and other sites). This is important because within each section we randomly select observation units for the survey. This way the information from the sample would be representative and could be applied to other units of observation (of a given whole) that were not included in the sample.

When using a representative statistical sample, there are several possible approaches when it comes to who should be surveyed. The first question that arises is from whom the data should be taken, that is, whether the data should be taken from the tourists themselves or should tourist facilities be surveyed (hotels, hostels, swimming pools, spas, restaurants, cafes, souvenir sellers, stalls, resellers, etc.)? It is believed that in the first case mistakes are more likely because the survey respondents may be duplicated for various reasons, and may give false information (they want to protect their privacy, or are unable to estimate how much they spent, etc.).

In addition, the response rate will be lower because the tourists come to relax and not to fill in the survey, etc.

<sup>82</sup> European tourism insights 2007, Brussels, May 2008, ETC Market Intelligence Report No 2008/1, page 27

Data obtained from the tourist facilities are more accurate, but there are also some disadvantages such as:

- Owners want to under-report revenue due to tax evasion,
- Owners do not want to participate because it takes a lot of time and a lot of them do not maintain accurate records etc..

It is possible to use both sources so that one controls the second, but there is no need for the application of both approaches on a single tourist site because it is much better (more useful) to include as many tourist sites or conduct research on the larger (more extensive) sample on a single tourist site.

When it comes to the type of tourist sites that are observed, there are also different approaches. One way is recommended for tourist sites such as Jahorina, Vlasic, Kozara, different spas etc. To these sites tourists come for several days, ie. where there is a need to spend the night one can be certainly get good indicators. The number of tourists and their spending in such tourist facilities can be obtained from the management of hotels, hostels and private accommodation owners. In such places it is possible to choose a random sample of tourists on the basis of whose answers one could assess their daily spending in that city or at the site. Of course, the prior research is needed to gain an insight into tourist movements and which places they can visit and where they can spend the money (in order to obtain real data on spending). Based on the assessment of the management of tourist facilities it could be determined by which dynamics tourists come, how many of them stay and how does the season last. Guided by this information, it is easier to stratify sample frame and determine the sample size. It is recommended to use the elements of a systematic sample for a random selection of tourists and it would also be desirable to examine tourists on last day of their stay so that they themselves have realistic information about the spent funds.

Research is necessary in order to determine whether it is necessary to survey the tourists in all hotels, hostels, private accommodation. If this is not necessary, the study should give information about in which objects tourist should be surveyed, and then what are the facilities which offer accommodation services and many other issues.

On the other hand, tourist sites that do not require lodging (eg. Caves, monasteries, lakes, rivers, zoos, etc..) should be monitored differently. The number of visitors to such places could be assessed by calculating:

- tickets sold,
- the number of buses, if it is an excursions
- the number of cars in parking lots, in places such as zoos, festivals (eg. Kocicev zbor) etc
- the swimming areas can be determined by the number of people on the smaller part of the beach, and multiplied by total area of the beach.

Once it is determined: how tourists come, how much they spend, how many people serve tourists, what are the tourist facilities - are they maximally utilized, whether there is a need for or there are already plans to expand capacities, it is possible to assess how much the number of employees could increase, how to spend an additional products, how would it affect the increase of production, etc..

To summarize, on the basis of representative statistical samples it is possible to assess the number of visitors, number of overnight stays, total spending and spending of foreign tourists. However, macro-economic indicators such as gross domestic product from tourism, or value added of tourism can not be assessed on the basis of the statistical sample. Given economic indicators can be calculated using the National accounts (on the basis of which it is clearly indicated that part of the domestic product belongs to tourism).



As we have mentioned in the framework of the monitoring of these important macroeconomic indicators, in order to determine the contribution of tourism in total economy of a country, **Satellite Accounts** were established in tourism within which it is possible to measure this contribution. These accounts, in addition to using the complete statistics of tourism which is run by the official state statistics, use the System of national accounts. It is important to exactly determine which indicators and which tourist sites are monitored by the Institute<sup>83</sup>. Based on this information and the real condition of the site is possible to observe the existence (or absence) of the difference. If it exists, it is only necessary to determine what is the difference, in terms of ratio or multiplier, which would then be applied to all official information.

## 6. GOOD EXAMPLES OF THE USE OF SATELLITE ACCOUNTS IN EUROPE

The complexity of producing these accounts is illustrated by the fact that they are calculated in the right form in few European countries, and that in only eight countries they are implemented in the so-called. pilot studies. In other countries, and in our region -Western Balkans, this project is yet to be implemented. On the whole, Satellite accounts are calculated every three years.

By analyzing countries which apply TSA in full accordance with the rules and procedures in this paper we highlight two states (Denmark and Spain) as well as one that is currently in the process of implementing and whose experience can be used (Slovenia) in Europe.

**Denmark** regularly calculates the Satellite account in tourism (there are only 13<sup>84</sup> of such countries in the European Union), and is known for the fact that most of its economic activity and macroeconomic developments are quantitatively modeled. Denmark has, even before the introduction and application of Satellite accounts in tourism, created macroeconomic model (called TOBBE), which aims to measure and recognize trends in tourism, as well as the impact of tourism on the economy and employment. Moreover, besides conducting regular satellite accounts in tourism, Denmark is also a pioneer in the design and implementation of regional Satellite accounts in tourism. Having Satellite accounts in tourism is, not only for the whole country, but for its regions, extremely useful for regional development, as well as for comparison of the region in relation to the impact of tourism on the economy. We must note that the implementation of regional Satellite account is not simple and that in Denmark it was conducted through nine stages.

**Spain** is another good example of application of TSA. Besides it regularly applies Satellite account in Tourism, it developed some special procedures for its needs. In the case of Spain it is "Survey of passengers at the border crossings." Namely, it is very difficult to identify travelers as visitors or tourists. It is also difficult to identify whether the traveler has, within the same day, came in and out of the country. Also, he can do at the various border crossings several times during the same day. All of these issues have created a need to, in addition to the fact that State Statistics of Transport and Communications monitors the number of entry and exit of foreign and local travelers, make the additional surveys at border crossings and try to obtain information on whether the passenger is a multi-day visitor one-day visitor.

**Slovenia** is an example of a state that implements the tourism satellite accounts, in a pilot study. Apart from Slovenia, in the second group of countries we also include France, Germany, Greece, Ireland, Latvia, Slovakia and the United Kingdom. Example of Slovenia is useful because we are able to follow through the process of establishment of these accounts

<sup>83</sup> It is necessary to examine the data that monitors and records of the Institute of Statistics, not only in tourism but also in the restaurant businesses, as well as transport and communications.

<sup>84</sup> Apart from Denmark, this includes Austria, Cyprus, Czech Republic, Estonia, Finland, Hungary, Lithuania, Netherlands, Poland, Portugal, Spain and Sweden.

for several years, and Slovenia is geographically a small country and is located on an important road corridor, so there's a lot of transit passengers, as well as the general transit traffic, which is typical for the RS/BiH. Implementation and application of Satellite accounts in Slovenia was carried out in three stages. First, in 2001, Slovenia has undertaken the preparation of a feasibility study for the implementation of Satellite accounts in tourism. Then, in 2004 it implemented the so-called. Implementation of Satellite accounts in tourism, and in 2008 for the first time, it did a complete Satellite accounts in tourism, and from 2011 it calculates them every three years. The similarity of Slovenia and BiH could be reflected in the number of one-day visitors due to economic reasons. Specifically, when Croatia joined the EU it is reasonable to expect that Bosnia and Herzegovina becomes attractive to its neighbors as well as the citizens of Slovenia, Austria and Italy. In addition, one of the characteristics of Slovenia is that they opened in their country, especially in border areas, a large number of casino's. All of this is a form of tourism, but because these are all one-day visit, it is hard to record them for the purposes tourist spending (of course not all of the costs, but only those related to tourist spending). Finally, of the countries of that are not members of the EU, we can single out Montenegro. The choice of country, again, is not accidental taking into consideration geographical proximity and the importance of the tourism for the economy of Montenegro. As previously stated, for the application of Satellite accounts lot of information and indicators from the State Institute of Statistics are needed. Their State statistics is recently established, following the model of state statistics of Serbia (from which it was created). Because of the importance of tourism in their economy, they started to establish Satellite accounts in tourism a few years ago. The challenges they currently face in the context of the construction of tourism Satellite account can be useful to us, because of similar organization and structure of the national statistics.

## **7. CONCLUSION**

In recent years, the need for monitoring the contribution of tourism to the national economy has been becoming more and more important because the role of tourism is rapidly gaining importance. There are many reasons that have contributed to the development of tourism in recent years, even decades, and we mention only the most important ones such as growth of living standards, the development of air transport, the diversification of the tourism offer etc. All of the above reasons, with an increasing share of tourist spending that is not recorded in official statistics of the country, make the implementation of tourism satellite account (TSA) necessary.

A key advantage of the implementation of Satellite accounts in tourism is reflected in the fact that it very successfully enables accurate calculation of contribution of tourism, including all indirect effects which are not negligible in tourism. Bearing all this in mind it is clear that Satellite accounts are not a luxury but a necessity of every country regardless of the volume of tourism in the national economy and the level of total investment in the TSA. On a global level number of employees in the tourism industry is constantly growing, and overall growth of value added thanks to tourism exceeds 15%, which until few decades ago would have been unthinkable, and, in the end, it is expected that tourism in the next decade becomes as important as the banking sector or the sector of high technology has become in the past decade. These trends have been recognized by many, mostly developed countries of Europe and they began to apply the tourism satellite accounts into their full capacity. It is very important that this project, which involves a complex statistical analysis of all the factors that directly or indirectly affect tourism, represents the development process of the country. Using such quantitative analysis it is possible to consider the objective situation of a country and thus achieve a comparative advantage over other countries in the tourism market. This is why

the production of Satellite accounts is important both for tourism as a separate branch, and for the economy as a whole.

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## **FIRM-LEVEL TECHNICAL EFFICIENCY AND INVESTMENT CLIMATE IN DEVELOPING COUNTRIES - AN APPLICATION TO MIDDLE EAST AND NORTH AFRICA MANUFACTURING**

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### **Abstract**

*Drawing on World Bank enterprise surveys (ES), this paper reveals that firms' technical efficiency (TE) is correlated with investment climate (IC) in eight manufacturing industries of 22 developing countries. Essential aspects of investment climate include the quality of infrastructure, the experience and education of the labor force, the cost of and access to financing, as well as different dimensions of government-business relations. The empirical analysis also illustrates that low technical efficiency in several Middle East and North Africa (MENA) economies is associated with investment climate deficiencies. The paper also highlights that industries more exposed to international competition, as well as small and medium domestic firms, exhibit a higher sensitivity to investment climate limitations.*

**Keywords:** *Firms Survey Data; Investment Climate; Manufacturing; Middle East and North Africa; Technical Efficiency.*

### **1. INTRODUCTION**

Recent developments of the economic literature have put investment climate at the centre of economic performance (World Bank, 2004b). Many empirical studies have first relied on cross-country analysis, to link governance and institutions to economic performance at the macroeconomic level.<sup>85</sup> More recently, the literature has evaluated firms' performance and its determinants using enterprise surveys data.<sup>86</sup> This approach, still quite new, aimed at strengthening the empirical literature by providing a microeconomic foundation and generating policy recommendations based on the identification of the main constraints faced by firms. Investment climate can be defined as the "policy, institutional, and regulatory environment in which firms operate" (World Bank, 2004b). Key factors affecting investment climate include the rules of law, the control of corruption, the level and complexity of taxation and regulation, the quality of infrastructure and human capital, as well as the cost and availability of financing. Many of these dimensions have been found to influence firms' productivity, investment, and growth.<sup>87</sup> Although Middle-Eastern and North-African (MENA)

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<sup>85</sup> Acemoglu *et al.* (2001), Engerman and Sokoloff (2002).

<sup>86</sup> Dollar *et al.* (2005), Pande and Udri (2005); Aterido *et al.* (2011).

<sup>87</sup> Bastos and Nasir (2004); Escribano and Guash (2005); Dollar *et al.* (2005). Aterido and Hallward (2007); Aterido *et al.* (2011).

countries are far from homogeneous, most of them have recorded economic results that lag behind their middle income economic status. In addition to modest investment and growth, these countries did not manage to create enough jobs, diversify their export base and attract an adequate level of foreign direct investment (*FDI*).<sup>88</sup> In fact, MENA competitiveness has constantly been affected by poor exchange rate policies and insufficient economic reforms<sup>89</sup>. But other factors, such as an unfavourable investment climate and high production costs, are likely to hamper firms' productive performance and aggregate economic activity in the region.<sup>90</sup> The World Bank Investment Climate surveys (*ICs*) collect data on inputs and outputs, as well as various aspects of the investment climate at the firm level. *ICs* produce both subjective evaluations of obstacles to firms' operations along with more objective information on firms' constraints. These standardized surveys of large and random samples of firms allow the comparison of firms' productive performance across countries and sectors. They also provide information to estimate the impact of the investment climate on firms' performances. In a context of increasing pressure from globalization, *ICs* can be useful tools in identifying key obstacles to firms' competitiveness and growth. As such, they can inform the design of policy reforms. The objective of this paper is to accelerate progress in that direction. Drawing on *ICs*, the paper analyses the relationship between the investment climate and firm-level technical inefficiency for eight manufacturing industries in 22 developing countries—among which are five MENA economies (namely *Algeria*, *Egypt*, *Lebanon*, *Morocco*, and *Saudi-Arabia*). We first propose a measure of the technical efficiency (*TE*), by referring to the production frontier approach. Although a limited number of studies has recently analyzed the impact of the investment climate on firms' performance, to our best knowledge this paper covers a much broader sample of firms, countries, and sectors in a comparative perspective. Furthermore, technical efficiency (*TE*) is not a notion that has been extensively explored in the literature. Another contribution of the paper to the literature relates to the treatment of the investment climate. Instead of arbitrarily considering a few indicators, like in most empirical studies, we summarize the information in a limited number of aggregated variables using principal component analysis (*PCA*) methodology. The advantage of this approach is that it takes into account more dimensions of the business environment, without encountering problems of multicollinearity when estimating their impact on firms' inefficiency. In line with the literature, we have defined four composite indicators: infrastructure quality (*Infra*), business-government relations (*Gov*), human capacity (*H*), financing constraints (*Fin*). Some of these indicators are found to be significantly correlated with firms' *TE*. This constitutes an interesting outcome due to the larger than usual number of investment climate factors validated by the estimations. These results have been obtained using the one-step procedure, which allows the simultaneous estimation of both production technology and the correlated factors with firms' inefficiencies. They partly control for endogeneity of investment climate variables, especially by using city-sector averages of firm-level observations (Dollar, 2005). Robustness of correlations has been tested on a restricted sample of small domestic firms which have less ability to positively influence their business environments, or settle in high-quality (high cost) investment climate locations, than big enterprises. The paper is organized as follows. In the second section, we present some methodological aspects linked to the calculation of our indicators of technical efficiency (*TE*) and investment climate (*IC*).

<sup>88</sup> Aysan *et al.* (2009), Nabli and Véganzonès-Varoudakis (2007); Pissarides and Véganzonès-Varoudakis (2009), Sekkat and Véganzonès-Varoudakis (2007).

<sup>89</sup> Nabli and Véganzonès-Varoudakis (2004); Nabli (2007).

<sup>90</sup> Aysan *et al.* (2007); World Bank (2004a/2009).

We also compare average firms' TE by industry across countries, with a special attention given to the MENA region. The third section investigates the correlation between firms' TE and the variables reflecting the investment climate. The last section summarizes our main findings.

## 2. TECHNICAL INEFFICIENCY AND INVESTMENT CLIMATE INDICATORS

### *Technical efficiency*

The stochastic frontier models rely on a two-component error term: the classical random noise, ( $v$ ) and the technical inefficiency ( $-u$ ) which reflects the fact that firms lie on, or below, the production frontier. This technical inefficiency term is calculated as the ratio of the observed firm's output of, relative to the potential output defined by the frontier. It takes a value between zero and one, all firms being benchmarked by the most efficient one in the empirical sample. It is this model that we estimate in this section to calculate firms' TE. The stochastic frontier model can be written as follow:

$$y_i = f(x_i, \beta) - u_i + v_i \quad (1)$$

where the production ( $y$ ) is linked to inputs ( $x$ ), with  $\beta$ : parameter to be estimated and  $i$ : firm index.

A complement to this analysis is to determine the reasons why firms are not necessarily efficient and, in some cases, stand quite far from "best practices." Factors that may influence, or at least are potentially correlated with  $TEs$ , can be tested in different ways. One method is to simultaneously estimate the stochastic frontier and the factors explaining the inefficiencies. This "one-step" model will be used in next section to evaluate the correlation between firms' IC and TE. The stochastic frontier model can be rewritten as follow:

$$Y_i = f(X_i, \beta) e^{v_i - U_i(Z_i, \delta)} \quad (2)$$

with  $Y_i$ : firm's output,  $X_i$ : vector of inputs ( $K$ ,  $L$ ),  $Z_i$ : inefficiency determinants,  $\beta$  and  $\delta$ : parameters to be estimated and  $i$ : firm index.

Firms'  $TEs$  are calculated from the estimation on our panel of eight industries and 22 countries of the production frontiers as in equation (1). At this stage, we explain firms' value added ( $Y_i$ ) by capital ( $K_i$ ) and labour ( $L_i$ ). All values are taken in current dollars.<sup>91</sup> ( $K_i$ ) is measured by firms' gross value of property, plants and equipment, while ( $L_i$ ) is the number of permanent workers.

The Cobb-Douglas functional form is as follow:

$$\text{Log}(Y_{i,j}) = \alpha + \alpha \text{Log}(K_{i,j}) + \beta \text{Log}(L_{i,j}) + \text{dum}_j - u_{i,j} + v_{i,j} \quad (3)$$

with:  $\text{dum}_j$ : country-dummy variables,  $\alpha/\beta$ : parameters to be estimated,  $v_{i,j}$ : error term,  $u_{i,j}$ : technical inefficiency, and  $i/j$ : enterprise/country index, respectively.

Table 1. displays the average firm-level technical efficiencies ( $TEs$ ), as calculated from the estimated production frontiers. For a given industrial sector, average  $TEs$  are considered for each country and expressed in percent, relative to the average  $TE$  of the highest performing country in that sector. The analysis reveals a relatively stable ranking of countries across industries. *South-African* and *Brazilian* firms perform—on average and in most industries—at the highest levels of  $TE$ . *Moroccan* firms also demonstrate some of the best  $TE$  performances of the sample, as do *Saudi-Arabian firms* in the three industries covered by the survey. As for

<sup>91</sup> Various hypotheses can be made regarding the exchange rate used to convert production and production factors into US\$. We considered the current market rate in US\$, which has the benefit of being the rate that firms use for their economic calculations.

other MENA countries, the ranking also remains rather stable. *Egyptian* and *Lebanese* firms are systematically among the lowest performing ones and *Algerian* firms rank at a low-intermediate position. In the MENA environment, though, *Moroccan* firms appear to perform the best, with levels of *TEs* far ahead of those in the two Asiatic giants (*China* and *India*) and very close to the ones in the two best performing economies (*South-Africa* and *Brazil*). This is not the case of the other MENA countries of our sample whose performance clearly lags behind the other economies of our sample.

*Table 1. Firm-Level Technical-Efficiency*  
(Country average, in % of country with the most productive firms)

Country*	Textile	Leather	Garment	Agro-Processing	Metal-Machinery Products	Chemic-Pharm Products	Wood-Furniture	Non Metal-Plastic Materials
<b>South-Africa(2003)</b>	85		<b>100</b>	<b>100</b>	<b>100</b>	89	<b>100</b>	<b>100</b>
<b>Brazil(2003)</b>	<b>100</b>	<b>100</b>	87	80	98	<b>100</b>	62	
<b>Morocco(2004)</b>	<b>58</b>	<b>70</b>	<b>81</b>	<b>70</b>	<b>100</b>	<b>72</b>		<b>92</b>
<b>Saudi-Arabia(2005)</b>				<b>72</b>	<b>76</b>		<b>81</b>	
<b>Morocco(2000)</b>	<b>67</b>	<b>76</b>	<b>80</b>	<b>71</b>	<b>68</b>	<b>83</b>		<b>70</b>
<b>Thailand(2004)</b>	64		93	67	65		47	66
<b>Ecuador(2003)</b>	57	86	61	61	63	60	57	63
<b>El Salvador(2003)</b>	40	62	65	58	55	63		66
<b>Guatemala(2003)</b>	51		77	45	57	45	48	67
<b>Honduras(2003)</b>	58		66	42	48	60	37	48
<b>India(2000)</b>	47		66		45	34		
<b>India(2002)</b>	42	56	66	41	46	32		
<b>Pakistan(2002)</b>	43	49	61	40		31		
<b>China(2002)</b>	46	45	51		35			
<b>Philippines(2003)</b>	36		53	39				
<b>Algeria(2002)</b>	<b>33</b>			<b>35</b>	<b>39</b>	<b>38</b>		<b>54</b>
<b>Nicaragua(2003)</b>	22	55	41	34	38	30	31	49
<b>Tanzania(2003)</b>				43			32	
<b>Zambia(2002)</b>	29			30	41	21		
<b>Sri-Lanka(2004)</b>	17		37	26	33			39
<b>Bangladesh(2002)</b>	24	41	32	28		19		
<b>Ethiopia(2002)</b>	20	30	36	22			23	
<b>Egypt(2004)</b>	<b>21</b>	<b>30</b>	<b>21</b>	<b>17</b>	<b>22</b>	<b>17</b>	<b>19</b>	<b>32</b>
<b>Egypt(2006)</b>	<b>17</b>	<b>15</b>	<b>22</b>	<b>22</b>	<b>25</b>	<b>14</b>	<b>19</b>	<b>24</b>
<b>Lebanon(2006)</b>	<b>21</b>		<b>23</b>	<b>16</b>			<b>13</b>	

*Note* : \* Ranking is from countries with the most efficient firms to those with the least efficient ones. Years of surveys are into brackets.

### *Investment climate*

The World Bank Investment Climate (*IC*) database provides information on a large number of investment climate variables. Four broad categories are considered in this paper: infrastructure quality (*Infra*), business-government relations (*Gov*), human capacity (*H*), and financing constraints (*Fin*).<sup>92</sup> In the surveys, there are multiple indicators that cover a similar

<sup>92</sup> *Infra* is defined by seven variables: Obstacles for the operations of the enterprise caused by deficiencies in (i) electricity, (ii) telecommunications, (iii) transport. (iv) Does the firm own or share a generator? (v) If yes, what percentage of electricity comes from that source? In its interaction with clients and suppliers, does the enterprise

theme, providing high correlations among *TEs* factors. One solution to efficiently manage these correlations consists of limiting the number of indicators by using composite indicators.<sup>93</sup> In our analysis we have adopted the Principal Component Analysis (*PCA*) methodology which gives a limited number of composite indicators in a more rigorous way than a subjective scoring system does. Our four aggregated indicators were generated at sector-level, thus defining in each country the specific investment climate of each industry.<sup>94</sup> The analysis usually treats investment climate as an exogenous determinant of firms' performance. However, this is not always the case. We partially addressed this issue by measuring the individual variables as city-sector averages of firm-level observations (Dollar, 2005). This was done for infrastructure quality (*Infra*) and business-government relations (*Gov*). For human capacity (*H*) and financing constraints (*Fin*), however, the initial indicators were interpreted as specific to each firm and information kept at the firm-level (except for "skill and education of available workers").

### 3. FIRM-LEVEL TECHNICAL INEFFICIENCY AND ITS CORRELATES

#### *Empirical model*

As explained in section-II, we use the one-step procedure to simultaneously estimate the production technology and the correlated factors with technical inefficiencies. We consider the logarithm of the production factors (capital and labour), as well as the *Z* vector of explanatory variables of inefficiency terms, as in equation (2). Although we partly control for endogeneity by using city-sector average of most firm-level observations, regression results have to be treated with caution, as they highlight more covariates than accurate causal impacts.

The Cobb-Douglas form of the one-step model comes as follows:

$$\ln(y_{ij}) = \phi_I + \alpha_1 \ln(l_{ij}) + \alpha_2 \ln(k_{ij}) + \beta \text{Size}_{ij} + \gamma \text{Foreign}_{ij} + \delta \text{Export}_{ij} + \varepsilon_1 \text{Infra}_{ij} + \varepsilon_2 \text{Gov}_{ij} + \varepsilon_3 \text{H}_{ij} + \varepsilon_4 \text{Fin}_{ij} + c + v_{ij} \quad 4)$$

with *k*: capital, *l*: labour, *Export*: sales exported (% of total sales), *Foreign*: foreign ownership of capital (% of total capital), *Size*: number of permanent workers, *Infra*, *Gov*, *Fin*, *H*: IC composite indicator,  $\phi$ : country-dummy variables,  $\gamma$ : intercept, *v*: error term, *i/j*: enterprise/country index, respectively.

By exposing firms to international competition, *Export* is a factor of higher productive performance, as is *Foreign<sub>i</sub>* if foreign investors bring new technologies and management techniques. The empirical model emphasizing the relation between these variables and the technical inefficiency, the expected sign is negative. For symmetric reasons, positive coefficients are expected for *Infra*, *Gov*, and financing constraints *Fin* which reflect hindrances for firms' activity. With regard to human capacity (*H*), a higher level means a lower inefficiency.

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have access to: (vi) e-mail or (vii) internet? **Gov** includes up to six subjective variables: Obstacles for the operation of the enterprise caused by: (i) tax rate, (ii) tax administration, (iii) customs and trade regulations, (iv) labor regulation, (v) business licensing and operating permits, (vi) corruption. **H** is described by four variables: (i) Obstacles for the operation of the enterprise caused by deficient skills and education of available workers. (ii) Education level and (iii) experience of the top manager (number of years). (iv) Training of the firm's employees. **Fin** consists of three variables: Obstacles for the operation of the enterprise caused by: (i) cost and (ii) access to financing. (iii) Access to an overdraft facility or a line of credit.

<sup>93</sup> Bastos and Nasir (2004).

<sup>94</sup> For details on the PCA methodology and on the construction of the aggregate indicators, see Nagaraj *et al.* (2000) and Mitra *et al.* (2002).



### Results of estimation

Equation (4) was estimated on our sample of countries by industry. Results are presented in Table-2. Our regressions confirm the choice of a production frontier by industry, the elasticities of capital and labor prove different from one sector to the other. Additionally, some differences in the productive technology can be linked to country-specific conditions, as country-dummies are statistically significant. More interestingly for the purpose of this section, our estimations do not reject that differences in investment climate are correlated with *TEs*. This is true for most aspects of the business environment. This outcome makes a contribution to the empirical literature by validating, for a larger than usual sample of firms coming from a wider variety of industries and countries, the impact of a substantial set of investment climate variables. It is also of major importance for MENA, where an improvement of different dimensions of the environment would contribute to the catch up with more efficient and competitive countries/regions. Findings by industry likewise reveal differences across branches. Some industries — *Textile*, *Wood-Furniture* (for *H*, *Infra*, *Fin*), *Plastic-Materials* (for *Infra*, *H*) — appear as potentially more sensitive and vulnerable than others to investment climate deficiencies. This fragility may be due to the fact that most of these industries face international competition and need a supportive environment to compete efficiently. This conclusion is all the more important for the MENA economies, in light of the high specialization of some of them, particularly *Morocco* and *Egypt*, in *Textile*. Improving investment climate in this sector is necessary in the face of strong international competition and would reinforce the export capacity of these countries. Interestingly as well, human capacity (*H*), infrastructure quality (*Infra*), and financing constraints (*Fin*) appear to be the most robust correlates with firms' *TE*, while business-government relations (*Gov*) proves much less significant. Actually, the direction of the impact of some variables participating in the government-business relations (*Gov*) indicator -- corruption and regulation in particular -- has recently been questioned. Although one part of the literature corroborates a negative role for these two factors, some research does not confirm this result, especially in the case of micro firms which could be less constrained by both limitations.<sup>95</sup> This contradictory effect could explain the lower significance of business-government relations (*Gov*) when explaining firms' *TE*. Moreover, we do not reject the correlation between some plants' characteristics and firms' inefficiencies. The sign of *Size* highlights potential scale economies in four industries: *Agro-Processing*, *Chemicals-Pharmaceutical Products*, *Wood-Furniture*, and *Leather*. This constitutes an interesting outcome that could justify encouraging concentration of small enterprises which importance and role for job creation in developing countries is well documented (in MENA in particular).<sup>96</sup> These firms could participate more in the catch-up process of the lowest performing countries — *Egypt*, *Algeria*, *Lebanon* in MENA for example. As for *Export*, results are in accordance with externalities linked to export activities in *Garment* and *Leather* where external competitive markets are a stimulating source for a high productivity level (Chaffai, *et al.* 2012). It probably participates in *Moroccan* firms' high performance. An increase in the export capacity of these industries appears, though, as another means of stimulating firms' efficiency and contributing to industrial growth.

<sup>95</sup> Escribano *et al.* (2007).

<sup>96</sup> World Bank (2009).

Table 2. Sector-Based Production Frontiers (dependent variable: firm's value added)

<i>Independent Variables</i>	<b>Textile</b>	<b>Leather</b>	<b>Garment</b>	<b>Agro Industry</b>	<b>Metal-Machinery</b>	<b>Chemical-Pharm</b>	<b>Wood-Furniture</b>	<b>Plastic-Materials</b>
<i>ln(l)</i>	0.637 (16.01)***	0.778 (27.90)***	0.879 (15.19)***	0.229 (2.17)**	1.185 (9.97)***	0.578 (11.84)***	0.836 (17.87)***	1.129 (6.00)***
<i>ln(k)</i>	0.337 (15.06)***	0.252 (16.57)***	0.196 (7.40)***	0.348 (7.81)***	0.115 (2.00)**	0.447 (20.05)***	0.248 (11.91)***	0.114 (1.41)
<i>Ln(l)<sup>2</sup></i>				0.033 (2.37)**	0.031 (1.82)*			-0.057 (1.72)*
<i>Ln(k)<sup>2</sup></i>				0.007 (1.40)	0.061 (7.13)***			0.002 (0.13)
<i>ln(k)*ln(l)</i>				-0.004 (0.32)	-0.116 (5.77)***			0.036 (1.18)
<i>Intercept</i>	1.081 (2.01)**	2.149 (5.93)***	1.326 (4.62)***	4.654 (5.84)***	0.821 (2.46)**	2.868 (4.26)***	1.738 (4.54)***	0.534 (1.07)
<i>Size</i>	-0.809 (1.54)	-0.333 (1.77)*	-0.037 (0.33)	-0.328 (3.69)***	-0.445 (0.70)	-0.198 (1.99)**	-0.490 (2.22)**	0.158 (0.78)
<i>Foreign</i>	-0.426 (0.90)	-0.006 (0.76)	-0.014 (0.50)	-0.005 (3.12)***	-0.413 (1.09)	-0.006 (1.72)*	0.004 (0.54)	-0.016 (1.49)
<i>Export</i>	-0.016 (0.81)	-0.020 (1.95)*	-0.078 (1.81)*	-0.001 (1.21)	-0.153 (1.27)	-0.008 (1.49)	-0.017 (1.53)	-0.133 (1.15)
<i>Infra</i>	0.762 (2.52)**	-0.079 (0.66)	-0.057 (0.95)	0.028 (0.52)	0.711 (1.81)*	0.204 (2.35)**	0.262 (1.71)*	0.249 (2.45)**
<i>H</i>	-0.716 (1.76)*	-0.138 (0.79)	-0.116 (1.08)	-0.288 (5.50)***	-0.776 (1.18)	-0.147 (1.71)*	-0.488 (2.33)**	-0.529 (2.35)**
<i>Gov</i>	-0.259 (1.21)	-0.072 (0.72)	0.185 (2.48)**	-0.066 (2.03)**	0.529 (1.41)	-0.068 (1.39)	-0.060 (0.54)	0.112 (0.96)
<i>Fin</i>	0.778 (2.40)**	0.219 (1.68)*	0.035 (0.50)	0.114 (3.49)***	0.164 (0.41)	0.148 (2.67)***	0.330 (2.36)**	-0.136 (1.16)
<i>Intercept</i>	-0.961 (0.95)	0.162 (0.19)	0.506 (1.84)*	3.012 (4.11)***	-3.680 (2.05)**	1.508 (2.32)**	0.703 (1.04)	-0.016 (0.03)
<i>Obs</i>	929	433	1555	1481	839	741	750	461
<i>σ<sub>u</sub></i>	1.31	1.11	0.25	0.88	1.69	0.70	1.10	0.40
<i>σ<sub>v</sub></i>	0.86	0.60	0.73	0.50	0.77	0.56	0.53	0.76
<i>Wald χ<sup>2</sup></i>	1579.56	2375.90	925.66	1388.37	2263.16	1010.55	1490.81	714.95
<i>Prob &gt; χ<sup>2</sup></i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Note:* the one-step procedure explains firm-level inefficiency. Expected sign is positive for *Infra*, *Gov*, *Fin* (which are interpreted as constraints) and negative for *Size*, *Foreign*, *Export* and *H* (which measures a capacity). All regressions contain country-dummies when estimating production functions. Significance level\*10%/\*\* 5%/\*\*\* 1%. Absolute value of z statistics are in parentheses.

### Robustness test

In this section we address the case of small and medium-sized enterprises (SMEs). We define our new sample as domestically owned firms employing less than 150 workers, as in Dollar *et al.* (2005). This restriction leads to eliminate foreign firms. Results confirm some of our previous findings (Table-3). Investment climate variables are still correlated with firms' technical inefficiency. Results vary according to the sector and dimension of the investment climate under consideration, *Gov* being, as previously discussed, less significant.<sup>97</sup> A detailed analysis also reveals that the correlation between investment climate and *TEs* can be stronger

<sup>97</sup> Actually, this variable is now significant in one sector only (*Garment*) instead of two, previously. This finding could illustrate the fact that small (or very small) firms are less constrained by some dimensions of their environment, such as corruption and regulation, as discussed in the literature.

for this category of firms, in particular in *Textile*, *Garment* and *Non-Metal/Plastic-Materials*. This outcome is likely to show that, in these industries, large and foreign firms are more likely to be resilient to a degradation of their investment climate, to positively influence their environment, or to select locations where the investment climate is more favourable. This outcome can be considered as of first value, understanding the importance of SMEs in developing countries and their potential for job creation. This conclusion is particularly relevant for MENA countries, which show a high percentage of SMEs in their economies.<sup>98</sup>

*Table 3. Production Frontiers: Firms with less than 150 Employees*

*Note:* the one-step procedure explains firm-level inefficiency. Expected sign is positive for *Infra*, *Gov*, *Fin* (which are interpreted as constraints) and negative for *Size*, *Foreign*, *Export* and *H* (which measures a capacity). All regressions contain country-dummies when estimating production functions. Significance level\*10%/\*\* 5%/\*\*\* 1%. Absolute value of z statistics are in parentheses.

<i>Independent Variables</i>	<b>Textile</b>	<b>Leather</b>	<b>Garment</b>	<b>Agro-Industry</b>	<b>Metal-Machinery</b>	<b>Chemical-Pharm</b>	<b>Wood-Furniture</b>	<b>Plastic-Materials</b>
<i>ln(l)</i>	0.547 (9.01)***	0.882 (23.30)***	0.975 (15.3)***	0.051 (0.34)	0.624 (3.40)***	0.549 (6.74)***	0.779 (11.39)***	0.956 (3.64)***
<i>ln(k)</i>	0.319 (12.38)***	0.252 (16.25)***	0.177 (6.06)***	0.406 (6.40)***	0.112 (1.43)	0.390 (13.89)***	0.223 (10.01)***	0.152 (1.58)
<i>Ln(l)<sup>2</sup></i>				0.142 (4.55)***	0.029 (0.83)			0.010 (0.18)
<i>Ln(k)<sup>2</sup></i>				0.020 (2.99)***	0.020 (2.06)**			0.018 (1.42)
<i>ln(k)*ln(l)</i>				-0.059 (2.44)**	-0.003 (0.09)			-0.016 (0.37)
<i>Intercept</i>	2.153 (4.18)***	1.732 (5.00)***	-0.309 (0.93)	1.948 (4.28)***	1.681 (2.02)**	2.426 (3.11)***	2.238 (3.16)***	0.791 (1.56)
<i>Size</i>	-2.897 (1.91)*	0.045 (0.27)	0.186 (0.84)	0.765 (0.29)	-1.611 (1.66)*	-0.345 (2.44)**	-0.412 (2.51)**	0.690 (1.11)
<i>Export</i>	-0.417 (0.98)	-0.010 (1.85)*	-0.003 (0.81)	-0.221 (1.34)	-0.373 (1.34)	-0.016 (1.49)	-0.013 (1.62)	-0.360 (0.82)
<i>Infra</i>	1.170 (2.13)**	-0.127 (1.09)	0.763 (2.97)***	0.842 (0.49)	0.570 (1.84)*	0.161 (1.83)*	0.157 (1.60)	0.581 (1.68)*
<i>H</i>	-1.352 (2.04)**	-0.133 (0.86)	-0.276 (0.77)	-3.510 (1.67)*	-0.886 (1.43)	-0.108 (1.23)	-0.263 (2.50)**	-1.800 (1.89)*
<i>Gov</i>	-0.171 (0.51)	-0.105 (1.17)	1.552 (2.88)***	-1.294 (1.07)	0.364 (0.90)	-0.067 (1.48)	-0.063 (0.81)	0.220 (0.61)
<i>Fin</i>	1.170 (2.05)**	0.222 (1.97)**	0.665 (3.33)***	1.958 (1.33)	0.389 (1.01)	0.146 (2.60)***	0.178 (2.42)**	-0.679 (1.52)
<i>Intercept</i>	-0.254 (0.15)	-0.348 (0.44)	-3.389 (2.40)**	-2.076 (0.33)	-0.602 (0.33)	1.509 (3.33)***	1.389 (3.36)***	-3.084 (1.37)
<b>Observations</b>	730	359	1093	1123	642	607	650	394
<b><math>\sigma_u</math></b>	1.42	1.02	0.28	3.93	1.09	0.43	0.80	1.06
<b><math>\sigma_v</math></b>	0.90	0.45	0.73	0.83	0.74	0.80	0.51	0.67
<b>Wald <math>\chi^2</math></b>	663.77	1615.42	763.09	1460.18	840.82	479.31	576.56	816.62
<b>Prob &gt; <math>\chi^2</math></b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

<sup>98</sup> World Bank (2009).

As for the whole sample, the higher sensitivity of relatively small enterprises to investment climate deficiencies concerns sectors for which competition is strong in the global market. This finding has interesting policy implications. It tends to show that an improvement of various dimensions of the investment climate (depending on the industry) would improve proportionally more the global competitiveness of SMEs. Interestingly, another result tends to confirm the importance of the correlation between size and TE. Actually, SMEs appear to gain more from concentration than large ones (which seems to be a reasonable outcome). This is the case in *Textile* and *Metal/Machinery*, where the variable *Size* is now significant, in addition to *Chemicals-Pharmaceutical Products* and *Wood-Furniture*.

#### 4. CONCLUSION

This paper has shown that investment climate matters for firms' efficiency. This finding is important for the MENA region as it sheds some light on the potential reasons why firms' performance have been disappointing in several countries. It also makes a contribution to the empirical literature by validating, for a larger than usual sample of firms and industries in developing countries, the correlation between a substantial set of investment climate variables and firms' performance.

In most industries, infrastructure quality (*Infra*), skill and experience of the labour force (*H*), and cost of and access to financing (*Fin*) exhibit the highest correlation with technical inefficiency. Enhancements along these dimensions would likely have a large payoff for the manufacturing sector. The correlation is not so strong for business-government relations (*Gov*), although significant in some industries. These findings should be kept in mind when dealing with MENA reform agenda, in relation with the region poor business environment.

A more in-depth analysis also reveals interesting differences across sectors. Although most industries are found sensitive to different dimensions of their environment, firms in *Textile*, *Wood-Furniture*, *Garment* and *Non-Metal/Plastic Materials* appear to suffer more from investment climate limitations than those in other sectors. The results seem to suggest that firms in these sectors face intense international competition and need a supportive business environment to compete efficiently.

Another interesting finding is that SMEs (less than 150 workers) appear more sensitive to investment climate deficiencies than larger ones. Large and foreign firms tend to have more ability to positively influence or better accommodate their investment climate and transaction costs, or select locations with a better business environment. Improving the investment climate would therefore be particularly important for SMEs to foster job creation.

Similarly with most developing countries, MENA is increasingly concerned about creating jobs and improving competitiveness as the region faces the intensifying pressure of globalization. The World Bank enterprise surveys provide thus a standard instrument for identifying key obstacles to a better efficiency and prioritizing policy reforms in the region.

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## **OPPORTUNITIES TO INCREASE THE VALUE OF SLOVENIA'S TRADE WITH THE PACIFIC RIM COUNTRIES – THE CASE OF AUSTRALIA**

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### **ABSTRACT**

*Slovenia is, like many other countries, especially small ones, dependent on exports and imports of goods and services. European countries are Slovenia's main trade partners, together accounting for almost 90 per cent of the value of Slovenia's trade in goods. There are various reasons for this, such as the relatively short distance between Slovenia and other European countries. If Slovenia wants to increase the value of its trade with non-European countries, it should adopt a number of measures, such as increasing the effectiveness and efficiency of its trade promotion. In this paper the authors discuss opportunities to increase the value of Slovenia's trade with the Pacific Rim countries by focusing on the specific case of Australia.*

**Keywords:** *Australia, Pacific Rim countries, Slovenia, trade, trade relations.*

### **1. INTRODUCTION**

Slovenia is dependent on exports and imports of goods and services. There are various reasons for this, such as a lack of natural and other resources (e.g., fossil fuels). In 2013, the value of Slovenia's trade in goods amounted to €43,824.3 million, which is 124.2 per cent of the value of Slovenia's gross domestic product (GDP)<sup>99</sup> and an increase of 1.6 per cent over the previous year. In the same year, the value of Slovenia's exports of goods amounted to €21,627.6 million, which is 61.3 per cent of the value of Slovenia's GDP and an increase of 2.7 per cent over the previous year. The value of Slovenia's imports of goods amounted to €22,196.7 million, which is 62.9 per cent of the value of Slovenia's GDP and an increase of 0.5 per cent over the previous year.

### **2. SLOVENIA'S TRADE IN GOODS WITH OTHER COUNTRIES, MAINLY EUROPEAN ONES**

In this chapter, the authors deal with Slovenia's trade in goods with other countries, mainly European ones, such as Germany which is Slovenia's most important trade partner. After all, Germany is Europe's largest and the world's 4<sup>th</sup> largest economy in terms of GDP.<sup>100</sup> Various European countries are Slovenia's most important export partners (see table 1). There are various reasons for this, such as the relatively short distance between Slovenia and these

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<sup>99</sup> In 2013, the value of Slovenia's gross domestic product amounted to €35,274.9 million.

<sup>100</sup> See the World Bank (2014a). In terms of GDP at purchasing power parity, Germany is the world's 5<sup>th</sup> largest economy (see the World Bank (2014b)).

countries, which reduces logistics costs and provides Slovenia with competitive advantage over more distant trading partners, in exporting to these markets.<sup>101</sup> In 2013, the value of Slovenia's exports of goods to European countries amounted to €19,503.9 million, which is 90.2 per cent of the value of Slovenia's exports of goods, 55.3 per cent of the value of Slovenia's GDP and an increase of 3.1 per cent over the previous year. In that year, Slovenia's most important export partners among European countries were Austria, Bosnia and Herzegovina, Croatia, the Czech Republic, France, Germany, Hungary, Italy, Poland, the Russian Federation, Serbia and the United Kingdom. In 2013, the value of Slovenia's exports of goods to these countries amounted to €15,959.2 million, which is 81.8 per cent of the value of Slovenia's exports of goods to European countries, 73.8 per cent of the value of Slovenia's total exports of goods, 45.2 per cent of the value of Slovenia's GDP and an increase of 3.1 per cent over the previous year.

*Table 1: Slovenia's exports of goods by country groups, 2013*

	Million €	Percent
European countries	19,503.9	90.2
Asian countries	1,065.8	4.9
North American countries	478.8	2.2
African countries	368.4	1.7
South American countries	103.1	0.5
Other countries	107.6	0.5
Total	21,627.6	100.0

Source: Statistical Office of the Republic of Slovenia (2014).

European countries are also Slovenia's most important import partners (see table 2). In 2013, the value of Slovenia's imports of goods from these countries amounted to €19,124.1 million, which is 86.2 per cent of the value of Slovenia's imports of goods, 54.3 per cent of the value of Slovenia's GDP and an increase of 0.3 per cent over the previous year. In that year, Slovenia's most important import partners among European countries were Austria, Belgium, Croatia, Czech Republic, France, Germany, Hungary, Italy, the Netherlands, Poland, the Russian Federation and Serbia. In 2013, the value of Slovenia's imports of goods from these countries amounted to €16,303.7 million, which is 85.3 per cent of the value of Slovenia's imports of goods from European countries, 73.5 per cent of the value of Slovenia's total imports of goods, 46.2 per cent of the value of Slovenia's GDP and a decrease of 1.2 per cent over the previous year.

<sup>101</sup> The average distance between Slovenia and other European countries, measured as the average airline distance between Ljubljana and other European capital cities, is 652 miles (1,049.2 kilometres). The standard deviation is 375.3 miles (603.9 kilometres). The average distance between Slovenia and its three most important trade partners (i.e., Austria, Germany and Italy) is 313.8 miles (505 kilometres). The standard deviation is 133 miles (214.1 kilometres).



*Table 2: Slovenia's imports of goods by country groups, 2013*

	Million €	Percent
European countries	19,124.1	86.2
Asian countries	1,790.1	8.1
North American countries	535.1	2.4
Other countries	443.2	2.0
African countries	162.5	0.7
South American countries	141.7	0.6
Total	22,196.7	100.0

Source: Statistical Office of the Republic of Slovenia (2014).

In 2013, the value of Slovenia's net trade in goods amounted to -€569.1 million, which is -1.3 per cent of the value of Slovenia's total trade in goods (see table 3). In that year, the value of Slovenia's net trade in goods with European countries amounted to €379.8 million, which is 1 per cent of the value of Slovenia's trade in goods with these countries. Furthermore, in that year, the value of Slovenia's net trade in goods with African countries amounted to €205.9 million, which is 38.8 per cent of the value of Slovenia's trade in goods with these countries. In the same year, the value of Slovenia's net trade with American (both North and South), Asian and other countries amounted to -€1,154.8 million, which is -24.8 per cent of the value of Slovenia's trade with these countries.

*Table 3: Slovenia's net trade in goods by country groups, 2013*

	Million €	Per cent
European countries	379.8	1.0
African countries	205.9	38.8
South American countries	-38.6	-15.8
North American countries	-56.3	-5.6
Other countries	-335.6	-60.9
Asian countries	-724.3	-25.4
Total	-569.1	-1.3

Source: Statistical Office of the Republic of Slovenia (2014).

In 2013, Germany was Slovenia's most important trade partner among European countries, followed by Italy and Austria (see tables 4 and 5). In that year, the value of Slovenia's exports of goods to Germany amounted to €4,449.1 million, which is 22.8 per cent of the value of Slovenia's exports of goods to European countries, 20.6 per cent of the value of Slovenia's total exports of goods, 12.6 per cent of the value of Slovenia's GDP and a decrease of 0.2 per cent over the previous year.

*Table 4: Slovenia's exports of goods by European country, 2013*

	Million €	Percent
Germany	4,449.1	22.8
Italy	2,493.3	12.8
Austria	1,843.8	9.5
Other European countries	10,717.7	55.0
Total	19,503.9	100.0

Source: Statistical Office of the Republic of Slovenia (2014).

In 2013, the value of Slovenia's imports of goods from Germany amounted to €4,242.5 million, which is 22.2 per cent of the value of Slovenia's total imports of goods from European countries, 19.1 per cent of the value of Slovenia's imports of goods, 12 per cent of the value of Slovenia's GDP and an increase of 4.7 per cent over the previous year.

*Table 5: Slovenia's imports of goods by European country, 2013*

	Million €	Percent
Germany	4,242.5	22.2
Italy	3,462.0	18.1
Austria	2,520.4	13.2
Other European countries	8,899.3	46.5
Total	19,124.1	100.0

Source: Statistical Office of the Republic of Slovenia (2014).

If Slovenia wants to increase its trade performance, it should increase its competitiveness, which is low in comparison to the competitiveness of some other small European countries, such as Estonia, Latvia and Lithuania (see table 6). There are various reasons for this, such as economic mismanagement in Slovenia.

*Table 6: Competitiveness ranking, 2014*

Rank	Country	Score
1	United States	100.0
2	Switzerland	92.4
3	Singapore	90.3
30	Estonia	64.4
34	Lithuania	62.0
35	Latvia	61.9
55	Slovenia	46.3

Source: IMD World Competitiveness Yearbook 2014.

### 3. SLOVENIA'S TRADE IN GOODS WITH THE PACIFIC RIM COUNTRIES, MAINLY AUSTRALIA

In this chapter, the authors deal with Slovenia's trade in goods with the Pacific Rim countries, mainly Australia, which is the world's 12<sup>th</sup> largest economy in terms of GDP.<sup>102</sup>

#### 3.1. Slovenia's trade in goods with the Pacific Rim countries

Some Pacific Rim countries, especially China, the Russian Federation and the United States, are important trading partners for Slovenia. They are also some of the world's largest economies. In 2013, the value of Slovenia's exports of goods to the Pacific Rim countries amounted to €1,949 million, which is 9 per cent of the value of Slovenia's total exports of goods, 5.5 per cent of Slovenia's GDP and an increase of 2.7 per cent over the previous year. In 2013, Slovenia's most important export partners among the Pacific Rim countries were Australia, Canada, Chile, China, Columbia, Hong Kong, Indonesia, Japan, Malaysia, Mexico, the Republic of Korea, the Russian Federation, Singapore, Taiwan, Thailand, the United States and Vietnam. In that year, the value of Slovenia's exports of goods to these countries amounted to €1,924.2 million, which is 98.7 per cent of the value of Slovenia's total exports of goods to the Pacific Rim countries.

In 2013, the value of Slovenia's imports of goods from the Pacific Rim countries amounted to €2,119.8 million, which is 9.6 per cent of the value of Slovenia's imports of goods, 6 per cent of the value of Slovenia's GDP and an increase of 0.5 per cent over the previous year. In 2013, Slovenia's most important import partners among the Pacific Rim countries were Canada, Chile, China, Ecuador, Indonesia, Japan, Malaysia, Mexico, the Republic of Korea, the Russian Federation, Taiwan, Thailand, the United States and Vietnam. In that year, the value of Slovenia's imports of goods from these countries amounted to €2,093.1 million, which is 98.7 per cent of the value of Slovenia's total imports from the Pacific Rim countries. In 2013, there were a number of Pacific Rim countries with which Slovenia did not trade. These were the following island countries: American Samoa, Cooks Islands, East Timor, Guam, Kiribati, Marshall Islands, the Federated States of Micronesia, Nauru, Niue, Northern Mariana Islands, Palau, Pitcairn Islands, Samoa, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna. There were various reasons for this, such as a lack of knowledge of these countries, which are some of the world's smallest economies in terms of GDP.<sup>103</sup>

#### 3.2. Slovenia's trade in goods with Australia

Australia is one of Slovenia's less important trade partners. There are various reasons for this, such as the long distance between the two countries.<sup>104</sup> In 2013, the value of Slovenia's exports of goods to Australia amounted to €77.6 million, which is 4 per cent of the value of Slovenia's total exports of goods to the Pacific Rim countries, 0.4 per cent of the value of Slovenia's exports of goods, 0.2 per cent of the value of Slovenia's GDP and an increase of 23.7 per cent over the previous year. In 2013, the value of Slovenia's imports of goods from Australia amounted to €5 million, which is 0.2 per cent of the value of Slovenia's total imports of goods from the Pacific Rim countries, a negligible percentage of the value of Slovenia's total imports of goods, a negligible percentage of the value of Slovenia's GDP and an increase of 86.4 per cent over the previous year. If Slovenia wants to increase its trade with Australia, it should increase the networking of traders and other stakeholders from both

<sup>102</sup> See the World Bank (2014a). In terms of GDP at purchasing power parity, Australia is the world's 20<sup>th</sup> largest economy (see the World Bank (2014b)).

<sup>103</sup> See the World Bank (2014a).

<sup>104</sup> The distance between Slovenia and Australia, measured as airline distance between their capital cities, is 9,971.7 miles (16,047.9 kilometres).

countries, including their representatives. It should also increase the number of its honorary consuls in Australia, where Slovenia currently has an embassy in Canberra and two consulates, one in Melbourne and one in Sydney. Both of them are led by an honorary consul. Due to Slovenia's and Australia's relative geopolitical positions, it is not surprising that trade between these two countries is marginal at this stage. In fact, one of the main reasons that there is any trade between these two countries at all is because of the networks of Slovenian diaspora members in Australia and their enduring ties with Slovenia as well as their interests in Slovenian products. In 2013, the value of Australia's net trade in goods with Slovenia amounted to -A\$48.3 million (Australian dollars), or -€31.3 million. In the same year, the value of Australia's exports of goods amounted to A\$38.2 million (€24.7 million), while the value of Australia's imports of goods amounted to A\$86.5 million (€56 million). Slovenia is Australia's 78<sup>th</sup> most important export partner and 64<sup>th</sup> most important import partner, while Australia is Slovenia's 29<sup>th</sup> most important export partner and 57<sup>th</sup> most important import partner.<sup>105</sup> In terms of Australia's trade relations at large, the trend in Australia over the last fifty years has been to invigorate relations with the Asian region, starting with the labour government of Gough Whitlam in the early 1970s. This policy was continued by the liberal government of Malcom Fraser and the successive labour governments of Bob Hawke and Paul Keating, which came into power in 1991 and began actively opening Australia 'to the region' along the neo-liberal, free market economic policy lines, whose dominance was emerging around this time on a more or less global scale. This primarily meant the opening of Australia's market to trade with countries within the Asian region, most decisively China. Today, China is Australia's most important trade partner in regard to the import of goods and services and the export of goods (but not services), along with the largely established (though only recently formalized through free trade agreements)<sup>106</sup> export markets of Japan and the Republic of Korea. Paul Keating famously announced an 'Asian Century' in an attempt, amongst other things, to open up new Asian markets, such as Australia's 'not insignificant' neighbour Indonesia<sup>107</sup>, as well as Papua New Guinea and other Pacific islands, which were previously ignored by Australia, due primarily to racial discrimination and xenophobia. The second most important trade partner, and symbolically the most significant (particularly in the area of importing services) for Australia is the United States, with whom Australia has been not only economically, but also strategically aligned since WWII. This alignment has been framed primarily, yet not exclusively, through the ANZUS Treaty (The Australia, New Zealand and United States Treaty), which is a military alliance treaty signed between these three countries in 1951. Other movements and political relations between countries in the Australasia and Pacific regions have always underpinned such agreements and trade relations. For instance, the increase in economic relations between Australia and the Asian countries have gone hand in hand with a global political focus on the Asian region, first as a hotbed of conflicts following the repositioning of geopolitical forces after WWII, and then in the 1980s and 1990s as fresh neoliberalizing capitalist models of economic progress, known as the 'Asian Tigers'; as a number of Asian countries, such as Singapore and Malaysia, joined the global neo-liberal boom (and subsequent bust). An earlier example of the confluence of trade and politics in the region can be seen when, in the 1970s, Australia joined the Vietnam War, which resulted in thousands of Vietnamese refugees forming strong economic communities in

<sup>105</sup> See Australian Government, Department of Foreign Affairs and Trade (2014).

<sup>106</sup> A set of bilateral trade agreements have been signed between Australia and countries in Asia, including free trade agreements with the Republic of Korea in April 2014 and with Japan in June 2014.

<sup>107</sup> Indonesia is a large market, with a population of almost 238 million, and so Australia's limited utilization of the proximity to such a market on grounds of historical xenophobia was the basis of Keating's push towards closer economic and military ties with Indonesia, regardless of their less than perfect human rights record.

Australia, that still persist today. The European Union overall is not the primary focus of Australia's trade relations, even though it is not insignificant. In 2013, EU Member States accounted for 6.9 per cent of the value of Australia's exports, and 17.4 per cent of the value of Australia's imports. This means that there were considerably more imports of both, goods and services from the EU Member States than there were exports. This can be attributed to close connections between Australia and many EU Member States again reflecting various diasporas and Australia's moniker as a 'migration nation'. The EU Member States that primarily constituted these waves of migration, and which are reflected in trade relations/statistics, are the Netherlands, Germany and some other European countries (including Slovenia), most of whom migrated during the decades after WWII. European migrants (other than the British, who colonized Australia in the 18<sup>th</sup> century) settled in Australia in larger numbers, initially as displaced people right after WWII. Later, economic migrants became attracted by the promise of economic success and the concurrent promotion of Australia as a land of beach-goers with tanned bodies and quarter acre blocks of land where anyone with the right attitude and work ethic could build their Australian dream. Many migrants from the former Yugoslavia endured long ship voyages from refugee camps in countries neighbouring Yugoslavia after the war, to come to work primarily as manual labourers in the growing industries and large construction schemes being built in Australia during that time; for instance the Snowy Mountain Hydroelectric Scheme in New South Wales, which is by far the largest engineering project ever undertaken in Australia. After months or even years of heavy physical labour outside Australian metropolitan areas many of the post-war migrants moved to the cities, particularly to Melbourne and Sydney. Whilst there, many worked in car-producing industries such as at Ford and General Motors Holden; or in food processing factories like Rosella, Four'n'Twenty and Arnotts. Some of these migrants later established their own private businesses, a trend that was heavily represented in the Italian and Greek communities, as well as communities migrating from the former Yugoslavia, and later on also in the Turkish and Lebanese communities. Amongst European migrants in Australia, the Italians and Greeks were not only more numerous, but also more visible than Croats, Serbs, Slovenians, Bosnians or Macedonians. Particularly the Italians established close networks based on ethnicity and links to the hospitality based service industry – restaurants and cafés – and have therefore gained much visibility and recognition within the broader Australian public. Their activity has also been closely linked to trading with fresh food, which again has impacted on the general Australian public, including many migrants from other European countries purchasing their fruits and vegetables at fresh food markets. This presence of Italian and Greek migrants, which has introduced new ingredients and flavours into the arguably bland Anglo-Australian cuisine, sparked an interest in trading Italian and Greek products linked to these two specific cuisines, and Australia's widening palate with increasing culturally diverse exposure. In this way, the presence of Italian migrants in Australia, for instance, directly influenced the lifestyle and eating habits of Australia's population at large, and encouraged trade between these two countries. Similar developments are noticeable in some other ethnic communities in Australia. For instance, after the Vietnamese arrived in large numbers during the 1970s, Vietnamese restaurants and fresh food markets offering typical Vietnamese food and other products started to appear and serve a growing Vietnamese community as well as other Australians. In the last ten to fifteen years, Vietnamese restaurants in Melbourne have become very popular between both members of Vietnamese diaspora and other Australians. As the food and hospitality industry, particularly in Melbourne, and increasingly Sydney, are generally regarded as one of the most important aspects of the city as an identity marker, it is surprising how little Eastern and Southern European presence there is in the hospitality industry in these major cities (the

Greeks being an obvious exception). Apart from certain precincts and neighbourhoods which more specifically offer, for instance, bread and pastries baked according to Eastern European recipes; a few specialized delicatessen shops; or a few Polish, a couple of Hungarian and one Croatian restaurant, there is little of this presence visible in metropolitan Melbourne. Slovenians and Slovenian products are currently not promoted as such and are practically invisible in the metropolitan Melbourne area. According to the latest 2011 Australian Census, there were 6,099 Slovenia-born people in Australia (a very small percentage of Australia's 21.5 million), which was a fall of 1.9 per cent from the 2006 Census. Victoria had the largest number of Slovenian born residents with 2,436, followed by New South Wales (1,988), Queensland (688) and South Australia (429) (ABS 2011). The greatest proportion of Slovenians in Victoria is settled in Melbourne. Besides the country of birth question, the Australian Census also incorporates a question on ancestry. In this question, the number of people claiming Slovenian ancestry is considerably higher. Altogether, there were 17,150 people reporting Slovenian ancestry in Australia in 2011<sup>108</sup>, which means that more than 10,000 people who were not born in Slovenia identified themselves as Slovenians.<sup>109</sup> Therefore, there is a mix of first and subsequent generations of Slovenians in Australia, identifying in some form with Slovenia and/or Slovenian culture. The reason for why this is of significance whilst we talk about bilateral relations, diplomacy and trade between Slovenia and Australia, particularly in the context of Slovenian import products in Australia, is that trade always depends on the flexibility of the exporting market and the demand in the importing country. Slovenian companies thinking of successfully trading within Australia should consider the presence of ethnic Slovenians in Australia, and also refer to the successful precedents mentioned above, in regard to the Italians, Greeks, Turks, Lebanese and Vietnamese, which helped establish bilateral markets. The relative distance between the two countries can work in favour of Slovenian products if they are introduced and promoted intelligently, playing on the 'exotic' as a marketing plus, just as it can when Australia markets itself to Slovenia. There is a desire for Slovenian products between Slovenian migrants in Australia and people identifying with Slovenian culture, who do not necessarily travel to Slovenia very often, due to factors such as the sheer distance between the countries and related high costs of travel. It is also important to note that bringing certain products, particularly food and beverages back to Australia, is limited for individual passengers on commercial flights due to strict customs regulations at Australian borders. Certainly there is the potential for smaller, specialized companies in Slovenia offering high quality products to reach a broader Australian market by building networks with, and relying on, migrants who are familiar with the characteristics and specifics of Australia's market environment. As Lara Černetič, who is a recent migrant to Australia and a business and international trade expert mentioned in an interview for a Slovenian Australian blog/newspaper, 'there is an opportunity here for Slovenian companies. Some are already present on Australia's market but not sufficiently. It is my estimate that this market still offers many opportunities, especially in pharmaceuticals, information technology, renewable energy sources, the chemical industry, biotechnology, machinery, etc.'<sup>110</sup> Consumables such as Slovenian gourmet and fine food produce, including Slovenian wine made by smaller wine producers in Slovenia, for example, could also be very successful imports to Australia, a country that likes its wine but is limited in its experience of the high quality of Slovenian or Croatian wine varieties. Such wines would be considered 'boutique', and could fetch high profit margins if marketed correctly.

<sup>108</sup> See Australian Government, Department of Immigration and Citizenship (2014).

<sup>109</sup> The last 2011 census gave two options of ancestry identification, which means that people could report multiple ancestries and Slovenian could be only one of the reported ancestries in any given case.

<sup>110</sup> See Čuk (2013).

Australia is a highly consumption-oriented economy with high purchasing power due to relatively large sections of the populace having high disposable incomes, especially in metropolitan areas. As already mentioned, a focus on the service, and more recently, fine food industries in Australian cities, certainly provides the room for the import markets of specialized quality products to blossom. Some Slovenians have already been successful in this way.<sup>111</sup>

#### 4. CONCLUSION

There are many opportunities to increase the value of Slovenia's trade with the Pacific Rim countries, such as Australia, which is one of Slovenia's less important trade partners. Trade between Slovenia and Australia is marginal at this stage, mainly due to the countries' relative geopolitical positions, and the lack of a trading history. In this paper, we argued that the Slovenian diaspora in Australia is one of the main reasons that there is any trade between the aforementioned countries. Individuals with Slovenian ancestry, particularly Slovenian migrants who settled in Australia more recently, are significant players in trade relations between Slovenia and Australia - countries with very different histories and traditions of trade and foreign policy. Besides providing a concrete link between the two countries, which would otherwise be much more abstract and unattainable, Slovenian migrants also present a market, which is – although relatively small – generally well networked across the multicultural Australian environment. Furthermore, this community is generally rooted in larger metropolitan areas, which, depending on the industry, tend to have higher purchasing power for most products and industries. Establishment of consulates and the naming of honorary consuls in Australian cities, besides the Slovenian embassy and an ambassador (currently recalled) in Canberra, which seems to be the current diplomatic trend, should be seen as only one step in establishing more lively and productive economic and cultural relations between the two countries. It should also be presented as being mutually beneficial, and marketed as such, expanding the awareness of Slovenia as a significant, albeit small, economic partner through the diaspora and into the general Australian consciousness. This will only happen if the creation of trade relations is approached simultaneously from the bottom-up (through migrant networks and entrepreneurs), as well as the top-down (via the embassy and the consolidation and expansion of consulates across the entire country, with trade as a focus). It should not be overlooked that Australia's market is in many ways also a jumping ground to other markets in the region, such as that of New Zealand, the Pacific island countries and the burgeoning neighbouring markets of South-East Asia. The opportunities are certainly available; it is more a question of priority, strategy and will.

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<sup>111</sup> For instance, about four years ago pastry chef Klemen Popit and his wife Malči Turšič opened a bakery business in one of Sydney's most affluent areas, which has been very successful and currently employs a team of thirteen pastry chefs. It is interesting that the business is now exporting fine food French-style patisseries back to Slovenia and is looking to expand its market into Asia (see Čuk (2014)).

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## ROLE OF NON-VERBAL COMMUNICATION IN PUBLIC RELATIONS: CROATIAN STUDY

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### ABSTRACT

*This paper focuses on the phenomenon of non-verbal communication, i.e. on the analysis of its role in public relations. It investigates the importance of good understanding and interpretation of non-verbal communication in public relations and the possibility to improve this aspect of communication through education.*

*The aim of the paper is to identify the role of non-verbal communication in public relations and to examine the extent to which selected Croatian PR professionals and communicators are aware of their own non-verbal communication, how they perceive its importance and its congruence with verbal communication. The study seeks to examine whether their perception confirms the results of research on the relative importance of verbal and non-verbal aspects of communication. The study will establish which non-verbal cues are considered as the most important by the subjects, which of them are spotted first and how they are interpreted. Also, the aim has been to find out how much **what** someone says has an impact on making business decisions and to what extent those decisions are affected by **how** someone says something.*

*In order to accomplish the aims of the study, in-depth interview has been applied providing a clearer idea of how much PR professionals know about non-verbal communication, its importance and interpretation. Preliminary research results suggest that Croatian PR professionals are aware of the importance of non-verbal communication.*

**Key words:** *non-verbal communication, PR professionals, public relations*

### 1. INTRODUCTION

Communication is a key element in all walks of life. Numerous theoreticians and practitioners agree that it is impossible not to communicate, and that a large number of problems individuals face in their private and professional lives occur as a result of inadequate communication.

Social and cultural dynamics has globally created a new profession, public relations, which has a management role in the business world, facilitating the establishment and maintenance of communication lines, understanding, acceptance and cooperation between the organisation and its publics. Communication is at the heart of public relations, an element connecting individuals that make a public and creating public opinion.

As communication with different publics is by no means an easy task, often requiring diverse approaches and types of communication, it is how and to what extent a certain type of

communication occurs in a particular business sector that needs to be established as well as the causes and effects of verbal and non-verbal communication skills that are indispensable in this kind of work.

The phenomenon of non-verbal communication is in the focus of this paper. The importance of good understanding and interpretation of non-verbal communication in public relations will be investigated as well as whether it is possible to improve this type of communication skills through education. The problem of this type of research lies in the fact that the level of awareness of one's own non-verbal communication, the ability to control it, but also noticing and interpreting non-verbal communication in others, may have a significant impact on success in public relations. The study examines the perception of the role and importance of non-verbal communication, the degree of awareness about its use and influence on communication and on successful performance of jobs in public relations in general.

## **2. THEORETICAL ANALYSIS OF NON-VERBAL COMMUNICATION**

Apart from words, people also use non-verbal signals, often called body language, to express their attitude to their social environment, but also towards themselves. As forms of verbal communication vary, so does non-verbal communication, comprising a wide range of behavioural strategies for different occasions and environments.

### **2.1. The concept of non-verbal communication**

Non-verbal behaviour has communicative value as it is simply impossible not to communicate non-verbally. As opposed to verbal communication, non-verbal communication always occurs when people meet and in many situations where they may not be physically present. This means that you have information about yourself and others available to you at all times, and if you can recognise the above mentioned signals, you will be more aware of what people around you think and how they feel and will thus be better equipped for responding to their behaviour. Even though non-verbal communication existed long before verbal language developed, its systematic study started only twenty-odd years ago. However, people have always been aware of the fact that they also use body movements when they present themselves to the world around them. (Marot, 2005).

Non-verbal communication is communication through messages that are not expressed by words but by other means (Rijavec, 2002). It is a form of communication with no words, which represents everything else that is happening, including vocal and non-vocal behaviours, but excluding uttering words. Vocal behaviour refers to aspects of speech such as intonation, pitch, speed and hesitation, whereas non-vocal behaviour includes all other communicative behaviours that are not related to speech, such as gazing, eye contact, facial expressions, keeping distance, appearance etc.

Unlike verbal communication, which is, having the form of language, better suited for conveying logical and abstract ideas, non-verbal communication is considered to be better suited for conveying emotions, building rapport between two people or regulating/manipulating human interaction (Pennington, 1997).

Non-verbal communication performs many functions compared to verbal messages, from repeating, completing and emphasising uttered words and sometimes replacing speech to denying or challenging what has been said and even deceiving others. (Pease, 2002).

Studies have shown that an individual conveys surprisingly little information using words. It should be noted that research conducted in the 1950s at the Mehrabian Institute in the US yielded some fascinating and for that time revolutionary results, revealing that the uttered word accounts for only 7% of understanding the intended message, vocal elements account for 38%, and non-verbal communication participates the most in creating an impression and

indirectly understanding the message. Interestingly, as much as 55% of a message is sent through its non-verbal elements (Španjol Marković, 2008). Studies often confirm the dominance of non-verbal over verbal communication, assigning the role of information transfer to speech and the task of expressing the mood caused by the information to non-verbal communication.

## 2.2. Non-verbal cues

Non-verbal behaviour is used for expressing emotions, showing attitudes, reflecting personality traits and encouraging or changing verbal communication. The amount of conscious thinking put in verbal and non-verbal behaviours determines whether the behaviour is spontaneous, rehearsed or planned. Interestingly, if verbal and non-verbal segments of the message clash, it is the non-verbal segment that will eventually prevail more often than not.

Non-verbal cues include facial expressions, tone of voice, gestures, posture or body movements, touch, eye contact and gaze, and they show thoughts, emotions, attitudes and personal traits. Most social psychologists agree that non-verbal communication makes two thirds of overall communication between two people or between a speaker and a group of listeners.

### *Facial expression*

Facial expression shows the intensity and quality of emotions. Even though expressing basic emotions is universal, it is nevertheless affected by the specific culture. Facial expressions are an interesting reflection of a person's psychological and emotional state when he/she does not verbalise his/her feelings. People who pay attention to the speaker's facial expression and have the ability to recognise the cues that may or may not accompany words, have no problems evaluating the authenticity of the message.

### *Tone of voice - paraverbal communication*

Although it is sending a verbal message that the voice is primarily used for, it can also be used as a means of non-verbal communication. Tone of voice, raising or lowering the voice, speaking fast or slowly, emphasising specific words, inserting pauses etc. help us to realise all the previously mentioned functions non-verbal behaviour is used for.

It is possible to say the same sentence with a completely different meaning, depending on the tone we used.<sup>112</sup>

### *Eye contact and gaze*

Eye contact and gaze are very powerful non-verbal cues. When eyes are widely open and pupils dilated it is an indication that the person likes what they see, while the location and the length of a gaze suggest the person's interest and emotions (the more a person is attracted, the longer their gaze) and help individuals to adjust their communication to the other person.

### *Gestures*

Gestures or movements of arms and hands also facilitate communication. Most non-verbal behaviour is learned, and the meaning of movements and gestures is culturally determined, which means that every individual adjusts their behaviour to the requirements of the community in hope of optimal communication with the people around them, thus making them successful. Gestures are sometimes self-explanatory and can be used to either win over people or push them away. The use of gestures is not appropriate in all situations and should sometimes be avoided or reduced.

### *Touch*

Touch displays affection, intimacy, comfort and sometimes domination and is defined by three factors: degree of liking and attraction; degree of familiarity and intimacy; power and

<sup>112</sup>[http://www.zdravzivot.com.hr/index.php?cat=\\_broj\\_35\\_2006\\_\\_\\_\\_emocionalna\\_privrzenost\\_neverbalna\\_komunikacija&nrs=9,11.6.2014](http://www.zdravzivot.com.hr/index.php?cat=_broj_35_2006____emocionalna_privrzenost_neverbalna_komunikacija&nrs=9,11.6.2014).

status. Appropriateness of using touch differs from culture to culture. Touching is an extremely powerful means of communication. As for handshake, it can even turn around a previously made bad impression and smooth out disagreements. The art of shaking hands is one of the key segments of non-verbal communication in business.

#### *Posture or movements*

Posture is the way a person stands or sits. It can be a clear indicator of how the person feels. Body movements and movement of hands and arms are the least controlled, so they express one's attitude, feelings about themselves, power or status. Posture includes a person's demeanour, which is a valuable channel for transferring nonverbal information. In everyday situations it is possible to control one's posture and movements, but this is not done very often. Self-control of one's posture or movements is more common in the business world, where more attention seems to be paid to the non-verbal aspect of communication.

### **2.3. The role of non-verbal communication in face-to-face communication**

The main role of non-verbal communication is to allow social contacts among individuals, to be their tool for responding to signs of other people's presence and states of mind, with the purpose of meeting either the needs of the individual who receives the signals or the individual who emits them, or both (Rot, 2004).

There are two basic roles, i.e. general functions of non-verbal cues in communication: the independent role, which is related to spontaneously expressed non-verbal cues (emotions, mutual attitudes of interacting participants, various personality traits), and the dependent role, which is primarily related to consciously and deliberately expressed non-verbal cues.

The independent role of certain non-verbal cues does not mean that the same contents cannot be expressed in other ways as well, i.e. through verbal communication, nor that they always occur independently from verbal cues, but it means that they may not be congruent with verbal cues when they occur simultaneously. Speaking of the function of non-verbal cues, there are non-verbal cues that are always related to verbal communication (accompanying, supporting and supplementing verbal communication as well as replacing speech) and those which are an integral part of social activities involving conventional or ritual non-verbal behaviour (greeting, expressing condolences, congratulating etc.) (Rot, 2004).

There are six functions of non-verbal communications: expressing emotions; expressing mutual stands of individuals involved in a communicative interaction; presenting one's own personal traits; accompanying, supporting and supplementing verbal communication; substitution for verbal communication and conventional expression of various types of social activities.

## **3. RESEARCH METHODS**

The research subject of this paper is the perception of the role and importance of non-verbal communication in PR, the degree of awareness of its use and the influence it has on communication and generally on successful performance of jobs in public relations.

The study aims to identify the degree of use, the manner of use and the degree of importance Croatia's PR experts and communicators attach to non-verbal communication as well as to analyse potential efforts they make to advance the recognition and reading of its cues.

In order to achieve the set aims of the study and test the raised research questions, some research methods (analysis and synthesis) will be used as well as primary and secondary data. Another method, the in-depth interview, will be used in order to have a clearer idea of the extent to which PR professionals are familiar with the concept of non-verbal communication, its importance and ways of interpretation. The in-depth interview has been designed to cover the area of non-verbal communication awareness through a structured interview guide and

will be applied on a sample of ten public relations professionals, and the obtained results will be analysed and interpreted textually and graphically.

Of course, secondary data sources will be domestic and foreign literature. For the interpretation of research results and conclusions, the methods of analysis and synthesis will be applied. Research was conducted in May, 2014 applying the in-depth interview method on a sample of ten PR professionals (6 females, 4 males). Most subjects were interviewed face-to-face and allowed recording and documenting the interview using a voice recorder, whereas some subjects insisted on answering the questions via e-mail due to their busy schedules, business trips and overall lack of time.

Research results were obtained applying the in-depth interview method designed to cover the area of non-verbal communication awareness through a structured interview guide consisting of 19 questions which were grouped in 10 chapters and thesis for generalisation and easier presentation of results on the following: the concept of non-verbal communication; the importance of non-verbal communication in business compared to that of verbal communication; the necessity to make verbal and non-verbal communication congruent and a personal evaluation of that congruence in business; training non-verbal communication; factors of non-verbal communication; whether a good non-verbal communicator is born or made; non-verbal communication as a tool for misleading and manipulation; non-verbal communication as a tool for diverting the listener's attention when communicating bad or untrue news; the impact of verbal and non-verbal communication on making business decisions; good and bad examples of non-verbal communication of famous people in the media.

#### **4. ANALIZA I INTERPRETACIJA REZULTATA ISTRAŽIVANJA**

The respondents came up with identical definitions of non-verbal communication as a way for people to communicate with no words, intentionally or unintentionally, with its role as the provider of additional information to the information conveyed verbally being undisputed. They believe non-verbal communication has the power to enhance the impression of verbal communication in a positive way in order to increase the weight of the spoken word or to question the verbal aspect and the entire communication due to the incongruence of the verbal and non-verbal contents, making the authenticity of the very message questionable. It should be noted that the subjects agree that there is no general definition that could give strict rules about what non-verbal communication is, as it is closely connected with the concepts of character traits, experience, community and environment that have a certain impact. The subjects believe non-verbal communication is still insufficiently researched and doubt if it will ever be fully researched.

The subjects find non-verbal communication extremely important in everyday communication in any business involving interaction with other people, especially in public relations as it largely impacts the perception and the interpretation of the message. They believe it provides some kind of guidance during communication. They emphasise that communication and PR professionals have honed their skills in a way that in communication they focus not only on what the interlocutors say, but also on the non-verbal content of the message. The subjects think that a good communicator is someone who can use non-verbal communication to enhance the content of the message in a controlled way, whereas a bad communicator weakens the impression and scope of the message with their poor non-verbal communication and changes its character.

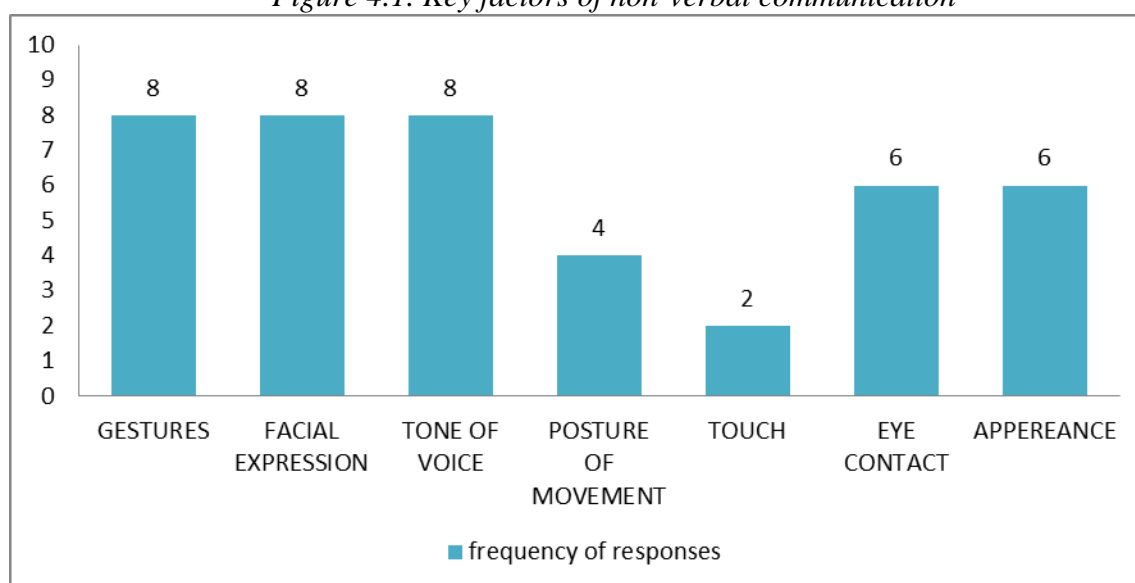
Some of the subjects see non-verbal communication as spontaneous body language, which should thus be and mostly is in congruence with verbal communication. Of course, some non-verbal communication can be trained; however, unless the learned gestures, movements etc.

become natural or congruent with verbal communication, it does not make much sense. Most subjects believe that it is essential to achieve congruence. Some suggest that the question itself implies the necessity of congruence, which they agree is important, as one form of communication cannot exist without the other. The desired effect and scope of the message can be achieved only by making verbal and non-verbal communication congruent and if you want to make people believe in what you say, the two forms of communication need to be congruent. Emotions are important in communication, and they are conveyed through non-verbal communication. Indeed, the subjects agreed that a successful speaker is someone who has made these two ways of communication congruent. If you want to make the impression that you are confident and win the interlocutor's trust, it is of utmost importance to harmonise both segments of communication.

The question about whether they have done any training on non-verbal communication revealed that out of ten subjects, only two of them have not undergone any training on non-verbal communication yet, one of them does not any information about the training courses available. Those who had information about training courses or have attended them mentioned many interesting ones. Some of them took courses as part of their formal education, some are involved in this area and some run training courses on informal communication as part of media training. Different responses were received to the question whether they rehearsed non-verbal communication in front of the mirror at the beginning of their careers. Some claimed they did not, but they rather analysed examples (speeches, statements, appearances) of other people. Some do it rarely, when they are preparing for public appearances, while some believe they have never had any problems with public appearances as they have been extroverts since early childhood.

When asked which of the non-verbal factors mentioned in the literature (gestures, facial expressions, tone of voice, posture or movement, touch, eye contact, appearance) they deemed the most important, most of the subjects emphasised facial expressions, gestures and the tone of voice. As many as eight out of ten (80%), provided a positive answer to all three above mentioned non-verbal communication factors as the most important ones. These were followed by appearance and glance (60%), whereas 40% of subjects thought posture was the most important. Only two (20%) respondents consider touch the most important factor.

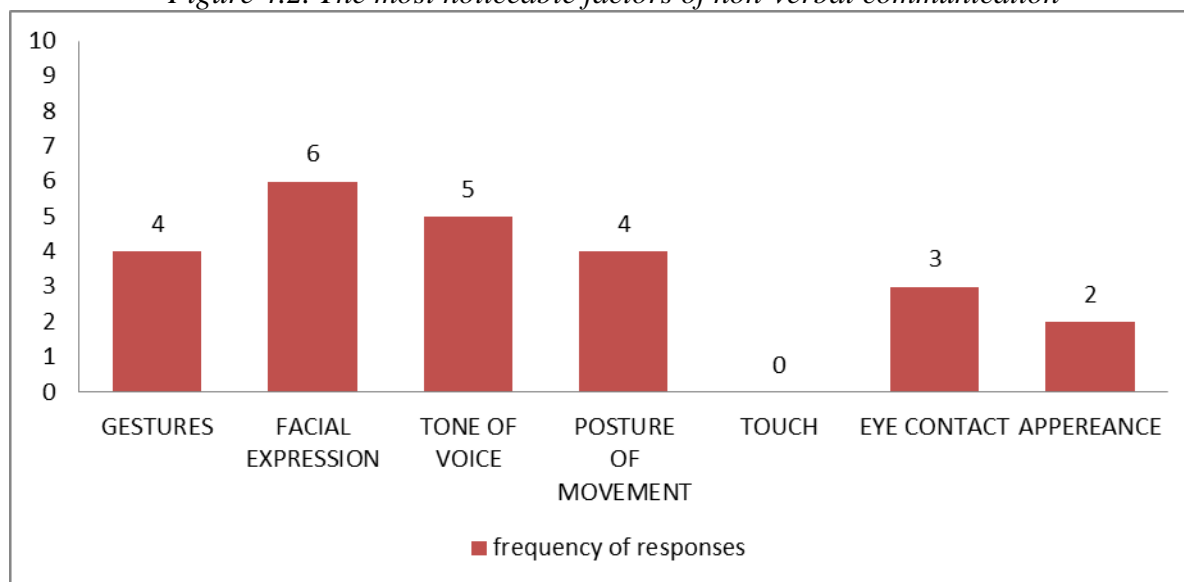
*Figure 4.1. Key factors of non-verbal communication*



Source: authors

Responses received to the question which of the previously mentioned factors of non-verbal communication they notice first in a speaker were very interesting. They varied extensively. The cross-section of responses suggests that the majority of respondents first notice facial expression (60%), which is not at all surprising as it is believed to be one of the three key factors of non-verbal communication overall. It is followed by the tone of voice, which is seen as the most important factor by as many as half of the respondents (50%).

*Figure 4.2. The most noticeable factors of non-verbal communication*



Source: authors

Gestures and posture seem to be very important (40%), being generally perceived as belonging to the top three factors next to facial expression. They are followed by eye contact (30%), whereas the fewest respondents would first notice someone's appearance, only 20% or two respondents. Touch has not been stated as a non-verbal communication factor noticed first by any of the respondents.

The subjects' responses clearly suggest that a good non-verbal communicator is a person who is aware of themselves and of the moment they are in thus adjusting their behaviour including all the non-verbal elements. This implies synchronised and unambiguous communication of all elements of non-verbal communication, where the person makes their expression and movements congruent with their verbal communication. Many of the respondents agree that a person whose non-verbal communication naturally follows from the content they speak about, who controls their gestures and facial expressions, has a pleasant tone of voice and an appropriate appearance is a good communicator. A significant finding of the study is that most respondents believe that those whose non-verbal communication does not come naturally will never be able to learn it by practice to a desirable extent, so genetics plays a very important role here. Those who were not 'born non-verbal communicators' can try to practice it, but they will be successful only to a certain extent.

When asked whether someone else's non-verbal communication had ever misled them, the respondents provided different answers. Some are almost certain they have been misled, but the question is if they are aware of that or they still do not know if they have been deceived. Some respondents suppose they might have been misled and some experienced this in the past, but the number of such situations has decreased due to experience. Some respondents admitted that misleading is possible, but only in the short term, and others claimed that they were very rarely misled and did not really remember the last time it happened. One

respondent readily answered that if someone's non-verbal communication has misled him, then he was obviously not aware of that, and if he saw through it, he was not misled, even though he said he believed he could read cues well. When asked if they saw non-verbal communication as a manipulation tool, several respondents said they didn't. All of them agree that manipulators are easily revealed and that there was nothing good about manipulation, women being the ones who often resorted to it. As for breaking bad news and using non-verbal communication as a tool for diverting the listener's attention, the respondents believe that it all depends on the nature of the bad news that needs to be communicated. If it is not just bad, but also sad, it should be communicated with utmost decorum, and the conventional smile, which might alleviate the initial shock and which occurs spontaneously in certain situations, should be avoided and controlled. Delicate and tragic situations are the worst and training for such situations in order to prepare for them is more than welcome. In any case, the non-verbal aspect of the message needs to be congruent with the verbal aspect and the seriousness of the situation created by bad news should not be questioned as it might make a poor impression. The last question in the structured interview guide is also the most interesting one, and so are the results. When it comes to good non-verbal communicators, the respondents mostly mentioned individuals from the world of politics, TV personalities and TV journalists. It is important to emphasise that some of the respondents explicitly refused to name people to illustrate good and bad examples, but they rather focused on praising or criticising the profession these individuals come from.

## **5. CONCLUSION**

This paper discusses what non-verbal communication is, what it means to public relations and how important it actually is for public relations. The analysis of its role in public relations has led to many interesting insights. Non-verbal communication is perceived by the profession as a key business tool and one of the factors that are essential when making business decisions.

It may be concluded that noticing and interpreting non-verbal communication cues has a significant impact on the success in public relations and communications. Research results have confirmed this. The results demonstrate the knowledge, attitudes and opinions of PR professionals on non-verbal communication obtained through individual interviews. The theoretical and the practical parts have been presented in a way that shows their points of contact more precisely. When we are familiar with what has been covered in the literature, it is easier to notice things in reality, and the subjects' responses demonstrate a firm bond between theory and practice. Nearly every study reveals some new insights, some new problems and raises some new issues. This study explains the role of non-verbal communication in the work of Croatia's PR professionals and their ideas, which mostly coincide with what we expected but are also largely surprising. New problems represent a potential opportunity for changing today's results obtaining different ones in a few years. Indeed, things may change for the better, as in any business. The profession is making advances and some priorities and rules are changing. The area of research is enormous and a lot has been written about this topic, but this study provides a sufficiently extensive overview of the role of non-verbal communication in public relations.

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## **ANALYTIC HIERARCHY PROCESS IN SERVICE OF CUSTOMIZED OFFER IN BANKING: SAVINGS AND INVESTMENT**

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### **ABSTRACT**

*Today's banking institutions spread their product and service line on a daily basis. This effort to increase competitiveness is also creating an overstocked supply for existing and new clients. Not every product is meant for every client and aggressive sales strategies tend to repel clients which can cause serious problems in long-term client-bank relations. This paper will analyze Savings and Investments products along with their adaptation and modulation regarding client needs. Accordingly, banks will be able to offer particular products to clients with specific needs and wishes. The Analytic Hierarchy Process, or simply AHP method, represents a process which will be able to transform client's demands and affinities into a customized offer. It is an easy-to-implement method used in any step of the decision making process; the process must have multiple alternatives and each of them carries specific characteristics. The decision maker ranks all the characteristics and simultaneously all the alternatives according to his affinities forming a final decision. This paper will explain how banks will be able to adapt to client needs and wishes in the future using the AHP method.*

**Keywords:** *Analytic Hierarchy Process (AHP), Banking, Customized Offer, Decision Making, Savings and Investment*

### **1. INTRODUCTION**

A large number of various financial institutions is active on present financial markets. Banks represents ones of the most important profit organizations on the market. Their purpose is to collect deposits, create credits and financial intermediation (Klačmer Čalopa and Cingula, 2009:31). The most important financial institution in every country is the Central Bank, which represents the monetary authority. The HNB (Croatian national bank) is the central bank in Croatia, The European Central Bank with its headquarters in Frankfurt is the central bank of the European Union, Fed (Federal Reserves) are responsible for the monetary system of the USA and the International Monetary Fund operate on a global level. In addition to central banks, commercial banks play a big role in the financial sector by collecting deposits and creating credits. Commercial banks pay a passive interest rate on collected deposits and charge an active interest rate on floated loans (Ferizović, 2004:12). Banking business operations undergone a lot of changes over the time. These changes affected the deposit operations in a way where banks, beside of savings, offer more savings and investments products for their clients (Edwards, 2013). Secondly, banks form big affiliations with other monetary institutions, like insurance companies, investment funds, brokerage firms etc. Following this the banks product offer expanded and offers now a wide range of savings and investments models. The decision about product however, can be long and difficult. The

growing number of savings and investments alternatives increases product quality on one side, but on the other it makes the decision process very difficult. Furthermore, an expansion like this attracts more clients and creates competitive advantage. Due to future business development plans and market competition, employees are motivated to offer future and existing clients all sorts of new products to keep them satisfied. This shift from service to sales model, creates pressure for employees and clients. In conclusion, the way to increase sales, which will impact not only short term revenue increase but long term client satisfaction, is to use the Analytic Hierarchy Process (AHP).

## **2. CHARACTERISTICS OF SAVINGS AND INVESTMENTS PRODUCTS**

Every form of saving or investing is characterized by specific features. Although all of savings and investments products have a common purpose of enhancing money volume, various instruments and mechanism are being used to achieve that goal. Regarding characteristics we can divide savings and investments product by:

- Duration (long-term and short-term)
- Risk (high and low-risk)
- Expected return (high and low returns)
- Liquidity (liquid and non-liquid)
- Transparency (transparent and non-transparent)

Various clients tend to different characteristics and products. Sometimes we can witness a periodic change of client's interests, for example high and low risk investments. Thus, during times of trend growth there will be more high risk investment demands then in recession. During recession we will witness clients changing their consumption habits and putting their money into savings. In order to find the matching savings and investments product for a specific client it will be necessary to describe and range products by their characteristics.

### **2.1. Safety of investment and risk**

One of the most important characteristics of saving and investment, and in the same time one of the most important factor of an "ideal investment" is safety (Kirshman, 2003:799). Today we have a large number of Savings and Investment products by which defined level of risk, jeopardize such safety. Risk is potential danger which we try to avoid, although in some cases this is not possible (Amoldi, 2009:1). It is not a rule that potential or existing risk must bring negative or undesired consequences, but individuals want to avoid them. If risk is not completely avoidable, than it should be diminished in maximal possible way. Especially is that true for persons who gained his saving on the hard way or has very limited cash surplus. There are also such investors who are risk prone, and are gladly to risk if they have some cash surplus. One negative extreme are individuals who are prone to greater risk, although they do not have enough financial power, but such persons are less perceived as savers or investors but hazarders. The term safety is directly connected with risk existence, i.e. we can talk about more safe or less risky, and about safer or riskier products. The term risk is in connection with time component, i.e. the investments on long periods follow longer period of risk, but by short-time investments risk has short life-time, but it can in this short time be very high.

### **2.2. The possibility of return**

Generated return, after investing or saving, represents revenue while negative return leads to initial value loss. This characteristic is bonded with risk and security. The lower the risk on savings and investments products the lower the return and vice versa. For investing in a high risk product one will be awarded with a high return rate. However, one has to keep in mind that high risk products do not guarantee a high return rate, they only show big return potential.

In addition, every low risk product does not necessarily come with a low return rate. Negative return is possible due to high interest rates. This characteristic is very important because it shows in which direction the investor wants to go, and sometimes it shows the final goal the investor wants to accomplish. It is sometimes possible to calculate the exact return on an investment before even taking a chance. This way, the investor can rethink his investment strategy and seek other options if necessary. If however the return rate is not definable, there will be more data collection needed for the decision making process, after which comes a time of uncertainty.

### **2.3. Duration of the investment**

Duration of the investment, while setting up savings arrangements, is mostly strictly defined by rules and perimeters. Clients, although mostly following rules, tend to break up their arrangements. Therefore banks offer short-, mid- and long-term investment opportunities to bring their product closer to the client. Individuals, on the one hand prefer short term investments and on the other hand long term investments to gain profit over a long period of time. In contrary to short- and long-term investors, mid-term investors want to be able to access their saving or investments at any point of time. Most savings and investments products have the characteristic of cashing out at any time (except for the third pension fund<sup>113</sup>). Shares in investment funds can be sold at any time, same as stocks except non-liquid stocks which are not on the market. Although savings determination is possible, long term savings, home loans and life insurances represent types of investments that are followed with penalties after determination such as:

- Preterm investment determination fee
- Lowering the initial interest rate or yield
- Loss of partial or whole gained return
- Loss of governmental stimulation (for home loans)
- Loss of initial investment, etc.

### **2.4. Investment access capability**

If and when an investor decides to place an investment, the information of how and when he can get his return becomes very important. For example, active saving models allow clients to increase their initial deposit or cash out at any time. In contrary, pension funds cannot be cleared out until the client's 50<sup>th</sup> year of life and even then it cannot be cashed out at once. Between these two explicit models there is a range of new products, which allow customers to check, re-deposit or cash out their investment at any time. Most of the times, preterm savings or investments process determination is possible but is followed with various penalties such as fees, loss of gained return etc. For that reason, investors tend not to determine their arrangements before time, but that is not always possible. The availability of invested assets is not always in correlation with the duration of the investment. Another problem is the liquidity of savings and investments products, which does not allow a client to cancel or cash out his investment, but simply there is not enough demand for the product. One of good example are investment diamonds, which, although they represent a safe investment, are very hard to sell. Another example are non-liquid stocks with a fixed price, which are not often to be found on the market. Therefore, transforming these types of securities into money can firstly last a long time and secondly be very expensive if the securities are sold under the price.

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<sup>113</sup> Characteristic of Croatian pension fund system who has 3 pillars/parts.

## 2.5. Transparency

Information availability such as investment portfolio, financial instrument fees, assets etc, make this a very important characteristic (Levy and Post, 2005:77). Before investing, clients want to gather as much information about the product as possible. Even after placing their investment, clients want to keep track of their money at all times to see progress and growth. Clients can get more or fewer pieces of information depending on the transparency of the product. Low- transparency investments are mostly investments with higher risk of return, but this of course is not a rule. One of good example for high-risk and high-transparency investments are stocks, whose value is subject to rapid change. Although it is a high risk-risk investment, clients can easily follow their investment while getting all necessary information about the company and the market. It may seem that information is being kept secret, but every investor can get information about their investment such as:

- financial report
- efficiency indicator
- media news
- economic sector in which the company is active
- supply and demand correlation
- trade history (prices, trade volume etc.)

Term deposits, where investors can track their investment at all times and even know the definite outcome at the end of the term, is a good example of high-transparency investments. Life insurance policies, where clients do not have the possibility to track their investment, represent low-transparency investments. Although investments in insurance policies are limited by the Law of Insurance (announced by Narodne Novine, 151/05) and are controlled by HANFA (Croatian Financial Services Supervisory Agency), it is very hard to track the future flow of paid premium. Investment funds, which investment policy is regulated by statute, can at any time announce the information of their investment portfolio or fund assets. An example of a simplified investment structure organized by statute can be shown as:

- a minimum of 10% of assets deposited into bank accounts
- 20-30% of assets into Croatian bonds
- up to 70% invested in stock of EU companies

This simplified scheme does not give out information about company assets, but the fund can at any time make such information available (which company stocks, in which ratio etc.). The trade with stocks represents a high-transparency model because traders have a big number of information about each trader and each stock. Information relevant for this kind of investment show history trade indicators, company financial situation, trade volume, stock price etc. On the one hand structured products often seem to be transparent at first because they clearly define the outline and direction of the investment. On the other hand, because of security measures, it is not always possible to know the exact present investment situation. If however insurance policies guarantee allowance, it is safe to say that most assets are being further invested in the safest options. Potential high-return-rate investments are earned by investing smaller parts of assets into high-risk investments. Depending on the market situation, assets are then transferred back and forth to achieve the best outcome. Transfers like these make it hard for clients to know which part of their assets is in which specific investment option. It is possible that investors will not achieve the best high return rate because there is simply not enough assets in a specific and potential high return rate option.

### **3. ANALYTIC HIERARCHY PROCESS – AHP METHOD**

In a situation where a decision is made, and there are several alternatives for its formation, and each alternative is characterized by certain features, the method of Analytic Hierarchy Process (AHP) is a useful tool and help in decision-making process, regardless of whether the decision is made in the business, social or private life. The features that characterize any of the available alternatives for reaching a final decision, determine the criteria for the acceptance of the decision, and these criteria have different importance for each individual who participates in the decision-making process. By adopting the criteria and determining their significance, conditions for a neutral evaluation of various alternatives are being created. The method was developed by American mathematician Dr. Thomas L Saaty, and is based on comparisons of pairs of criteria, so that the decision-maker expresses his indifference between the two criteria, that adds to moderate, severe, very severe or extreme importance of one criterion versus another (Lootsma, 1999:55). This subjective opinion of an individual gaining in importance, and the obtained result depends on his preferences. The alternative was obtained as the final result may not be the final selection of the decision maker, but is a quality guideline because it is an easy way ranks all the offered alternatives. Such a ranking separates those alternatives that are better suited to the decision-maker of those that suit him less or not at all. When choosing the most appropriate alternatives for savings or investments, one encounters a wider range of different banking products. Each of the products have certain characteristics, and each of these characteristics in the various products vary in intensity. There are for example more or less risky products, long-term or short-term products etc. The investor, or in this particular case the banks client determines the importance of the characteristics. The AHP method uses descriptive answers to a simple test by which it comes to information about whether the client prefers riskier products, which offer the possibility to achieve higher yields, or other more important characteristics.

#### **3.1. Alternatives, establishing criteria and AHP model**

Savings and investments products that are part of the offer in a particular banking institution represent a possible alternative, and the AHP method is just as easy to apply, regardless of their number. The client's decision process will last just as long in banks that offer few savings and investments products as well as banks that offer a whole range of such products. The only difference is in the complexity of the initial evaluation of alternatives and determining the intensity of each criterion. A smaller range of simple products will be easier and faster valued than a wide range of complex products. If the evaluation process is successfully a simple questionnaire and results analyze follow. In this case, for simplicity of the presentation, following alternatives are being used:

- deposit
- open savings
- housing savings
- third pillar retirement fund (Croatia)
- money market fund
- bond fund
- balanced fund
- equity fund
- shares and stocks
- insurance policies

The criteria, to which the client will attach importance, according to personal and subjective preferences, are the previously mentioned characteristics of savings and investments products, such as:

- safety of principal
- expected return
- duration of the investment
- availability of invested funds
- transparency

It will be possible to evaluate each of the above mentioned characteristics with four different levels of intensity. The security of the investment, from a investors point of view, is the belief in the return of the principal and the expected yield. The four intensity levels are:

1. High risk products (0,25)
2. Risky products (0,50)
3. Rather safe principal (0,75)
4. Completely safe principal (1,00)

Yields of individual savings and investments products are closely correlated with the risk, and expectations about the possibilities for their realization, also to scale at four levels of intensity:

1. Low yield (0,25)
2. Moderate yield (0,50)
3. Possibility of significant yield (0,75)
4. Possibility of high yield (1,00)

Maturity of investments in certain products is brief, in some medium or long. In some cases it is not necessary to define it, given the fact that some products allow customers stop investing at any time. Maturity will be possible to evaluate through four levels of intensity:

1. Long-term product for three years or more (0,25)
2. Mid-term product for one to two years (0,50)
3. Short-term product to one year (0,75)
4. No investment deadline (1,00)

There are products that do not allow cash out before the expiration deadline or additional charges might occur. This characteristics are of different importance to clients, and can be evaluated as follows:

1. Unavailable funds until the expiration deadline (0,25)
2. Possible availability before the expiry under certain conditions (0,50)
3. Availability of funds over a longer period of several days of submission of the application for withdrawal (0,75)
4. Availability of funds immediately upon submission of an application to withdraw or within a few days (1,00)

When investing in certain types of savings or investments, transparency also plays an important role. It is important for investors to know in what his assets are invested in further. It should be accessible information about the results of bank's further activities. There is information on those investments that are readily available, but there are those that are poorly accessible or even completely unavailable. This investment characteristic, can also be evaluated through four levels of intensity, in one of the following ways:

1. Non-transparent (0,25)
2. Partly-transparent (0,50)
3. Mostly-transparent (0,75)
4. Transparent (1,00)

The model shows the structure of the criteria for the decision, determined on the basis of defined criteria, which are important for investors, and as well on the intensity of their expectations that certain criteria will be fulfilled. The criteria, which is expected to be of significant importance to investors, and which are included in the model are: safety of principal, the potential yield, maturity investments, the availability of funds invested and transparency. Each of these criteria is assessed at four levels of intensity, and individual investor will evaluate how each criterion corresponds to his expectations. Based on the intensity of specific criteria, final tables will be constructed to rank the importance of products for the client. Structure criteria and AHP model, which contains all the offered alternatives in the decision-making process, are shown in Figure 1. The presented AHP model contains limited choice of alternatives for clarity.

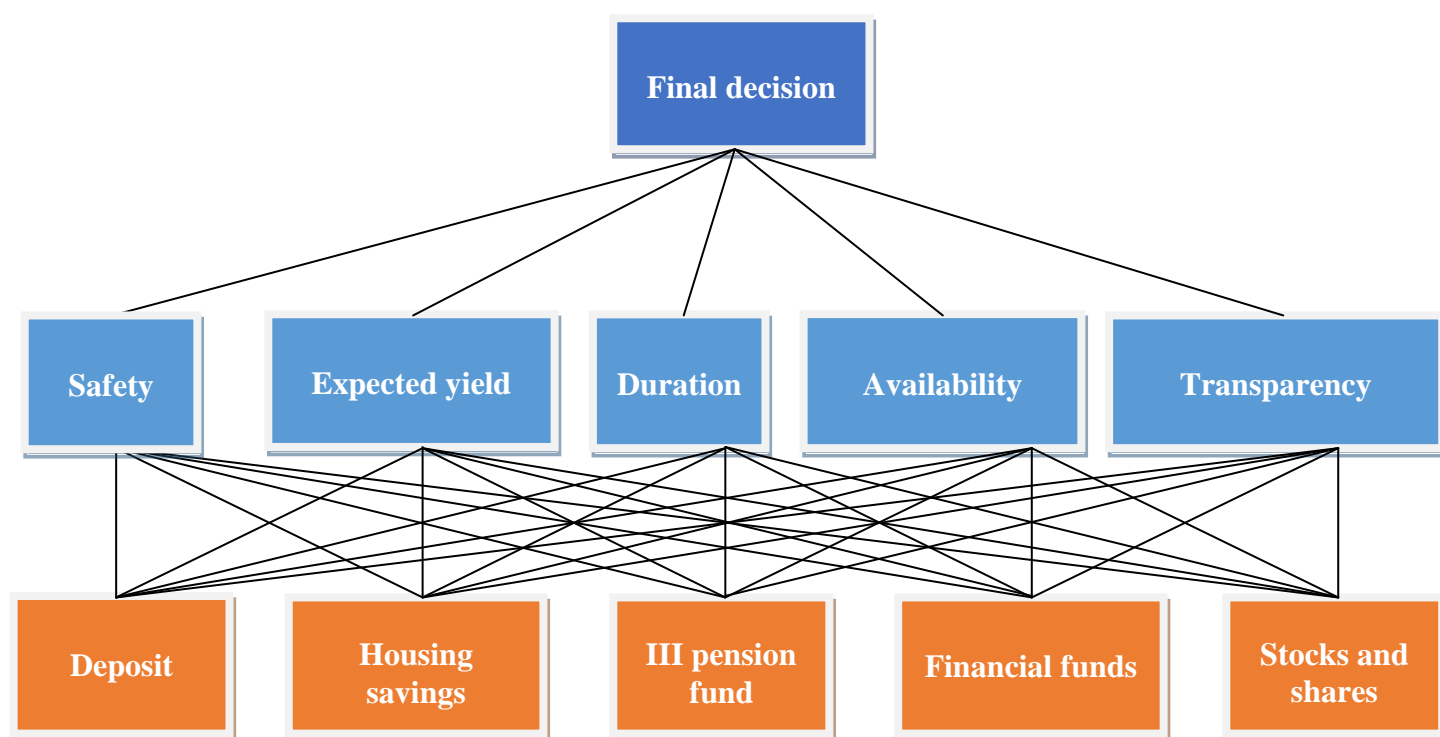


Figure 1. The AHP model

### 3.2. The Saaty scale

Using the mentioned criteria and intensity of each of them one can evaluate the alternatives. In this case it means that every savings and investments product is characterized by a certain level of security, ability to execute on yield, maturity investments, the availability of funds invested and transparency. Depending on the severity of the preferences, personalized offers are being focused on client's needs and wishes.<sup>114</sup> The Saaty scale is being used to determine the importance of a criterion with respect to another (Saaty and Vargas, 2012:6) as shown in Table 1.

<sup>114</sup> Although needs and wishes are often perceived as synonyms, strongly taken they are not, needs are deficits or sufficits in organism or his environment, wishes are perceived needs (feeling of needs) (Pastuović, 1999:208). This difference is important in ethics matter, namely to fulfil the need is almost in every case ethical, but fulfil the wishes may not be.



Intensity of importance	Definition	Explanation
1	Equally important	Two activities contribute equally to goal achievement
3	Moderately important	Based on experience and estimates, moderate preference is given for one activity compared to the other
5	Strictly more important	Based on experience and assessment strictly favors one activity to another
7	Very strictly important	One activity is strongly favored in comparison to the other; its dominance is proved in practice
9	Extremely important	The evidence upon which favors one activity to another are confirmed with the utmost conviction
Intermediate value: 2,4,6,8		

*Table 1. The Saaty scale – definitions and explanations: domination of one against the other criteria is expressed with values of 3, 5, 7 and 9; In the case of subordination criteria, reciprocal values are being used 1/3, 1/5, 1/7 and 1/9; Source: Saaty and Vargas, 2012*

The scale above definition of importance, are used in a way that each criterion compares with each, thus obtaining the ratio of their importance, which serves as the basis for calculating the order of all criteria and to compile ranking lists of criteria. In making the Saaty scale for determining dominance or subordination, one criterion versus another, descriptive expression are used, which makes the process of determining the ranking list of criteria simple.

### 3.3. Severity of the criteria and results

In order to determine the importance of criteria in this case, the first criterion - safety is firstly compared to the potential yield, then to the maturity of the investment, then to the availability of funds invested and finally to transparency. The possibility of return is compared with the security and maturity, availability and transparency, and the process is repeated until each criterion is not paired with each. Values obtained by comparing the criteria with each other, which an individual determines, are entered into the matrix in such a way that in case of the domination by one against the other paired criteria an integer is entered, and the reciprocal value in the case of subordination criteria. Example matrix, prepared for a comparison of each criterion with each, is presented in Table 2.

	Safety	Expected yield	Duration	Availability of funds	Transparency
Safety	1				
Expected yield		1			
Duration			1		
Availability of funds				1	
Transparency					1

*Table 2. Matrix for criteria comparison*

This matrix is filled in a way that the criteria are matched with each other, and for each of the added value, the level of dominance or subordination (2, 3, 4, 5, 6, 7, 8 or 9) a reciprocal value is entered inversely regarding pair's criteria ( $1/2$ ,  $1/3$ ,  $1/4$ ,  $1/5$ ,  $1/6$ ,  $1/7$ ,  $1/8$  or  $1/9$ ). This means that if the criterion X is moderately more important than Y (value 3 to Saaty's scale), it is also true that Y is moderately less important than X. When thus each criterion is compared with each, the following steps are performed:

1. all fractions are entered as a decimal number (i.e.  $1/5$  will be replaced with 0,2),
2. the sum of every column of the matrix is being calculated,
3. matrix is normalized so that each of its elements is divided by the calculated sum of the column to which it belongs,
4. the average value for every normalized row is being calculated.

Average values of normalized rows of the matrix obtained after the implementation of these steps, represent the weight of the criteria. The final ranking list of savings and investments products, which is in line with the preferences of the investor tested, is obtained in a way such that the level of each individual product characteristic is weighted with derived criteria. The process of comparing the savings and investments products in practice is not easy. Banks create new products and offer them to the market by the criteria of their business policies, and clients are selected based on a large number of subjective and objective evaluation. Comparison of savings and investments products, from the perspective of a customer who accepts a variety of criteria, while subjectively evaluating their significance or confidence level of achieving individual criterion may seem too complicated. The seemingly complicated task for a business conversation with a client, readily accomplished by the AHP method. If the product offer is properly evaluated according to their characteristics, and if for each characteristic is a realistic level assigned, the result obtained in practice is precisely matching the client and his ideal product. This does not mean that such savings and investments products will achieve the greatest success, but will be adapted to the habits, desires and goals of investors. A well-informed client in case of loss will have no ground to blame the seller for fraud or intentional damages. All other methods of sales that encourage or force the sale of risky products by attempting to cover up the negative sides of an investment, leave plenty of room for customer dissatisfaction or conflict situations in business. Good quality information and tools that adapt to the client, not the institution or the seller represents a breakthrough in the business of banking institutions. Although all large institutions like the fact that doing business with the principal objective of putting the customer first, practices and techniques used in sales suggest otherwise.

#### **4. APPLICATION OF AHP METHOD FOR CREATING OFFERS**

In order to for the described method to be applied in the case of making an offer when making decisions about directing funds into savings and investments products in the banking industry, it is important to cover all products. Then they need to be described by selected, relevant characteristics which will be used as criteria when assigning importance to each of them. Such a classification is carried out thoroughly, keeping in mind to carry out as precisely as possible.

##### **4.1. Classification of products by key characteristics**

In section 2.1. it is determined that the intensity of each relevant characteristics (security principal, the potential yield, maturity investments, the availability of funds invested and transparency), for simplicity, will be evaluated through four levels (0,25, 0,50, 0,75; 1,00). A description of each saving and investment product using a certain level of individual characteristics is the foundation for later processing, precisely the first step for functional use of the AHP method to find the ideal product. One example of evaluation is shown in Table 3.

Safety		Possible yield	Duration	Availability	Transparency
Deposit	1,00	0,25	0,75	0,50	1,00
Open savings	1,00	0,25	1,00	1,00	1,00
Housing savings	1,00	0,50	0,25	0,50	1,00
III retirement fund	1,00	0,50	0,25	0,25	1,00
Money market fund	0,75	0,25	1,00	1,00	1,00
Bond fund	0,50	0,75	1,00	1,00	1,00
Balanced fund	0,25	1,00	1,00	1,00	1,00
Equity fund	0,25	1,00	1,00	1,00	1,00
Shares	0,25	1,00	1,00	0,75	1,00
Structured products	1,00	0,50	0,25	0,50	0,50

*Table 3. The classification of products according to the intensity of the individual characteristics; Source: Author*

#### 4.2. Questionnaire for the client

Well classified and characterized products form the basis for further selection process of that product that suits individual preferences. In order to investigate the affinity or preference of the individual, it is necessary to do a sales talk or cross-compare the importance of each characteristic of savings and investments products. In this way, the client determines the importance attached to each of the relevant criteria. Collection of necessary information is possible through a conversation or a short questionnaire, emphasizing that clients must be familiar with the values of the Saaty scale. It is necessary to put in relation every criterion that is seen as relevant and used for the evaluation of the savings and investment product with all the other criteria or characteristics. With simple descriptive notes from the Saaty scale, clients help to connect characteristics with meaning. A brief questionnaire is an easy way to collect the data needed to rank the importance of each criterion, and later ranking offered solutions. When comparing the criteria, it is possible to come to certain inconsistencies. For example, if Criterion A is more important than Criterion B and Criterion C is more important than Criterion A, then it would be logical to expect that the criterion C has greater significance over Criterion B. The respondent may disrupt such consistency when comparing, but will continue to process using AHP methods, thus they show results that suit him best. The respondent can point to such "illogical" things, but it can also be taken into consideration that when comparing and matching the respondent really evaluates the individual criteria in a manner that is inconsistent. An easy way to get all of the criteria mutually compared in order to determine the significance is a short questionnaire.<sup>115</sup> This is practical because it may contain a reference to the use of values from the Saaty scale. Since the evaluation of each of these possible alternatives is the first step for creating a personalized offer, this questionnaire is the second step. All the savings and investments products have been evaluated according to the offered features, and after completing the questionnaire one will get the importance of each characteristic. These two steps are sufficient for processing, which will result in solid

<sup>115</sup> For the purpose of criterion ranking pair wise comparison is used (each criterion over another, in pairs). The criterion who gains more "is better" evaluations has a higher rank. Number of such comparisons is calculated by the formula  $[n(n-1)/2]$ , so method is not appropriate for a huge n-value, but in this case where we have relative small n-value, it is. The details of this simply method can be seen e.g. Bahtijarević-Šiber, F. (1999), p. 519-520.

guidance for reaching a final decision, or an offer that will be fully focused on the needs and desires of the individual.

#### 4.3. Entry, processing and data analysis

Once the client completed the questionnaire, an employee of the bank enters the information into the prepared tool, which is used to process results into a personalized and customized offer. Example table prepared to enter the completed questionnaire, shown in Figure 2, is partially completed because the same criteria are not mutually compared thus in that place we have an equality (1: same importance). It is also not necessary to fill in both directions because a certain degree of dominance of A criterion versus B, equals to the same level of subordination criteria B versus A criteria - in this purpose, simply enter the reciprocal value.

	Safety	Expected yield	Duration	Availability of funds	Transparency
Safety	1				
Expected yield	#DIV/0!	1			
Duration	#DIV/0!	#DIV/0!	1		
Availability of funds	#DIV/0!	#DIV/0!	#DIV/0!	1	
Transparency	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1
Σ	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1,00000

Figure 2. Table (matrix) prepared for entering the completed questionnaire with the sum of columns MS Excel as a result enters "# DIV / 0!" in case of division by zero; (Reporting errors due to unfilled boxes), Source: Author

It is sufficient to fill in the fields marked with blue, because the rest of the fields are automatically filled by the reciprocal of those obtained by the questionnaire. Here is an example of the completed questionnaires and processed information.

Example 1:

	Safety	Expected yield	Duration	Availability of funds	Transparency	
Safety	1	1/5	5	7	3	
Expected yield	5	1	9	9	7	
Duration	1/5	1/9	1	3	1/3	
Availability of funds	1/7	1/9	1/3	1	1/5	
Transparency	1/3	1/7	3	5	1	
Σ	6,67619	1,56508	18,33333	25,00000	11,53333	
	Safety	Expected yield	Duration	Availability of funds	Transparency	$\bar{X}$
Safety	0,1498	0,1278	0,2727	0,2800	0,2601	21,81%
Expected yield	0,7489	0,6389	0,4909	0,3600	0,6069	56,91%
Duration	0,0300	0,0710	0,0545	0,1200	0,0289	6,09%
Availability of funds	0,0214	0,0710	0,0182	0,0400	0,0173	3,36%
Transparency	0,0499	0,0913	0,1636	0,2000	0,0867	11,83%
						100,00%

Figure 3. Table filled on the basis of the questionnaire from Example 1 and calculation of the importance of each criterion; Source: Author

	Safety	Expected yield	Duration	Availability of funds	Transparency	
deposit	1,00	0,25	0,75	0,50	1,00	0,541130
open savings	1,00	0,25	1,00	1,00	1,00	0,573142
housing savings	1,00	0,50	0,25	0,50	1,00	0,652977
III retirement fund	1,00	0,50	0,25	0,25	1,00	0,644581
money market fund	0,75	0,25	1,00	1,00	1,00	0,518621
bond fund	0,50	0,75	1,00	1,00	1,00	0,748672
balanced fund	0,25	1,00	1,00	1,00	1,00	0,836437
equity fund	0,25	1,00	1,00	1,00	1,00	0,836437
shares and stocks	0,25	1,00	1,00	0,75	1,00	0,828042
structural products	1,00	0,50	0,25	0,50	0,50	0,593822

Figure 4. Ranking of savings and investments products according to the data obtained from questionnaires in Example 1

The respondent in Example 1. is mostly interested in possibilities for achieving high yields. Although security is on a high second place, this criterion in this example is much less important, while some are almost completely irrelevant. This client is willing to accept the risk, and therefore three products emerge as results. These are balanced and equity funds, and investment in shares.

## 5. CONCLUSION

The introduction of this method in the decision-making process shortens the sales talk, asks only relevant questions, and collects only relevant information. Although perhaps such a conversation lacks creativity and beauty, it is more functional, more precise and takes less time to finalize. That is the major feature of the AHP method, defining the importance of the criteria that are critical for the decision making process (Pomerol and Barba-Romero, 2000:98). If this deficiency is emphasized it can be reversed in a big advantage. It is important to introduce the client to a strict form, and then he will not expect a broad dialogue and will be satisfied that the dealer has focused on the problem and the client's real needs. This way we can avoid deficiencies of forced sales techniques such as:

- the client is not forced into anything
- wide offer
- the result contains all the products a bank offers
- sales staff is forced to know everything about specific products
- less time is needed to finalize the procedure
- sales staff has no influence on the client's decision
- it is not possible for the client to have a large number of unwanted products in his portfolio because the system eliminates products that do not match client's affinities
- explanation of the process is possible, it is precisely stated that results are based on client's needs and affinities, and the results can be declined

The advantage for the bank is that in this way, without the pressure of sales, banks will have a good long term relation with the client.

This paper also shows an important paradigmatic change from doing banking sale by improvisation (without model) to doing the same by means of a model (AHP). Namely in science and professional work doing something by a model should have advantage over doing something by improvisation because of his numerous benefits.<sup>116</sup>

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<sup>116</sup> Improvisation has not controlled use of resources (problem of measuring); when we improvise the action is always different; we act on subjective manner; every situation is extraordinary; in improvisation we do not need to learn; it is imposible to transfer all the experience of improvisation; the results of improvisation are uncertain and under optimal possibility; improvisation regulary brings to the unsatisfaction. The opposite characterize action under good model: control of resource use, totally defined action, models should be learned; using the model we can learn the new things and this use in other actions; the model knowledge we can standardised transfer to others, results are expected and accurate (Grković, 2008, p. 26).

## CLIENTS MANAGEMENT KNOWLEDGE IN THE TOURIST ORGANIZATION

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### ABSTRACT

*This paper describes the importance of customer knowledge management of tourism organizations. The concept of customer's knowledge management was created as a combination of knowledge management and implementation of customer relationship management. Customer knowledge management clients is the key to improve the competitiveness of tourism organizations put clients into focus of organizational knowledge and client becomes an active participant in the creation of tourist attractions. Research on the application of customer knowledge management was conducted on 302 hotel operators in Croatia. The results show that the majority of respondents do not apply customer's knowledge management, and that there is a statistically significant relationship between the usage of CKM and hotel's profit.*

**Keywords:** *Knowledge management, customer relationship management, customer knowledge management, hotels, competitiveness, profitability*

### 1. INTRODUCTION

The topic of this research is customer knowledge management in tourism organizations. The aim is to define the concept and features of customer knowledge management and empirically examine how the application of this concept is represented in the Croatian hotels, why is it used and how it affects the hotels profit. The research also shows the attitude of top managers in hotel sv. Križ (Trogir) toward using customer knowledge management. The purpose of this paper is to point out the fact that the global tourism market competitiveness can be achieved only with the focus on the customer and integrating their knowledge in the existing organizational knowledge.

The structure of the work is divided into a theoretical part which defines the concepts of knowledge management, customer relationship management and customer knowledge management, a term that arose from the previous two concepts. Empirical studies are presented in the third part of the paper while fourth is reserved for the discussion with the conclusion and recommendations in the fifth part.

### 2. THEORETICAL RESEARCH FRAMEWORK

Theoretical framework of the research will describe the concept of knowledge management and relationship management with customers on the basis of which a new concept is generated called customer knowledge management. It will describe the components of the concept customer knowledge management and their significance for the tourism organization.

## **2.1. Knowledge Management**

The concept of knowledge management implies that the concept of knowledge understanding is an important intangible assets of the organization ("know-how"), which requires a systematic approach to knowledge in order to create added value for the organization, both at the strategic as well as tactical and operational level. Within the concept of knowledge management initiatives are developed, processes, strategies and systems that enable archiving, sharing, and generating of organizational knowledge (Bray, 2007). Knowledge management is closely related to the goals and strategies of the organization and deals with issues of deciding which knowledge is relevant to the organization, how to develop a culture of continuous learning and how to manage knowledge in order to improve organizational effectiveness. The realization of the concept of knowledge management in the organization is not possible without the development of "information systems as a technical - technological support KM-in, management, continuous organizational learning and clearly defined strategic perspective of the organization" (Bray, 2007). A particular reason for implementing knowledge management into organizations is growth and globalization in combination with the latest achievements in information technology. Systems for knowledge management are used usually by organizations "for the purpose of creating sustainable competitive advantage"

## **2.2. Customer Relationship Management**

The development of customer relationship management has its origin in the theory of consumer behavior which studies "the behavior of market operators, ie the consumer market, where they are trying to maximize their satisfaction in choosing between two or more offered various goods and services" (Gutić, Barbir, 2009). Customer Relationship Management entails the concept and methodology used by organizations to manage relationships with customers in an organized manner in order to improve the adjustment of business according to the needs and requirements of the customer. Organizations develop a database of customers with sufficient information about their characteristics which can be accessed by administration and sellers as well as those who are in direct contact with customers. Databases are intended to help "the marketing department to define marketing campaigns and to improve the quality of the sales team" (Noruzzi, 2007). On the basis of customer relationship management, organizations enhance and adapt the sales concept because they have access to relevant information about the customers. As CRM systems create individualized relations with customers, the benefits of implementing this concept are visible in better customer satisfaction and the maximization of profits. Besides that, the system identifies the most profitable customers and creates a niche toward which adjusts the quality of products and services as much as possible.

## **2.3. Knowledge management client and its importance for tourism organizations**

The concept of customer knowledge management developed from previously described models of knowledge management and customer relationship management (Severović, 2013). However, customer knowledge management is a client-specific model that is different from knowledge management in general and customer relationship management because it "focuses on acquiring knowledge from, not of the customer, which is the basic characteristic of customer relationship management (Gibbert [et al], 2002). In other words, modern hotel companies realized that customers have a significant and pragmatically usable knowledge base, and therefore have developed the concept of gathering knowledge from the customers through direct interaction with them. Customer knowledge management a valuable strategic process for a modern hotel in which the role of the client is emancipated - from passive recipients of products and services, toward empowerment and understanding of the customer



as a partner in the acquisition of knowledge for a mutual benefit (hotels and customers). Classical transaction processes are by using customer knowledge management turned into cooperative relationships.

*Table 1. Shows the characteristics of the model of knowledge management, customer relationship and customer knowledge management*

	<b>Knowledge management</b>	<b>Customer relationship management</b>	<b>Customer knowledge management</b>
<b>Knowledge source</b>	Employees, team of employees, company	Customer database	Customer experience and creativity
<b>Goals</b>	Sharing knowledge about customers between employees	Mining for knowledge about customers	Gathering, sharing and expanding the knowledge about individual and group customer experiences and working out potential future solutions
<b>Role of the customer</b>	Passive role	Role connected to loyalty acquisition	Proactive role in creating solutions
<b>Corporate role</b>	Gathering employee knowledge	Keeping existing customers	Emancipating the customers
<b>Conceptual base</b>	Keeping the customers	Customer satisfaction	Customer success and innovations, organizational learning
<b>Business metrics</b>	Rate of keeping the customers	Measuring the performance of customer satisfaction and loyalty	Measuring the performance of innovation and growth: contribution to the success of customer

**Source:** Gibbert, M., Leibold, M., & Probst, G. (2002). Five styles of customer knowledge management, and how smart companies use them to create value. *European Management Journal*, 20 (5), 459-469.

In Table 1. shows the characteristics of knowledge management, customer relationship management and customer knowledge management according to the criteria of sources of knowledge, the role of the customer, a corporate role, business objectives, conceptual base and business metrics.

Based on the table it can be concluded that the sources, goals, the role of customers, conceptual base and business metrics of these models differ greatly. While knowledge management focuses on efficiency and customer retention, and customer relationship management is focused on satisfaction and loyalty, customer knowledge management focuses on innovation and growth through partnerships with customers as co-creators of hotel organizational values.

Contents of customer knowledge management are "proactive cooperation with customers (according to the English phrase prosumerism), mutual innovation, team work with customers and shared learning, shared practices and the development of joint intellectual property" (Gibbert [et al], 2002).

These factors are different, but they do not exclude each other in practice. Contents of customer knowledge management have the following characteristics (Gibbert [et al], 2002):

- Prosumerism - prosumer coin was first used by Alvin Toffler (1980) emphasizing the fact that the buyer in a modern society has a dual role - producers and consumers (Örnebring, 2009). Knowledge, therefore is developed in interaction with customers and a system of co-production is developed,
- Mutual learning - a collaborative approach that creates new value chain in the hotels in a way that organizational learning stems from customer knowledge management. This form of customer knowledge management requires customization of corporate and organizational culture in collaboration with customers.
- Joint innovation – innovation of modern hotel companies should be consumer-oriented in order to maintain competitive advantage and therefore customers (guests) with their suggestions and ideas become a powerful source of innovation in hotel companies,
- A common practice - the goal is to create shared knowledge in values by mutual interaction,
- Common Intellectual Property - represents the strongest link between the hotel and its customers. Here, the partnership and collaboration of customer and organizations connects at the highest level, so that the success of the organization also represents the success of the client. The first company that implemented this approach is a bank in Skandia in cooperation with the broker houses and other customers that combined key strategic decisions, adapting to working together, creating new strategic initiatives and expanding their knowledge.

Application of customer knowledge management is becoming essential in the global competitive environment where profitability is the best measure of success, and it is acquired only through continued work on improving customer satisfaction with products and services of the organization. Customer knowledge management can be developed through a system of creating, storing, and distributing information and knowledge and through collaboration in knowledge management. The value of customer knowledge management has been recognized by many leading companies for providing support in gaining competitive advantage. Improving relationships with customers through knowledge management can generate great business opportunities. In customer knowledge management, the managers are particularly focused on the acquisition of knowledge from customers with which their user experiences and initiatives are built into the organizational knowledge network. Through this concept, customer gain a whole role. They are no longer passive observers but also co-authors in adapting organizational supply of market needs. This collaborative approach to customers creates a win-win cooperation between the customer and the organization - customer needs can be met more effectively which increases the demand, consumption and, ultimately, the profitability of the organization. The global tourism market is characterized by a significant tightening of the competition, and there have been significant changes in the characteristics of tourist demand. Specifically, mass tourism is becoming a thing of the past, and tourist demand is developing increasingly sophisticated and increasingly diverse desires and needs, and the former tourism of the "sun and sea" is turning into "adventures and experiences," which is being implemented through selective forms of tourism. The concept of customer knowledge management in tourism organizations is breaking down the barriers between vendors heterogeneous tourist offer (the combination of tourism products) and its user. Through customer knowledge management, they become active participants in the creation of new tours that will be fully adapted to their motives for involvement in the tourist industry. Due to the rapid and dynamic changes in the tourism market, the knowledge that the organization collects from customers and clear knowledge of their expectations are becoming a key part of the overall organizational knowledge toward which it is necessary to adjust all aspects of the marketing mix of tourist organizations' product, promotion, price and distribution "(Gutić,

Barbir, 2009). "Customers are increasingly contributing to organizational knowledge, and the task of customer knowledge management is it integrates and assimilates the information and knowledge gained from customers" (Tiwana, 2001). Tourist organizations where customer knowledge is an integral part of the overall rating of intellectual capital (human, structural and relational capital) have a big opportunity to become leaders in the tourism industry.

### **3. EMPIRIC RESEARCH ON THE APPLICATION OF CUSTOMER KNOWLEDGE MANAGEMENT IN TOURISM ORGANIZATIONS IN REPUBLIC OF CROATIA AND ITS IMPACT ON PROFITABILITY**

This part of the paper will present the subject and the goal of the research. It will also look back on previous research of the same or similar content and their results, hypotheses, methods of data collection and processing, target samples and quantitative and qualitative methods used in the studies. (Gutić [et al], 2011).

#### **3.1. Goal of the research**

This study aims to empirically examine:

- how widespread is the application of customer knowledge management in Croatian hotels,
- why is customer knowledge management used
- how customer knowledge management affects the profits of the hotel.

#### **3.2. Research subject**

The subject of the research is to determine the extent to which tourism organizations in Croatia are using the customer knowledge management systems and what benefits they have out of using these systems, and in particular to investigate the relationship between the level of profit of tourism organization and the use of customer knowledge management.

#### **3.3. Review of previous studies of the same or similar content and results of their application**

Analyzing the literary material booklet Sibenik and Split, and searching online databases on the Internet, it can be concluded that the customer knowledge management in the hotel industry is a topic that was not empirically examined. Only the study of the authors Gibbert, Leibold, Probst from 2002. gave a significant theoretical and applicable contribution to the understanding of customer knowledge management by giving examples of how this model is used by some global companies. Results of this study indicate customer knowledge management as a potentially powerful competitive tool, which contributes to a better success of companies and their clients. Furthermore, the authors conclude, as customer knowledge management includes the principles of knowledge management and customer relationship management, but at the same time tends to create a higher level of mutual value and performance between companies and customers.

#### **3.4. Hypotheses of the research**

The study is based on the following hypothesis:

- H1: most tourist organization does not use the customer knowledge management systems in the formation of marketing and sales policy
- H2: the biggest benefit that tourism organizations have with application of customer knowledge management is the development of collaboration with the customer, where he becomes a co-author in creating sales and marketing organization policy
- H3: There is a significant statistical relationship between the level of profit in tourism organization and use of customer knowledge management.

### 3.5. The method of collecting and processing data

As the research is conducted in order to obtain empirical knowledge when using customer knowledge management system in the hotels of Croatia, the results of the research carried out by the author of this paper will be used for educational purposes. Time of the survey was from November 4, 2013. to 31 January 2014. At that time, the following timetable for implementing certain phases of the research was established:

*Table 2. Plan of the research*

Activity/Period	Nov.13	Dec.13	Jan.14
Sample plan			
Design of the questionnaire			
Pre-testing of the questionnaire			
Creating an e-mail list to send the questionnaire			
Carrying out the online survey			
Making of tables and charts			
Processing of the collected data			
Analysis of the collected data			
Interpretation of the results			

**Source:** Made by the author

The specific research problem required the collection of the original (primary) data. The first phase was the selection of the sample, and is described in the subsection 3.6. To carry out the empirical research, primary data is used which is based on a questionnaire that consisted of three closed questions.

Tested questionnaire was sent to respondents via e-mail. This method was chosen because the author doesn't have an official web page through which he could distribute it. Email offers advantages in terms of speed and low cost of data collection, but it is necessary to select a significant sample of respondents so the results obtained would not be distorted or misleading. (Gutić [et al], 2011). After the data collection phase, followed by the data processing using an Excel spreadsheet and quantitative methods of distribution of frequency as well as testing the hypotheses using a  $\chi^2$ -test.

### 3.6. The target population and sample surveys

Choosing a target population is the first step in defining the respondents in an empirical research. The choice is directly connected to the goal of the research. The target population in this case are hotel companies in Croatia, which there are a total of 605 (CBS, 2013).

In any given study, the sample selection is critical to the representativeness and accuracy of research results. Having defined sample type (intentional sample), the next step is to determine the sample size of respondents who would participate in the study. Sample size of 30 participants is considered a small sample (as are samples that are 5% of the targeted population) For the purposes of this survey a sample size calculator will be used. To define the optimal sample size, the calculator is given the following criteria: level of confidence = 95%; confidence interval = 4 and population size = 605 attached to the selected confidence level and 95% confidence interval 4 and population size of 605. A calculator with these variables provides the result that the optimal sample size in this case is N = 302 hotels. Keeping in mind that every empirical research has its limitations, especially in terms of time

and money, for the purposes of this research it is sufficient to use the level of confidence of 95% and go through with the research on 302 participants. As the sample size is larger than 5% of the targeted population, the selected sample can't be considered small.

### 3.7. Quantitative and qualitative methods used in the study

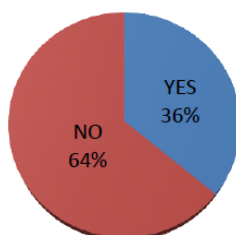
The study made use of qualitative and quantitative methods. Qualitative methods used in the paper are questionnaire analysis and synthesis and comparison. From the quantitative methods in descriptive statistics, the data was grouped according to the relative frequencies and the method of inferential statistics was used in form of  $\chi^2$ -test.

A questionnaire was used to collect primary data and consists of questions that are completely standardized and closed. "The method of analysis is the process of scientific research and explanation of reality by means of analyzing complex mind creations to their simpler components and elements, and the synthesis is the process of generalization, in which all abstract concepts occur compared with previous notions" (holly, 2000). "The comparative method is a method of comparing the same or related facts, phenomena, processes and relationships, and to determine their similarity in the behavior and intensity of the difference between them" (holly, 2000). Grouping of statistical data is the process of separation of the statistical set to a certain number of subsets according to pre-established modalities of the observed characteristics. Statistical series of grouped data is a set of pairs of different forms of statistical characteristics with the corresponding frequency. " $\chi^2$  test is a very practical test that can especially be used when one wants to determine whether a received (observed) frequencies deviate from the frequencies that would be expected under a given hypothesis. The test provides an answer to the question whether there is a correlation between the observed variables with a certain level of significance (Šošić, 2006).

## 4. RESEARCH RESULTS ON THE APPLICATION OF CUSTOMER KNOWLEDGE MANAGEMENT CONCEPT ON TOURISM ORGANIZATIONS IN CROATIA AND ITS IMPACT ON PROFITABILITY

*Figure 1. Shows what share of the surveyed hotels in Croatia apply the customer knowledge management system*

The usage of customer knowledge management in tourism organizations in Croatia



**Source:** Author's research

Share of the hotels in Croatia that use customer knowledge management systems rating is 36%, while most of the hotels (64%) do not use that system.

*Table 3. Benefits of customer knowledge management in hotel companies*

Ob.	Benefits of customer knowledge management	Absolute frequency	Relative frequency
1	Knowledge about the market, suppliers and products based on internal organization research	109	22%
2	Knowledge about the needs and wishes of the customer, so that an efficient segmentation of the market can be implemented through which products and services can be adapted to better suit the customer	109	22%
3	Knowledge of the extent to which customers are informed about the product and encouraged to buy it	98	19%
4	Recognizing the customer as a co-author in creating production, promotion and distribution in price mix	112	22%
5	Managing customer complaints	75	15%
6	<b>TOTAL</b>	<b>503</b>	<b>100%</b>
7	<b>Number of benefits/N=109</b>	<b>4,61</b>	

**Source:** Author's research

Table 3 shows the benefits of using customer knowledge management systems to hotels in Croatia. The total number of hotels that manage customer knowledge is  $N = 109$ , and the question was structured so that the hotels could choose more than one answer. If you take into account that a total of 109 hotels applied customer knowledge management, and the total number of responses was 503, each hotel has been recognized an average of 4.61 benefits from the use of this concept. These are the most important benefits of customer knowledge management (with an equal share of 22%) as recognized by the examined hotels: 1 knowledge of markets, suppliers and products based on internal research by the organization, 2. knowledge of the needs and desires of their customers in order to effectively carry out market segmentation and based on understanding the motives of clients, develop custom manufacturing and / or utility program 3. recognition as co-author in creating the production, promotion, distribution and pricing mix.

*Table 4. Relationship of profit and usage of customer knowledge management in surveyed hotels*

Profit in kn	Use customer knowledge management	Don't use customer knowledge management	TOTAL
200.000-400.000	15	45	60
401.000-700.000	21	81	102
801.000-1.000.000	24	44	68
More than a 1.000.000	49	23	72
<b>TOTAL</b>	<b>109</b>	<b>193</b>	<b>302</b>

**Source:** Author's research

Table 4 shows a comparison of the hotel profits and a variable when using customer knowledge management system.

Table 5 shows the expected frequency, and Table 6 lists the  $\chi^2$ -test with which the profit levels and usage of customer knowledge management are compared, while including all the surveyed hotels.

*Table 5. Table of expected frequency*

Profit in kn	Use customer knowledge management	Don't use customer knowledge management	TOTAL
200.000-400.000	22	38	60
401.000-700.000	37	65	102
801.000-1.000.000	25	43	68
More than a 1.000.000	26	46	72
<b>TOTAL</b>	<b>109</b>	<b>193</b>	<b>302</b>

**Source:** Author's interpretation

*Table 6.  $\chi^2$ -test*

f0	Ft	f0-ft	(f0-ft) <sup>2</sup>	(f0-ft) <sup>2</sup> /ft
15	22	-7	49	2,23
45	38	7	49	1,29
21	37	-16	256	6,92
81	65	16	256	3,94
24	25	-1	1	0,04
44	43	1	1	0,02
49	26	23	529	20,35
23	46	-23	529	11,50
<b>TOTAL</b>				<b>46,28</b>

**Source:** Author's interpretation

df = 3,  $P > 0.05$ , the threshold value  $\chi^2 = 7.815$

Considering that the testing of hypotheses derived empirically that the  $\chi^2$  is 46.28 higher than the theoretical  $\chi^2$  with three degrees of freedom (df) and 5% level of significance, which amounts to 7.815 ( $P < 0.05$ ), the alternative hypothesis that there is a statistically significant relationship between the level of profit in tourism organizations (hotels in Croatia) and the application of customer knowledge management is accepted.

## 5. CONCLUSION AND RECOMMENDATIONS FOR FURTHER RESEARCH

Customer knowledge management is a new paradigm in modern business that involves the emancipation of the client from a passive role into the role of proactive creators of the products and services of the hotels to a mutual satisfaction. This area is now sufficiently researched in Croatia, and this paper presents an empirical study on customer knowledge management at the micro and macro level. The most significant results of empirical research on the macro level indicate that insufficient hotel companies (only 36%) applied the concept of knowledge management, and those who apply it show that the boundaries between the concept of customer relationship management and customer knowledge management are

unclear to them. Specifically, the respondents see knowledge about the market, suppliers and products as well as understanding the needs and wishes of customers as the primary benefits of customer knowledge management, and with that information, they can more effectively carry out market segmentation and adjust their products and services accordingly. At the center of these benefits is the customer satisfaction, and the accurate understanding of customer knowledge management shows that 22% of respondents point out that including the customer into the creation of their products, services, policies, emphasizing cooperation, and mutual learning greatly contributes to that factor. As the concept of knowledge management client brings mutual satisfaction to both sides, the customer and the hotel, the application of the above concept is closely related to the level of profits as well which was confirmed in the macro level research.

Based on the processing of data and research results obtained, the assumption that most tourism organizations (specifically the hotels) in Croatia do not apply the concept of customer knowledge management. The second hypothesis, which says that the biggest benefit that tourism organizations have when applying customer knowledge management system is developing a collaboration with the customer, where he becomes a co-author in creating sales and marketing policies. Questioned hotels give equal importance to gaining knowledge about the market, suppliers and products as well as insight into the needs and desires of their customers in order to effectively carry out market segmentation and develop custom products and services (these are also a product of customer relationship management) which indicates lack of familiarity with the notion of customer knowledge management. Based on tests of the third hypothesis about the relationship between hotels profit and the application of customer knowledge management, it can be confirmed that the connection of these two variables is statistically relevant and based on that we can conclude that the adoption of customer knowledge management concept in tourism organizations has a positive effect on profitability and improves their competitive position. Implementation of the empirical research on 302 hotels in Croatia confirmed the theoretical point, that in a turbulent and increasingly competitive environment in the tourism market, knowledge is the basic element that ensures that the tourism organizations succeed and penetrate targeted markets. The term knowledge encompasses specialized knowledge that contributes to the improvement of business excellence and knowledge of the clients (tourists) for which tourism organizations exist has a primary role, and should be integrated into the overall system of organization knowledge management and linked to the concept of customer relationship management (CRM).

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## WEATHER PATTERNS AS A FACTOR OF CONSUMER BEHAVIOUR

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### **ABSTRACT**

*Unusual weather patterns were observed during last 10 years. Many scientists have disagreement what is the cause of unusual weather patterns. There are two main causes of unusual weather patterns: natural climate change and weather modification.*

*Average temperature as characteristics of weather patterns is taken into consideration. It is significant to research the influence of weather patterns in the countries, where it is relatively hot in winter and relatively cold and rainy in summer. How can different kinds of weather influence consumer spending? Consumers should spend more money on electricity, gas, oil as a result of such changes. They need to balance the temperature differences from weather changes. There is the tendency of price increase when talk about energy. Some countries as the USA and Russia have advanced technology to improve weather on their territory. As a result of such experiments could be weather worsening in the countries outside of their territory. The unusual weather patterns increase the demand on energy and push consumers to spend more on energy during bad weather. Also it helps to sell gas, oil, electricity to the countries with bad weather. If consumers are involved into agriculture, an unusual weather pattern could decrease their income and food production significantly. As a result of bad weather country must purchase food from abroad. Also consumers need to increase spending for house repair and insulation.*

*Unusual weather patterns increase consumer spending and decrease saving. If the geoscientists are able to change weather then they are able to change consumer spending and GDP growth in the country. The use of sustainable energy and alternative energy sources can partially solve this problem. Also insulation grants for consumers are a good additional solution.*

**Keywords:** *Climate change, Unusual temperature changes, Weather patterns, Consumers, Factor, Consumer behaviour.*

### **1. INTRODUCTION**

Strange weather patterns occurred more often from the end of the last century in Latvia. Strong warming in the middle of winter, cold summer, unusually strong wind, unusual temperature changes. What was causing these things? Is it natural climate change or consequences of human intervention into nature, or weather experiments? There are different opinions among scientists. The most important statistical characteristic of weather is temperature. Some scientists believe that this is a global climate change and a result of global warming.

**The hypothesis of the research** is an assumption that weather patterns significantly influence consumer behaviour.

**Research object** – households fulfilling consumers' function "incomes – expenditures".

**Research subject** – weather patterns as a factor of consumer behaviour.

**The aim of the research** is to study and analyse the peculiarities of influence of unusual weather patterns on consumer behaviour based on scientific methods. In the paper the author describes general influence of unusual temperature on consumer behaviour.

## 2. CLIMATE CHANGE

On Earth's surface, temperatures usually range  $\pm 40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $100^{\circ}\text{F}$ ) annually. Over thousands of years, changes in Earth's orbit can affect the amount and distribution of solar energy received by the Earth, thus influencing long-term climate and global climate change (Weather). Global warming is the unequivocal and continuing rise in the average temperature of Earth's climate system (Global warming). Some scientists believe that this is a result of weather modification. Weather modification is the act of intentionally manipulating or altering the weather. Weather modification can also have the goal of preventing damaging weather, such as hail or hurricanes, from occurring; or of provoking damaging weather against the enemy, as a tactic of military or economic warfare. Weather modification in warfare has been banned by the United Nations (Weather modification). But weather modification in scientific purposes is available and gets a huge financial support. For example the National Oceanic and Atmospheric Administration's National Weather Service has awarded a performance-based contract to Raytheon Technical Services Company LLC for the operations and maintenance, optional product improvements, and software maintenance and support of the Advanced Weather Interactive Processing System (AWIPS) in August 17, 2005 (NOAA'S NATIONAL WEATHER...). The Weather Modification Operations and Research Board in corporate cooperation with BAE Systems (HAARP apparatus & facility owner) and Raytheon Corporation (HAARP patent owner) conduct the purposeful or inadvertent changing or controlling, or attempting to change or control, by artificial methods, the natural development of atmospheric cloud forms or precipitation forms which occur in the troposphere in October 2005 (Text of the Weather...). It is obvious that activity of the Sun influence weather on the Earth. Most likely HAARP apparatus can influence solar energy received in particular regions of the Earth. It is very difficult to proof that this system change weather globally and there is a huge probability that this is natural weather changes.

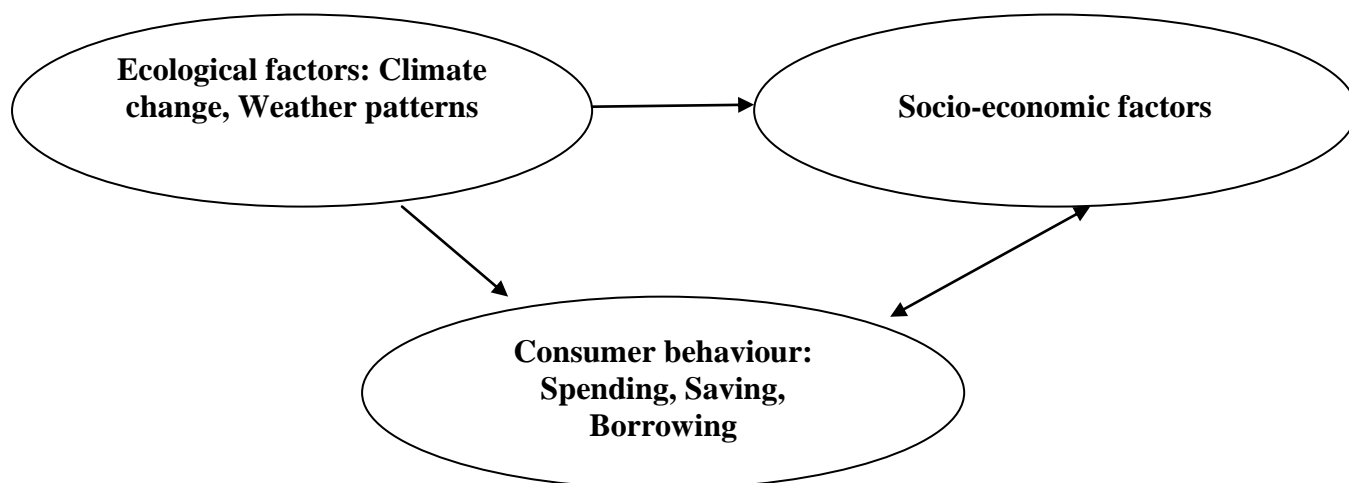
There are weather modification theories in Russia and Ukraine, but practical use of it is closed after collapse of the USSR due to financial reasons.

Weather patterns are weather conditions that show a repeating pattern. A certain weather condition will repeat over and over for days, for weeks, and possibly, for an entire month. Meteorologists refer to repeating weather as a weather pattern. It is common for the weather to become locked in a repeating pattern. The same weather will occur day after day. Then suddenly one day the weather changes and for example dry weather for 2 weeks becomes rainy weather for a week. When this happens it is referred to as a weather pattern change (Haby Jeff ). Sometimes there are unusual weather changes which do not become locked in a repeating pattern. It could be a disaster which happens once. Under unusual temperature changes real average temperature is understood

## 3. WEATHER PATTERNS AND CONSUMER BEHAVIOUR

Consumer behaviour is the study of individuals, groups, or organizations and the processes they use to select, secure, and dispose of products, services, experiences, or ideas to satisfy needs and the impacts that these processes have on the consumer and society. It attempts to understand the decision-making processes of buyers, both individually and in groups such as how emotions affect buying behaviour (Consumer behaviour). It was a lot of talks about end of human life on the Earth due to different possible disasters (Disaster). Such talks helped to reduce saving and increase spending in the long term. Most likely information about end of life was in favour of banks and commercial organisations which issued credits, loans, mortgages for consumers. After such a manipulation consumers most likely to use financial services and bring profit to such organizations. The main part of the consumers is not able to make correct decision in the long term as they trust to financial institutions. Spend money

now as you are not able to spend money in the future. That was behind the talks about "Doomsday" on the planet before 2012. Spending increased. The main part of consumers in Latvia believed in "Doomsday". They live today from one salary to another and are able to borrow money. Also some weather experiments can increase fear of "Doomsday" and consumption of gas, oil, electricity. Consumers are very dependable from the price changes in energy resources and energy rating of their house or apartment. Any changes in weather temperature increase energy consumption. If the mechanism of weather change is known to you it is possible to manipulate by any country motivated by political and economical reasons. If it is necessary to destroy the economy of the enemy, the best solution could be weather modification on his territory as it is easy to explain for consumers.



*Chart 1. Factors of Consumer Behaviour (Author`s chart)*

Consumer behaviour is changes, if climate changes. Consumers spend on their food and accommodation a huge part of their budget.

Changes in temperature influence on the crop. It is necessary to use stable fruit and vegetable varieties to weather changes. If the country is not able to produce food on its territory they must import food from different countries. Many food companies wish to export food and get profit from it. In this situation price for food is growing up. That means that climate is important factor of consumer behaviour trough agriculture and food export. There are unusual weather changes in Latvia. Sometimes temperature drops below water freezing point up and down many times. Many trees do not grow after unusual temperature changes.

Chart 1 show that it is easy to change consumer behaviour with the help of ecological factors. When ecological factors are not satisfactory, consumers emigrate from the region. If it is very difficult to emigrate, consumers have to spend their income, savings, and use borrowing to resist ecological factors. Socio-economic factors influence consumer behaviour significantly (Voronovs V., Krasko V.).

#### **4. WEATHER PATTERNS AND CONSUMER BEHAVIOUR**

Some weather events have a repeating pattern. It is necessary to identify and record several weather parameters to analyze for those patterns. Temperature is widely available for the analysis. Does the temperature affect the decision-making processes of buyers? If it is getting colder, consumers use warmer clothes, use heaters to produce heat and consume electricity, oil, gas. Energy consumption would increase.

Sometimes when temperature changes, then there are changes in consumer confidence in Latvia. See chart 2 below. Temperature was converted from °C into °F. 100% is usual temperature for each month (*Latvijas Statistika*). Ideally the temperature line should be straight line at 100%. This is average temperature is for every particular month in a year. The World Meteorological Organization (WMO) recommends that climate averages are computed over a 30 year period of consecutive records. The period of 30 years is considered long enough to smooth out year to year variations (30 Year Averages). It was added 100 to each value of Consumer Confidence Indicator in Latvia to avoid negative figures.

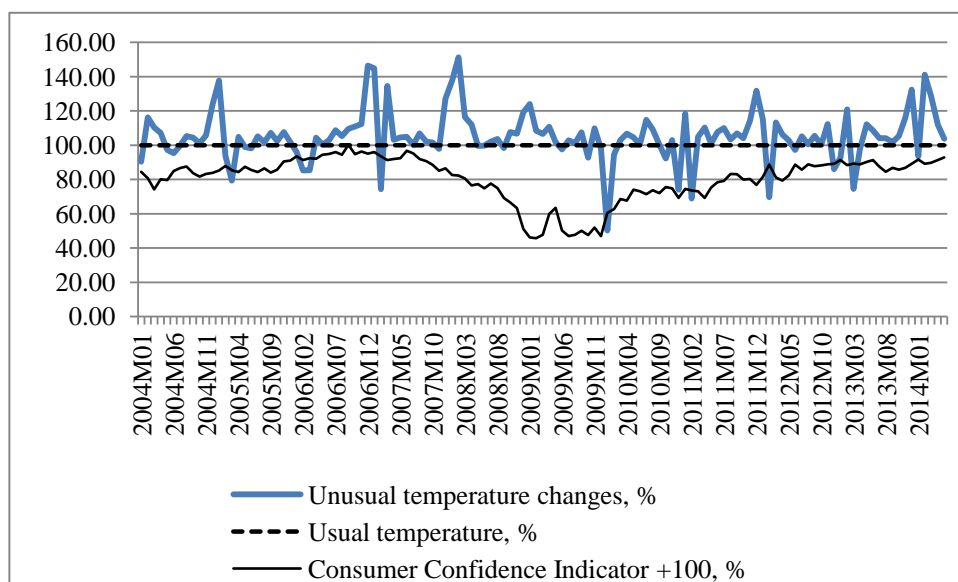


Chart 2. Unusual temperature changes and Consumer Confidence Indicator in Latvia  
(Author's calculations based on *Latvijas Statistika*)

After a recovery in consumer confidence the temperature patterns occurred periodically in winter time after December 2009. That means that in the beginning of calendar year in winter time weather changes from warm to cold several times. But Consumer Confidence Indicator does not show significant change in Consumer Confidence that time. There is more significant factors influence consumer behaviour in Latvia: price change, wages change. Chart 2 shows that it is necessary to conduct a survey of consumers in an unusual period of temperature changes in order to find additional influence of unusual temperature on consumer behaviour. Most likely, that old consumers are more sensitive to weather patterns than young consumers. It could be also, that unusual weather changes influence a psychological part of the consumer and does not reflect actual changes in consumer saving or spending habits in unusual weather time. Are any changes in consumer spending that time? It could be that consumers spend more on medical services and medication that time and it is definitely interesting topic for a future research.

Many consumers in Latvia surprised with weather changes. Summer 2014 was incredibly hot in Latvia. Many consumers have difficulties with water to grow up fruits and vegetables near their holiday home or on the field. There is no enough water in rivers, lakes, wells in summer 2014 as it was very hot, and it was very small amount of rains. Not all trees, fruits and vegetables are able to grow due to unusual weather patterns. That means that many consumers have to buy non-organic food in the shop instead of eating their own-grown organic food. Unusual weather patterns help to make profit for companies selling food, genetically modified trees, seeds of fruits and vegetables for agriculture. Unusual weather patterns are the headache for consumers and farmers involved in agriculture.

## 5. WEATHER PATTERNS AND ELECTRICITY, GAS CONSUMPTION

It was assumed that usual temperature is 100% for every month. Real temperature is fluctuating and become unusual. Changes in temperature cause changes in electricity consumption.

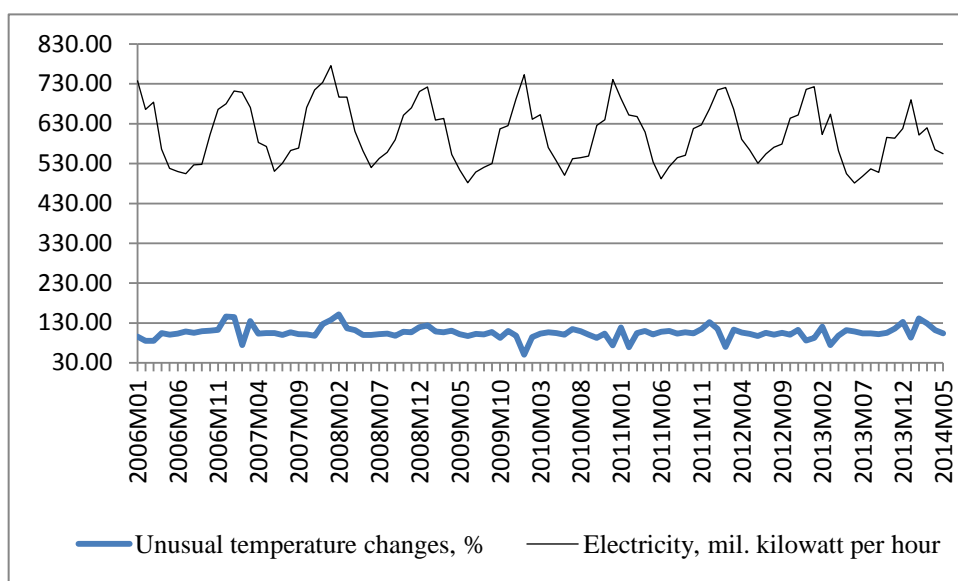


Chart 3. Unusual temperature changes and electricity consumption in Latvia (Author's calculations based on Latvijas Statistika)

Gas is used for heating in many buildings, for heating water, for cooking food. It is clearly seen on chart 4, that unusual weather patterns increase gas consumption in cold period of time. Temperature regulation is a very energy consuming process.

If it would be usual temperature in Latvia then temperature line would be a straight line. It is seen on chart 4, that temperature changes influence gas consumption. In the most instances there is increase in gas consumption.

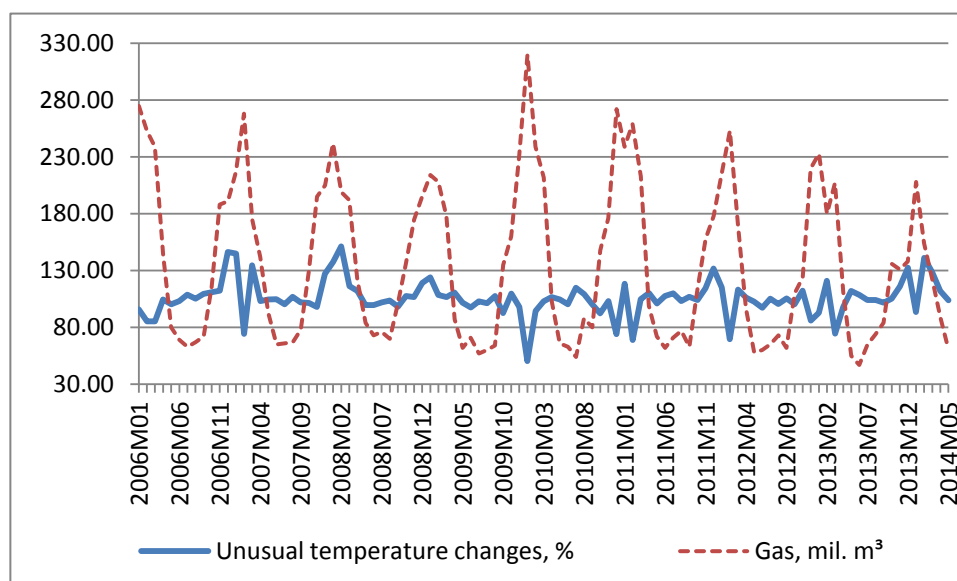


Chart 4. Unusual temperature changes and gas consumption in Latvia (Author's calculations based on Latvijas Statistika)

Unusual weather patterns help to make profit for companies selling gas and electricity. But, if alternative energy would be cheap and affordable, than unusual temperature changes would not be a problem. For example, if you paint a house with a paint, which produces electricity from the light or put on the roof of the house cheap solar panel stickers, which convert light into electricity. The energy solution should be cheap, simple, and clear to everyone. If you have power solar panels or wind turbine you are able to produce electricity for your own needs. At the moment alternative energy equipment is very expensive and is not affordable for the consumers. All alternative energy technologies are still not available to everyone. It helps to make profit from selling gas and electricity.

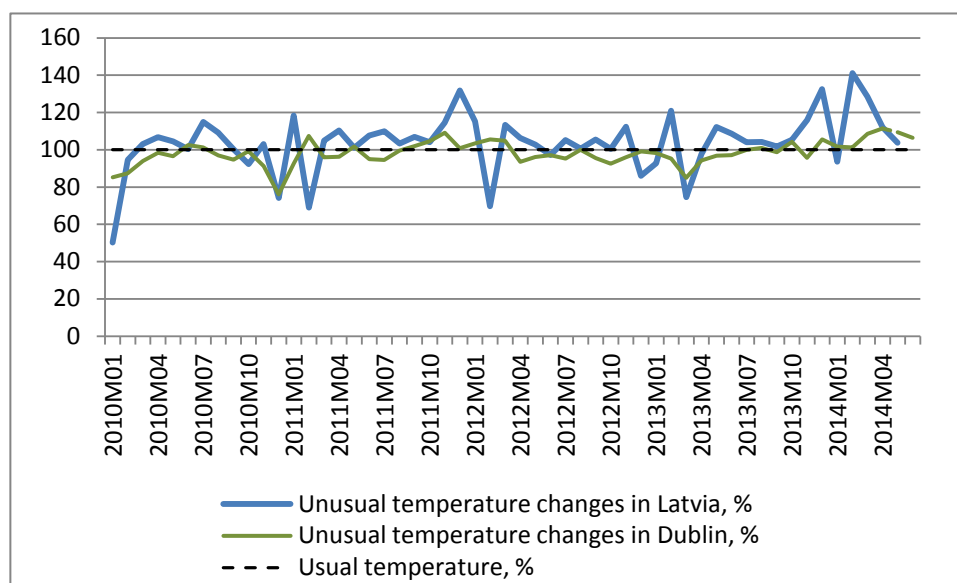


Chart 5. Unusual temperature changes in Latvia and Dublin (Author's calculations based on Latvijas Statistika and Monthly values for Dublin Airport)

It is clear from chart 5, that unusual temperature changes different in Latvia and Dublin, Ireland (Dublin Airport). It was found 2 similar changes only from 2010: December 2010 and April 2013. Climate is mild around Dublin. Temperature is higher than in Latvia. There are different last temperature changes in Latvia and Dublin, Ireland on chart 5. Water around Ireland prevents significant temperature changes.

## 6. CONCLUSION

At the moment it is clearly seen that unusual temperature patterns influence on electricity and gas consumption.

1. In the period of unusual weather changes there are unusual increase and decrease of the temperature for a short period of time.
2. It was similar weather changes in cold period of time for the last 5 years, which become a weather pattern in Latvia. It was noticed similar temperature patterns with a period of 2 years from 2009 there. Still it is not clear, what is causing this temperature patterns.
3. In the period of weather pattern it was found increase of consumption of electricity and gas. Unusual temperature patterns cause fluctuation in electricity and gas consumption. Also it is harmful for agriculture as many trees, fruits and vegetables. It is helpful to think about possible climate changes and be prepared to its consequences. It would be necessary to consume more energy at this period. The demand for food, shelter, water, energy would increase significantly. That means that in the event of climate changes in Latvia many

ordinary consumers have to spend more money because of temperature changes. Insulation grants for consumers are a good additional solution to save on energy consumption.

4. In order to prevent consequences of unusual weather patterns it is necessary to have cheap gas and electricity supply. That could be solved by use of alternative energy or free energy. This helps to reduce also carbon emissions. Specially designed glass houses would be a solution for agriculture. That means that financial support is necessary for the construction of such glass houses before climate changes.

5. It is necessary to investigate all suspicious cases of unusual weather changes as the main part of consumers is not ready to cover it from the financial sources of their own budget in Latvia.

6. It would be helpful for consumer to cancel monopoly for selling electricity and gas on the territory of Latvia. It is necessary to compete on the energy market. Every energy supplier should be able to sell gas or electricity in Latvia.

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## DEVELOPING AND VALIDATING A MEASURING INSTRUMENT FOR ASSESSING THE COMPANY'S MATURITY OF PROJECT MANAGEMENT FOR INTERNAL PROJECTS

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### ABSTRACT

*Over the last three decades, project management as a discipline has undergone significant development is gaining visibility in all types of organizations. Today, companies are adopting approaches that can improve their practice of project management as a source of competitive strategy. In addition, an increasing number of different projects, programs and portfolios are professionally managed and more attention has been focused on the maturity models as means of quantifying the value of applied practices. Project management maturity models have appeared in the literature as a concrete, tangible way to assess aspects of project management maturity, and their purpose is to help companies to compare the explicit competence at the project or program level in relation to the standard. The maturity of project management can be explained as a part of the progressive model that develops organizational approach, methodology, strategy and decision-making process of key areas, and given that companies demonstrate behaviors that reflect their level of maturity, it can help to define the gaps and take important steps toward improving important activities and enhancing the entire culture around project management. Also, by comparing the results of the maturity assessment with the descriptions in the project management maturity model, the company gets an insight into its strengths and weaknesses and is able to prioritize its activities to make improvements. In order to assess a company's project management maturity for internal projects, the author developed her own web model with eight dimensions, based on extensive study of secondary sources dealing with project management maturity models, as well as an appropriate instrument for assessing the maturity of each dimension and overall. The results of a pilot survey confirmed the possibility of using the instrument in companies regardless of their size, industry or type of ownership. Furthermore, the pilot study has proven the reliability and relevance of the measuring instrument; it showed that respondents understood all the questions, that there are no significant technical problems while completing the questionnaire and helped to determine approximate time required for its completion, as well as pointed out the necessary improvements before it can be implemented.*

**Keywords:** *internal projects, maturity models, measuring instrument for project management maturity assessment, project management*

### 1. INTRODUCTION

As changes in the environment are more frequent, adjustment becomes an imperative for survival in the target market, and it is required from organizations under continuous pressure to improve their competitive position or justify the best value towards great organizational flexibility and adaptability. Also, it can be expected from them to reconfigure their resources and adopt promising practices (Fisher, E., 2011). Since organizations are goal oriented and continuously implement changes in order to achieve them, and the key challenge is to maintain focus on strategic goals with the ability to transfer them into results with simultaneous adjustment of external influences (Judgev, K. & Thomas, J., 2002), companies are increasingly turning to project management practices as part of their strategy for successful market competition (Bargaoanu, A. & Calinescu, L., 2008). Project management

includes a set of tools, techniques and practices based on knowledge for producing products and providing services. It helps organizations to reduce the time it takes from concept through product development to market launch, adequately utilize limited resources, manage technological complexities and meet stakeholders needs which leads to increased efficiency and effectiveness of processes, innovation and agility of the organization, and ultimately achieving a competitive advantage over other companies (Judgev, K. & Müller, R., 2005), with faster response to impulses coming from the market (Patanakul, P. Iewwongcharoen, B. & Milosevic, D., 2010). However, although projects are the basic building material of business value and the effects of project management in the organization are recognized (Yazici, H. J., 2009), it is yet necessary to understand the complex relationship between project management and its value as a strategic asset (Judgev, K. & Thomas, J., 2002). Also, in order to adequately use project management, it is necessary to know the current status of its application in the company and implement it the right way, since use of project management itself, even over a prolonged period of time, may result in repetitive mistakes rather than maturity and excellence in project management. Therefore, more attention has been placed on maturity models, which could quantify the value and develop classification systems to serve the discipline as support (Kerzner, H., 2009), with the levels of project maturity that will provide repetition in terms of assessing and measuring progress over time.

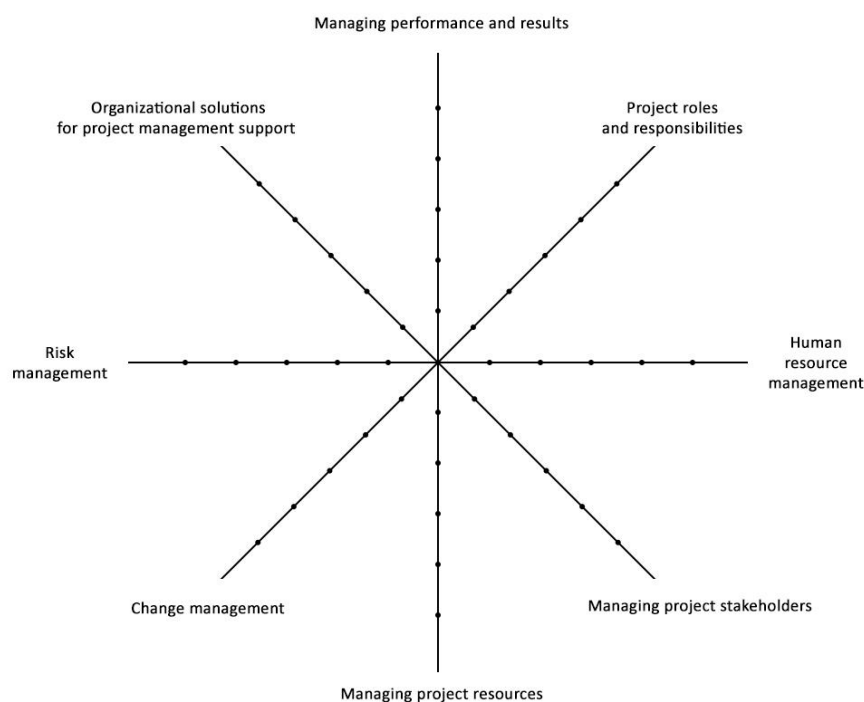
## **2. MEASURING PROJECT MANAGEMENT MATURITY**

The concept of maturity is proposed for the management approaches as a way of evaluating the state of completeness, perfection or readiness and fullness of growth and development, and can be defined as achieving the status of a natural or maximum development in the area of a given profession or expertise (Gottschalk, P., 2009). If the concept of maturity is applied to the company, refers to a condition where the organization is able to achieve its goals, that is, it is able to successfully complete the projects it implements (Andersen, E. S. & Jessen, S. A., 2003). The level of project management maturity represents acceptance of the project management practices in the company and shows how relating project management competencies and achieving its maturity increases the success of the project, thus consequently the company. Maturity can be estimated as the progress of processes and procedures necessary for the planning and implementation of the project (Skulmoski, G., 2001). Project management maturity levels include progressive levels of high defined and codified recurring processes and practices (Judgev, K. Müller, R., 2005), and the maturity is defined as the level of sophistication of the current state of practice and processes of project management (Ibbs, C. W. & Kwak, Y. H., 2000). Furthermore, in practice, no company can be fully mature or reach a maximum stage of development, therefore, it makes sense to talk about a certain degree of maturity and measure or characterize the maturity of project management (Ibbs, C. W. & Kwak, Y. H., 2000). However, the real value of a maturity model lies in the determination of the level project management maturity within the organization in order to define the areas that need to be improved. Any model selected to measure project management maturity should emphasize the logical path for progressive improvement and create a strategic plan for improving project management in the organization. At maturity model as a representative of theory based on progress, the main purpose is to describe the degree of maturation and paths of maturing. Therefore, characteristics of each stage and the logical connections between them should be interpreted (Kuznets, S., 1965). As far as their application in practice, it is expected that maturity models show the current and desired state of maturity, and include appropriate measures of progress with the intention to identify and eliminate deficient abilities (Rummler, G. & Brache, A., 1990). A unique approach to measuring project management gives the organization a clear understanding of the strong

areas and areas where improvements are needed, as well as the proper and structured way to develop an active plan for improvement (Crawford, J. K., 2006). It can help an organization in defining gaps and taking important steps toward improving the overall culture of project management. There are numerous linear models of maturity that illustrate the differences between the competencies of companies when using the project as a means to achieve the objectives and one model in the form of a web that is used to ensure greater differentiation in describing the competencies required for conducting specific processes during execution of projects (Andersen, E. S. & Jessen S. A., 2003). For her research, the author of the paper developed a model and measuring instrument for assessing a company's maturity of project management for internal projects, that is, for projects that aim to make change within the company, are focused on the future vision of the company and may include technological, manufacturing or process development, shown in the next sections.

## 2.1. Model for assessing the company's project management maturity for internal project

After analyzing 26 available models, which occurred between 1986 and 2013, their levels of maturity (linear, web, tower model or number of points), set of dimensions for assessing project management maturity (e.g. process, project, program and portfolio management, managing scope, quality insurance, monitoring and control...), the key elements and characteristics of existing models, the performance of their applications in defining the level of maturity and their shortcomings and adding elements that have not been represented in the models, and for which there is need for the successful application of project management practices in companies, the author defined eight main dimensions of maturity. The dimensions are shown in as a web model to ensure greater differentiation in describing the key processes required during the execution of projects and every dimension is comprised from six to 13 main elements (Figure 1).



*Figure 1: Web model for assessing the company's project management maturity for internal projects (authors work)*

After the dimensions and their key elements were defined, the author designed measuring instrument to assess all the elements within dimensions and to calculate the overall level of maturity.

## **2.2. Measuring instrument for assessing the company's project management maturity for internal projects**

The designed measuring instrument is in a form of questionnaire consisting of eight groups of questions in which respondents would be asked to assess the extent to which they agree with each statement by using a scale from 1 to 5. Score of 1 means that the respondent fully disagrees with the statement, a score of 5 means the respondent completely agrees with it. The first group was measuring the dimension *Managing performance and results* and contained 13 questions: 1.1. defining a formal plan for an internal project (e.g. vision, mission, objectives and scope of the project), 1.2. alignment of the project plan with the strategy and goals of the company, 1.3. ensuring a common understanding of project results from all those involved in its preparation and implementation, 1.4. defining all business and technical requirements of the internal project, checking if they are appropriate for implementation, clearly and adequately specified, consistent and whether they can be tested, 1.5. defining and documenting all the legal requirements of the internal project, 1.6. checking whether there is a clear understanding of the life cycle phases of an internal project, and effective managing of all phases, 1.7. existence of capacity of a company to manage multiple internal projects at the same time (e.g. the company can effectively plan, integrate, manage and control multiple internal projects), 1.8. clear priorities set among projects if the company manages a large number of internal projects at the same time, 1.9. setting formal points to monitor the progress of the internal project and determine the accuracy of management processes, 1.10. continuous measurement, recording and assessment of the performance during project implementation, according to documented criteria and procedures, 1.11. taking corrective action if performance is not satisfactory, 1.12. ensuring comparability of results (internal benchmarking) and 1.13. defining an action plan in case of unsatisfactory final results of an internal project. The second group was measuring the dimension *Project roles and responsibilities* and contained six questions: 2.1. active involvement of all levels of management in an internal project (e.g. setting goals, aligning vision, mission and strategy to project management, controlling the execution of all related activities, etc.), 2.2. defining the skills and competencies for the selection of a project manager for an internal project, 2.3. defining the skills and competencies upon which other associates for the internal project are selected (e.g. internal project team, etc.), 2.4. defining all roles for the implementation of an internal project, and the responsibilities and authority of each of them, 2.5. identifying the tasks and responsibilities of each role and defining positions in the management hierarchy (e.g. which role is responsible to whom, to whom and when to report, etc.) and 2.6. regular monitoring of implementation, and the existence of insurance and prescribed ways of replacing associates that prove not to be efficient in the implementation of an internal project. The third group of questions was measuring the dimension *Human resource management* and contained six questions: 3.1. existence of a department or unit for human resource management for internal projects, 3.2. planning project needs and defining clear criteria for the selection of people (e.g. skills and competencies), and then selecting people according to the established criteria, 3.3. investing into upgrading knowledge and skills of employees in the field of project management (e. g. trainings, certification, etc.), 3.4. motivating and organizing employees working on an internal project to maximally effectively use their abilities, 3.5. providing support to a team for internal project implementation, directing their work and giving employees feedback about their performance and 3.6. providing support if

the team was comprised from employees of the company to adjust upon returning to their old jobs. The fourth group was measuring the dimension *Managing project stakeholders* and contained six questions: 4.1. clear determination of all relevant internal and external stakeholders of the project, 4.2. defining and documenting stakeholder's expectations, 4.3. meeting expectations of all relevant stakeholders, 4.4. defined methods, content and frequency of communication with all relevant stakeholders, 4.5. reporting to all the relevant stakeholders on the progress and results of the internal project and 4.6. if needed, giving support to stakeholders even after the completion of an internal project. The fifth group was measuring the dimension *Managing project resources* and contained six questions: 5.1. planning the necessary project resources (e.g. labor hours, hours of work, materials, equipment, etc.), reviewing and documenting the assessment, 5.2. planning costs and funding sources, as well as their monitoring during project implementation, 5.3. planning and defining all activities, assess their duration, order of procedure, definition of the schedule, and continuous monitoring during project implementation, 5.4. defining the desired level of quality and assuring achieving it during project implementation, 5.5. definition of clear selection criteria and conditions for contracting with outside contractors, should the need for them arise and 5.6. confirming a developed plan on how to manage project resources by all the relevant stakeholders before the implementation of an internal project. The sixth group was measuring the dimension *Change management* and contained six questions: 6.1. continuous monitoring of changes in the environment, identifying the need for internal changes and developing a plan for their implementation, 6.2. providing support to employees to more quickly and easily accept the change, 6.3. supporting employees during stressful situations, 6.4. quickly and professionally dealing with conflict situations, 6.5. documenting change requests, assessing and responding in accordance with the control processes for internal project and 6.6. establishing and maintaining of the new situation after the completion of an internal project so employees would not return to practices used before the change has been made. The seventh group was measuring the dimension *Risk management* and contained six questions: 7.1. defining and quantifying all risks that can occur during and after the project implementation, 7.2. defining the sources of risk and cases of their occurrence, 7.3. using risk analysis techniques, risk evaluation and sorting by priority depending on the effect they have on the implementation of an internal project, 7.4. defining the plan of responses to the risks of an internal project, 7.5. continuous monitoring of the internal project, monitoring risk occurrence and controlling risks and 7.6. documenting identified risks and learning from previous experiences. The eight group was measuring the dimension *Organizational solutions to support project management* and contained six questions: 8.1. management mechanisms in the company to ensure consistent practices in aligning performance of internal projects with business strategy (e.g. project office, person in charge of overseeing internal projects, etc.), 8.2. management mechanisms for continuous development and improvement of the project management (e.g. project office, person in charge of overseeing internal projects, etc.), 8.3. information system to support the implementation and monitoring the progress of an internal project (e.g. software for graphical display and monitoring schedules - CPM / PERT, bar charts, etc., communication and reporting to project stakeholders, cost control ...), 8.4. unique project methodology or a set of standards and guidelines for the implementation of internal projects (joint systems, methods and processes for project management), 8.5. flexible, project-centered organizational structure that facilitates the implementation of an internal project, 8.6. storing all relevant data and experience from past internal projects in the database, maintaining them and using during future internal projects and 8.7. using all relevant data and experience from past internal projects in designing and construction of new internal projects.

### 3. VERIFICATION OF PROPOSED MEASURING INSTRUMENT

After the measuring instrument was developed, a pilot survey was conducted in order to improve its value. The purpose of the pilot study was to ensure that all questions in the questionnaire are understandable, that the degree of internal consistency of multiple measurements of certain variables was assessed and at a satisfactory level, that assessed and tested questions grouped around the dimension that they measure, that is, to verify whether the model suits the data and to remove all possible difficulties with the questionnaire during its filling.

#### 3.1. Research sample

The survey was conducted from February to March 2014, at the management level in 34 companies placed on the position 501-1000 on the list of best companies according to added value in 2012 (Lider, 2012). The sample was dominated by medium (52.9%) and small (41.2%), while only 5.9% were large companies. Most companies, as many as 88.2%, were privately owned, while the remaining 11.8% state owned (four companies). Furthermore, most of the surveyed companies had two (38.3%) and three board members (26.5%), three companies, that is, 8.8% had five or six board members and 17.6% had four board members. With regard to the activity pattern, the sample included companies from 19 industries. The most common are companies whose main activity is other wholesale (14.8%), followed by companies in production of electrical parts, machinery and equipment, construction, publishing and printing, as well as motor vehicles, shops and maintenance, which compose 8.9% of the sample, while the remaining 49.6% were evenly distributed to companies in 14 other industries.

#### 3.2. Analysis of the results

Prior to factor analysis, verification of data reliability was conducted with the Cronbach's alpha coefficient, that is, the degree of internal consistency of multiple measurements of certain variables was estimated. The analysis showed a satisfactory level of reliability on all applied measurement scales (Table 1).

*Table 1: Cronbach's alpha coefficient for the applied measurement scales (authors work according to results of the empirical research)*

Measurement scales	Cronbach's alfa coefficient
Managing performance and results	0,942
Project roles and responsibilities	0,914
Human resource management	0,829
Managing project stakeholders	0,902
Managing project resources	0,940
Change management	0,861
Risk management	0,934
Organizational solutions to support project management	0,873

Factor analysis tested whether questions grouped around a dimension they measure and the model suits the data. Standardized factor weights that show how much each manifest variable describes the associated latent variable, were used to determine the convergent and discriminant validity and unidimensionality of applied measurement scales. Standardized factor weights indicate a significant weight on the manifest variables associated with latent variables. However, significant weight was not found in eight out of 57 variables. These are respectively: 1.7 *existence of capacity of a company to manage multiple internal projects at the same time (e.g. the company can effectively plan, integrate, manage and control multiple internal projects)* (0.372); 3.1 *existence of a department or unit for human resource management for internal projects* (0.364); 3.6. *providing support if the team was comprised from employees of the company to adjust upon returning to their old jobs* (0.358); 4.6. *if needed, giving support to stakeholders even after the completion of an internal project* (0.393); 6.1. *continuous monitoring of changes in the environment, identifying the need for internal changes and developing a plan for their implementation* (0.383); 6.4. *quickly and professionally dealing with conflict situations* (0.337); 8.4. *unique project methodology or a set of standards and guidelines for the implementation of internal projects (joint systems, methods and processes for project management)* (0.358) and 8.6. *storing all relevant data and experience from past internal projects in the database, maintaining them and using during future internal projects* (0.365). These variables were therefore removed from the questionnaire since they didn't significantly describe the observed dimensions. After removing them from the questionnaire, the value of the Cronbach's alpha coefficient for each group of questions had improved (Table 2).

*Table 2: Cronbach's alpha coefficient for the applied measurement scales after removal of nonsignificat variables (authors work according to results of the empirical research)*

Measurement scales	Cronbach's alfa coefficient
Managing performance and results	<b>0,944</b>
Project roles and responsibilities	0,914
Human resource management	<b>0,892</b>
Managing stakeholders	<b>0,932</b>
Managing project resources	0,940
Change management	<b>0,870</b>
Risk management	0,934
Organizational solutions to support project management	<b>0,881</b>

In addition to checking the validity and reliability of the measuring instrument and finishing the questionnaire for assessing the company's project management maturity for internal projects, the pilot survey also found that respondents understood all the questions, that there were no significant technical problems while completing the questionnaire and approximate time required for its completion was determined. Furthermore, the results confirmed the possibility of using the instrument in companies regardless of their size, industry or type of ownership, however, it was not applicable in the companies that used agile approach to project management and in the future, it represents an opportunity for expansion and improvement of the measuring instrument to make it more comprehensive.

#### 4. CONSLUSION

As companies began to accept the implementation of projects as a way of business, one of their main goals was to do projects successfully, but to be able to do that they required the necessary infrastructure, which includes the processes (methods and techniques), management structures, tools and project management competencies (Ten Zweege, H. C., De Koning, M. C. & Bons, F., 2006). Development of such an infrastructure can take several years and therefore managers could start to wonder where their exact position in the process is. It is here that acceptance of project management maturity models proved to be successful. They can help companies to verify what they have achieved by describing activities, best practices and classifying descriptions of the progressive levels of maturity and furthermore by comparing the obtained results of the assessment with the descriptions in the model of maturity, thus giving insight into their strengths and weaknesses (Barber, E., 2004). Growing emphasis on maturity models may be reflecting the growing desire for connecting competencies of project management to organizational success. Therefore, determining project management maturity is the first step to integrate, evaluate and improve project management practices since organizations at a higher level of maturity may be more successful, as well as have a stronger competitive advantage in the target market, and for that, good measuring instrument is needed.

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## PRODUCTION ECONOMICS OF EGYPTIAN COTTON IN THE SALT-AFFECTED LAND

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### ABSTRACT

*Water is the natural resource that exerts the greatest constraint on Egypt's agricultural production system. Most of Egypt's cultivated lands depend on irrigation from Nile. However, Egypt's agriculture is under pressure to justify its use of water resource, which is scarce due to increased competition for water resources. The water management problem is currently increasing in the context of the on-going national transition from a government-controlled market with government intervention in the management of all activities to a free-market economy. Furthermore, due to the ambitious programs of desert agricultural development, the shortage of water supplies is becoming more serious after El Nahdda dam. Issues of equitable distribution of dwindling water supplies are becoming more serious and more is needed to assure fair access to water and more efficient use and allocation of it. On the other hand, accumulation of excessive salt in irrigated soils of Egypt negatively affects crop yields, reduce the effectiveness of irrigation, ruin soil structure, and affect other soil properties. High level of water table and shortage in irrigation supply in the salt-affected land doubles from the harmful effects of salinity problems. Consequently, the average productivity of the cultivated crops in salt-affected land is less than the half of corresponding averages at the national level. Cotton is the one of the main cultivated summer crops in the salt-affected land in Egypt. The main objective of the study is studying the production economics of cotton in the salt-affected land. The impacts of production factors used to produce cotton crop in salt-affected land will identify and measure. The various combinations of manure and irrigation water inputs which produce or yield equal production to cotton producers will derive and identify. The impacts of technical changes on the quantities produced of cotton and on the optimal and maximum-profit production levels will measure. The relationship between the quantity produced and the production costs of cotton crop will estimate and investigate. The levels of optimal and maximizing profits for the studied crop in the salt-affected land will identify and determine.*

**Keywords:** cotton, production, salt-affected land

### 1. INTRODUCTION

Water is the natural resource that exerts the greatest constraint on Egypt's agricultural production system. Most of Egypt's cultivated lands depend on irrigation from Nile. However, Egypt's agriculture is under pressure to justify its use of water resource, which is scarce due to increased competition for water resources. The water management problem is currently increasing in the context of the on-going national transition from a government-controlled market with government intervention in the management of all activities to a free-market economy. Furthermore, due to the ambitious programs of desert agricultural development, the shortage of water supplies is becoming more serious after El Nahdda dam. Issues of equitable distribution of dwindling water supplies are becoming more serious and more is needed to assure fair access to water and more efficient use and allocation of it. On the other hand, accumulation of excessive salt in irrigated soils of Egypt negatively affects crop yields, reduce the effectiveness of irrigation, ruin soil structure, and affect other soil properties. High

level of water table and shortage in irrigation supply in the salt-affected land doubles from the harmful effects of salinity problems. Consequently, the average productivity of the cultivated crops in salt-affected land is less than the half of corresponding averages at the national level.

## 2. METHDOLOGICAL BACKGROUND

In economics, a production function relates physical output of a production process to physical inputs or factors of production. The production function is one of the key concepts of mainstream neoclassical theories, used to define marginal product and to distinguish allocative efficiency, the defining focus of economics. The primary purpose of the production function is to address allocative efficiency in the use of factor inputs in production and the resulting distribution of income to those factors, while abstracting away from the technological problems of achieving technical efficiency, as an engineer or professional manager might understand it. In general, economic output is not a (mathematical) function of input, because any given set of inputs can be used to produce a range of outputs. To satisfy the mathematical definition of a function, a production function is customarily assumed to specify the maximum output obtainable from a given set of inputs. The production function, therefore, describes a boundary or frontier representing the limit of output obtainable from each feasible combination of input. (Alternatively, a production function can be defined as the specification of the minimum input requirements needed to produce designated quantities of output, given available technology.) By assuming that the maximum output, which is technologically feasible, from a given set of inputs, is obtained, economists are abstracting away from technological, engineering and managerial problems associated with realizing such a technical maximum, to focus exclusively on the problem of allocative efficiency, associated with the economic choice of how much of a factor input to use, or the degree to which one factor may be substituted for another. In the production function, itself, the relationship of output to inputs is non-monetary; that is, a production function relates physical inputs to physical outputs, and prices and costs are not reflected in the function. In the decision frame of a firm making economic choices regarding production—how much of each factor input to use to produce how much output—and facing market prices for output and inputs, the production function represents the possibilities afforded by an exogenous technology. Under certain assumptions, the production function can be used to derive a marginal product for each factor. The profit-maximizing firm in perfect competition (taking output and input prices as given) will choose to add input right up to the point where the marginal cost of additional input matches the marginal product in additional output. This implies an ideal division of the income generated from output into an income due to each input factor of production, equal to the marginal product of each input. The inputs to the production function are commonly termed factors of production and may represent primary factors, which are stocks. Classically, the primary factors of production were Land, Labor and Capital. Primary factors do not become part of the output product, nor are the primary factors, themselves, transformed in the production process. The production function, as a theoretical construct, may be abstracting away from the secondary factors and intermediate products consumed in a production process. The production function is not a full model of the production process: it deliberately abstracts from inherent aspects of physical production processes that some would argue are essential, including error, entropy or waste, and the consumption of energy or the co-production of pollution. Moreover, production functions do not ordinarily model the business processes, either, ignoring the role of strategic and operational business management. (For a primer on the fundamental elements of microeconomic production theory, see production theory basics). The production function is central to the marginalist focus of neoclassical economics, its definition of efficiency as allocative efficiency, its analysis of how market prices can govern

the achievement of allocative efficiency in a decentralized economy, and an analysis of the distribution of income, which attributes factor income to the marginal product of factor input. The firm is assumed to be making allocative choices concerning how much of each input factor to use and how much output to produce, given the cost (purchase price) of each factor, the selling price of the output, and the technological determinants represented by the production function.

A production function can be expressed in a functional form as the right side of

$$Q = f(X_1, X_2, X_3, \dots, X_n) \dots\dots\dots (1)$$

Where:

$Q$  = Quantity of output

$X_1, X_2, X_3, \dots, X_n$  = quantities of factor inputs (such as capital, labour, land or raw materials).

In economics, the Cobb–Douglas production function is a particular functional form of the production function. It is widely used to represent the technological relationship between the amounts of two or more inputs, particularly physical capital and labor, and the amount of output that can be produced by those inputs. The Cobb-Douglas form was developed and tested against statistical evidence by Charles Cobb and Paul Douglas during 1927–1947.

In its most standard form for production of a single good with two factors, the function is

$$Q = AL^\beta K^\alpha \dots\dots\dots (2)$$

Where:

$Q$  = total production (the quantity produced in a year)

$L$  = labor input (the total number of person-hours worked in a year)

$K$  = capital input (the real value of all machinery, equipment, and buildings)

$A$  = total factor productivity

$\alpha$  and  $\beta$  are the output elasticities of capital and labor, respectively. These values are constants determined by available technology.

Output elasticity measures the responsiveness of output to a change in levels of either labor or capital used in production, *ceteris paribus*. For example if  $\alpha = 0.45$ , a 1% increase in capital usage would lead to approximately a 0.45% increase in output.

Further, if  $\alpha + \beta = 1$ , the production function has constant returns to scale, meaning that doubling the usage of capital  $K$  and labor  $L$  will also double output  $Y$ . If  $\alpha + \beta < 1$ , returns to scale are decreasing, and if  $\alpha + \beta > 1$ , returns to scale are increasing. Assuming perfect competition and  $\alpha + \beta = 1$ ,  $\alpha$  and  $\beta$  can be shown to be capital's and labor's shares of output.

The total, average, and marginal physical product curves mentioned above are just one way of showing production relationships. They express the quantity of output relative to the amount of variable input employed while holding fixed inputs constant. Because they depict a short run relationship, they are sometimes called short run production functions. If all inputs are allowed to be varied, then the diagram would express outputs relative to total inputs, and the function would be a long run production function. If the mix of inputs is held constant, then output would be expressed relative to inputs of a fixed composition, and the function would indicate long run economies of scale.

Rather than comparing inputs to outputs, it is also possible to assess the mix of inputs employed in production. An isoquant (see below) relates the quantities of one input to the quantities of another input. It indicates all possible combinations of inputs that are capable of

producing a given level of output. An isoquant represents those combinations of inputs, which will be capable of producing an equal quantity of output; the producer would be indifferent between them. The isoquants are thus contour lines, which trace the loci of equal outputs. As the production remains the same on any point of this line, it is also called equal product curve. The Marginal Rate of Technical Substitution (MRTS) is the amount by which the quantity of one input has to be reduced when one extra or additional unit of another input is used, so that output remains constant. In other words, it shows the rate at which one input (e.g. nitrogen or water) may be substituted for another, while maintaining the same level of output. The MRTS can also be seen as the slope of an isoquant at the point in question. So it is diminishing. In economics, a cost curve is a graph of the costs of production as a function of total quantity produced. In a free market economy, productively efficient firms use these curves to find the optimal point of production (minimizing cost), and profit maximizing firms can use them to decide output quantities to achieve those aims. There are various types of cost curves, all related to each other, including total and average cost curves, and marginal ("for each additional unit") cost curves, which are equal to the differential of the total cost curves. Some are applicable to the short run, others to the long run. Assuming that factor prices are constant, the production function determines all cost functions. The variable cost curve is the inverted short-run production function or total product curve and its behavior and properties are determined by the production function. Because the production function determines the variable cost function it necessarily determines the shape and properties of marginal cost curve and the average cost curves. If the firm is a perfect competitor in all input markets, and thus the per-unit prices of all its inputs are unaffected by how much of the inputs the firm purchases, then it can be shown that at a particular level of output, the firm has economies of scale (i.e., is operating in a downward sloping region of the long-run average cost curve) if and only if it has increasing returns to scale. Likewise, it has diseconomies of scale (is operating in an upward sloping region of the long-run average cost curve) if and only if it has decreasing returns to scale, and has neither economies nor diseconomies of scale if it has constant returns to scale. In this case, with perfect competition in the output market the long-run market equilibrium will involve all firms operating at the minimum point of their long-run average cost curves (i.e., at the borderline between economies and diseconomies of scale).

*Relationship between different costs curves:*

- Total Cost = Fixed Costs (FC) + Variable Costs (VC)
- Marginal Cost (MC) =  $dC/dQ$ ; MC equals the slope of the total cost function and of the variable cost function
- Average Total Cost (ATC) = Total Cost/ $Q$
- Average Fixed Cost (AFC) =  $FC/Q$
- Average Variable Cost =  $VC/Q$ .
- $ATC = AFC + AVC$
- The MC curve is related to the shape of the ATC and AVC curves:
- At a level of  $Q$  at which the MC curve is above the average total cost or average variable cost curve, the latter curve is rising.
- If MC is below average total cost or average variable cost, then the latter curve is falling.
- If MC equals average total cost, then average total cost is at its minimum value.
- If MC equals average variable cost, then average variable cost is at its minimum value.

In economics, average cost or unit cost is equal to total cost divided by the number of goods produced (the output quantity,  $Q$ ). It is also equal to the sum of average variable costs (total variable costs divided by  $Q$ ) plus average fixed costs (total fixed costs divided by  $Q$ ).

Average costs may be dependent on the time period considered (increasing production may be expensive or impossible in the short term, for example). Average costs affect the supply curve and are a fundamental component of supply and demand.

$$AC = \frac{TC}{Q}$$

In economics and finance, marginal cost is the change in the total cost that arises when the quantity produced changes by one unit. That is, it is the cost of producing one more unit of a good.<sup>[1]</sup> In general terms, marginal cost at each level of production includes any additional costs required to produce the next unit. For example, if producing additional vehicles requires building a new factory, the marginal cost of the extra vehicles includes the cost of the new factory. In practice, this analysis is segregated into short and long-run cases, so that over the longest run, all costs become marginal. At each level of production and time period being considered, marginal costs include all costs that vary with the level of production, whereas other costs that do not vary with production are considered fixed.

If the good being produced is infinitely divisible, so the size of a marginal cost will change with volume, as a non-linear and non-proportional cost function includes the following:

- variable terms dependent to volume,
- constant terms independent to volume and occurring with the respective lot size,
- jump fix cost increase or decrease dependent to steps of volume increase.

In practice the above definition of marginal cost as the change in total cost as a result of an increase in output of one unit is inconsistent with the differential definition of marginal cost for virtually all non-linear functions. This is as the definition finds the tangent to the total cost curve at the point  $q$  which assumes that costs increase at the same rate as they were at  $q$ . A new definition may be useful for marginal unit cost (MUC) using the current definition of the change in total cost as a result of an increase of one unit of output defined as:  $TC(q+1)-TC(q)$  and re-defining marginal cost to be the change in total as a result of an infinitesimally small increase in  $q$  which is consistent with its use in economic literature and can be calculated differentially. If the cost function is differentiable joining, the marginal cost is the cost of the next unit produced referring to the basic volume.

$$\frac{dC}{dQ}$$

### 3. OBJECTIVES OF THE STUDY

Cotton is the one of the main cultivated summer crops in the salt-affected land in Egypt. The main objective of the study is studying the production economics of cotton in the salt-affected land. The impacts of production factors used to produce cotton crop in salt-affected land have been identified and measured. The various combinations of manure and irrigation water inputs which produce or yield equal production to cotton producers have been derived and identified. The impacts of technical changes on the quantities produced of cotton and on the optimal and maximum-profit production levels have been measured. The relationship between the quantity produced and the production costs of cotton crop is estimated and investigated. The levels of optimal and maximizing profits for the studied crop in the salt-affected land is identified and determined.

#### 4. EMPIRICAL MODEL AND DATA SOURCES

Field primary data concerning the inputs and outputs of cotton in the selected farms have been collected and conducted from five targeted villages in Sharkia Governorate. These villages are El Rewad, Tark Ben Ziad, El Ezdehar, El Salah and Khaleed Ben El Waleed. A random Stratified Cluster Sample Size of 150 holders from the five studied villages were targeted according to the number of the population and the cultivated area in each village. Questionnaire sheets covering the inputs and outputs data have been used to collect the field primary data. The cotton production, total costs and average costs functions approach as well as the multiple regression models have been used to accomplish the main objectives of the study. In addition the isoquant production curve for the improved cotton varieties is used to estimate the impacts of technical changes on the quantities produced of cotton. As well as the averages total and marginal costs for the improved cotton varieties have been used to estimate the impacts of technical changes on the optimal and maximum production levels of cotton crop.

#### 5. RESULTS AND DISCUSSION

##### 5.1 Production Function of Cotton Crop

##### 5.1.1 The Production Function

The Cobb–Douglas production function for cotton crop is estimated as follow:

$$Q_c = 0.014 (\text{seed})^{0.474}_{(12.9)**} (\text{manure})^{0.227}_{(12.3)**} (\text{phosphorus})^{0.215}_{(13.5)**} (\text{water})^{0.398}_{(9.93)**} \dots\dots (1)$$

$$R^2 = 0.949$$

$$F\text{-ratio} = 208.9$$

Where:

$\ln Q_c$  = the natural logarithmic for the production quantity of cotton in kintar/feddan

$\ln \text{Seed}_b$  = the natural logarithmic for the quantity used from cotton seed in kg/feddan

$\ln \text{Phosphorus}_b$  = the natural logarithmic for the quantity used from phosphorus fertilizer in kg/feddan

$\ln \text{Manure}_b$  = the natural logarithmic for the quantity used from manure in cubic meter/feddan

$\ln \text{Water}_b$  = the natural logarithmic for the quantity used from irrigation water in cubic meter/feddan

The numbers between brackets are t-statistical values

The previous production function model indicates that: (i) The estimated parameters and the estimated model are statistically significant. The quantities used from seeds, manure, phosphorus and water have great statically effect on the production quantity of cotton in the salt-affected land. (ii) The production elasticities of seed, manure, phosphorus fertilizers and irrigation water are positive and less than one, i.e., the usage of those factors are in the second production stage or the economic production stage. (iii) the variations in the studied four factors explain 95% of the variations in the quantity produced of cotton in the salt-affected land. (iv) the returns to scale of the four studied factors in cotton production are increasing ( i.e., 1.314). That means a 100% increase in the four factors usage would lead to approximately a 131% increase in the cotton output. (v) total factor productivity is positive and less than one (0.014).

An isoquant shows the extent to which the farm in question has the ability to substitute between the two different inputs (e.g., phosphorus fertilizers and irrigation water) at will in order to produce the same level of output. The isoquant curve for cotton represents those combinations of two inputs, which will be capable of producing an equal quantity of output; the producer would be indifferent between them. The cotton isoquant curve for the various

combinations of phosphorus fertilizer and irrigation water (figure 1) can be derived from the functional form number (1) using the average quantity produced of cotton (6.13 kintar/feddan), average quantities used of seeds (37.35 kg/feddan) and manure (10.46 m<sup>3</sup>/feddan) as follows:

$$\text{Water} = \{45.825(\text{phosphorus})^{-0.215}\}^{(1/0.398)} \dots\dots\dots (2)$$

Figure (1) shows that: (i) The Marginal Rate of Technical Substitution (MRTS) between phosphorus fertilizer and water is diminishing. On the other word, the amount by which the quantity of phosphorus input has to be reduced when one extra or additional unit of water input is used, so that output of cotton remains constant. (ii) the technological tradeoff between phosphorus and irrigation water in the cotton production function is decreasing marginal returns of both inputs. Adding one input while holding the other constant eventually leads to decreasing marginal output, and this is reflected in the shape of the isoquant.

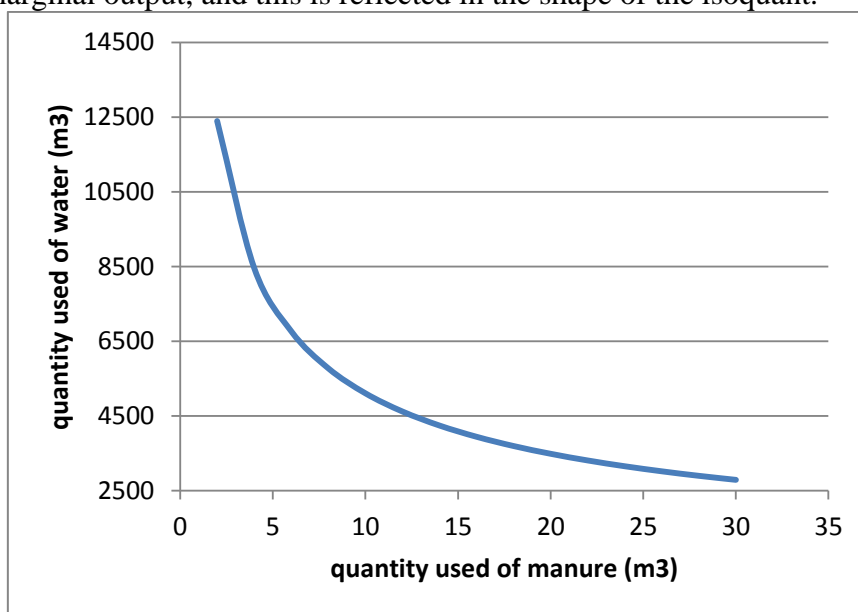


Figure (1): The cotton isoquant curve for the various combinations of phosphorus fertilizer and irrigation water (Equation 2 and the Cotton field primary data, 2011)

### 5.1.2 The Impacts of Technological Changes on Production Level

The impacts of technological changes on the cotton production using isoquant curves will investigate in this part of the study. The interviewed farmers indicate that the improved varieties of cotton increase the yield of cotton from 6.13 kintar/feddan to 7.36 kintar/feddan, i.e., an increase of 20%. Using this fact and recalculation the models number (1) and (2), the cotton isoquant curve can be derived in model number 3 as follows:

$$\text{Water} = \{54.99(\text{phosphorus})^{-0.215}\}^{(1/0.398)} \dots\dots\dots (3)$$

Figure (2) shows that the farmers will produce high level of cotton output when they use improved varieties. The cotton isoquant curve for the improved varieties (Q\') is higher than the cotton isoquant curve for the old varieties (Q). Consequently the farmers can produce more output of cotton under the same quantity used of irrigation water and manure.



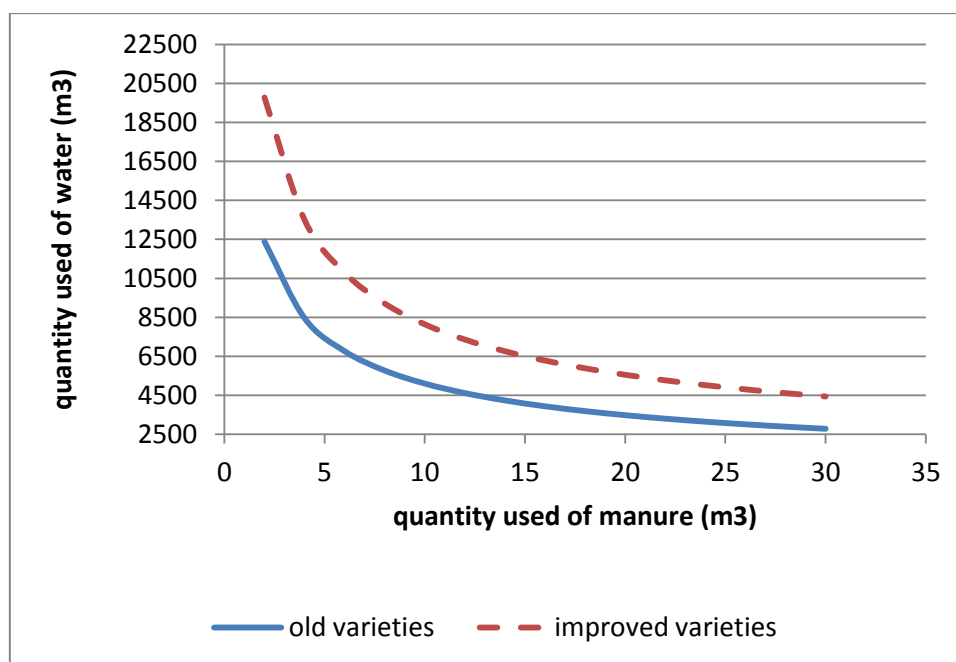


Figure (2): the impacts of improved varieties on the cotton isoquant curve of cotton crop in salt-affected land (Equation 3 and the Cotton field primary data, 2011)

## 5.2 The Production Cost Function of Cotton Crop

### 5.2.1 Total Cost Function

The total production cost function of cotton can be estimated as a cubic function, equation no. 4 and figure (3).

$$TC_c = 265.3 + 1531.9 Q - 283.7 Q^2 + 19.2 Q^3 \quad \dots\dots\dots (4)$$

(3.3)<sup>\*\*</sup>    (5.6)<sup>\*\*</sup>    (-5.3)<sup>\*\*</sup>    (1.96)<sup>\*</sup>

$$R^2 = 0.22 \quad \quad \quad F \text{ ratio} = 3.2^*$$

Where:

$TC_c$  = the total production cost of cotton in LE/kintar

$Q$  = the quantity produced from cotton in kintar/feddan

The previous production cost function Indicates that: (i) all estimated parameters and the model are statistically significant. (ii) the variation in the cotton yield (Q) explain 22% of the variation in total production costs. (iii) the cotton farmers will maximize their profits by producing about 9 kintar per feddan where the slopes of total cost curve and total return curve are equal. (iv) the total production costs of cotton at the maximum profit level is estimated at 5037 LE/feddan.

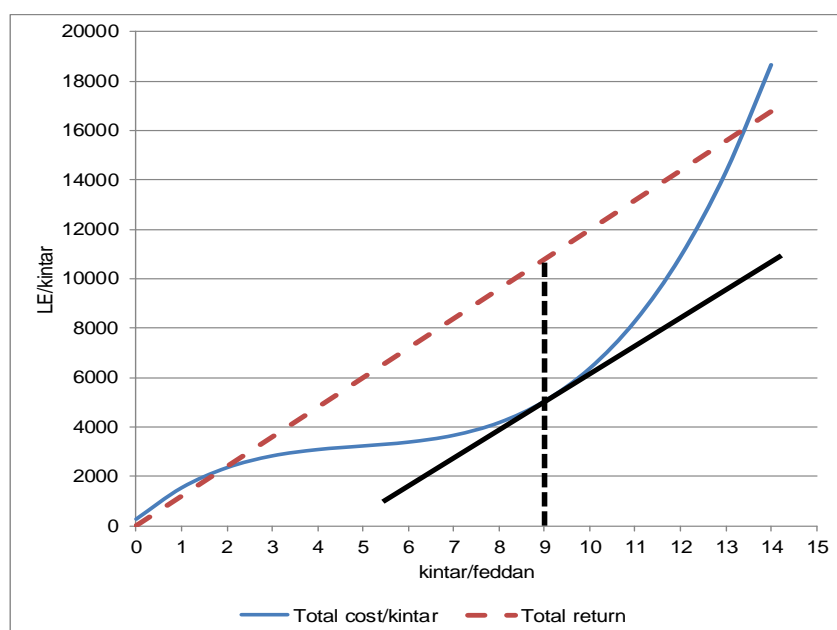


Figure (3): the total production function of cotton crop in the salt-affected land (Equation 4 and the Cotton field primary data, 2011)

### 5.2.2 The Averages Total Cost Function

The average total cost function of cotton can be estimated as a quadratic function, equation no. 5 and figure (4).

$$ATC_c = 1714.9 - 321.1 Q + 21.5 Q^2 \quad \dots\dots\dots (5)$$

(5.5)\*\*    (-2.8)\*\*    (2.15)\*

$R^2 = 0.34$                       F-ratio = 12.6

Where:

$ATC_c$  = the average total production cost of cotton in LE/kintar

$Q$  = the quantity produced from cotton in kintar/feddan

The marginal cost ( $MC_c$ ) function of cotton can be derived from equation 5 as follows:

$$MC_c = 1714.9 - 642.3 Q + 43.0 Q^2 \quad \dots\dots\dots (6)$$

The average total costs and marginal cost functions are presented in figure (4). The previous two functions indicate that: (i) all estimated parameters and the models are statistically significant. (ii) the variation in the quantity produced ( $Q$ ) explain 34% of the variation in average production costs. Figure (4) present that: (i) both the average total cost and marginal cost curves take U shape (logically agree with the economic theory). (ii) the marginal cost curve intersects the average total cost curve at the minimum point. (iii) the cotton farmers will minimize their total costs by producing 7.5 kintar per feddan where the slopes of total cost curve and marginal cost curve are equal. The total production cost of cotton at the minimum level of costs is estimated at 518 LE/feddan. (iv) the cotton farmers will maximize their profit by producing 9 kintar/feddan. The total production cost of cotton at the maximum-profit level is estimated at 569 LE/feddan.

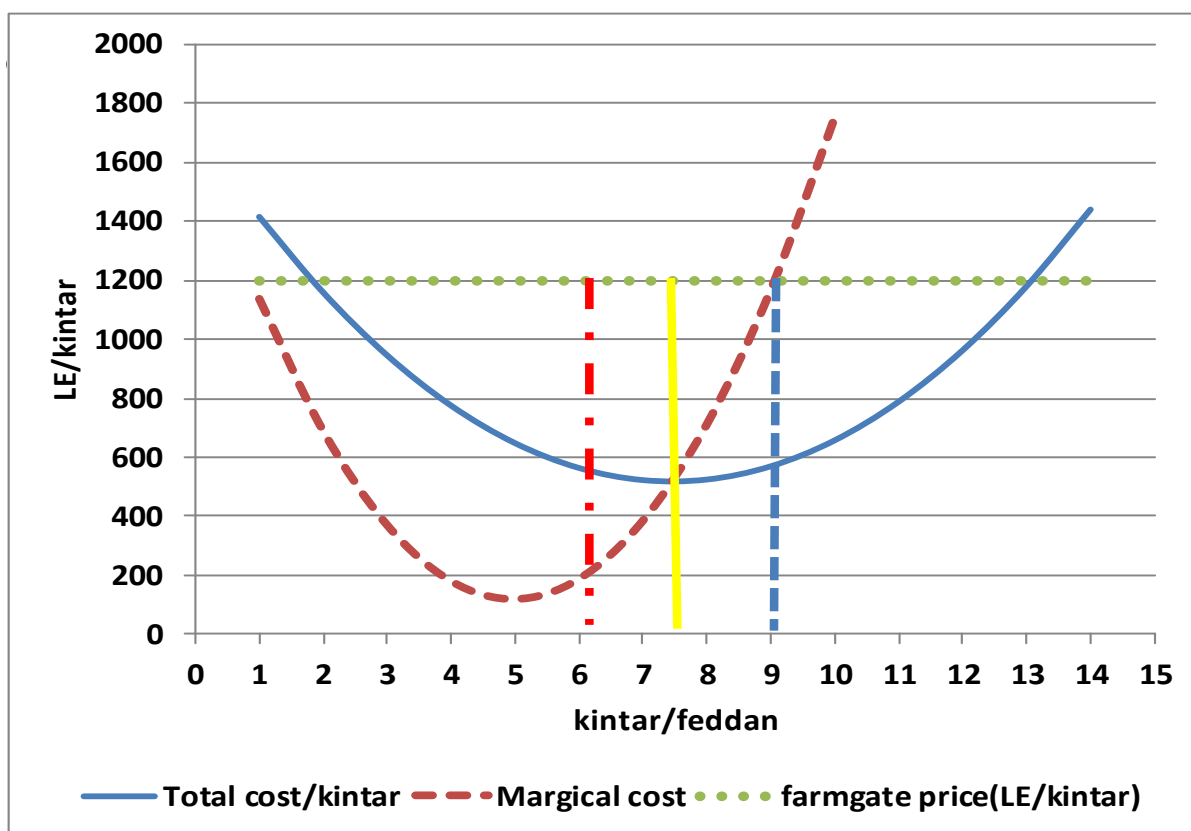


Figure (4): The average production functions of cotton crop in the salt-affected land (Equations 5,6 and the Cotton field primary data, 2011)

### 5.2.3. Income Forgone

The steps of calculation of income forgone for cotton farmers in the salt-affected land are presented in table (1). The results in the table indicate the following indicators: (i) the actual, optimal and maximizing-profit quantities produced of cotton are estimated at 6.13 kintar/feddan, 7.5 kintar/feddan and 9 kintar/feddan, respectively. The average farmgate price of cotton is estimated at 1198 LE/kintar. Thus, the actual, optimal and maximizing-profit total returns are estimated at 7344 LE/feddan, 8985 LE/feddan and 10782 LE/feddan, respectively. (ii) the average production costs at the actual, optimal and maximizing-profit production levels of cotton are 557 LE/kintar, 518 LE/kintar and 569 LE/kintar, respectively. Therefore, the total costs at the actual, optimal and maximizing-profit production levels of cotton are 3414 LE/feddan, 3885 LE/feddan and 5121 LE/feddan, respectively. (iii) the profit at the actual, optimal and maximizing-profit production levels of cotton are 3929 LE/feddan, 5100 LE/feddan and 5661 LE/feddan, respectively. Consequently the income forgone for cotton farmers at the optimal and maximizing-profit production levels are 1171 LE/feddan and 1732 LE/feddan, respectively.

*Table (1): the actual, optimal and maximizing-profit productions, costs and returns for cotton farmers, 2012 (Figure 4 and the Cotton field primary data, 2011)*

Item	Unit	Actual production level	Optimal production level	Maximizing-profit production level
Production	kintar/feddan	6.13	7.5	9
farmgate price	LE/feddan	1198	1198	1198
total return	LE/feddan	7343.74	8985	10782
Average cost	LE/kintar	557	518	569
total costs	LE/feddan	3414.41	3885	5121
Profit	LE/feddan	3929.33	5100	5661
income forgone	LE/feddan		1171	1732

#### 5.2.4 The Impact of Technological Changes on the Average Production Costs Levels

As mentioned above the cotton farmers in the salt-affected land reveal that the improved varieties increase yield by 20% (i.e., from 6.13 kintar/feddan to 7.36 kintar/feddan). The average total cost functions of improved cotton varieties ( $ATC_c$ ) can be estimated as a quadratic function, equation no. (7).

$$ATC_c = 1714.9 - 267.6 Q + 14.96 Q^2 \quad \dots\dots\dots (7)$$

$(5.4)^{**}$        $(-2.8)^{**}$        $(2.1)^*$   
 $R^2 = 0.34$        $F \text{ ratio} = 12.6$

The marginal cost function of improved cotton varieties ( $MC_c$ ) can be derived from equation (7) as follows, equation no. (8):

$$MC_c = 1714.9 - 535.2 Q + 44.87 Q^2 \quad \dots\dots\dots (8)$$

The average total cost and marginal cost functions of old varieties (equations 5 and 6) and the average total cost and marginal cost functions of improved varieties (equations 7 and 8) are presented in figure (5). the results can be concluded from the figure are: (i) 20% increase in the yield of cotton because of improved varieties cultivation leads to obvious moving the average total cost and marginal cost functions to the right. Therefore the production levels which minimize the total costs and maximize the profits of cotton farmers move to the right. (ii) The minimum points of averages costs and the maximum points of profits move obviously to right. The optimal production level of cost has been moved from 7.5 kintar/feddan for old cotton varieties to 9 kintar/feddan for improved cotton varieties. In addition the maximize-profit level has been moved from 9 kintar/feddan for old cotton varieties to 10.85 kintar/feddan for improved cotton varieties.

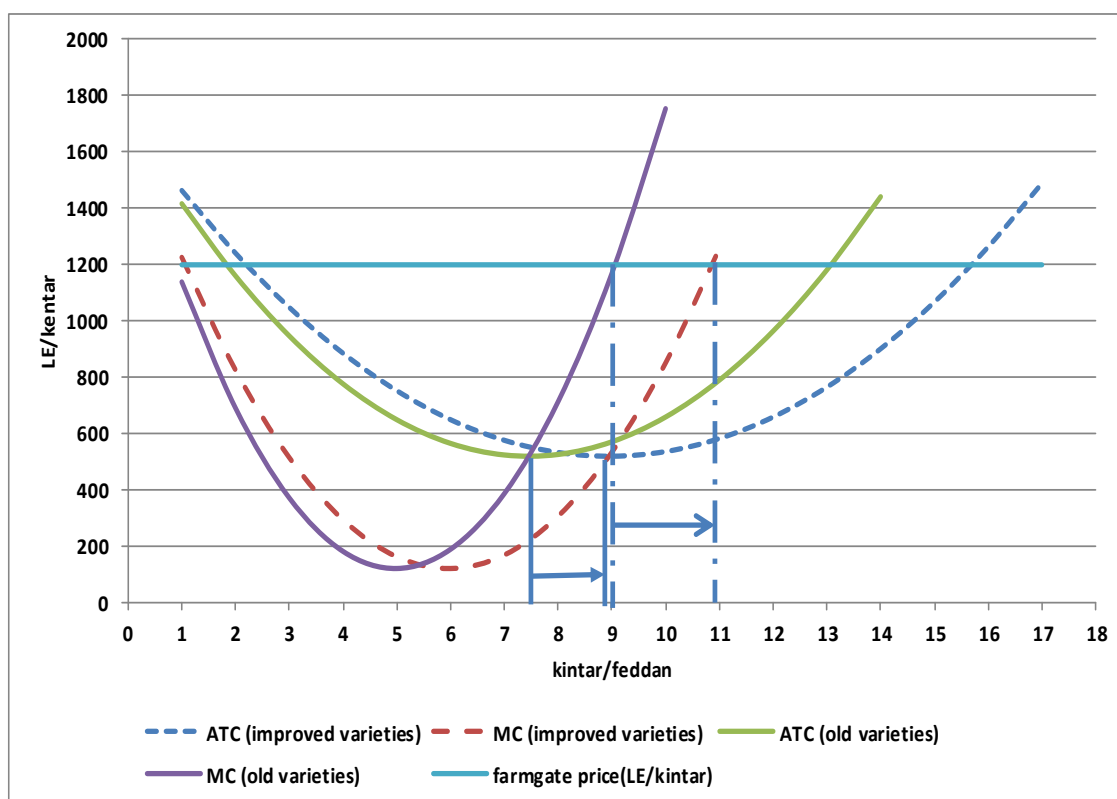


Figure (5): the impacts of improved varieties on the averages total and marginal costs of cotton crop in salt-affected land (Equations 7,8 and the Cotton field primary data, 2011)

## 6. CONCLUSION

The main results can be summarized as follows: (i) the relationship between the quantity produced of cotton and inputs used of seed, manure, phosphorus fertilizers and irrigation water are positive, less than one and statistically significant. In addition the returns to scale for cotton production are increased. (ii) The cotton isoquant curve for the improved varieties is higher than the cotton isoquant curve for the old varieties. Consequently the farmers can produce more output of cotton under the same quantity used of irrigation water and manure. (iii) the cotton farmers will minimize their total costs by producing 7.5 kintar per feddan where the slopes of total cost curve and marginal cost curve are equal. The total production cost of cotton at the minimum level of costs is estimated at 518 LE/feddan. (iv) the cotton farmers will maximize their profit by producing 9 kintar/feddan. The total production cost of cotton at the maximum-profit level is estimated at 569 LE/feddan.

## LITERATURE

1. Cobb-Douglas production function – [wikipedia.org/wiki/Cobb-Douglas\\_production\\_function](http://wikipedia.org/wiki/Cobb-Douglas_production_function)

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## LEGAL MECHANISMS SYSTEM IMPROVING OF CURRENCY TURNOVER CONTROL IN RUSSIAN FEDERATION

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### ABSTRACT

*This study is devoted to improvement of current mechanisms of a currency turnover control and legal regulation of foreign economic activity from the standpoint of the legislation of the Russian Federation, and also taking into account both accession of the Russian Federation to the WTO and according to the provision on the Customs union in frames of Eurasian economic community. Investigation is based on previously published researches concerned. Technologies and possible mechanisms of interaction of subjects of the Russian Federation with foreign arbitrators with a view of attraction of direct investments and obtaining the income out of commercial activity are offered. In particular, the necessity of improvement of mechanisms of currency turnover control and monitoring of the foreign economic activity, interfering mass outflow of the capital abroad is indicated. Here is also proposed possible ways of corruption opportunities blockade in sphere of foreign economic activities.*

**Keywords:** *Currency turnover control, Foreign economic activity, Legal Regulation, Rotation of personnel and positions*

### 1. INTRODUCTION

In the current research it's shown the need of improvement of currency turnover control system at this temporary stage and at the same time of preparation of its reforming in the long term developments of a domestic financial system. Today it is obvious the necessity of available problems solution through improvement of mechanisms of implementation of currency turnover control by change standard legal base of currency regulation and currency turnover control. To this term there are several researches devoted in frames of different approaches including legal, structural, financial, economic and political ones (Bitsoeva, 2010a, 2010b; Kazanchev, 2009; Khamenov, 2011; Pakhomov, Balasanyan, 2011; Pakhomov et al., 2012, 2013a, 2013b, 2013c; Stepanova, 2012; Stroganova, 2010). Relevance in the long term improvement of system of currency control is caused by need of institutional reforming, change of forms and methods of implementation of currency turnover control, possible creation of other institutes of its implementation, or change of powers of existing institutes of the currency turnover control faced on efficiency of all system of currency turnover control. For the effective organization of currency turnover control the clear, sustainable system of currency turnover control, effective mechanisms of implementation, the accurate, consolidated and efficient legislation which reflects economic interests of the state is

necessary, following a course on diversification and economy liberalization, including conditions of accession of Russia to the WTO. The system of currency turnover control has to be focused on protection of interests of participants of foreign economic activity, interests of the state in the course of formation foreign trade and the balance of payments of the country and implementation of the state function of the currency regulator, with the general orientation on prevention of commission of offenses in the sphere of economy and creation of effective barriers on a way of capital flight from the country. Cross-border movement of the capital, that is its export and import – one of aspects of internationalization of the economic life which considerably amplified in the last third of the last century and has generated processes, called by globalization. In the course of the international exchange of the country carry out both export, and capital import. Therefore in cross-border movement of the capital it is possible to judge their original position, only correlating balance of export and import. At such approach it becomes clear how sufficient the volume of own financial resources (savings) for satisfaction of requirements of accumulation. In case of excess of assets over obligations the pure export (outflow) of the capital testifying to its "redundancy" in the country takes place, in the return case there is a pure import (inflow) of the capital to the country which testifies to its shortcoming. In the last decade in world practice special importance is gained by legitimacy of receiving money therefore money at the disposal of legal entities and the citizens, used in the international and internal payments, have to have proofs of a legal origin. In Russia a currency turnover control carries out function of protection of national economy from a surplus of foreign currency and therefore calculations between residents in foreign currency, except for the cases established by Bank of Russia aren't allowed. At the same time there are no restrictions in carrying out currency transactions by nonresidents in Russia. The policy of the Central Bank of Russian Federation (CB RF) in the field of currency turnover control is under construction on two fundamental principles: first, observance of interests of society and the state, ensuring economic safety of the country, secondly, the accounting of a real situation and tendencies in domestic economy and in the world markets of goods, services and the capitals. In frames of such approach of the CB RF concentrates efforts on the following main directions of the considered sphere of the relations. The first consists in application in full systems of the prevention of illegal currency transfer in foreign trade of goods based on customs – bank control technology. Today customs - bank control is capturing about 80% of the Russian commodity export and 90% of commodity import (except for barter, processing under customs control and some other customs regimes). The result of specified mechanisms application was expressed that not return of currency revenue from export came nearer to minimum for the last fifteen years level – about 3% from the volume of the export, covered by customs - bank control whereas in 1992-1993 a half revenue from export of goods didn't come back to the country. In 1996 in connection with acceptance by the Russian Federation of obligations under article VIII of Articles of the Agreement of the International Monetary Fund the CB RF lifted limits on the current operations, having provided possibility of nonresidents to convert the rubles received from carrying out the current operations, in foreign currency. As for negative impact of capital flight on economy, in the market liberalized economy cross-border movement of the capital is defined by efficiency of its application in the different countries. The countries, being characterized the greatest return on the capital; attract it from the countries, differing with smaller efficiency. It is known that in the nineties Russia differed rather low average return on the capital invested in production. At the same time the income from financial and trade operations until the end of the 90th last century was significantly higher, and in the middle of the considered period operations in the financial market were the main source of the income both banks and many enterprises of real sector of economy that had a pernicious effect on a

condition of the Russian industry – available funds were always more favorable to invest, for example, in the state papers, than in the productive capital. When the country possesses sufficient stocks of foreign currency and its trade balance is steady and isn't negative, it can allow invest the domestic capitals to other countries. However, if the trade balance is steadily negative, or (as in a case with Russia) there are considerable restrictions on uses of the currency income, in particular, high level of external debt, free streams of the capital will quickly destroy a basis of currency and monetary system of the country and will lead at least to devaluation of national currency. It was recognized already also by the international financial organizations, in particular, IMF. In Russia throughout the entire period of market transformations the state carried out work on improvement of the mechanism of currency turnover control. In process of emergence of necessary economic preconditions for liberalization of the currency legislation were taken steps on revision of the principles of currency regulation and the currency turnover control, directed on their reduction in compliance with the standard norms in world practice.

## **2. CURRENCY CONTROL IN THE RUSSIAN FEDERATION: STANDARD AND BASIC REGULATION, PRINCIPLES, DIRECTIONS, FORMS, APPROACHES AND METHODS**

Currency turnover control is one of types of the state control exercised in the financial and legal sphere. Without this control it is impossible to imagine stable functioning of a financial system, and also to ensure economic safety of the state. The attention was paid to this circumstance practically at all stages of formation and development of currency system in Russian Federation. Questions of currency turnover control became especially important in the nineties. Capital flight abroad, terrorism financing, legalization of the money received by an illegal way, caused emergence: Instructions of Bank of Russia, and the State Customs Committee of Russia from October 12, 1993 №19/01-20/10283 "About a procedure of currency turnover control of income in the Russian Federation of currency revenue from export of goods", Resolutions of the Government of the Russian Federation from March 6, 1993 №205 "About strengthening of currency turnover and export control", the Decree of the President of the Russian Federation from November 21, 1995. №1163 "About prime measures for strengthening of system of currency turnover control in the Russian Federation", etc. The resolution of the Government of the Russian Federation from November 15, 1993 №1157 approved the Provision concerned Federal service of Russian Federation on currency turnover and export control which existed up to – 2000. According to the Resolution of the Government of the Russian Federation from December 21, 2000 No. 990 functions of this Service were transferred to the Federal Ministry of economic development and trade. Adoption of the above-named acts, and also transformation of appropriate authorities of executive power didn't help creation of the effective mechanism of currency turnover control in the nineties. For its improvement a number of Federal laws were accepted: "About export control", "About counteraction of legalization (laundering) of income gained by a criminal way, and terrorism financing", new editions of Federal laws: "About the Central bank of Russian Federation", "Currency regulation and currency turnover control", "About the foreign trade activity", "The Customs Code of the Russian Federation", etc. Instructions of the above-mentioned acts are urged to strengthen the mechanism of currency turnover control, to create obstacles in a way of capital flight abroad, to stop channels of financing of terrorism, and also legalization of income gained by an illegal way. Currency turnover control is a component of the mechanism of regulation of the public relations connected with implementation of currency transactions. Currency turnover control is understood as a complex of the administrative and organizational measures which are carried out by representatives on the



basis of the law by government bodies or other special organizations (agents of currency turnover control) and directed on realization of an order of commission of currency transactions and transactions regarding currency restrictions; and also measures for identification, prevention and suppression of violations of this order. For today there is no legal definition of currency turnover control. It will be reasonable legally formalize it. The public relations developing in form of implementation of currency turnover control, are regulated by Federal laws: "On currency regulation, and currency turnover control", "About the Central bank of the Russian Federation (Bank of Russia)", "The Customs code of the Russian Federation", etc. Requirements of currency turnover control are established concerning the Russian and foreign physical and legal entities in connection with their currency possession and using, implementation of currency transactions, use of bank accounts and represent a number of the restrictions which list is defined by the currency legislation of the Russian Federation and is established by the Government of the Russian Federation and Bank of Russia. The main normative legal act of the currency legislation regulating currency legal relations, the rights and duties of the Russian and foreign physical and legal bodies, powers of bodies of currency regulation, and also the procedure, subject structure of currency turnover control is the Federal law from 10.12.2003 № 173 "On Currency Regulation and Currency Turnover Control". The currency legislation covers laws, and acts of bodies of currency regulation (CB RF and the Government of the Russian Federation), the normative legal acts of federal executive authorities adopted in frames of their competence. Acts of the currency legislation are subject to official publication, unpublished acts aren't applied. Bodies of currency turnover control can issue acts of currency turnover control on items carried in accordance of their competence, strictly in cases of currency legislation. Such acts shouldn't contain points concerning currency operations. All ineradicable doubts, contradictions and ambiguities of acts of the currency legislation and acts of bodies of currency control are interpreted in favor of residents and nonresidents (pct 3 - 6 of the Art. 4 of Federal Law №. 173). In the most general view currency control can be characterized as state activity represented by bodies and agents of the currency turnover control, directed on ensuring observance of the currency legislation at implementation of certain currency transactions. More developed definition of currency turnover control can be formulated as a special kind of activity of the state structures authorized and obliged to carry out in the territory of the Russian Federation control functions at implementation of the operations connected with transition of the property right and other rights on currency, movement of currency through customs border of the Russian Federation and also operations of nonresidents in currency of the Russian Federation.

### **3. POTENTIAL MECHANISMS OF CURRENCY TURNOVER CONTROL SYSTEM'S IMPROVEMENT**

The analysis of the current legislation shows a predominating role of the Government of the Russian Federation in system of currency turnover control, not as controller, but like an administrator. The government of the Russian Federation doesn't implement direct currency turnover control, but simply defines the direction vector of currency turnover control. Structures subordinated to the Government of the Russian Federation in system of currency turnover control include the following: the Ministry of Finance of the Russian Federation (MF RF), the Federal Customs Service (FCS), and the Federal Tax Service (FTS). Their role and power in the system of currency turnover control reasonable expedient to be reconsidered. It is necessary to give accurate definition of functions, powers and regulations of activity of above-named subordinated structures. Position of the Central Bank of the Russian Federation as body of currency turnover control is ambiguous. CB RF, in particular, is organizing and

carrying out currency turnover control according to item 12 of Art. 4 of the Federal Law from 10.07.2002 №86 "About the CB RF". At the same time, according to existing Federal Law "On currency regulation and currency turnover control", the CB RF implements control over certain subjects of currency turnover control and interacts with other bodies that it is difficult to call "organization" of currency turnover control. In this case the CB RF has to carry out and coordinate activity of FTS, FCS, Federal Service for Financial and Budgetary Supervision (Rosfinnadzor) that isn't provided by the current legislation. The observed dissonance could be resolved by means of redistribution of functions, as follows: to fix function of currency movement control for the CB RF, and turnover of goods, transport means and services for FCS, estimation of income and taxation for FTS. Out of results of research becomes obvious that the CB RF is actually unnecessary segment in system of bodies of currency turnover control. If required, its functions in currency turnover control can be transferred to other institutes without violation of structure, directions and forms of currency turnover control. So, it is possible to refuse the mechanism of customs bank control simultaneously investing the power of currency turnover control over circulating goods services and transport means through customs border of the Russian Federation. For effective implementation of function of currency turnover control will be reasonable to associate FCS and FTS with ensuring rotation of both personnel and occupied position for an exception of corruption component in their activity. Example of this approach effectiveness may be the method of rotation broadly used in Japanese companies. At research of a legal status of Rosfinnadzor numerous contradictions in regulations of its activity are revealed. Among them: problems in application of instructions, as main instrument of execution by Rosfinnadzor of function of currency turnover control body; low efficiency of reaction, by means of instructions and representations which are submitted for violation of the currency legislation by results of hearing of cases about administrative offenses in this connection, between commission of an offense and issue of the instruction can pass years; and others. As increase of overall performance of Rosfinnadzor, it is advisable, for elimination of the specified problems, to clean control functions, having left supervising in system of currency turnover control, by means of modification of Administrative regulations of Rosfinnadzor. Creation of the mechanism of distribution of functions between subjects of currency turnover control is advisable, namely: (1) function of control of circulation of currency means needs to be assigned to the Central Bank of the Russian Federation legislatively; (2) function of control of turnover of goods, vehicles and services through border of the Russian Federation needs to be referred to competence of the Federal Customs Service; (3) estimates of the income and the taxation at implementation of currency turnover control need to be carried to Federal Tax Service functions. Considering the importance of FCS and FTS, volume of currency turnover control implemented by them, a role in all system of currency turnover control, it is necessary to associate the Federal Customs Service and Federal Tax Service for increase of efficiency of implementation of functions of currency turnover control by them. Taking into account the above mentioned and for the purpose of increase of overall performance it is necessary to clean up control function of Rosfinnadzor, having kept realization of its supervising function.

#### **4. STANDARD AND LEGAL IMPROVEMENT OF CURRENCY TURNOVER CONTROL SYSTEM AND ITS MECHANISMS**

The most vital and conceptual point of improvement of currency turnover control system in the Russian Federation is change the mechanism of implementation of currency turnover control by bodies and agents. By upgrade of the status of agents of currency turnover control such as: FTS and FCS from level of agents to level of bodies of currency turnover control, and also creation of the mechanism of the associated bodies of FCS, FTS, CB RF, interacting

in a uniform chain, for ensuring expeditious interaction at direct implementation of currency turnover control in the Russian Federation. The government of the Russian Federation plays an essential role not only in regulation of currency legal relations; control function is inherent to it. The government possesses the right of differentiation of functions between bodies of currency turnover control and ensuring their interaction among themselves, and also the right of delegation of the powers to the body of currency turnover control. At the same time, the Federal Constitutional Law "About the Government of the Russian Federation" doesn't carry out differentiation between regulating and control function of the Government of the Russian Federation in the sphere of currency legal relationship.

Among ways of strengthening of efficiency of customs currency control of export-import and barter operations it seems to be very important to legislatively upgrade the status of the Federal Customs Service of Russia. Happened in 2004 legislative fall of the status of customs authorities in the sphere of currency control from level of body of currency turnover control to the agent of currency turnover control doesn't promote improvement of quality and productivity of its activity on a number of positions. Preservation for FCS of the status of currency turnover control body would grant it the right to issue the acts of currency turnover control according to its competence including ones combined with other concerned bodies of currency turnover control.

Subordination of FCS during the period from 2004 to 2006 to the Ministry of economic development and trade of the Russian Federation shouldn't have minimized a role of FCS in the sphere of currency transactions control of residents and nonresidents, connected with circulation of goods and vehicles through customs border of the Russian Federation, having left behind it functions of special structure on control and supervision in the field of customs affairs, on fight against contraband and counterfeit production. FCS can't effectively carry out currency turnover control functions without closely interacting with bank structures, including the Central Bank of Russia.

This interaction is necessary for FCS as for adoption of normative documents (the status of the agent of currency control doesn't grant it such right), and for expeditious interaction of customs authorities and authorized banks on implementation of currency control of actions of participants of foreign trade activities when moving goods and vehicles circulating through customs border of the Russian Federation as well as timely and in a full amount repatriate of financial funds back to the country.

Along with a problem of upgrading the status of FCS to the level of body of currency turnover control it is important to create rational for modern conditions the mechanism of customs authorities interaction and bank structures in frames of implementation of currency turnover control of the foreign trade operations. Currency turnover control in our country is generally automated, but each department which is carrying it out, uses the information systems not connected with each other. Instead of accurate exchange of information on a telecommunication network customs authorities and authorized banks interaction is realized today most often by means of inquiry letters that doesn't allow them quickly implement currency control and completely solve the problems concerned. Inquiries now became to change to a systematic exchange of electronic information between these subjects of currency turnover control on separate, doubtful currency transactions. Lack of a certain system of interaction and exchange of information between authorized banks and customs authorities is essential omission of policy of currency regulation realized today and demands the fastest legal completion.

In many respects large volumes of illegal outflow of the capital from the country in recent years can be explained with separate actions of subjects of the currency turnover control, created by existing currency legislation, for participants of foreign trade activities by currency

transactions. Originally in the adopted Federal Law from 10.12.2003 № 173 only authorized banks were defined as agents of currency turnover control. Then during 2004 - 2005 tax and customs authorities were in addition included in this law as agents of currency turnover control. As agents of currency turnover control, authorized commercial banks and customs authorities are obliged to interact closely not only among themselves, but also with bodies and agents of currency turnover control representing other state departments. It is possible to take the scheme of customs bank control for a basis of new system of interaction of customs and bank structures. It is advisable to include in the new scheme of CBCC and tax authorities, having called it system of passive monitoring: customs bank tax currency turnover control (CBTCTC) considering that circumstance that now in the Federal Law № 173 authorized banks, customs and tax authorities are defined as agents of currency turnover control. Thus, the full chain of currency turnover control will be closed. Authorized banks will be able to supervise timeliness and completeness the receipt in the Russian Federation currency transactions funds carried out by residents and nonresidents. Customs authorities implement currency turnover control over actions of participants of foreign trade activities at circulation of goods and vehicles through customs border of the Russian Federation as well as Russian currency, internal securities and currency funds. Tax authorities provide currency turnover control over the foreign trade transactions which subjects don't contain a material form, completeness of receipt in the Russian Federation proceeds from export of works, services, intellectual property; state registration of physical and legal bodies and their record; control over opening residents accounts abroad and circulation of funds on them. Introduction of new system of customs bank tax currency turnover control will allow agents of to carry out comparison of contract cost of export or import of goods, contract amounts, dates of payments and deliveries, and also to estimate real volumes of non repatriated currency. Introduction of the automated system of an operational exchange and information processing on currency transactions carried out by residents and nonresidents will allow replacing the current mechanism of agents' interaction of by means of inquiry letters on separate doubtful operations with the mechanism of the continuous automated control, to increase its efficiency and efficiency. Proceeding from said above, it is necessary to reform existing system of currency turnover control taking into account the current problems and the near-term outlook. Here the offered scheme of CBTCTC is supposed to be actually important. Considering requirements of the World Trade Organization for liberalization of the foreign trade and currency legislation, this scheme is conditionally possible to call the customs bank tax currency monitoring (CBTCM), emphasizing not mainly on punitive, but on preventive measures of administrative influence (preventions, penalties, deprivation of licenses, etc.) according to prevention of rules of international trade and implementation of currency transactions violations by participants of foreign trade activities. Developing interaction of customs authorities with authorized banks in the solution of this problem the essential help here could render strengthening of cooperation of customs authorities with other supervising structures on the organization of currency control over implementation of the foreign trade operations. Developing interaction of customs authorities with authorized banks in the solution of this problem the essential help here could render strengthening of cooperation of customs authorities with other supervising structures on the organization of currency turnover control over implementation of the foreign trade operations. It looks necessary to activate interdepartmental interaction and "common information space" creation considering that in the current legislation there are gaps and contradictions on the control organization over implementation of export-import transactions and the foreign trade barter transactions as well as specifics of their implementation and complexity of control organization. It is a question of active use by customs authorities of information bases of FTS, Rosfinnadzor, the Ministry of

Economic Development of the Russian Federation, the Ministry of Internal Affairs of Russia, the Central Bank of Russia and other structures in identification and suppression of the tax offenses connected with realization of foreign trade operations. Creation in the country of a uniform information database which would reflect commission of offenses and crimes in the sphere of the currency and tax legislation which law-enforcement and economic departments could use within their competence is obviously important. For this purpose expedient to create uniform information and analysis center for Federal Security Service of Russia, the Ministry of Internal Affairs of Russia, the Prosecutor General's Office of the Russian Federation, the Central Bank of Russia, FTS of Russia, FCS of Russia, Rosfinnadzor, Rosfinmonitoring and other concerned departments. Duplication in their work can be avoided as in the relevant laws and provisions crimes and the offenses carried to competence of each of these structures are defined. Improvement of information exchange with other competent authorities can be provided by development of combined standards and techniques defining a uniform order and requirements to implementation procedures of information and expeditious interaction with them. Because economic crimes know no limit, for successful work customs authorities need adjustment of the strongest contacts with financial, customs and law-enforcement structures in foreign countries. Joining to the WTO demand from the Russian Federation creation of a legal framework for civilized market interstate cooperation and attraction of the foreign enterprise capital. Russia, in connection with accession to WTO, assumed obligations, in particular, to provide necessary level of transparency of the legislation and practice of regulation of foreign economic activity. Work of effective and transparent information and analytical base will promote strengthening of interstate economic interactions, increase in trade balances of the countries - participants of the WTO, income to Russia of direct investments, and to preclude capital flight from the country (Pakhomov, Balasanyan, 2011). In the foreign organizations high standards of disclosure of information are accepted, the national organizations will seek to correspond to them that will promote also increase of transparency of activity in the market of financial services and thus will facilitate regulation implementation, will reduce effect of an administrative resource and excessive bureaucracy (Pakhomov et al., 2012, 2013a, b, c). From the expert's standpoints (Stepanova, 2012), having added liberalization of financial sector by effective reform of system of state regulation in this sphere, the country receives double benefit: increase in volume of trade in the conditions of stability increase in financial sector and in economy as a whole. The reforms directed on optimization of system of state regulation of economy are considered as one of the reasons of economic growth and development. Moreover, there are proofs of existence of positive dependence between openness of economy and economic stability, opening of sector of the financial services, accompanied by its effective regulation promoted strengthening of economy and stimulated economic growth in such countries as Indonesia and Singapore. Great value has that fact that GATS doesn't prohibit applying the prudential measures directed on maintenance of stability and integrity of a financial system. Moreover, at emergence of threat of problems with the balance of payments, the country has according to article XII full authority regardless of the accepted obligations to enter temporary restrictions on trade in services, including on implementation of the current operations. Besides, the mentioned measures of improvement of system of currency turnover control will help Russia, after accession to WTO, to reduce probability of possible complications on the way of integration Russia with the countries of EurAsEC, the CIS and, first of all, the Customs union within the Eurasian economic community as the standard and legal base of the Customs union will be coordinated with WTO membership requirements, and these measures will promote maintenance of level of transparency of the legislation.

## 5. CONCLUSION

As a result of current legislation research in the sphere of currency regulation and currency turnover control it is possible to state inconsistency in work of subjects of currency turnover control, duplication of functions, lack of efficiency at control over the currency transactions, constantly changing regulatory base. All these factors characterize an inefficiency of operation of the existing mechanism of currency turnover control. The essence of offered changes in currency turnover control mechanisms and the currency legislation is reduced to the following:

- to creation of the mechanism of the customs bank - tax currency turnover control for a direct information exchange between subjects for implementation of the most careful and effective control for participants of foreign trade activities,
- need of increase of the status of FCS of Russia to level of body of currency turnover control for the purpose of conditions creation for operational work of Service taking into account volume of functions implemented by FTS as the agent of currency turnover control,
- modification of legal status of Federal service of financial and budgetary supervision having left in its competence only supervising functions over observance of the currency legislation.

Considering requirements of the WTO for liberalization of the foreign trade and currency legislation, in a type of accession of Russia to it the offered mechanism of customs bank-tax currency turnover control it is possible to call conditionally the customs and bank and tax currency monitoring (CBTCM) which will promote increase of transparency of foreign economic activity. Having placed the main emphasis on preventive measures, instead of criminal prosecution of participants of foreign trade activities for already executed violations of the rules of international trade and currency transactions and having passed to effective measures of administrative influence (preventions, penalties, license deprivations), it will be possible to carry out further monitoring of currency transactions with bigger efficiency and to warn the facts of possible violation of the currency legislation.

In the course of improvement of system of currency turnover control in the Russian Federation there is a need of creation of a uniform information database which, within the competence, law-enforcement structures and financial departments could use. For this purpose it is necessary to establish in the country the uniform information and analysis center available to power structures, the Prosecutor General's Office, the Central Bank of the Russian Federation, FNS, FTS, Rosfinnadzor and other concerned state departments, including foreign organizations (such as FATF). For effective implementation of currency turnover control functions will be reasonable to associate FCS and FTS with ensuring rotation of both personnel and occupied position for an exception of corruption component in their activity. Thus, it is obviously possible transfer of the Russian system of currency turnover control to new qualitative and open level taking into account the entry of our country into the WTO, and also protection of its economic interests by means of the instrument of currency turnover control.

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## ON–LINE BOOKING USE FOR TRAVEL AND HOLIDAY ACCOMMODATION AND DEVELOPMENT INDICATORS: CLUSTERING OF EUROPEAN COUNTRIES

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### ABSTRACT

*The aim of this paper was to examine the relationships between on–line booking for travel and holiday accommodation, as the dependent variable, and selected economic, social and Information and Communication Technologies (ICT) development indicators in the European Union (EU) and three South-East European countries (SEECs), the EU official candidates. In the analysis data from the official sources for all development indicators were used. The percentage of individuals who booked travel and holiday accommodation over the Internet in the last 12 months in selected European countries is positively correlated with each of the four regressors: the Gross Domestic Product (GDP) per capita; the public expenditure on education as percentage of GDP; the Internet penetration rate; and the Individuals' level of Internet skills. After the exploratory data analysis, outliers are found and over- and under average countries data were recognised. The linear regression model that describe the impact of a statistically significant regressor named Internet penetration rate on the percentage of individuals who booked travel and holiday accommodation over the Internet was developed as the only one not violating the model assumptions. The hierarchical cluster analysis gave the separate cluster for the same five SEECs: Bulgaria, Romania, Turkey, the Former Yugoslav Republic (FYR) of Macedonia and Serbia. Croatia, even though having an under-average percentage of on-line booking users, did not join the SEE countries' cluster, but the cluster of the EU countries' that are "developing" concerning the variables under study.*

**Keywords:** Hierarchical cluster analysis; Internet penetration rate; Linear regression model; On-line booking; South-East European countries (SEECs)

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### 1. INTRODUCTION

For many economies travel and tourism became a major source of employment, Gross Domestic Product (GDP), exports and taxes. In the same time, the larger the market, the more challenging are the competition possibilities of economy actors. Modern ways of on-line booking influence the economic results in the tourism sector, but there is an assumption that vice versa is also true. Globalisation realised through the Internet advertising, offering and



purchases services erased the borders of the national economies. So, the authors found that the topic of studying relationships between introducing and using of new Information and Communication Technologies (ICT) in tourism sector services, which make local markets being without borders, respecting the development level of a country and investments in the ICT literacy of individuals, might imply the extent of tourism services purchases. The aim of this paper is to study the relationships between the dependent variable named Percentage of individuals who booked travel and holiday accommodation over the Internet in the last 12 months and selected regressors: economic, social and ICT development indicators for European countries, based on official data for 2013. The first research hypothesis states that the Percentage of individuals who use Internet booking is positively related with the following independent variables: the GDP per capita in PPS, the Public expenditure on education as percentage of GDP, the Internet penetration rate given as the Percentage of individuals using the Internet, and the Individuals' level of Internet skills. To test this hypothesis the correlation and simple linear regression analysis are conducted. The second research hypothesis states that homogeneous clusters of countries might be recognised, and that is examined by hierarchical cluster analysis.

## **2. THE LITERATURE REVIEW**

Mills and Law (2004) point out that Internet dramatically changed tourists' behaviour. According to Morrison et al. (2001) Internet users can look for information important for the trip, they can book tickets and rooms online, and they can make other reservations rather than rely on an agency that would charge for such services. Buhalis and Licata (2002) argue that „the development of Internet has undoubtedly marked the interactive meaning of communication, parallel changes in buyers' behaviour, and dramatic detachment from traditional understanding of product distribution system”. On the other hand, according to Xinran and Dae-Young (2006) “tourists today have more possibilities in planning their trips, which is confirmed by the fact that about 95% of internet users ask for information on the trip, and 95% visit websites related to a particular destination and its offer”. Buhalis and Law (2008) state that the power of ICT is obvious in the dynamic relationship between buyers and organization, as corroborated by the fact that in tourism consumers increasingly “determine the elements of their products, and in doing so, consumers are more sophisticated and experienced, and ICT provides a basis, i.e. the “info-structure” that spurs transactions in tourism.” Furthermore, their opinion is that “the development of new technologies is a prerequisite to competitiveness of all subjects of offer according to the possibilities they offer for improved business efficiency with the application of strategies dominated by re-engineering of forms of communication. Social networks, forums, and discussion groups represent a new platform for getting more information on services offered by service providers, which is useful both for tourists and companies. Bonn et al. (1998) investigated the effects of socio-demographic characteristics on consumers' travel behaviour and showed that there is no difference in the propensity of males and females to use the Internet to gather travel-related information. Considering the results of the studies given by Bonn et al. (1998) tourists who find destinations online spend more money at the destination than those who use other means. This occurs because Internet allows interaction between tourists and service providers in destination and gives them the possibility to adapt the services they bought to their own needs. Also, through Internet tourists can plan their spending prior to arrival. Owing to the fast transfer of information, the period required for communication and agreement between subjects and tourists has greatly been reduced. The ways of informing and the importance of information depend on characteristics of market segments such as age, income, gender, education, and personal demands of tourists, predetermine the motivation for

individual sources (Hsu et al., 2009). However, Internet users are more likely to be college-educated owners of computers, be under the age of 40, choose commercial lodging establishments, and spend more money each day while travelling than non-users. Factors, such as age, education, income, previous purchase experience or years/hours of Internet use have a positive association with their intention to purchase vacations online (Hanson, 2000). Škuflić and Štoković (2011) developed a demand function for Croatian tourist product using panel data analysis approach. According to these authors, nowadays the market is precisely the mutual relationship of buyers and sellers to trade, and the Internet era it should not be considered as an area within narrow boundaries. Market demand is the sum of the demands of all the individuals in the country's economy. The tourism demand function used by Škuflić and Štoković (2011) introduced the variable „Internet“, which indicates the percentage of on-line reservations and booking. This variable is an indicator of change in consumer behaviour and shows that the average tourist habits change. Since the market demand depends on the number of people in the market, as Škuflić and Štoković (2011) said, it is important to increase their Internet skills and literacy to increase their use of Internet for Internet purchases in all the markets, and so in the tourism sector.

### **3. INTERNET BOOKING USE BY EUROPEANS**

The Flash Eurobarometer survey “Attitudes of Europeans towards Tourism” (2013) was conducted based in interviews with respondents older than 15 (15+). The mentioned survey provides a detailed insight of Europeans' tourism preferences in the last 12 months prior to the survey, including also booking methods in 2012. Based on this survey, for planning a holiday in 2012 as the most often used sources of information 46% of respondents mentioned Internet websites, which show an increase of 6% compared to the same type of survey conducted in 2011. But, respondents are most likely to have used the Internet to arrange their holidays in 2012 with majority of 53%. In this survey EU15 (15 countries forming the EU before the enlargements of 2004 and 2007) and NMS12 (12 “new Member States”, which joined the EU during the 2004 and 2007 enlargements) are distinguished. According to the Flash Eurobarometer survey “Attitudes of Europeans towards Tourism” (2013), in 2012 the Internet websites are more frequently mentioned as source of information for planning the holidays by respondents in EU15 countries, compared to those in NMS12 (48% vs. 38%). The Internet was the most often used method to arrange holidays in 2012 in all but four countries, and is most mentioned by respondents in Norway (80%), the Netherlands (75%) and Ireland (73%). The exceptions are the FYR of Macedonia (15%), Serbia (17%), Croatia (21%) and Turkey (22%). According to the same survey, in 2012 the socio-demographic analysis of respondents considering sources of information they use for planning their travel for holidays shows that 48% of males and 44% of females use Internet as source for information when making decisions about travel plans. No other notable difference between men and women is noticed. Respondents aged 55+ are much less likely than younger respondents to mention Internet websites for planning their travel as important (29% vs. 53%-58% for other age groups). The longer a respondent remained in education, the more likely he/she is to mention Internet websites as sources of information: 23% of those who completed education before age 16 mention them, compared to 54% of those who completed education aged 20+ and 56% of those still studying. Respondents who are not working are also the least likely to mention Internet websites (34%) and recommendations from friends or relatives (50%). Employees are the most likely to mention these two information sources (Internet: 60% vs. friends, relatives, etc.: 63%). The same survey shows that respondents older than 55 are the least likely to have used the Internet to arrange their 2012 holiday (39%), particularly when compared to those aged 25-39 (63%). The more educated the respondents, the more likely they are to have

booked on-line. Respondents with lower education are the most likely to have booked over the counter at a travel agency (24%). Almost 60% who finished their education aged 20+ used the Internet to arrange their 2012 holiday, compared to 32% of those who were less educated finishing their school prior to the age of 16. The Internet-booking is also more likely to have been used by respondents living in large cities (58%), those employed (65%) or the self-employed (61%). The results of the research within age populations, indicated above, presumes lower levels of education and technological awareness and respondents competency in using new technologies. This indicates the importance of respondents' contacts that could be established through intermediary communication channels.

#### 4. DATA DEFINITINOS AND EXPLORATION

Eurostat, Datamarket, World Bank and International Telecommunication Union are used as data sources. According to the aim of the research, the dependent variable under study, as defined in Eurostat methodology, is named as Percentage of individuals who booked travel and holiday accommodation over the Internet in the last 12 months (shortly: on-line booking or Internet booking, here denoted as  $Y_{\text{IntBook}}$ ) for 2013. It should be mentioned that there are no data available for  $Y_{\text{IntBook}}$  for 2013 for Serbia and the FYR of Macedonia, so the last available data were taken as estimates: for the FYR of Macedonia the estimate for 2013 is taken from 2012 and for Serbia from 2009. The independent variables, carefully selected relevant economic, social and ICT development level indicators according to the literature review, are: Gross Domestic Product per capita in Purchasing Power Standards (GDP per capita in PPS), Index, EU28=100, 2013 ( $X_{\text{GDPpc}}$ ); Public expenditure on education as percentage of GDP, data from 2010 are taken by the authors as the estimates for 2013 with the exceptions for Denmark (estimate based on 2009), the FYR of Macedonia (estimate based on 2002), Greece (estimate based on 2005), Luxembourg (estimate based on 2001), Romania (estimate based on 2009, and Turkey (estimate based on 2006) ( $X_{\text{ExpEduc}}$ ); Internet penetration rate (Internet use) given as Percentage of individuals using the Internet for 2013 ( $X_{\text{IntUse}}$ ); and Individuals' level of Internet skills, percentage of the total number of individuals aged 16 to 74 who have carried out 1 or 2 of the 6 Internet related activities for 2013, with the exceptions for the FYR of Macedonia (estimate based on 2010), and Serbia (estimate based on 2007) ( $X_{\text{IntSkill}}$ ). The analysis starts with data for 31 countries, those from the EU, and three EU candidates, the FYR of Macedonia, Serbia, and Turkey, all 3 belonging to the SEE and being the part of Western Balkans. This area was determined by data availability for variables under study. Data for 6 EU member states that fall into the SEE region (Bulgaria, Croatia, Cyprus, Greece, Romania and Slovenia) are focused. Unfortunately, data for the rest of the SEE countries (two EU candidates, Albania and Montenegro and two potential EU candidates, Kosovo and Bosnia and Herzegovina) are not available, so they are omitted from the analysis. According to Europedia (2014), the following 6 countries: Albania, Bosnia and Herzegovina, the FYR of Macedonia, Kosovo, Montenegro and Serbia comprise the group of Western Balkan countries, but sometimes Croatia and Turkey are added to this group. For the purpose of recognising the dynamics of the main variable under study  $Y_{\text{IntBook}}$ , data for the EU28 countries, those with the highest and with the lowest values, in the period from 2007 to 2013 are shown in Figure 1. In 2013 the highest percentage of individuals who applied Internet booking in the last 12 months is noticed in Denmark (56%) and Sweden (54%). The lowest percentages are found in Croatia (6%), Bulgaria (4%) and Romania (2%). For exploration of possible outliers, the standardized data for all five analysed variables in 2013 for 31 countries are displayed in the multiple Box-Plot, Figure 2, showing a serious outlier for  $X_{\text{GDPpc}}$  for Luxembourg with the standardized value  $z=4.05$ . Deleting the Luxembourg's value, the number of data is reduced from 31 to 30. A milder outlier for the variable  $X_{\text{IntSkill}}$  is

discovered for Germany ( $z=2.9$ ), but this data is upon authors' decision kept for further analysis. The main descriptive analysis results for the remaining 30 countries in 2013 only are given in Table 1. Applying the Shapiro-Wilk normality test the variables  $X_{GDPpc}$  (p-value = 0.104),  $X_{ExpEduc}$  (p-value = 0.850),  $X_{IntUse}$  (p-value = 0.596), and  $X_{IntSkill}$  (p-value = 0.205) may be considered to be normally distributed at the significance level  $\alpha = 0.05$ . The same might be concluded for the variable  $Y_{IntBook}$  (p-value = 0.011) but at the significance level  $\alpha = 0.01$ . The average Percentage of Internet booking users,  $Y_{IntBook}$ , is 18.97% with the coefficient of variation of 87.88%, with the range of 55%, showing great variability of data over analysed countries. In 2013 all analysed SEECs are gathered with countries having below the average (18.97%) percentage of individuals who booked travel and holiday accommodation on-line in the last year: the FYR of Macedonia (1%), Serbia (1%), Romania and Turkey (2%), Bulgaria (4%), Croatia, Lithuania and Poland (6%), Greece (8%), Czech Republic, Italy and Latvia (9%). For the variable  $Y_{IntBook}$ , it might be said that the SEECs dominate with their values at the bottom, having values 1% for the FYR of Macedonia and Serbia, 2% for Romania and Turkey, 4% for Bulgaria, up to 6% for Croatia. The value for  $Y_{IntBook}$  for Greece is 8%, Cyprus 14% and for Slovenia 16%, which is close to the average for 30 analysed countries (18.97%). Just to mention, Slovenia, the ex-Yugoslav country that belong to the SEE region, is mostly never mentioned as a Western Balkan country.

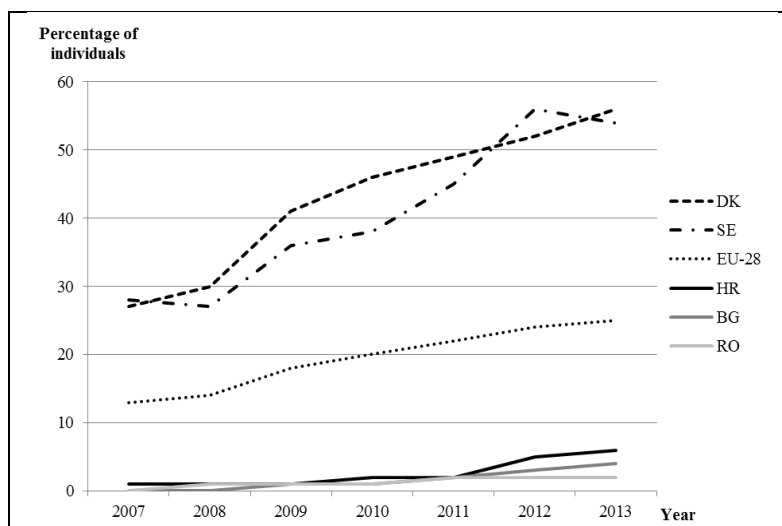


Figure 2: The highest and the lowest values of Percentages of individuals who used on-line booking in the last 12 months ( $Y_{IntBook}$ ) in the EU countries, 2007-2013, (Eurostat and Datamarket, Authors' creation)

The average GDP per capita in PPS, index EU28=100,  $X_{GDPpc}$ , for 30 analysed countries in 2013 equals 86.5, with the coefficient of variation of 33.03% and the range of 94. It was shows that 11 analysed countries are above the EU28 average. Convincingly the highest data for  $X_{GDPpc}$  in 2013 had Luxembourg (264), but it was excluded from the analysis as an extremely high outlier.

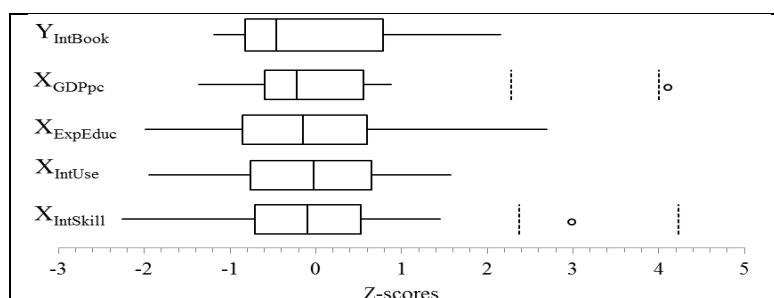


Figure 2: The Box-Plot of standardized values for  $Y_{IntBook}$ ,  $X_{GDPpc}$ ,  $X_{ExpEduc}$ ,  $X_{IntUse}$  and  $X_{IntSkill}$ , in 2013 for  $n=31$  countries (Eurostat and Datamarket, Authors' creation)

\*Note: Data for the variable  $X_{ExpEduc}$  are taken as estimates for 2013 based on 2010

Table 1: Descriptive analysis for  $n=30$  data for  $Y_{IntBook}$ ,  $X_{GDPpc}$ ,  $X_{ExpEduc}$ ,  $X_{IntUse}$  and  $X_{IntSkill}$  from 2013, (Authors' calculation)

Variable	Min.	Max.	Range	Median	Mean	Std. Deviation	Coeff. of Var.	Skew.	Shapiro-Wilk Statistics	Shapiro-Wilk p-value
$Y_{IntBook}$	1.0	56.0	55.0	12.00	18.97	16.67	87.88	.943	0.8620	0.011
$X_{GDPpc}$	35.0	129.0	94.0	81.50	86.47	28.56	33.03	.022	0.9422	0.104
$X_{ExpEduc}$	2.9	8.7	5.6	5.30	5.41	1.26	23.29	.406	0.9809	0.850
$X_{IntUse}$	46.3	94.8	48.5	72.66	72.35	13.70	18.94	-.063	0.9720	0.596
$X_{IntSkill}$	12.0	46.0	34.0	26.00	26.43	6.62	25.05	.717	0.9531	0.2015

\*Note: Data for the variable  $X_{ExpEduc}$  are taken as estimates for 2013 based on 2010

The second highest GDP per capita in PPS in 2013 was in Austria (129), the Netherlands (127) and Sweden (127). On the other side, the lowest GDP per capita in PPS had the FYR of Macedonia (35) and Serbia (36), and they are followed by Bulgaria (47), Romania (54) and Turkey (55), all states being in the SEE region. Again, it might be seen that considering the variable  $X_{GDPpc}$ , the analysed SEE countries prevail with their values at the bottom, all below the average (86.5). Data for the variable  $X_{GDPpc}$  that are a little bit higher are given for Croatia (61), Greece (76), Slovenia (86) and the highest among the SEECs for Cyprus (86). Considering total public expenditures on education as percentage of GDP,  $X_{ExpEduc}$ , for 30 countries in 2013 with the average of 5.4%, the coefficient of variation of 23.29% and the range of 5.6%, it was noticed that Denmark (8.7%), Cyprus (7.3%) and Sweden (7.0%) invested in education around double the percentage of GDP than the SEE countries analysed here. The lowest values for the variable  $X_{ExpEduc}$  are found for Turkey (2.9%), the FYR of Macedonia (3.5%), Bulgaria (4.1%) and Greece (4.01%). Data for the variable  $X_{ExpEduc}$  for Romania is 4.2%, Croatia 4.3%, Serbia 4.9% and for Slovenia 5.7%. Even though the SEECs prevail on the bottom considering the variable  $X_{ExpEduc}$ , with the minimum 2.9% for Turkey, a good over-average example with 7.3% is given by Cyprus, which is the second best value in the analysed data set for 30 countries, and with 5.7% by Slovenia. Nevertheless, it seems to be encouraging that the analysed SEECs increased their total public expenditures on education from about 3% of GDP in 2001 to near 5% of GDP in 2010 on average. The average Internet penetration rate called Percentage of individuals using the Internet,  $X_{IntUse}$ , for 2013 for 30 countries in 2013 is 73%, with the coefficient of variation of 18.94% and the range of 48.5%. Attitudes according that population that prefer modern forms of communication have better living standard are confirmed by data related to countries with the highest Internet penetration rate ( $X_{IntUse}$ ) - Sweden and Denmark (95%). The results argue in favour of the education of population but also the awareness of the meaning of ICT which transfers knowledge and

transforms it into usefulness recognized in the high quality information necessary for decision making process where time, i.e. speed is crucial both in communication among business partners or in interactive communication among current or potential customers. Countries with the highest Internet penetration rate ( $X_{IntUse}$ ) are Sweden and Denmark (95%). For  $Y_{IntUse}$  on the bottom there are the SEE countries Turkey (46%), Romania (50%), Serbia (52%) and Bulgaria (53%), but a little higher values belong to Greece (60%), the FYR of Macedonia (61%), Cyprus is 61%, Croatia 67% and even 73% to Slovenia, which is the average for the variable  $X_{IntUse}$  and the maximum among the SEECs. The mean value for the variable Individuals' level of Internet skills, given as percentage of the total number of individuals aged 16 to 74 who have carried out 1 or 2 of the 6 Internet related activities,  $X_{IntSkill}$ , for 2013 is 26.43%, with the coefficient of variation 25.05% and the range 34%. The highest value belongs to Germany (46%) and to the Netherlands (36%), and the lowest values are found for Lithuania (12%) and Italy (19%). Among the SEE countries Serbia has the lowest value for  $X_{IntSkill}$ , 20%, followed by the FYR of Macedonia and Greece with 21%, and Bulgaria and Cyprus with 22%. Turkey has over-average data, 27%, and Croatia and Romania have the highest value among the SEECs, 29%. When comparing ex-Yugoslav countries, Slovenia is with the value for the variable  $X_{IntSkill}$  of 28% is a little bit below Croatia (29%), but still over-average (26.43%). Considering uncertainty avoidance, individualism, relationships between genders, differences in cultural dimensions of nations also should be taken into account.

## 5. CORRELATION AND SIMPLE LINER REGRESSION ANALYSIS

In Figure 3 the scatter diagrams show a positive linear correlation between the dependent variable  $Y_{IntBook}$  and each of the independent variables.

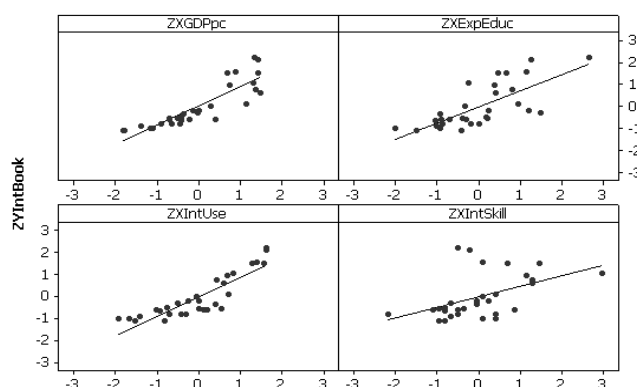


Figure 3: Scatter diagrams for standardised values of  $Y_{IntBook}$  and the independent variables:  $X_{GDPpc}$ ,  $X_{IntUse}$ ,  $X_{IntSkill}$  and  $X_{ExpEduc}$ , for  $n=30$  countries for 2013

Calculated Pearson correlation coefficients show that the strongest positive correlation exists between the variables  $Y_{IntBook}$  and  $X_{IntUse}$  ( $r_{YX_{IntUse}}=0.879$ ). Quite strong correlation ( $r_{YX_{GDPpc}}=0.871$ ) is found between the variables  $Y_{IntBook}$  and  $X_{GDPpc}$ , too. Between  $Y_{IntBook}$  and  $X_{ExpEduc}$  the positive correlation is moderately strong ( $r_{YX_{ExpEduc}}=0.735$ ). The weakest, also positive, correlation exists between  $Y_{IntBook}$  and  $X_{IntSkill}$  ( $r_{YX_{IntSkill}}=0.484$ ). It has been decided that the simple linear regression models will be developed only for those independent variables where Pearson correlation is higher than 0.80. So, two simple linear regression models are built: the first model, with  $X_{GDPpc}$ , and the second, with  $X_{IntUse}$  as the independent variable.

Since, Asteriou (2006), the regression diagnostics has discovered the problem of heteroskedasticity in the first model, and respecting all the criteria that were set, only the simple linear regression model for the regressor  $X_{IntUse}$  has been evaluated. The simple linear regression model with parameters estimated using the ordinary least squares method is:

$$\hat{Y}_{IntBook} = -58.4007 + 1.0694 \cdot X_{IntUse} \quad n = 30 \quad R^2 = 0.7721$$

$$(8.0792) \quad (0.1098) \quad \hat{\sigma} = 8.0974 \quad \hat{V} = 42.69\%$$

The regressor  $X_{IntUse}$  is statistically significant in the model at the significance level of 1% (p-value  $\approx 0.0000$ ). The linear regression model diagnostics results confirmed that in the regression model given above there is neither heteroskedasticity (White test statistics=1.888, p-value=0.389), autocorrelation (Breusch-Godfrey test statistics =1.809, p-value=0.405), nor non-normality of residuals (Jarque-Bera test statistics=1.782, p-value=0.410) problems. The coefficient of determination indicates that the Internet penetration rate explains 77.21% of the total variation. The regression coefficient of variation is  $\hat{V} = 42.69\%$ .

## 6. HIERARCHICAL CLUSTER ANALYSES

For 30 countries a hierarchical cluster analysis using the Ward's linkage and the squared Euclidian distances, Hair et al. (2010), based on the standardised values for five observed variables ( $Y_{IntBook}$ ,  $X_{GDPpc}$ ,  $X_{ExpEduc}$ ,  $X_{IntUse}$  and  $X_{IntSkill}$ ) is conducted, Table 2. It is noticeable that no matter what number of clusters is applied, here 3, 4 or 5, the five SEE countries (Bulgaria- BG, Romania- RO, as the EU member states, and the official EU candidates: the FYR of Macedonia- MK, Serbia- RS, and Turkey- TR) are always gathered in the same cluster.

*Table 2: Hierarchical cluster analysis solutions based on the variables:  $Y_{IntBook}$ ,  $X_{GDPpc}$ ,  $X_{IntUse}$  and  $X_{IntSkill}$  and  $X_{ExpEduc}$ , for  $n=30$  countries for 2013*

No. of clusters	Countries' classification by codes				
	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
3-clusters solution	No. of countries=5	No. of countries=15	No. of countries=10	-----	-----
	BG, MK, RO, RS, TR	HR, CY, CZ, EE, EL, HU, IT, LV, LT, MT, PL, PT, SK, SI, ES	AT, BE, DK, FI, FR, DE, IE, NL, SE, UK	-----	-----
4-clusters solution	No. of countries 5	No. of countries 15	No. of countries=6	No. of countries=4	-----
	BG, MK, RO, RS, TR	HR, CY, CZ, EE, EL, HU, IT, LV, LT, MT, PL, PT, SK, SI, ES	AT, BE, FR, DE, IE, NL	DK, FI, SE, UK	-----
5-clusters solution	No. of countries=5	No. of countries =8	No. of countries =7	No. of countries =6	No. of countries =4
	BG, MK, RO, RS, TR	HR, CZ, EE, HU, LV, SK, SI, ES	CY, EL, IT, LT, MT, PL, PT	AT, BE, FR, DE, IE, NL	DK, FI, SE, UK

The four-cluster solution is favourable based on "the rule of thumb", so the number of clusters equals  $k=(n/2)^{1/2}=(30/2)^{1/2}=3.87 \approx 4$ , Mardia, Kent and Bibby (1979).

## 7. CONCLUSION

Here analysed data refer to 30 countries for 2013, EU28 without Luxembourg whose GDP per capita appeared to be an extremely high outlier, and three EU candidates from the SEE region, whose data were and available: the FYR of Macedonia, Serbia and Turkey. Finally, in this research the SEE region is represented only by 9 (from 13) countries, 6 of them being the EU members: Croatia, Cyprus, Bulgaria, Greece, Romania and Slovenia, and the next 3 countries being the EU official candidates: the FYR of Macedonia, Turkey and Serbia. Among analysed

countries 4 of them might be considered as the WBCs, and these are: the FYR of Macedonia and Serbia, but also Croatia and Turkey, see Europedia (2014). After exploring the recent dynamics of on-line booking for travel and holiday accommodation, in general, an increasing trend might be noticed for all here analysed European countries. ICT enables tourists' accurate and reliable information and booking reservation, compared to traditional business models which sometimes prove more expensive and difficult. In this way, ICT helps to improve services and contributes to increasing satisfaction of customers. Tourists from the biggest emissive European areas are regular travellers and are linguistically and technologically skilled and able to adapt to a multicultural and challenging environment, which is evident from the level of communication. Today, tourists are self-confident and experienced and demand interaction with tourism operators. Search for information has a very significant role when making travel decisions. ICT does not only lower uncertainty and possible risk, but increases the quality of travel. The average for the main variable under study variable  $Y_{IntBook}$  in 2013 is 18.97% with the coefficient of variation of 87.88%, indicating a high variability of data over analysed countries. Considering the variable  $Y_{IntBook}$ , all 9 analysed SEECs are with data values below 18.97 under-averaged. For the variable  $X_{GDPpc}$ , most (8) analysed SEECs are with data below 86.47 under-averaged, only with Cyprus data that equals 86, so it might be considered as the average. Considering the variable  $X_{ExpEduc}$ , majority (7) of analysed SEECs with data values below 5.41%, are under-averaged, with two exceptions: Slovenia with value 5.7% and Cyprus with 7.3%. Regarding the variable  $X_{IntUse}$ , most (8) analysed SEECs with data values below 72.35% are under-averaged, with the only exception of Slovenia with value 72.7%. For the variable  $X_{IntSkills}$  data for the SEE countries are better than for other variables, meaning they are closer to the average. Majority (5) of analysed SEE countries, two official EU candidates Serbia and the FYR of Macedonia, and EU members Greece, Bulgaria and Cyprus, with data below 26.43% are under-averaged, but EU candidate Turkey and EU members Slovenia, Croatia and Romania are over-averaged.

After examining the relationships between on-line booking for travel and holiday accommodation, as the dependent variable, and economic, social and ICT development indicators for 30 countries using 2013 data, only positive correlations are found, which has proven the first research hypothesis. Adopting the criteria of having the correlation coefficient higher than 0.8, only one simple linear regression model with the Internet penetration rate, i.e. the Percentage of individuals using the Internet, as the regressor, was found. If the Internet penetration rate would increase by one percentage of individual who use the Internet, the regression value of the Percentage of individuals who booked travel and holiday accommodation on-line would increase by 1.07 percentage points. As opposed to the Scandinavian countries, where the Internet penetration rate almost achieved its' maximum, it might be expected that this rate is going to grow continuously in all South-East European, and so in the WBCc, and this will push an increase of the Percentage of on-line booking users there, too. A hierarchical cluster analysis based on five variables,  $Y_{IntBook}$ ,  $X_{GDPpc}$ ,  $X_{ExpEduc}$ ,  $X_{IntUse}$  and  $X_{IntSkill}$ , for 30 countries in 2013 resulted with several solutions of clustering (with 3, 4 or 5 clusters) of similar countries, but always clearly showing a separate cluster for five SEECs, which has proven the second research hypothesis. Finally, hierarchical cluster analysis results, show that Croatia, being the SEE country and the youngest EU member state, is neither "a real" member of SSE countries' cluster, nor the member of the Western Balkans. It seems to be is a part of the cluster with those EU member states that might be, regarding the analysed variables, treated as "developing" EU countries' cluster. In the four-cluster solution Croatia is in the cluster with 15 countries, all EU member states, Czech Republic, Estonia, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Slovakia, Spain, Slovenia (ex-Yugoslav country, as Croatia) and with two SEE countries, Cyprus and Greece. But, on the



other side, considering the main variable under study only, Croatia, with only 6% of individuals who booked travel and holiday accommodation on-line in 2013, falls into the group with the majority of less developed European countries studied. The EU member states Bulgaria and Romania, and EU candidates Turkey, Serbia (1%) and the FYR of Macedonia (1%) are all members of here recognised less developed European countries group, and they, after conducted hierarchical clustering, fall into the SEE countries' cluster. The results of here presented analysis might be useful for recognizing the position of SEECs compared to other European, mostly EU countries, being especially interesting for the tourism sector development at the whole economy level. At the tourism business level the research results might be useful for considering introducing modern web advertising solutions in services supply. At the tourism services demand side, it is interesting to develop all the prerequisites for creating consumers capable to use modern offering of these services through increased share of GDP for education of individuals and increased investments into the faster broadband and Internet penetration, cheaper user-friendly equipment and software solutions needed for easier tourism and other services and goods purchases in these countries. The Western Balkans region as a whole is gradually being associated with key European policies such as trade, justice, security, transport, energy, cross-border cooperation higher education, scholarships and research, etc., so the authors wish to cover all Western Balkan countries in the future research. But, for the occasion of this study, only the data for the EU candidates, the FYR of Macedonia, Serbia and Turkey, as well as for EU member state Croatia, could be analysed. So, unfortunately, other WBCs, Albania, Bosnia and Herzegovina, Montenegro and Kosovo must be omitted from the analysis, and that is the restriction of this study.

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## Section 2

# Enterprise in Turbulent Environment

## USING NETWORKS TO MANAGE COSTS OF FOOTWEAR AND LEATHER MANUFACTURING COMPANIES

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### ABSTRACT

*Globalisation forces companies to improve financial performance and system coordination by acting together in some type of networks, with resources pooled and costs, information and experiences being aligned. The decision by companies to enter into a network relationship with other companies is influenced by the management's decision and assessment to give up from autonomy in order to decrease operating costs and investment requirements, and for spreading of risk between the two parties. The main objective of this paper is to investigate how networks can be used in leather manufacturing and processing industry in developing countries to create and to distribute products at less cost and better quality. Case studies of horizontal and vertical networks in the Croatian leather manufacturing and processing industry are reviewed. Moreover, a qualitative study among companies in the Croatian leather manufacturing and processing industry was conducted in order to get knowledge how the top management in Croatian companies understands the concept of horizontal binding / clustering, and to determine factors for successful cost effective network organisation.*

**Key words:** *alignment, network, Croatia, leather manufacturing and processing industry*

### 1. INTRODUCTION

The initiative for this work is driven by the review of literature by Ghauri et al. (2003) and Humphrey and Schmitz (1995), who investigate how networks can be used in companies in developing countries in raising their competitiveness. In this paper, we approached networking from the aspect of managing costs of footwear and leather manufacturing companies in one of the Southeast European developing country-the Republic of Croatia. Importance of leather and footwear industry for Croatian economy is presented in the Croatian Industrial strategy 2014-2020 (Ministry of Economy, 2014, p 157). It is stated that the export of Croatian footwear will present 60% of overall industrial activity, followed by export of leather products, by the year 2020. Development potentials and strenghts of Croatian leather and footwear production are availability of quality raw materials as quality raw cowhide (although a large part is imported), business tradition and proximity to the European market that provides high speed delivery (Ministry of Economy, 2014, p 160). Croatian leather and footwear industry is the part of one of the most important sectors which could serve as the vehicle for the growth of the Croatian economy, and it participates in the manufacturing industry with 1,22% companies, 3,89% employees and 1,84% revenue (CCE, 2012.). As official data for the period 2008-2013, have shown (Table 1) that this sector of manufacturing industry have experienced total revenue increase, the question of the main reason for such a recovery appeared.

*Table 1 - Number of companies, employees and total revenue of Croatian footwear and leather industry 2008 – 2013.*

<b>Indicator</b>	<b>2008.</b>	<b>2009.</b>	<b>2010.</b>	<b>2011.</b>	<b>2012.</b>	<b>2013.</b>
Nr of companies	124	124	127	129	130	128
Nr of employees	8.538	7.692	8.781	9.026	8.547	9 787
Total revenue	2.364.973.135	2.182.539.018	2.556.027.748	2.957.739.973	3.000.752.156	3.071.295.472

Source: CCE, 2013.

Croatian footwear and leather industry characterizes the domination of small companies (Table 2), and this made our research more interesting and applicable in the praxis due to the fact that small- and medium-sized enterprises have become one of the main targets of policies aimed at creating growth and employment in developing countries in the past few decades, and that there are benefits for the country as a whole from having a strong SME sector (Humphrey and Schmitz, 1995).

*Table 2 - Number of companies, employees and total revenue of Croatian footwear and leather industry according to companies' size, 2013.*

<b>Footwear and leather manufacturing</b>	<b>Size of the company</b>			
	Small (less than 50 employees)	Medium (50-250 employees)	Large (more than 250 employees)	Total
Nr of companies	128	4	1	128
Nr of employees	4.496	1.541	3.750	9.787
Total revenue	753.002.947	319.467.786	1.998.824.739	3.071.295.472

Source: CCE, 2013.

Faced with the growing global competition, SME companies in developing countries concluded that “on the account of the common problems they all share, small enterprises are in the best position to help each other” (Ceglie and Dini, 1999). The emphasis is now on cooperation, networking, clusters (Taymaz and Kilicaslan, 2005), and alignment that have a goal to align the interests of all firms present in a supply chain in which firm operates with the interests of their own firms (Ryu et al, 2009). It is particularly evident in the textile, clothing, and foot wear industry (Buxey, 2009), as labour intensive industries, where some kind of networking has been regarded as an important source of efficiency and competitiveness (Kimura, 2002). By acting together in some type of networks, with resources pooled and costs, information and experiences being shared, companies can improve financial performance and system coordination. The decision to enter into a network relationship with other companies is influenced by the management's decision and assessment to give up from autonomy in order to decrease operating costs and investment requirements, and for spreading of risk between parties. They can do so through horizontal cooperation (they can collectively achieve scale economies), vertical cooperation (they can specialize in their core activities and develop the external division of labor), and networking among enterprises, providers of business development services, and local policy makers. In view of this argument this paper has two objectives: i) to review the current state of knowledge on how networks can be used in leather manufacturing and processing industry to create and to distribute products at less cost and better quality; ii) to synthesise the results of qualitative study among companies operating in the Croatian footwear and leather industry related to understanding the concept of

horizontal and vertical binding / clustering. The paper begins with the theoretical framework where the definition and types of networking with its benefits and limitations as well as literature review is presented. Although there is a growing body of knowledge on networks, integrations and clusters, this section reveals the lack of research interest for such an investigation on the Croatian market. Thus, this paper has got one more objective - to stimulate other researchers to gain deeper insight into the wide application of networks in the business context of the Croatian manufacturing industry. Next section explains the methodology adopted and the discussion of cases of networking in the investigated industry. Then, an analysis of the findings of the qualitative research among managers of companies operating in the Croatian leather manufacturing and processing industry is given. Finally, an integrated conclusion, summarising the results, developing managerial implications and providing suggestions for future research is provided.

## 2. THEORETICAL FRAMEWORK

At the end of last millennium, Porter (1998) pointed out that economic map of the world was dominated by some kind of networking that allowed mitigating many input-costs disadvantages. Humphrey and Schmitz (1995) are talking about the collective approach with lower transaction costs and facilitating mutual learning, which helped small- and medium-sized enterprises (SMEs) to raise their competitiveness in both developed and developing countries.

Ghauri et al. (2003) and Easton (1992) identified three types of definitions for networks:

- a) definitions focused on the exchange dimensions in two or more connected relationships;
- b) definitions focused on the bond or social relationships that link loosely connected organisations;
- c) definitions focused on total pattern of relationships within a group of organisations.

Ghauri and Prasad (1995) tried to simplify the definition of network identifying it as a relationship created between two organisations.

Growing interest in networking was fuelled particularly by challenges of globalization and new technologies of the 21st century, when companies lost their competitive edge and undergone major structural and strategic changes. According to Furlan et al. (2007, p. 69), increasing competition from producers located in low cost countries and ever new, more powerful information and communication technologies have reduced the importance of geographical proximity as a competitive advantage factor. Literature has often associated networking with higher productivity, especially in the textile sector (Cooper, 2010; Madsen et al. 2003) and (Boschma and Wal, 2007; Gebreeyesus and Mohnen, 2011) because of the networks, knowledge transfer and resource mobility (Benner, 2012). In most works, networks can be categorised into vertical and horizontal networks (De Mel and Jayaratne, 2009; Ghauri et al., 2003). However, there is also another explanation of types of networks, given by Humphrey and Schmitz (1995). They explain that a set of activities involved in the production and commercialization of a particular commodity, consists of a set of network, and that in the case of footwear, these would be (i) a raw materials supply network, (ii) a production network, (iii) an export network and (iv) a marketing network. For this study, we consider subcontracting relationships as vertical networks, while clusters are considered as horizontal networks.

### *Horizontal networking: clusters*

The idea that there are gains in clustering can be traced back to Alfred Marshall's analysis of industrial districts in Britain (Humphrey and Schmitz, 1995). Marshall stressed the economies which 'can often be secured by the concentration of many small businesses of a similar

character in particular localities' (Marshall, 2009). However, Porter (1990) is considered as the real founder of modern cluster theory. In his early research he defined cluster as a set of related industries, but later he developed a well-known definition for clusters (1998, p. 78) as a geographically proximate group of interconnected companies and associated institutions in a specific field based on commonalities and complementarities. Due to the complexity of activities, and wide array of industries that clusters encompass, there is no unique definition of clusters in economic literature. Namely, there are evidences of successful clustering in a wide range of countries and sectors (Nadvi and Schmitz, 1994). For the purpose of this study we mention the footwear clusters of Agra in Uttar Pradesh (Agarwal, 2006; Knorringa, 1994), the Sinos Valley in Brazil (Schmitz 1995), and Leon and Guadalajara in Mexico (Rabellotti 1995), etc.

Cluster can be defined as a form of cooperation (Knorringa and Mayer-Stamer, 1998), network (Pachura, 2010), system (Shakya, 2009) and others. Humphrey and Schmitz (1995) the international attention given to clusters addressed much to the European, especially Italian, experience. It relies on the situation in a number of sectors (where SMEs predominated) that groups of companies clustered together in specific regions and seemed to be able to grow rapidly, develop niche, export markets and offer new employment opportunities. The central idea is that together such enterprises can overcome obstacles and conquer markets beyond their individual reach and that external assistance plays an important role in facilitating cooperation. Porter (2000) and Delgado et al. (2010) consider the regional dimension the main dimension of regional cluster, which ensure that enterprises and institutions are geographically close to each other. From a literature review standpoint Garanti and Zvirbule-Berzina (2013) found evidence of positive interaction between regional clusters and companies' performance. Clusters are offering companies easy access to important resources (such as special equipment, spare parts, business consulting and infrastructure), lower transport costs, access to customers and to the required specialized workforce, to ensure higher productivity and lower costs. Scott (1994) points out that clusters offer lower transaction costs, and access to specialized services, while Lin et al. (2006) discuss about the advantage through the access to infrastructure and competitive environment that leads to higher efficiency and productivity. In the economic literature clusters are referred as the drivers of innovation (Garanti and Zvirbule-Berzina, 2013). Tristao et al. (2013) state that clusters provide alliances, which among other things promote flexibility in terms of production volume and variety, reductions in investment costs, reduction in transaction costs and increase in operational efficiency, increased bargaining power, and the development of technology innovation processes (Solvell et al., 2008).

In their study of the strongest African cluster -Ethiopian footwear cluster, Gebreeyesus and Mohnen (2011) confirm a high correlation between a company's cooperation links and innovations. Boschma and Wal (2007) came to the same conclusion in their study conducted in the Italian shoe manufacturer cluster. There is an interesting notion of Subhani Muhammad Imtiaz et al., (2012) that contrary to vertical integration, which doesn't really matter for the production efficiency in today's world, horizontal integration, such clustering, is a matter of success for current situation of the micro and macro environment of the industry, which helps companies to achieve the reduction in average cost (economies of scale) and increase the output.

#### *Vertical networking: subcontracting*

Friedman (1988) attributed the origin of subcontracting to the growth of munitions industry in the 1930s, when demand for products of the machinery industry expanded rapidly. The sharp increase in demand exceeding the production capacities of large-scale firms and the economic fluctuations of the previous decade, made large enterprises in the machinery sector to contract

out to smaller firms rather than expand their own production facilities (Hayashi, 2005).

Although subcontracting is considered as the vertical networks, it is interesting that Kongmanila and Takahashi (2010, p. 98) also used networking and clustering approach theory to analyse subcontracting relationships. In general, subcontracting is defined 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 (Taymaz and Kilicaslan, 2002, p.2). 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.

Literature (Van Mieghem, 1999) discusses the costs and benefits of subcontracting. According to the literature, subcontracting occurs because a company may find it less profitable or infeasible to have all required capabilities in house. Ghauri et al. (2003, p. 744) is talking about a special category of subcontracting - economic subcontracting, which is established where cost benefits can be obtained by outsourcing parts of the production process. Thus, the main reported benefits of subcontracting are lower operating costs and lower investment requirements for the contractor, and the spreading of risk between the two parties. 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. The most widely prevailed argument was that small firms were used as mere "sweat shops" by large firms (Bala Subrahmanya, 2008, p. 26). Parent companies are able to reduce production costs by indirectly making use of cheap labour of their child companies. Large manufacturers forced small producers to supply cheap products through subcontracting transactions, by controlling the latter in terms of the supply of raw materials, the marketing of products and financing (Hayashi, 2005).

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.

In both types of networking alignment must be considered as important capability. Firms operating in horizontal and vertical networking must align their interests with the interests of all firms involved in their networks. Alignment can be achieved by: ensuring equal access to forecasts, sales data and plans to all partners; clarifying the roles and responsibilities of all partners in order to avoid conflicts; redefining the terms of the partnership in order to share the risks, costs and rewards for improving supply chain (in this case network) performance; aligning the initiatives so "players" could maximize overall supply chain performance and at the same time maximize the return from the partnership (Lee, 2004). According to Tang and Tomlin (2008), crucial issues to achieve alignment are trust and long-term perspectives among partners in the network that lead to risk sharing among partners. Researches conducted



confirmed that strategic partnership with suppliers increased suppliers' performance and shortened time to market. It also positively impacted competitive advantages (Ragatz et al, 1997) and increased customer satisfaction (Power et al, 2001).

### 3. METHODOLOGY

To increase knowledge and understanding of the networking and clustering, similar to Ghauri et al. (2003) and Tranfield et al. (2003), a review of literature was conducted. First, relevant key words related to the topic of investigation were identified. The key words used for a selection of relevant literature were: network, integration, cluster. Then, several information sources and scholarly databases Emerald, Ebsco and ProQuest have been consulted.

Moreover, for the purpose of this paper, such literature findings were improved with qualitative data in order to reveal the perspectives of networks in managing costs of footwear and leather manufacturing companies. The qualitative approach of the study consisted of interviews with 20 managers of companies operating in the Croatian footwear and leather industry was conducted. The research instrument included a questionnaire designed on the discussion pointed out in the theoretical part of the paper, and it includes questions concerning benefits of employing one of the two types of networks.

### 4. RESULTS

Given this theoretical background the prospects for horizontal and vertical networks in footwear and leather manufacturing industry in the Republic of Croatia were examined in this study. This section includes the discussion of case studies of horizontal and vertical networks in the Republic of Croatia, and the results of a qualitative study among companies in the Croatian leather manufacturing and processing industry with the purpose of providing greater insights into the opportunities and challenges to networking.

#### *Results of case studies: Horizontal networking*

Two case studies of horizontal networks are described in this section. These are: Croatian Shoe Cluster and Croatian cluster for competitiveness of textile, leather and shoe industry.

These cases are selected because they describe the purpose, evolution and achievement of horizontal networks.

*Case 1. Croatian Shoe Cluster* was established by the leading Croatian shoe and leather factories in Varaždin, in December 2004. It was the non-profit organisation with the main goal to promote interests, improve the competitiveness and increase the export of its members (<http://onestopshop.d-management.com>). At their annual meeting, in Fall 2006, the members of the Cluster concluded that maintaining the current market position in expectance with the world leading shoe and leather products retailers, and the expansion on the foreign markets had the priority for their market success and were identified as its second goal. .

In order to achieve its first goal, the Cluster decided to build the nation-wide department store, supplied, primarily, by Croatian suppliers, but also by the foreign suppliers. In order to achieve the second goal, joint participation in foreign fairs was selected.

However, the Cluster failed due to following reasons:

1. Estimated costs for the cluster functioning was estimated on about 150.000 USD per year, and it included wages, renting expenses, general operating expenses, such as internet phones, subscriptions etc. However, divided among the members, those costs were too high.
2. Establishment of nation-wide department store chain, in order to be efficient and to have acceptable costs, required modification of the existing chain of each cluster's member, instead of developing a brand new one. Unfortunately, existing chains were not interested in such operation.

3. At the point when the idea of joint participation on foreign fairs was presented, most of the companies considered themselves as mutual competition on one hand. On the other hand, they invested too much in their own brands, what left them without resources for development of the new, common, brand.

*Case 2. Croatian cluster for competitiveness of textile, leather and shoe industry* was established on May 2013 (<http://www.aik-invest.hr>). Both in financial and organisational sense, its foundation was fully supported by the Croatian Government, what indicate the initial sustenance in amount of 17.000 USD (<http://www.aik-invest.hr>). This cluster was established with similar goals as the Cluster 1., but it was enlarged with textile and clothing manufacturers. Thus, it cumulated bigger stake in GNP, and in other words, importance for national economy, while the Cluster 1., is in the process of extinguishing. The problem is that in more than a year, no important actions neither results of the cluster have been noticed. The fact is that the members of the Cluster have not recognized that the formation of clusters does not depend on existing companies and an appropriate environment alone, but more on the relations between the companies. In his work, Orsenigo (2001) explained the similar situation with biotechnology companies in Lombardy, which tended to cluster, but failed to reach critical mass due to high heterogeneity of its members. With such heterogeneity, among the member companies associated in cluster, their business strategies, ownership differences, financial stability and technological equipment level, it was too difficult for the cluster to work. Furthermore, despite some small agglomerations, small number of companies in the emerging industry are geographically dispersed (Klepper, 2007), and mentioned cluster is conceived as the national-wide.

*Results of the qualitative study: Horizontal networking*

The qualitative approach of the study included in-depth interviews with managers of ten companies operating in the Croatian leather manufacturing and processing industry, that are members of the Croatian cluster for competitiveness of textile, leather and shoe industry. Similar to Coltman (2007), in order to avoid unnecessary waste of time, the research instruments were sent to each company few days before interviewing. On average, the interviews lasted about 25 minutes and were transcribed.

The research instrument was created in order to give answers how horizontal networking provides companies to create and to distribute products at less cost and better quality. Thus, it relied on the work of Benner (2012), who analysed reasons behind cluster policies in Middle East and North Africa, and Garanti and Zvirbulė-Berzina (2013) who explored the benefits of regional cluster initiatives in micro (enterprise) and macro (region) level.

The research instrument and the discussion of the results were organized in three main areas: 1) impacts of clusters on firm's performance; 2) clusters influence on the regional development indicators; 3) changes in the relationships of the members of clusters.

Respondents consider their strength and participation in GNP and exports as the main reason for their networking with other companies in the Croatian leather manufacturing and processing industry. It allows them better negotiating position towards government, especially in some legislative regulations and deployment of direct horizontal sustenance that the government assigns on yearly basis. Cluster is also expected to be helpful in expanding markets and improvement of competitiveness.

Unfortunately, they have not observed changes considering improvements in business, and the cluster is still not fully in function. Therefore no interests are assigned, and no methods and projects nominated. Savings that were expected through clustering considered:

- Department store chain, that was supposed to be established, demanded far less investments to be done in interior design, fiscal equipment comparing to opening own

mono-brand stores. Costs of labour in such model, basically self- service stores, supposed to be much lower than in mono-brand stores.

- Entrance on new markets demanded previous market research process, contribution on specialised fairs, and establishment of representative offices. All those actions are generating costs that in cluster are about to be divided, at a pre-arranged manner, among the cluster member's.
- Further cost reduction was meant to be done in the way that clustering companies with sufficient resources in space, knowledge, technology concede them to other cluster's members for the reasonable price, in order to achieve full employment of own resources. In such a way, small companies with insufficient resources need not to establish own services that could also be underemployed

#### *Results of case studies: Vertical networking*

Two case studies of vertical networks are described in this section. These are: German shoe producer and four Croatian shoes producers subcontracting network and Austrian shoe producer and three Croatian shoes producers subcontracting network. These cases are selected because they describe the purpose, evolution and achievement of vertical networks.

*Case 1. German shoe producer and four Croatian shoes producers subcontracting network* was established in the late 1980-ies, first with the shoe uppers. In mid-90-ies, it started with production of complete shoes abroad. At the moment they have no in- house production at al. First subcontractor is the Croatian shoe producer, established in early 1990-ies. It deals with subcontracting business since its beginning. First subcontractor hired two other shoe upper producers as the second subcontractors. Both of them are established in 2010 with the main purpose to produce uppers for the facilities with completed production circle. This subcontracting chain consists out of four companies. Companies are concentrated in the northern part of Croatia, except one of the second subcontractors which is located in eastern Croatia. All of the subcontractors are small-sized companies. Main subcontractor, what means all others included in chain as well, is specialised in the production of orthopaedic shoes for adults that are sold all over the world.

*Case 2. Austrian shoe producer and three Croatian shoes producers subcontracting network* was established in the late 1970-ies, first with uppers, and later on with complete shoes. This company is still maintaining the production in Austria. First subcontractors are two Croatian shoe producers, one of them, first subcontractor A, was established in 1950-ies, and deals with subcontracting ever since, and the another one, first subcontractor B, was established in 2013 as direct green field investment of the main subcontractors with only purpose to produce the shoes for main subcontractor. In this chain, there are also three companies as the second subcontractors. First of them was established in mid-1980-ies, as the large producer of shoe uppers for various clients. This company produces uppers for main subcontractor as well as for two first subcontractors. Second of them is company established in year 2005 as the first subcontractor A's green field investment in Bosnia, with the purpose to produce shoe uppers for them, and for main subcontractor. Third company produces shoe uppers for second subcontractor B. Companies are concentrated in the northern part of Croatia, except one of the second subcontractors which is located in Bosnia. Subcontractors are small and middle-sized companies. Main subcontractor, what means all others included in chain as well, is specialised in the production of high price level fashionable shoes for Ladies.

In both cases, parent companies gain good quality product for lower price, and they can concentrate on the tasks listed. As Croatia is not included in the group of countries with low labour costs, this is not exclusive reason for subcontracting. Managers emphasised that low transaction costs, closeness to main markets, reliability of subcontractors, and quality of products in Croatian factories are more important than low labour cost. This corresponds to

Grossman and Helpman (2002; 2005) conclusion that firms choosing to subcontract first have to search for suitable partners. Subcontractors are saving on current assets, in fact on interests, gains indirectly by transfer of technology and knowledge through constant growth of efficiency. Most of the cost reduction in subcontracting is not direct one. Actually, costs necessary in order to develop business are reduced, or completely avoided.

*Results of the qualitative study: Vertical networking*

The qualitative approach of the study included in-depth interviews with managers of ten companies operating in the Croatian leather manufacturing and processing industry, that are working as subcontractors. The same research procedure as for the horizontal network qualitative study was applied and the research instruments were sent to each company few days before interviewing. On average, the interviews lasted about 25 minutes and were transcribed. The research instrument was created in order to give answers how vertical networking provides companies to create and to distribute products at less cost and better quality. Thus, it relied on the work of Abraham and Taylor (1996), who concluded that subcontracting can imply production cost savings relative to in-house production in three principal ways:

- a) through labour cost savings - higher wage firms may try to cut labour costs by contracting out part of their activities to lower wage producers;
- b) firms may try to smooth the work load of their core workforce by contracting out tasks during peaks of demand - this type of production subcontracting relates to what is also known as capacity subcontracting;
- c) production costs savings – it can be achieved where outside suppliers benefit from economies of scale or specialised knowledge.

The research instrument and the discussion of the results were organized in three main areas: 1) reasons for employing subcontracting business model, 2) benefits from subcontracting in organizational and financial area, 3) changes in the internal relationships.

The main reason for subcontracting, according to all of respondents, was the cost cutting, but even more important reason was the lack of qualified labourers in close environment.

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. Respondents pointed out constant flow of information on knowledge, organisational, technical and technological issues among participants.

All of the parts in cooperation are constantly working on improvement in production as the process, and the product itself. Regarding costs that are not directly attached to production, such as technical development, designing, tools etc. respondents agree that such costs are not transferred to other part in subcontracting. They are divided on maximum production capacity, in this case, total amount of pairs of shoes. Through the subcontracting system, maximum capacity increases, and, consequently, indirect costs per pair decreased. Accordingly, enlarged amount of production brings financial benefits to subcontractors.

Respondents 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.

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. All of the employees of investigated companies are aware that only full efficiency can provide them

they salaries. They also emphasized that maintaining of good human relationships is much easier in small companies than in the large ones. All of them are considering subcontracting as the optimal way of functioning

## 5. CONCLUSION AND FUTURE RESEARCH DIRECTIONS

Over the last two decades, a large body of literature has emerged which deals with networks and the way they have been used to solve business problems of manufacturing firms in developing countries. The article focuses on manufacturing companies in developing countries as literature (Taymaz and Kilicaslan, 2005) consider networks as an instrument of industrial and economic development and employment creation in developing countries

It was not the purpose of this paper to review this extensive work, rather to focus on subcontracting as vertical networks, and clusters as horizontal networks in the Croatian footwear and leather manufacturing and processing industry. The paper contributes to a better understanding of the theoretical and operational implications of subcontracting and networking for small and medium companies in leather processing and manufacture of footwear and leatherwear. Moreover, relaying on the findings of case studies and the qualitative research among companies operating in the Croatian leather manufacturing and processing industry, paper points to eight main conclusions:

- The main idea behind advocating the development of vertical networks, in the form of subcontracting among Croatian companies 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. Subcontracting has brought significant financial stability and improved internal relationships
- The main reason for subcontracting, according to all of respondents, was the cost cutting, but even more important reason was the lack of qualified labourers in close environment. All of the parts in cooperation are constantly working on improvement in production as the process, and the product itself.
- Research on horizontal networking, in the form of clustering showed similar situation as that mentioned by Bergman (1998). The author brought different perspectives to the cluster concept mentioned as so called ‘Rashomon effect’ (named after Kurosawa’s movie where different people see the same thing quite differently). The same effect resulted with the fail of “*Croatian Shoe Cluster*”. Different members considered cluster’s actions differently accordingly to significance in own business strategy. Those differences resulted in heterogeneity in their strategies. Namely, some companies were taking over the operations and jobs with higher value added as their strategy, while the others started to develop their own brand as their strategy.
- The failure of both clusters suggests that entrepreneurial culture in footwear and leather manufacturing and processing industry is still weak. Such weak entrepreneurial culture, along with shortages of qualified labour is the largest barrier to cluster’s success (Potter, and Miranda 2009).

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. However, 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.

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## MARKETING ORIENTATED ON SUPERIOR VALUE AND LONGTERM RELATIONSHIP WITH CONSUMERS

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### ABSTRACT

*Nowadays, marketing performance criteria are beginning to be considered as more accurate indicators of strategic health of the company than just financial criteria. Corporations are becoming aware that transactional base of consumers is individually their most valuable and most important asset. Value of existing consumers is seen as vital value and is used as measurement of value. Therefore, marketing becomes strategy and strategy becomes a way to bring consumers into the company. Information technology is fundamental driver which affects the role of marketing and strategy of the corporation. These technologies are not only changing the nature of relationships between corporation and consumers, but also the content in which operates a business entity.*

*Piercy (2009) emphasizes the evolution of the marketing process from transaction to value, which some authors call the new marketing. The driving force of a new concepts are not managers, but consumers. This process has gone through four phases. The most important for this work is forth phase which talks about consumer's requests that require continuous improvement in things that they care about. That is how value-based marketing occurs. Innovation value is different from technical innovation. Innovation value is possible with technology but it is possible without it as well. Innovation value connects innovation with what the overwhelming majority of consumers are valuing. Competitive advantage on the market delivered through superior value is something that will last; some indication shows that companies are moving in this direction. It turned out that competition within the industry, in modern economy, loses its importance. That is not the best strategy as it leads to great conflict between partners and it does not create new value. The value is driver of all satisfaction of the companies. Those are new trends in marketing which are aimed to be better described in this work. Nowadays marketing is moving from the dominant viewpoint of tangible product to intangible services where establishment of customer relationships becomes a prerequisite to success.*

**Keywords:** *loyalty, relationship marketing, satisfaction, strategic marketing, superior value.*

### 1. INTRODUCTION

In modern conditions, when marketing is concerned, we should emphasize the strong connections between the category of strategic marketing, relationship marketing and superior value for consumers.

It is reasonable to distinguish between marketing management and strategic marketing. The main feature of the strategic marketing is that these decisions have long-term consequences on strategic position of the company on the market. To perform daily marketing activities and to evaluate financial year, as successful, the essential is – marketing management. Instead of ad hoc researches, from which are assessing marketing opportunities, such as in marketing management, changes in the middle require strategic marketing and ongoing research.

Thus, stuff, which are performing marketing businesses, are required to express creativity and originality in comparison with the personnel engaged in marketing management, where the emphasis is on maturity and experience.

Important questions in strategic marketing are: whether the company should perform existing businesses? Which products and markets are of particular importance for survival? Which new products and markets should we search for? And how to find where is possible to achieve certain differential or competitive advantage considering potential of the company?

Then, continually is necessary to give answers to the following questions: which products/services and activities should be given up or repositioned and how to allocate/relocate resources of the corporation to the single products, services, activities.

The purpose of strategic marketing is to shape and reshape the products and activities of the company in order to achieve the target growth and profit. We should, therefore, consider: business management as investment portfolio, because every business has its potential source of profit and company sources should be allocated accordingly; adequately assess each business considering the growth rate of the market, position of the company and achieved conformity with the market and the choice of marketing strategy.

Ongoing learning about markets is the main premise of creation and delivery of superior value to consumers, when taking into consideration strategic marketing and networking with key stakeholders.

It must not come to decrease of strategic investments in innovative activity, primarily in research and development in order not to face decrease of business activity. In strategic marketing we can see the clear difference between short-term orientation to improve operational efficiency and long-term orientation to increase efficiency of the company.

Market opportunities are not sufficient when the success of strategic marketing is concerned, but that the company has adequate resources and capabilities to exploit market opportunities. Sources must meet certain characteristics: they must contribute to the reductions of costs and increase value of consumers, be rare and hardly assessable to competitive companies and difficult to imitate by competitive companies and to contribute to the creation of economic value for consumers. The company that owns them is able to generate superior value for consumers and gain competitive advantage (Pit and Morris, 1995, pp.24) believe that there is convergence of marketing strategy, which takes place in five stages.

Fifth stage, as the most current one, is characterized by the convergence of strategy and marketing as flexible adaptation to changes in the environment and capitalization of distinctive competence within a defined market segment or in the overall market.

Nowadays, marketing is orientated on responsibility of the company for the establishment and building a relationships with consumers, thus, the traditional segmentation of the market will most likely completely vanish, as the individual will be addressed on the basis one to one, enabling new technologies. Value based relationships represent special responsibility. Transactional base of the consumers becomes individually the most valuable and the most important activity of the company. The value of existing consumers is seen as life value and it is used as measure of value. Informational technology is fundamental driver which affects the role of marketing and strategy in the company.

## **2. CREATING AND RETAINING VALUES BY THE COMPANIES**

From predominantly tangible product and market transaction to intangible service, the course of the exchange is changing in that way that relationship with consumers become assumption to successful exchange. Then, companies must learn to create and to deliver values. That is why is necessary redefinition of the market with the focus for the value innovation for consumers. Marketing knowledge, understanding, interpretation and reaction are necessary in

order to satisfy requirements of the market based on values. It is also necessary to provide adequate knowledge for rational response to demands of consumers, as well as adequate experience in order to deliver superior value to the market. Market oriented culture is a framework for analysing superior value that must at least be the value of the company, therefore, companies that are rightly considered to be „learning companies“ are more likely to deliver superior value. Despite the fact that the company should be what the market expects, it has to create an adequate supply. It must be differentiated from its offer and positioned related to its competition, so that consumer would have noticed the difference between company's supply and competition. The company must have a market advantage in intangible assets like reputation, unique expertise, integrity of the brand, etc.

Superior consumer value is created when the total consumer experience is very positive compared to expectations, compared with their perceptions of the competitors. According to Piercy (2009, pp.312), there are four determinants of superior consumer value: the ability, expertise and resources, commitment and ability to deliver services, organizational processes and innovations and change processes. This can be interpreted in a way to assess what the company is doing well, which is crucial for the consumer; commitment that the company has on the basis of the organizational processes as the most favourable way for the consumers. Then creating and giving value to the consumers from the employees side, innovations, change processes – responding to consumer preferences.

From the viewpoint of the company, creating value begins by creating value for customer. Company acquires a competitive advantage when giving more value for the customer. Competitive advantage, as a result, contributes to the increase in shareholders' value and long-term profit. Value shall be created only when the sources used are available, combined and used in an appropriate manner to the ambience in which the company carries out the activity. Management must take into account, the owners and investors while creating value for consumers and while dealing with the changes in the environment (Sirmon, Hitt and Ireland, 2007, pp.276). There will be no demand for the shares of the company if it does not achieve an adequate value for shareholders, because it has to provide quality products to gain competitive advantage and return to owners. For most companies it is clear that marketing contributes to attract and retain shareholders, but there is a lack of understanding of the effect of cash flow. It is clear that marketing of shares can affect the value of shareholders. This is achieved: with determination of the net present value of the company, reducing cash and reducing working capital. Satisfaction of the consumers positively affects financial performance of the companies. A distinction is made between the value in use of -any daily assessment of benefits to consumers and the total monetary value - amount of money that the consumer is willing to pay for that benefit. Optimization problem suggests that it is not possible to have two objectives simultaneously: the maximization of customer satisfaction and shareholder value. One of the key reasons is the fact that it is not possible to indefinitely increase the value of shareholders, as the stock prices are initiated with expectations of shareholders in the future and cannot be increased indefinitely. Putting consumers in the first place does not mean the abandonment of the profits as the objective of business. The interest of the manager to increase profit because their salary/earnings depends on it. It is necessary to have orientation of the manager on a long-term rather than short-term value, thus, it is important that consumers satisfaction is a priority to the company while doing the right things the right way. Some theorists, market evolution process from transactions up to a value, call the new concept of marketing (Piercy, 2009, pp. 110) The driving force for a new concept are not marketing managers but consumers.

Evolution of the market process is shown in the following matrix:

		CUSTOMERS' LOYALTY	
		HIGH	LOW
SATISFACTION	LOW	Marketing based on value (4)	Relationship marketing (3)
	HIGH	Marketing (2)	Traditional marketing and sales (1)

Figure 1. Marketing based on the value (Piercy, 2010, pp. 110)

The matrix also observes two dimensions: customer loyalty (can be big and small) and customer satisfaction (can be big and small). When it comes to loyalty, we can talk about four stages: the first is characterized by traditional marketing with an aggressive offer, the second is characterized by marketing brand when consumers are loyal and satisfied, the third phase is characterized by the reduction of loyalty because consumers are getting smarter, the fourth problem is characterized by the creation and retention of large loyalty with smart consumers who demand openness and transparency. That is how marketing based on value arises, which does not exclude the meaning of transactional marketing, marketing brands which still have certain significance.

### 3. WHAT IS THE VALUE FOR CONSUMERS?

An important source or basis for acquiring a long-term competitive advantage, according to many theorists, is the delivery of superior customer value. The number is not small of innovative companies with quality products that do not generate the expected market performance. Nowadays, in order to meet the consumers, the best way is through the development, communication and delivery of created value. Set of elements which are products, services, pricing, communication and interaction with consumers, represent value proposition. If such offer has been declined by the consumer, then it cannot be the source of value. Superior value is represented by the innovation value which equally evaluates both value and innovation. Innovation value differs from technical innovation. Innovation value is possible with technical innovation and without it, because technical innovation does not always lead to innovation value. The consumer requires a radically superior value and reasonable prices in the target markets.

Basis of growth of the companies are constantly adapting the existing, and presentation of the new or modified existing products and services, on the market. Dynamics of continuous innovation leads to new products or significant changes of existing products and adapting habits and consumer behaviour. Changes in consumer habits and behaviours contribute new products.

As pointed out by Kotler and Keller (2009, pp.74) mission of each company is to deliver value to the consumer with realization of profit. The realization can be achieved through several stages: the first is the source of value, the second is security of value, the third – communication of value and use of the method of delivery to customers. Achieving success in delivering superior value depends on competence of the company.

There are three characteristics of superior value: source of competitive advantage, it can be used for many markets, it is difficult to imitate by competitors. Competitive advantage is hard to understand if company is not observed as a whole, because the company is a result of

numerous activities that are carried out in the modern enterprise. Each value chain is composed of five activities: four supportive (input logistics, operations, output logistics, marketing) and sales of services. Each company is a set of activities (following five) that are performed in order to create, produce, sell, deliver and to service its products. In order to diagnose competitive advantage, it is necessary to diagnose the chain of values in that special field. Chain value brings or helps to consider special uses that contribute to superior delivered value for consumers. All processes in the company must be coordinated in order to have the successful company. Key processes that we are talking about include: vulnerability of marketing processes, the process of achieving a new offer, the processes of acquiring the customers, processes of relationships with customers and implementation management (Kotler and Keller 2009, pp.38). A special chapter of the company is to create relationships not only with consumers but with key stakeholders and all intermediaries in the supply chain company. The emphasis is shifting to the viewpoint of network delivery value. Network delivery of value is made up of the companies, suppliers, distributors and customers who are becoming partner to each other in order to improve the performance of the entire system (Kotler and Armstrong, 2004, pp.398). Creating advantages over the competition, successful companies tend to invalidate the competition, which can be achieved by delivering superior value to customers. On competition-based strategies are losing the importance in the modern economy, because in many branches offer exceeds the demand. The best strategy is not the one that relies on market share and brand because it takes a great conflict between the companies and does not create new value for consumers'. With innovation value for the consumer, it is possible to stimulate demand because it leads to the expansion of existing and creation of new markets. Consumers that are getting into the buying process have at least a general idea of the expected values, which they tend to achieve with a purchase. Satisfaction with the purchase results in repetition of purchase. Dissatisfaction causes orientation to other supplies. The value is the driving force of consumer satisfaction, which shows consumer perception of obtained values in relation to the transaction. The paradigm of customer satisfaction and value for the consumer paradigm are complementary, but the first one is older than the second one. It was believed that the value is measured by the benefit for consumers, and more recently is argued that a value for the consumer is perception of consumers about what they received and what it provides, the benefits and sacrifices. The value is general assessment of the utility of the product based on what is gained and what is given. The process of buying and choosing a product for consumers allows predicting the resulting value, while using, he really experiences that value. Marketing, based on the value of consumers is becoming an important instrument of the strategy of the company. Value occurs at two levels, one level is to offer better value for money to consumers, and the other is where strategic impact of the company becomes stronger if it rise in a way that offer creates a link between company and consumer. It is desirable to operate at both levels (Devis, 1995, pp.113). There is a hierarchy of consumer values which suggests that the desired value is composed of the preferences of consumers and measurable dimensions - attributes, attribute performance and consequences related with purposes and the situation of use. Piercy (2009, pp.228) offers a model that has the following phases: defining the value from the perspective of the ultimate consumers in terms of the supplied products / services, identifying the value stream for each product and the elimination of losses throughout the supply chain, to organize activities to create value around the course, and not the other way, responding to the attraction of products through the supply chain to consumers to eliminate stocks in order to achieve total perfection. This thinking suggests that all productive activities that lead to competitive advantage should be based on the "right" product / service specification, by consumers. All activities that do not contribute to the value are loss for the company and should be eliminated.

#### 4. LIFETIME VALUE OF THE CONSUMERS AND CONSUMER SATISFACTION

Creating a superior value for the consumers, company gains satisfied consumers that stay loyal and buy more from companies. It actually means – long-term profit for the company. Companies increasingly recognize that the loss of consumers is not only a loss of sales but for the whole course of the purchase that consumer would perform during his lifetime as a constant buyer. Armstrong and Kotler ascertained that lifetime value of consumers for the company is value of the flow of purchases that would have performed as a regular customer of the company (2005, pp.23).

Directing the overall effort of the company that accepted the marketing concept, consumer satisfaction is the way to gain the profit. In such concept, all employees are focused on customer satisfaction, which can be gained by delivering a superior value. That is a secure way not to only attract, but to retain the consumers. Figure 2 shows customer satisfaction by superior value for the consumer:

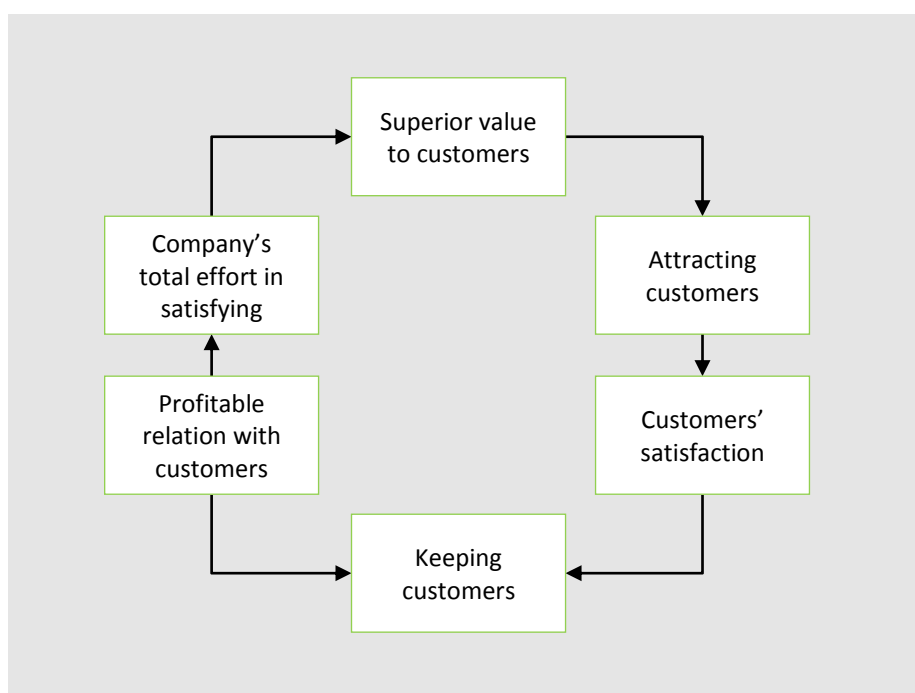


Figure 2. Customers' satisfaction by superior value (Perreault and McCarthy, 2002, pp. 45)

It is suggested to the company to establish the cost of lost customers, or the rate of lost customers and rate measurement of leaving customers. It is crucial to determine the causes of leaving, and also how much profit company loses when customers are leaving. When taking into consideration individual consumers, then loss is equal to lifetime value of the consumer. It is essential to calculate what the price for the company is in order to decrease the customers leaving. There are two ways which are suggested: the first one is to build high barriers of changes of company's product and the second way it to build a high customer satisfaction in order not to have competitor to imitate. "A profitable consumer is the person or household or a firm which in specific period of time enables an income stream that exceeds the amount of the costs that company bears to attract, sell or stimulate the consumer." (Kotler, 2003, pp. 81). That is about lifecycle stream of profit and costs, and not about profit from single transaction. Rust (2004, pp. 10) points out that consumers and consumer values are more valuable for the company than brand and brand value of the company, but the marketing practice and measurement of performances do not reflect it. Strategic ability of the company is best to be seen in a sense of abilities to improve the drivers of consumer's value. In that sense, following

orders are suggested: marketing investment is directed on drivers in order to improve performances that should lead to improvement of perception of consumer. That has as a result increase of attractive products for consumers and increase in retaining the customers. This activities lead to increase of life cycle of consumers, consumer values for companies, deduction of marketing costs gives a profit on investment in marketing.

The company can classify consumers according to their potential to make a profit from them, and their potential loyalty. Following image shows groups of customer relations:

		POTENTIAL LOYALTY	
		SHORT-TERM	LONG-TERM
POTENTIAL RENTABILITY	HIGH	<b>BUTTERFLIES</b> Good compliance of company's supply and customer needs. High profit potential (1)	<b>TRUE FRIENDS</b> Good compliance of supply and customer needs. Highest profit potential (3)
	LOW	<b>FOREIGNERS</b> Low compliance of supply and customer needs. Lowest profit potential (2)	<b>MIGRATORY BIRDS</b> Limited compliance of company's supply and customer needs. Low profit potential (4)

Figure 3. Groups of customer relations (Armstrong and Kotler, 2005, pp. 25)

Group called the butterfly is profitable but not loyal. The strategy should be short-term oriented. Strategy of the company should be not to invest in this group of consumers. True friends group is profitable and loyal. The strategy is to create friends of those who believe in the company. It is necessary to constantly maintain relationship with them. Group of migratory birds is very loyal and not significantly profitable and also the most problematic for the creation of strategies. You must look for ways to increase sales of the group and to decrease the cost of consumer relationships of that group. In the first group are consumers that are easy to attract and retain, the second group customers are difficult to gain, but they are easy to keep. In the third group are those that are easy to win but hard to keep, and the fourth are those that are hard to attract and to retain. It is necessary to integrate the management of attracting and retaining with profit, thus for those reasons it is necessary to determine the true relationship between consumer behaviour and long-term profitability. Maximizing attracting and retaining consumers especially not always lead to maximizing profits. Consumers are evolving over and that is why is needed a dynamic approach to the analysis of their portfolios. Not all consumer segments are with the same risk, characteristics of consumers are opting for long-term profitability. Transactional characteristics better predict the current profitability and the characteristics of consumers indicate changes of consumers in time. Lifetime value of consumers in a recent sight of market orientation becomes especially important target of marketing. Choice between offensive and defensive marketing theory gives precedence to defensive marketing which assumes that through long-term cooperation relationships with consumers should achieve profitability. Defensive marketing is not aimed to increase the customer base for the development of relations with it, which is a characteristic offensive marketing, but to realize additional value with these consumers through relationships with



them. Error is that, in practice, more attention is paid to selling products than preserving consumers. To create an optimal balance, as the criteria, it is used consumers assets of the company. Lifetime value of consumers has two applications: to diagnose the health state of the enterprises and helps in making tactical decisions in marketing. Best (2004, pp.15) argues that if the company retains 80% of their consumers each year instead of 75%, it will decrease the costs related to dissatisfaction of consumers and leaving and it will not have put much effort in attracting new customers. This is because retained consumers give higher annual income and higher profit margins per customer than new consumers, thus, the total company profit increases. With each retained consumer, the company increases its profit and reduces the risks of attracting new consumers. This leads to increase profit without increasing market share and sales volume. Illustrative example – in General Motors is estimated that Cadillac buyers spend about 350,000 dollars in their lifetime for the purchase and maintenance of vehicles. So, that is the lifetime value of the consumer for the company. If Cadillac loses such customer in the early stage in his life, he loses a lot. Loyalty is a prerequisite for increasing the value of the consumer for the company. As stated by Kotler and Keller (2009, pp.172) lifetime value of consumers is the net present value of the stream of future profits expected over its purchase. From that we should deduct the expected costs of attracting, selling, consumer research applying an appropriate discount rate, depending on the cost of capital and the company attitude towards risk. Applying direct marketing it is easier to calculate the value of the consumer for the company which is important for timely assessment of whether and how much to invest in consumers.

## 5. CONCLUSION

Changes in today's business environment, the difficulties in achieving profit and growth of the company, are conditionally targeting marketing to create superior values for consumers and developing relationships with consumers'. That involves creation of competitive advantage, with continuous research and understanding of what represents value to the consumer and discover new ways to get out to meet their demanding values. Such an approach increases consumer satisfaction and customer retention and long-term return on firm investment. Companies must learn to be oriented towards creating and delivering value. This is rightly called the new paradigm of marketing. This paper is an attempt to connect the activities and concepts: creating superior values for consumers, consumers value as important asset of the company and its long-term relationships (marketing relationships) with strategic marketing. It is quite clear that strategic marketing is becoming increasingly indicated. We should focus on three groups of consumers who make maximum value on investment in marketing: consumers who have a low cost of acquisition "those that change the product," consumers who make the highest yield "the most profitable consumers" and customers who contribute to the long-term growth-that determine market share. Consumers who are opting for market shares are the hardest to get, and they positively affect the long-term strategy of the company.

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## CORPORATE GOVERNANCE ISSUES IN GEORGIAN BANKS

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### **ABSTRACT**

*Corporate Governance Issues are especially important in transition economies, since these countries do not have long-established financial institutions infrastructure to deal with corporate governance issues. Actually almost all countries, whether developed or developing face similar issues in corporate governance, however, transition economies face additional hurdles because their corporate boards lack the institutional memory and experience that boards in developed market economies have. Due to mentioned reason countries in transition may face additional challenges in corporate governance, such are establishing rule-based as opposed to a relation-based system of governance, protecting property and minority rights, de-politicizing decision-making procedure, etc.*

*Nowadays Georgian banks try to obtain more foreign capital through international financial markets. Good and well managed corporate governance helps banks to increase share price and makes easier to obtain foreign capital, as well as plays a positive role in risk reduction, improved transparency and accountability. The World Bank, IMF and the International Financial Corporation has popped up in recent years to help adopt and implement good corporate governance principles. With such a help in 2009 the Association of Bank of Georgia adopted Corporate Governance Code for Commercial Banks in purpose to raise the level of corporate governance and implement the best international practice, which itself will increase confidence in banks and contribute to the stability of the entire banking system.*

*The present paper will focus on corporate governance issues in Georgian banks, namely will analyze rights and role of stakeholders, transparency and disclosure requirements and compliance with Basel Core principles. All mentioned issues are important for potential investors, bankers and for supervisors, since National Bank of Georgia declared to move towards risk-based supervision.*

**Keywords:** *Compliance, Corporate Governance, Transparency*

### **1. INTRODUCTION**

There is no universal definition of corporate governance. However, most frequently, corporate governance refers to a company's governance and control system, which facilitates transparency and accountability and determines relations among shareholders, supervisory board, management, and other stakeholders. Due to conditions of Georgian economy and given the role and importance of banking sector within it, banks corporate governance is especially important.

As of 31 December, 2013 21 banks operated on the Georgian Banking Sector. The share of non-resident beneficiaries in commercial bank capital equaled 85% (according to National bank of Georgia, 85% is for so called "final beneficiary"- bank's beneficiary is non-resident even in case when the immediate shareholder of bank is Georgian company, but itself it is owned by foreign body). Here is some data for Georgian Commercial banks.

*Table 1: Commercial Banks  
(Georgia, Bulletin of Monetary and Banking Statistics N 183, 2014)*

	2011	2012	May, 2013	2013	May, 2014
Number of Commercial Banks	19	19	20	21	21
of which: Foreign controlled	18	17	18	20	20
per 100 000 inhabitants	0.43	0.42	0.44	0.47	0.47
Authorized Capital of Commercial Banks, thousand. of GEL	915,583	909,167	971,781	1,053,978	1,1368,35
Equity Capital of Commercial Banks, thousand of GEL	2,104,361	2,390,064	2,608,593	2,916,232	2,986,297

It should be noted that the basic principles of corporate governance are already reflected in legislation on entrepreneurs, the securities market, and the activities of commercial banks, as well as in other Georgian laws and normative acts. Additionally in 2009 the Association of Banks of Georgian adopted the Corporate Governance Code for Commercial Banks. The purpose of the mentioned Code was not to reiterate or collect the corporate governance norms presented in various laws, but to set standards of corporate governance that are higher than those that Georgian legislation provides for and thus help commercial banks raise their corporate governance standards and bring them closer to those that international best practice. The Corporate Governance Code is mainly in accordance with OECD (Organization for Economic Cooperation and Development) document Principles of Corporate Governance and the Basel Committee on Banking Supervision document Enhancing Corporate Governance in Banking Organizations.

One of the particular characters of Georgian banking sector is the fact that almost 80% of banking assets are hold by two largest banks- TBC and Bank of Georgia (BOG). There are also few medium and small banks. To have a better idea how corporate governance issues are treated by Georgian banks in practice, we will consider examples of TBC and BOG and also other medium (“Procreditbank”) and smaller (“Kartu”) banks.

## **2. CORPORATE GOVENANCE REVIEW IN GEORGIAN BANKS**

### **2.1 Rights and Role of Shareholders in Georgian banks**

According to Corporate Governance Code for Commercial Banks Supervisory Board and Management Board by holding a general meeting of shareholders should ensure effective and fair relations with shareholders. They should facilitate the participation of as many shareholders as possible in the general meeting’s work. The general meeting makes decisions on banks’ most important issues and it shall be conducted in such a way that all shareholders have an opportunity to express their own opinions. The Supervisory Board and Management Board shall ensure equitable treatment of all shareholders, including minority and foreign shareholders, and are responsible for protection of their rights.

In case of BOG the highest governing body of the bank is the general meeting of shareholders. (BOG Charter of Bank, 2012). The general meeting of shareholders is convened annually by supervisory board not later than 2 months following the completion of the

external audit of the bank's books and in no case later than 6 months from the end of the prior fiscal year. An extraordinary general meeting of shareholders may be called from time to time by the supervisory board, management board, or by written request of the shareholder(s) holding at least 5% of the bank's share. The time, place and the agenda of the general meeting of shareholders shall be published in printed media at least 2 days prior to the date of such meeting. Shareholders holding at least 1% of the Bank's share should be notified about meeting via registered mail or in person. In certain cases envisaged by the applicable laws, the shareholders holding smaller stakes in Bank's equity shall also receive notifications. According to BOG Charter the general meeting of shareholders reviews and makes resolutions on the following issues: approval and amendment of Bank's charter, decisions about capital and profit utilization, acquisition, sale, transfer or exchange bank's property which value is more than 25% of bank's capital. General meeting elects supervisory board members, approves reports of supervisory board and management board, makes decision about supervisory board compensation, as well as decision about dismissal of board members, meeting also elects the auditor.

In case of TBC the General Meeting of Shareholders is the supreme governing body of the Bank, with the authority of key decisions. More precisely, a shareholder meeting is held annually, which nominates and approves supervisory board members, approves changes to the charter and capital, also approves any significant changes in corporate structure. (Actually corporate structure and charter of the bank is a bit different from BOG's case, which will be discussed further in this paper).

The Charter of medium size bank Procreditbank has a quite clear definition of rights and obligations of shareholders, more precisely shareholders vote for a general assembly of shareholders (in case of large banks it was called a general meeting of shareholders), they have right to participate in the distribution of profits and expect as modified by written agreement of the Shareholders, to transfer its shares to third party. (Procreditbank Charter, 2013). The General Assembly of Shareholders is the supreme decision-making body within the Bank, which conducts two types of meetings: Ordinary Meetings of the General Assembly of Shareholders and Extraordinary Meetings of the General Assembly of Shareholders. Every ordinary voting share confers the right to cast one vote in the General Assembly of Shareholders. The Ordinary Meeting of the General Assembly of Shareholders shall convene once a year at the latest within two months after the preparation of the audited financial report and accounts for the preceding financial year, which have to be completed within three months after the end of the preceding financial year. The Ordinary Meeting is convened at the invitation of the Chairman of the Supervisory Board (in his absence any other member of the Supervisory Board) to be sent to the Shareholders at least 20 days in advance of such meeting. The Chairman of the Supervisory Board also sets the agenda. The Meeting of the General Assembly of the Shareholders may take place at any location in Georgia; the rule of making an extraordinary meeting is quite similar to the case of BOG. Like other larger banks in case of Procreditbank the General Assembly of Shareholders also appoints and removes members of the supervisory board, approves the allocation of profit, changes in capital, sales of substantial portions of the Bank's assets, amendments in Charter; etc. We should point out that for banks listed above the charter and corporate governance structure is public and is fully available of banks web page, but in case of small bank Cartu there is only the list of supervisory board.

## **2.2. Governing Bodies of Banks: Supervisory Board and Management Board**

Good corporate governance depends on effective and successful Supervisory Board work. The bank should have an effective Supervisory Boards that determine company strategy and

vision. Supervisory Board appoints and monitors the activities of Management Board. When determining the Supervisory Board's structure and composition it is essential to consider the bank's size, development perspectives, and risk level. A number of Supervisory Board members should be independent and an adequate balance should be maintained between representatives of shareholders and independent board members, in order to avoid a specific member's or small group of members', as well as specific shareholder's or small group of shareholders' inadequate dominating influence during the decision-making process. According to international best practice it is desirable that an independent member of the board be appointed Chairman. (Corporate Governance Code of Banks, 2009) The Management Board is the bank's executive body, responsible for its day-to-day activities and accountable to the Supervisory Board and the general meeting of shareholders. Within the framework of values, policies and strategies set by the Supervisory board, Management Board should act in the best interests of all shareholders, beneficiaries, creditors and of the bank itself. In the case of a Combined Supervisory Board, the availability of an adequate number of independent members becomes very important. Non-executive members of the Supervisory Board should play a major role in supervising executive bodies, approving their reports, and evaluating their performance. Executive members of the Supervisory Board may participate in the review of overall strategy and other procedural issues related to the bank's activities.

In case of BOG the supervisory board consists of 7 members, who are elected and dismissed by the general meeting of shareholders. Each member of supervisory board is elected for 4 years; a member of the supervisory board may serve as a member of management board at the same time, but members of management board may not hold majority of seats in the supervisory board. The main tasks and competence of supervisory board include the following: supervising the activities of each of the management board members; approving and discharging the CEO and other directors; approving and amending bank's policy documents; inspecting bank's books and property; requesting reports on Bank's activities from management board and reviewing the information provided by internal audit and external inspections; approving annual budgets and in general make all key decisions. The bank's day-to-day activities are carried out by management board, whose members are appointed by the supervisory board. Obligations of management board include the following: conduct and carry out the Bank's current activities, supervising functioning of bank's service centers and branches, ensuring that managers fulfill their tasks and duties; they also develop office rules, policies and other regulations which are approved by supervisory board.

TBC Bank's corporate governing bodies are: the General meeting of Shareholders, the Supervisory Board and the Management Board. A bit difference from BOG is that a number of appropriate committees have been established at both Supervisory and the Management Board level. Supervisory board plays the key role in Bank's strategy decisions- it has ultimate responsibility for the Bank's business, risk strategy and financial soundness, as well as how the Bank organizes and governs itself. In addition, the board is responsible for the following specific areas: approving purchases or disposals by TBC Bank that exceed 3% of the Bank's regulatory capital; authorizing any borrowing by the TBC bank if such borrowing exceeds 20% of the Bank's regulatory capital; approving investments by the bank, which exceed an aggregate total amount of USD 1 million, as well as entering any related party transactions above USD 100,000. The supervisory board consists of 7 member elected by the General meeting of shareholders for a term of 4 years each. The Chairman of the Supervisory Board may not simultaneously hold the position of CEO of TBC Bank. TBC Bank Supervisory Board includes 2 independent Directors as Board members. With 3 more members appointed as Board Directors by international financial institutions, the majority of the 7 members of the Board are either independent or appointed by international shareholders,

in line with the Bank's commitment to high standards of corporate governance. The following committees are set at the level of supervisory board: the Risks, Ethics and Compliance Committee, Remuneration Committee, Corporate Governance and Nomination Committee and Audit Committee. The Risks, Ethics and Compliance Committee is responsible for reviewing, assessing and recommending any actions to be taken by the Supervisory Board regarding TBC Bank's risk management strategy, risk appetite and tolerance, risk management system and risk policies. In addition this Committee reviews and approves large exposure to customers in circumstances when the borrower's aggregate liability to TBC Bank exceeds 5% of TBC Bank's Basel Capital. Other main responsibilities of Risks, Ethics and Compliance Committee are to supervise TBC Bank's commitment to the highest standards of ethical behavior and to oversee TBC Bank's compliance function. The Remuneration Committee advises the Supervisory Board on the compensation for the Supervisory Board and Management Board, the head of TBC Bank's business segments as well as for certain employees of the Bank. This Committee is also responsible for approving members of the long-term management incentive program and supporting its development, setting the compensation policy relative to the dismissal of key members of management, and approving annual reports of remuneration policy and practice... The Corporate Governance and Nomination Committee is responsible for developing corporate governance principles and guidelines applicable to TBC Bank, assessing the alignment of the Bank's governance practice with international standards of best practice, selecting and screening individuals qualified to become candidates for Supervisory Board and Management Board membership, considering and making recommendations to the Supervisory Board on the composition of the Supervisory Boards and the Management Board, as well we on the composition and structure of the Supervisory Board Committees. All above committees consist of four members of Supervisory Board and meets on quarterly basis. The members of the Audit Committee are appointed by the Supervisory Board to assist the Supervisory Board in overseeing the quality and integrity of TBC's accounting policies, financial statements and disclosure practices, as well as the effectiveness of internal controls over financial reporting, its compliance with relevant laws and regulations, taxation obligations and relevant codes of conduct, the independence and performance of the internal and external auditors and TBC Bank's system of internal control and management of financial and non-financial risks. The Audit Committee reports directly to the Supervisory Board and meets on a quarterly basis and is composed of 5 members, 3 of whom are also members of the Supervisory Board.

Like at BOG the Management Board at TBC is also responsible for daily operations of the Bank. There are 7 members of the Management Board, led by the CEO of the Bank. Members of the Management Board are appointed by the Supervisory Board for a renewable term of 4 years. In order to effectively carry out its daily responsibilities, the Management Board has established the following Committees: Credit Committee, Assets and Liabilities Management Committee (ALCO), Operational Risk Management Committee, Customer Experience Management Committee, IT Steering Committee, Change Advisory Board Committee, Operations Management Committee, Problem Loans Committee. The Credit Committee is composed of top and middle managers of TBC Bank, is chaired by the CEO and meets once a month or more frequently, as required. The exact composition of the Credit Committee varies among the retail corporate, SME and micro segments, it reports to Management Board and mainly is responsible for maintaining loan portfolio quality within acceptable risk levels and ensuring that TBC's lending guidelines are consistent with relevant legislation and regulatory policies. Credit Committee reviews loan portfolio on a regular basis and monitors and controls the recovery and collection process. The ALCO has 9 members, is chaired by the CEO and meets once a month or more frequently, as required. This Committee is responsible

for overseeing the effective implementation of TBC Bank's asset and liability management policies in order to maximize shareholder value and enhance profitability, ensure that liquidity, interest rate, foreign exchange, capital adequacy and interbank counterparty risks are managed efficiently within the Risk Appetite Statement. The ALCO is given authority to make a number of decisions regarding TBC's assets and liabilities under its governing documents, although authorization for certain decisions is reserved to the Management Board. The Customer Experience Management Committee is responsible for overseeing and ensuring customer satisfaction. The Committee is chaired by the CEO with membership of top and middle managers. The IT Steering Committee is responsible for prioritization and approval of IT projects and the IT project portfolio performance oversight. The Committee is chaired by the Deputy Chief Information Officer with membership comprised of top and middle managers. The Change Advisory Board Committee is responsible for review and approval of all IT related change requests initiated by different business units. The Committee is chaired by the Deputy Chief Information Officer with membership of top and middle managers. The Operations Management Committee is responsible for developing and improving the service processes in the Bank. The Committee is chaired by the CEO with membership comprised of top and middle managers. The problems Loans Committee is responsible for monitoring TBC's portfolio of problem assets through all phases of collection. The Committee is chaired by CRO with membership comprised of top and middle managers. At TBC Bank Supervisory Board and Management Board have special Charters with clear definition of their rights and responsibilities.

According to the Charter of Procreditbank it is also supervised by Supervisory Board, which consist at least 3 members. Similar to BOG, at Procreditbank Supervisory Board determines policy of the bank and is in charge of major decisions for the bank. For Daily operations there is a Board of Directors (actually the same as management board in previous cases) which is also in charge of the maintenance of the Bank's solvency and liquidity. Unlike TBC at Procreditbank there is only one- Audit Committee functioning, which consist at least 3 members. The Audit Committee reports periodically to the ordinary meeting of the General Assembly of Shareholders and the Supervisory Board on its work.

In the case of Cartu Bank the Supervisory board consist only 3 members and the Chairman is the same time CEO of the Bank. The top management is presented as the group of 5 people: CEO, and 4 Deputy CEOs which are the Chief Financial Officer, Chief Operations Officer, Chief Commercial Officer and Chief Risks Officer. As mentioned above there is no charter or description of duty segregation available for public.

### **2.3. Information Disclosure and Transparency**

Public disclosure of information contributes to market discipline and sound corporate governance. Banks should in a timely manner disclose complete, accurate, and material information about their activities to stakeholders. Information disclosure should be proportional to the bank's size, complexity of business, ownership structure, and risk profile. Information that should regularly be disclosed includes the following: a) The bank's goals, values and strategy; b) Ownership structure (including holding structure and cross-holdings); c) The full package of audited annual financial statements; d) Information about Supervisory Board and Management Board; e) The content and scope of transactions with related parties; If any of the below-listed events occur during a year, they have to be publicly disclosed: increase or decrease of share capital, issuance of bonds or other securities, significant changes in ownership structure and any significant legal proceedings likely to affect the future of the bank (including those related to bankruptcy or seizure of assets), rating assigned to the bank by an independent rating company. Nowadays officially transparency requirements are



regulated by the Regulation on Transparency of a Commercial Bank Financial Condition adopted by National Bank of Georgia in 2006. According to this regulation banks are obligated to publish quarterly financial statements and audited annual financial statements. In 2010 National Bank of Georgia updated the regulation on conducting external audit of commercial banks which also requires banks to post on their own website the audited general financial statements within the certain timeframe.

In the case of BOG and TBC disclosure requirements mostly in accordance of best international practice, since shares of both banks are traded on London Stock Exchange. BOG has posted audited financial statements with independent auditors report. In case of BOG the consolidation issues are very important since this bank has various subsidiaries in different areas of business. The audited financial statement includes a summary of significant accounting policies, segment information, detailed information about bank's financial condition, as well as information of risk management, bank's committees, and fair value measurements, related party disclosure and capital adequacy. Detailed management report can be found also in BOG's annual report, which consist consolidated results discussion, shareholder information as well as issues related to corporate governance- supervisory and management board composition and carried on activities. Almost the same characteristics are true for disclosure and transparency issues of TBC bank. In addition to audited financial statements and annual report, bank also issues a special prospectus on risk management policy, as well as the information about dividend policy, shareholders and related party transactions, material contracts, etc. Procreditbank also has quite high standards of transparency. Bank itself is owned by Procredit Group which comprises financial institutions operating on 3 continents and providing banking services in transition economies and developing countries. Complete information regarding holding group is fully disclosed, as well as bank provides information on shareholders, supervisory board, international rating and of course annual report and audited financial statements. In case of Cartu Bank audited financial statements are fully available, which includes information regarding significant accounting policies, transactions with related parties, issues of capital risk management and some information on risk management strategies.

### 3. COMPLIANCE WITH BASEL CORE PRINCIPLES

The *Core Principles for Effective Banking Supervision*, developed by the Basel Committee on Banking Supervision (the Committee) in cooperation with fellow supervisors, has become de facto the standard for sound prudential regulation and supervision of banks. The Core Principles are mainly intended to help countries assess the quality of their systems and to provide input into their reform agenda. The vast majority of countries has endorsed the Core Principles and has declared their intention to implement them. An assessment of the current situation of a country's compliance with the Principles can be considered a useful tool in a country's implementation of an effective system of banking supervision. Banking supervision body the National Bank of Georgia periodically makes assessments of compliance with Basel Core principles. Namely, such assessments have been made in 2004 by technical assistance advisor from World Bank, in 2006 by IMF, in 2011 by World Bank's special mission and by other international organizations. Basel Committee document contains 25 core principles for effective supervision; few of them are especially addressing the issues of corporate governance namely: Principle N4- Transfer of significant ownership: "The supervisor has the power to review and reject any proposals to transfer significant ownership or controlling interests held directly or indirectly in existing banks to other parties." Principle N 17- Internal control and audit: "Supervisors must be satisfied that banks have in place internal controls that are adequate for the size and complexity of their business. These should include clear

arrangements for delegating authority and responsibility; separation of the functions that involve committing the bank, paying away its funds, and accounting for its assets and liabilities; reconciliation of these processes; safeguarding the bank's assets; and appropriate independent internal audit and compliance functions to test adherence to these controls as well as applicable laws and regulations" ; Principle N 22 Accounting and disclosure- "Supervisors must be satisfied that each bank maintains adequate records drawn up in accordance with accounting policies and practices that are widely accepted internationally, and publishes, on a regular basis, information that fairly reflects its financial condition and profitability". In general Georgia legislation is largely compliance with above listed requirements, since according to the Georgian law on activities of commercial banks a person who intends to acquire certain amount of share in a commercial bank, so that his/her or beneficiary owner's participation in the bank exceeds 10%, 25% or 50% shall submit the fit and proper declaration to the National Bank. The National Bank shall review declaration within a month following its submission and either give consent on implementation of the respective transaction or reject it; Also major shareholders provide special declaration once in year, while analyzing bank risk profile, supervisor also assess the groups and ultimate shareholders in following manner: are the ultimate beneficial owners of the group known and what is their standing, what is the financial strength of shareholders, is the shareholder of the bank elsewhere under supervision, etc. According to legislation the only legal form of bank could be a joint stock entity, which is governed by general meeting of shareholders and managed by supervisory and management boards. In previous sections we have seen examples of bank charters which are in compliance with principle 17. Actually the rule of conducting external audit procedure and transparency regulation mostly guarantees the fulfillment of requirements listed in principle no 22.

#### 4. CONCLUSION

As we have seen corporate governance issues are quite important for Georgian Banking sector. Government, Association of Commercial Banks of Georgia and Banks by themselves addressed this issue in various ways: by laws, by corporate governance code and by internal bank regulations. Since the first assessment of compliance with Basel Core Principles held in 2004, situation largely improved. The large and active banks have quite well developed code of corporate governance; especially TBC Bank recently developed a new structure which is mostly in accordance with Basel Core principles and best international practice. From cases of BOG and Procreditbank we can also conclude that mostly large and medium size banks have quite transparent internal structure and well developed transparency rules, however, from the example of Cartu Bank, we can't be sure about it. Basically large banks have either international investors or partners, (or holders- like in case of Procreditbank) so they can spend more recourse for development internal procedures or can use frameworks from parent or partner companies. The same is not true in the case of small locally active banks, like Cartu. Execution quality still can be an issue for the banking sector- few international advisors mentioned that in terms of written regulation there is a high level of compliance, however in reality sometimes there are huge problems with obtaining proper information, sometimes even there is a lack of information for shareholders. (Robert Maggie- Corporate Governance in Transition and Developing Economies, 2010)

In general Georgian banking sector has positive development signs in corporate governance; However, it still needs to improve it in small and locally active banks, as well as fulfill some gaps in large banks too.

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## FACTORS INFLUENCING THE DECISION ON THE MEASUREMENT OF CUSTOMER SATISFACTION

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### ABSTRACT

*The emphasis in today's business, particularly regarding the income statement, is the attitude held by the buyer to the seller and vice versa, and the seller's awareness of customer needs and market requirements. Globalisation has, among other things, brought a strong competition and a large selection of different products. The customer no longer needs to wait in line to get the desired, as now sellers wait in line for a customer to come to them. Customer satisfaction is extremely important for each company. A company can obtain information on customer satisfaction in a variety of ways, while it has to listen to the needs and desires of its customers and satisfy them successfully. A company can obtain a competitive position in the market only if it carefully monitors and listens to customer needs and desires and meets them more efficiently and successfully than its competitors. One of the possible means of communication between customers and companies is the measurement of customer satisfaction. With such a measurement, the company receives direct and accurate information about the desires and needs of customers and also customers' opinion of the company. The purpose of this study is to determine whether and to what extent Slovenian companies use customer satisfaction surveys and to identify which of the tested factors have the greatest influence on the decisions on the measurement and the application of research results for better and easier business management. Those who use this research are aware of the importance of such knowledge and information, which is evident in the company's revenue. Customer satisfaction is a very important factor, as it is mostly the influence of customer satisfaction on the final profit of the enterprise, which is the goal of every company.*

**Keywords:** *company, customer (buyer), customer satisfaction, measuring, vendor (seller)*

### 1. INTRODUCTION

Customer satisfaction is the result of past and present experiences. Experiences shape expectations, which become the standard for the customer. The customer compares the present experiences with this created standard with regard to quality or the functioning of a product or service. The result of the comparison between the expected and received product value is the basis for satisfaction or dissatisfaction. A satisfied customer will return to purchase again and remain loyal to the company in the long run (Možina, Zupančič and Štefančič Pavlovič, 2002, 200).

Satisfaction is a general emotional response of customers to the purchased product. It is a level of feeling felt by the customer after comparing the perceived product performance and personal expectations. Customer satisfaction is related to personal expectations that the customer has prior to buying a product. The customer's personal beliefs determine product quality. If the customer's expectations have been met after the purchase, he is satisfied. Otherwise, the customer is dissatisfied (Potočnik, 2000, 181). Customer satisfaction is defined as the gap between the perceived and expected condition. A breakdown in expectations can occur in the purchasing process due to a gap between the perceived and expected product quality (Potočnik, 2000, 183–187).

Customer satisfaction is defined as a psychological state, which Lipičnik and Možina say results from the purchasing decision making process, which obtains its final form after the

purchase. "The satisfaction or dissatisfaction, which is the result of the customer's purchasing decision, becomes a component part of his experiences and thus basis for future actions." (Lipičnik, Možina, 1993, 113 in: Možina, Zupančič and Štefančič Pavlovič, 2002, 199).

The feeling of satisfaction evokes pleasant feelings in the customer. With this feeling, they enjoy the benefits that they received when buying a product or service. Dissatisfaction evokes unpleasant feelings in the customer and indicates specific problems that the customer is facing. Kline (Ule and Kline, 1996, 248) defines customer satisfaction or dissatisfaction as: "the emotional response to the process of evaluating the product consumption experience or use of service". The main elements of the comparison are expectations, operation or effects, comparison, confirmation or lack thereof and discrepancy. The customer forms expectations or convictions before buying a product. Asserts that to maintain the competitive edge, organisations must move quickly to identify and then meet customer satisfaction. Examines methods of identifying customer satisfaction, measuring and using the results to improve the quality of products and services (Measuring Customer Satisfaction, Mike Asher, The TQM Magazine, Vol. 1 Iss : 2). According to Vannham (2000, 586 in: Možina, Zupančič and Štefančič Pavlovič, 2002, 207), satisfaction has two important characteristics – double character and relativity. The double character of satisfaction comprises the emotional and cognitive component. The relativity of satisfaction derives from the subjectively perceived quality and different customer expectations.

Measuring customer satisfaction in marketing research is the reflection of the market situation. The reasons for measuring customer satisfaction differ between companies. The most common reasons for measuring customer satisfaction are to obtain data on customer characteristics, measure competitive advantages and weaknesses and the introduced improvements. The results of such measurements are compared to the results obtained in the past. The obtained data have to be entered in the internal database, which allows us to make customer analyses (Pizam and Ellis 1999, 334).

The results of customer surveys enable us to offer customers what they want and not only what they think they want. Measuring customer satisfaction is a long-term and complex process, which should include all employees, directly or indirectly. The measurement itself is however not enough, as it only indicates fields where improvements are required but cannot solve the established discrepancies between the expected and the received. Therefore, a comprehensive approach to monitoring customer satisfaction is required, which not only monitors but also improves customer satisfaction (Kavran, 2001). Different customer satisfaction scales are used to assess customer satisfaction. We differentiate between two-point, four-point, five-point, seven-point and multi-point scales. Some scales already include a mean value, some do not. Their use depends on what the researcher wishes to achieve. A possible deficiency when including the mean value can be the greater share of undetermined respondents. On the other hand, some people are aware that even the level of undetermined respondents hides important information and thus include it in the scale. Five-point scale are often used for assessing customer satisfaction, whereby 1 means very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied (Kuhelj, 2002, 15). The concept of customer satisfaction has attracted much attention in recent years. Organisations that try to analyse this concept should begin with an understanding of various customer satisfaction models. Such models clarify various theories about customer satisfaction, making research and analysis in this topic more focused and less wasteful of research resources (Wilard Hom M.B.A.,

<http://www.rpgroup.org/sites/default/files/An%20Overview%20of%20Customer%20Satisfaction%20Models.pdf> ).

The purpose of studying or researching customer satisfaction is not only for the management to establish customers' satisfaction with the company's products or services but also to establish the success of previous measures by comparing the measurement results with the previous measurement and thus establishing the advantages and weaknesses of their products or services compared to the products or services of competitive enterprises (Potočník 2000, 187-189).

The study on measuring customer satisfaction supports different strategic decisions, has applicable value and enables the researcher (in this case the company conducting the measurement) to offer the customer what he needs. Companies, which know the opinions and viewpoints of their customers, can decide with more ease on their future steps and make decisions, which lead to satisfying results (Šuster, 2008).

## **2. STUDY ON MEASURING CUSTOMER SATISFACTION EMPLOYING THE TWITTER SOCIAL NETWORK**

Using social networks has become part of everyday life for many people. These online applications enable users to share their ideas and opinions within own networks. In this way, certain connections are established and maintained. A growing number of people use different social networks for commendations of and complaints against companies, products and services. One of such applications is Twitter. Twitter enables users to create a smaller blog, a microblog of 140 characters. The commendations and complaints, which are published on social networks, are of a public character. Despite the growing number of customers, who use Twitter to express their complaints, a 2011 USA survey results show that the majority of companies do not respond to these complaints. They respond with silence or simply disregard them. Even though companies collect customer satisfaction data, they fail to use the social network to do so.

A 2011 study by Maritz and Evolve24 has shown that only 29% of companies responded to the 1,298 recorded complaints over Twitter. Such ignoring of complaints is basically neglecting one's duty. At a time of information revolution, companies have to consider new communication channels and utilise them for two main reasons.

The first reason to utilise social networks is for companies to be able to take advantage of the complaint. The results of the study have shown that 83% of customers, who complained and received a response by the company, liked hearing from the company. This applies regardless of how, when and why the company answered. Companies need to seriously consider their responsiveness on social networks. The mere fact that the company recognises the customer's problem and shows that it is willing to listen greatly improves the customer's positive feelings. It is a surprising finding that customers feel a strong need for their problems, which they published online, to be dealt with. This means that they want to have a strong influence on the customer satisfaction process. They understand the use of social networks as a simplified means for solving their problems.

The second reason for companies to utilise social networks is the realisation that people, who use Twitter to express their complaints, thus express their feelings. They wish to express their distress. Less than 1% of customers use Twitter as the first step to solving their problems. In almost all cases, people complain on Twitter because the company had already convinced them for the purchase using one of the traditional channels. Traditional communication channels on the other hand do not allow them to express their current dissatisfaction. With the help of Twitter, angry customers are basically searching for someone who is willing to listen. They wish to scream about the problem in a public forum. With this realisation, 70% of companies, which ignore customers' complaints on Twitter, should ask themselves if these complaints are really worth ignoring.

Companies do not engage in social networks for two main reasons. These are fear and inappropriate human resources or employment structure.

Companies would like to join in discussions on social networks but are worried that the conversation would become negative in a broader circle. Discussions on social networks enable greater exposure to complaints. These companies have been told that if a company is worthless, Twitter is the least of their concerns. Social networks do not generate negativity. They are a company's magnifying glass as to what is happening in the market. Twitter and other social networks do not generate more agitated people. They do however enable companies to react to the dissatisfaction of their customers and to provide them with appropriate responses in order to turn them into satisfied and reassured people. Responsiveness of companies is especially important to the female population over the age of 35, as this group of customers is the most pleased with receiving a response.

Human resources operate in accordance with the specified employment structure and appointed working hours. Social networks on the other hand do not close at a certain hour but work throughout the day. Many social network users use these networks only at night and on weekends when companies are closed. For companies, which have a conventional employment structure, this is not a favourable time for monitoring the activity on social networks and to provide answers. Once companies realise that social networks represent a new opportunity for meeting the needs and desires of customers, they will know how to utilise them better. The time when customer support ended when the store closed at a certain hour and the time when customer support call centres were closed at the weekend have come to an end. The world has changed drastically. The previously carefully shaped system of resources (human resources and financial system) needs to be refurbished in consideration of the changed needs and desires of customers.

The study has shown that companies will have to pay more attention to recognising and meeting new expectations of users of social media if they wish to deal with customers' needs more efficiently. Twitter offers the company only 140 characters for its response and the customer also has only 140 characters to express his problem. Numerous successful companies have organised their own Twitter department because this is a more effective way of communicating with customers than communication by phone or email.

The online study included 1,298 American consumers. The sample of respondents was determined under specific conditions. They were Twitter users who frequently tweet and have used Twitter to complain about a specific product, service, brand, or company and were at least 18 years of age.

Study results show that nearly half of respondents expected the company to read their Tweet or complaint. These expectations increased with the respondents' age. Nearly one third of respondents received a response from the company about their Twitter complaint.

Of those who received a response, 83% said they liked hearing from the company. Only 4% did not like hearing from the company. Nearly three in four were very or somewhat satisfied with the company's response. The feelings of respondents receiving a response by the company were predominantly positive. 32% of respondents loved being contacted, 51.5% liked it, 12.5% said it did not matter either way, 3.2% did not like it and 0.8% hated it. 34.7% were very satisfied with the company's response, 39.7% were somewhat satisfied, 9.9% were neither satisfied nor dissatisfied, 10.1% were somewhat dissatisfied and 5.6% were very dissatisfied. The group that liked the responses the most were women aged 35 and up.

Of those who were not contacted regarding their complaint, 86% would have appreciated a reply by the company or the company to deal with their complaint. If the company were to contact them about their complaint, 40.3% would love it, 46.1% would like it, 12.2% would not care either way, 1.1% would not like it and 0.3% would hate it. If the company were to

contact them about something other than their complaint, 2.9% would love it, 11.3% would like it, 22.5% would not care either way, 44.9% would not like it and 18.4% would hate it. Older age groups (over 45) are more favourable toward the company providing a different response to their complaint. The younger population would be less inclined towards companies or would not care. Only 1% did not wish to be contacted by the company regarding their complaint Tweet. 63% of respondents who did not receive a follow-up would not like it if the company contacted them about something other than their complaint Tweet.

### **3. STUDY ON MEASURING CUSTOMER SATISFACTION AMONG SLOVENIAN COMPANIES**

The study on measuring customer satisfaction among Slovenian companies was conducted in 2012 and is based on 637 randomly selected Slovenian companies. The subject of the study was to what extent Slovenian companies monitor customer satisfaction and which companies do so. The study included the following influential factors, which affect the decision on measuring customer satisfaction: company size, area of activity (domestic or international market), ownership, company age and number of active customers. The study is based on a questionnaire, which was filled in using in a telephone interview. The questionnaire comprises 18 closed-ended questions relating to measuring customer satisfaction. The main question is whether the company measures customer satisfaction. After receiving a positive answer to the first question, there were 10 more questions posed. In the event of a negative answer, only the first question was posed. At the end of the questionnaire, there were 6 demographic questions posed. The results of the study prove that the majority of Slovenian companies do not measure customer satisfaction. As regards the objectives of measuring customer satisfaction, the companies see the most important aspect to be getting closer to the customer and understanding his needs and desires. There is a connection between measuring customer satisfaction and company ownership. The more a company thinks about systematically measuring customer satisfaction, the more it is willing to invest in research. The age of the company affects the management's openness to novelties. The more active customers a company has, the more it is willing to invest in novelties. The results of the questionnaire, which relate to the posed demographic questions, provide us with the following information, which also explains the characteristics of the population. Among the 637 interviewed Slovenian companies, the majority were small enterprises, i.e. 54.32%. Small enterprises employ up to 50 people. There were 37.52% of medium-sized enterprises employing between 50 and 250 people. The smallest percentage pertained to large enterprises (8.16%) employing more than 250 people. The majority are privately Slovenian held enterprises (85.24%). The smallest percentage are state-owned or mixed enterprises (0.31%). There were 6.91% of privately held companies in foreign ownership. The majority of the interviewed companies (56.51%) operate in both markets – the domestic and foreign. Only 3.30% operate in the foreign market. The majority of companies are between 3 and 15 years old. 3.61% of companies have been operating for less than 3 years and 44.43% of companies have been operating for more than 15 years. The majority of companies (44.90%) have up to 500 active customers. 15.70% have from 500 to 2,000 active customers. 10.83% have more than 2,000 active customers and 28.41% have less than 50 active customers. The persons in the company, who are in charge of marketing, hold different positions. Mostly, i.e. 35.48%, they are sales and marketing directors. In 26.69% of companies, they hold the position of member of the management board or the immediate management. There were 14.13% of companies that do not employ a person in charge of marketing, while 18.37% of companies said that the person in charge of marketing does not have any major influence in the company.



#### 4. CONCLUSION

Customer satisfaction is a term that derives from an individual's purchasing decision-making process and is increasingly gaining in importance. Satisfaction can be defined as the individual's assessment after the purchase with the individual comparing his expectations about the quality of the product or service with the actual situation. Past experiences can greatly affect expectations. The same goes for the opinions of others. For a company, customer satisfaction ensures the basis for successful operation. The feeling of satisfaction evokes pleasant feelings in customers, which leads to a positive opinion about the company and the readiness to remain loyal to the company also in the future. Companies establish the satisfaction of their customers with the help of different methods. It is however not enough for companies to only be aware of the importance of customer satisfaction and to measure it; it is also important to use these results accordingly. They need to adopt specific measures and to shape and implement strategies that will allow them to improve customer satisfaction, which will be reflected in achieving better results. Our study has shown that not enough companies decide for measuring customer satisfaction, which indicates a lack of awareness on the importance of such research. It is precisely the current financial crisis that will show the differences between companies. Companies, which know the level of customer satisfaction and which have established their customers' needs, will more easily and faster overcome the crisis. The results of the study on measuring customer satisfaction show the share of Slovenian companies that implement measurements of customer satisfaction. The study is based on a sample of 637 randomly selected Slovenian companies. The sample includes every tenth Slovenian company from the business register. Among the 637 Slovenian companies, the majority were small enterprises employing up to 50 people. As regards the ownership of participating companies, the majority are companies privately held by owners of Slovenian descent. The majority of these companies operate both in the domestic and foreign market. The majority of companies are between 3 and 15 years old and have up to 500 active customers. The persons in the company, who are in charge of marketing, hold different positions. They are usually sales and marketing directors, others are members of the management board or the immediate management. There were also companies that do not have a person in charge of marketing or such a person does not have any major influence.

A 2011 study conducted in the USA has shown that only 29% of companies responded to the 1,298 recorded complaints over Twitter. Study results show that nearly half of respondents expected the company to read their Tweet or complaint. These expectations increased with the respondents' age. Nearly one third of respondents received a response from the company about their Twitter complaint. Of those who were not contacted regarding their complaint, 86% would have appreciated a reply by the company or the company to deal with their complaint. Only 1% did not wish to be contacted by the company regarding their complaint Tweet. 63% of respondents who did not receive a follow-up would not like it if the company contacted them about something other than their complaint Tweet.

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## ANALYZING THE EFFICIENCY OF PAPER FIRMS IN INDIA: AN APPLICATION OF DEA AND TOBIT ANALYSIS

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### ABSTRACT

*The objective of present study is to evaluate the relative efficiency of paper firms in India. Different data envelopment analysis (DEA) models are employed to study the extent of efficiency of paper firms. Major findings of the DEA analysis suggest that 35 percent firms are found to be technically efficient. Overall, the industry shows good performance with mean technical efficiency level of 0.86. The results relating to returns to scale indicate that nineteen firms are experiencing increasing returns to scale and fifty eight firms are operating at decreasing returns to scale. Our study reports that ownership and age have an insignificant impact on the performance of the paper firms whereas size of the firm has a positive and significant association with its efficiency.*

**Keywords:** *Data envelopment analysis, Indian paper industry, Super efficiency, Technical efficiency, Tobit.*

### 1. INTRODUCTION

Paper Industry is one of the most important industries having a bearing on the economic and environmental objectives of the country. Indian paper industry is the 15<sup>th</sup> largest in the world with the total production of 10.11 million tons paper per annum which is 2.6% of the total world production of 394 million tons/annum of paper. (GOI, 2013). It was in 1832 that the first paper mill in India was set up at Sreerampur, West Bengal. The paper industry is the second industry to be liberalized in India after the cement industry. However, prior to the liberalization phase of the 1990s, the Indian paper industry was partially delicensed in 1984-85. Indian paper industry has witnessed rapid growth in level of output, number of production units and variety of paper and paper products over the period of time. However, the industry has not been able to fill the gap between demand and supply through domestic production resulting into growing imports of paper and paper products. In 2010-11, the demand and supply of paper in India was 11.15 and 10.11 million tons respectively (GOI, 2013). The paper industry in India is also highly energy-intensive and pollution emitting industry. It is extremely important to analyze the efficiency performance of Indian paper industry in the changing-policy scenario. Moreover, measurement of firm performance can provide useful insights into the competitiveness of firms and their potential for improving resource use. With this background in our mind, the present study aims to evaluate the relative technical and scale efficiency level of paper firms in India. This paper is organized as follows. The review of literature on Indian paper industry is discussed in section two. Section three describes the methodological framework and the database for the current work. Section four presents empirical results and section five concludes the paper.

## 2. REVIEW OF LITERATURE

As far as the paper industry in India is concerned few researchers (Schumacher and Sathaye, 1999; Pradhan and Barik, 1999; Mongia et al. 2001; Pattnayak and Thangavelu, 2005) have tried to analyze the productivity of this industry. The brief outline of select productivity studies conducted in the paper sector of India is discussed below:

*Table 2.1: Studies on Productivity Growth of Indian Paper Sector*

Author(Year)	Study Period	Sector	Key Findings
Schumacher and Sathaye (1999)	1973-74 to 1993-94	Indian Paper and Pulp Sector	Paper and Pulp industry has shown downfall in productivity during the observed period. The decline in productivity was caused mainly by the by high tariffs on imported paper products and other policies, which allowed inefficient, small plants to enter the market and flourish.
Pradhan and Barik (1999)	1975-93	Eight most polluting industries including paper and pulp, cement, chemical and chemical products, glass, iron and steel, non-ferrous metals, pottery and earthenware and structural clay	Paper and Pulp industry shows declining trend in the total factor productivity growth (TFPG) during the study period.
Mongia et al.(2001)	1973-74 to 1993-94	Six energy intensive industries namely, cement, iron and steel, aluminium, fertilizers, glass, paper and paper products	Paper industry witnessed a decline in productivity for almost the entire period of study. Productivity growth varied across industries. Overall, policy reforms did not go far enough to significantly affect productivity growth in India's energy-intensive sectors.
Pattnayak and Thangavelu (2005)	1981-1998	Indian manufacturing industries	Total Factor Productivity (TFP) improvements for most of the industries after the 1991 reform initiatives, which support the evidence of improvements in economic efficiency in key Indian manufacturing industries. Paper industry showed little increase in the growth of TFP during post-reform period.
Chirayil (2008)	1980-81 to 2004-05	Indian Paper Industry	Productivity growth shows declining trend during the study period.

Above studies pertaining to Indian paper sector covers relatively older time period in the past. Also none of the studies have ranked the firms on the basis of their super efficiency scores. Moreover, no study seems to have examined the determinants of efficiency of paper firms in India. Therefore, the current paper is an attempt to bridge these gaps with the objectives of analyzing the relative technical, scale and super efficiency of paper firms in India and examining the potential determinants of paper firms in India.

### 3. METHODOLOGY AND DATABASE

#### 3.1 Methodology

Data Envelopment Analysis (DEA) is widely used by the researchers for performance evaluation of firms. DEA does not impose any assumption of the functional form of the production function. Further, DEA can accommodate multiple inputs and outputs for calculating efficiency. Therefore, present study uses the DEA technique for efficiency analysis of paper firms in India. Under the conventional DEA models, all the efficient units have efficiency score equal to one making it impossible to differentiate their performance. While it is possible to rank or differentiate the performance of efficient firms under super efficiency DEA model as firms can have efficiency score greater or equal to one. Therefore, the present study also applies the Andersen and Petersen's (1993) super-efficiency model to rank the efficient firms. DEA also identifies increasing, decreasing, or constant returns to scale for each firm.

#### 3.2 Database

In the current work, all the firms for which data is available for the year 2011-12 have been extracted from PROWESS, a statistical database that is produced and maintained by the Centre for Monitoring Indian Economy (CMIE), India. These paper firms account for 99.97 per cent share of the paper industry. The data on value of output and four input variables viz., raw material expenses, salaries and wages, power and fuel expenses and capital employed for the year 2011-12 have been collected from PROWESS.

### 4. EMPIRICAL RESULTS

Findings of the empirical analysis conducted on paper firms in India for the year 2011-12 using DEA are presented in Table 4.1.

*Table 4.1: Technical and Scale Efficiency of Paper Firms in India for the year 2011-12*

S No.	Firm Name	Technical Efficiency	Technical Inefficiency	Scale Efficiency	Scale Inefficiency	Returns to Scale	Market Share(%)
1.	Bilt Graphic Paper Products Ltd.	1.00	0	0.66	34.00	Decreasing	14.10
2.	Tamil Nadu Newsprint & Papers Ltd.	1.00	0	1.00	0	Constant	7.29
3.	J K Paper Ltd.	1.00	0	0.74	25.90	Decreasing	6.51
4.	West Coast Paper Mills Ltd.	1.00	0	0.63	37.20	Decreasing	5.89
5.	Ballarpur Industries Ltd.	1.00	0	0.82	17.60	Decreasing	4.94
6.	Huhtamaki P P L Ltd.	1.00	0	0.87	13.30	Decreasing	3.62
7.	Seshasayee Paper & Boards Ltd.	0.98	1.90	0.78	21.90	Decreasing	2.76
8.	International Paper A P P M Ltd.	0.84	15.90	0.67	32.80	Decreasing	2.67
9.	N R Agarwal Inds. Ltd.	1.00	0	0.79	20.80	Decreasing	2.24
10.	Emami Paper Mills Ltd.	0.89	10.90	0.68	32.00	Decreasing	2.21
11.	Rainbow Papers Ltd.	1.00	0	0.68	32.40	Decreasing	2.03
12.	Ruby Macons Ltd.	1.00	0	0.81	18.70	Decreasing	1.89
13.	Sirpur Paper Mills Ltd.	0.82	18.30	0.78	22.00	Decreasing	1.76
14.	Kuantum Papers Ltd.	0.88	12.00	0.74	25.80	Decreasing	1.70
15.	Mysore Paper Mills Ltd.	1.00	0	0.85	15.40	Decreasing	1.67

16.	Shree Rama Newsprint Ltd.	0.78	21.80	0.74	26.40	Decreasing	1.58
17.	Shah Paper Mills Ltd.	1.00	0	0.93	6.90	Decreasing	1.56
18.	Hindustan Newsprint Ltd.	0.98	2.30	0.83	16.80	Decreasing	1.43
19.	Parksons Packaging Ltd.	1.00	0	0.74	25.80	Decreasing	1.39
20.	Ruchira Papers Ltd.	0.85	14.70	0.78	22.20	Decreasing	1.28
21.	Shreyans Industries Ltd.	0.97	3.00	0.81	18.80	Decreasing	1.24
22.	Karur K C P Packkagings Ltd.	0.88	12.20	0.77	23.40	Decreasing	1.22
23.	Gayatrishakti Paper & Boards Ltd.	0.92	7.90	0.77	23.00	Decreasing	1.17
24.	Dev Priya Inds. Ltd.	1.00	0	1.00	0	Constant	1.16
25.	Sidharth Papers Ltd.	1.00	0	0.91	8.80	Decreasing	1.14
26.	Satia Industries Ltd.	1.00	0	0.79	20.90	Decreasing	1.08
27.	Star Paper Mills Ltd.	0.83	17.20	0.83	17.10	Decreasing	1.05
28.	Pudumjee Pulp & Paper Mills Ltd.	0.84	16.50	0.84	16.40	Decreasing	0.98
29.	Sree Sakthi Paper Mills Ltd.	0.85	15.20	0.84	16.20	Decreasing	0.89
30.	Magnum Ventures Ltd.	0.74	26.40	0.89	10.90	Decreasing	0.89
31.	Laxmi Board & Paper Mills Ltd.	0.95	4.80	0.82	17.80	Decreasing	0.82
32.	Sundaram Multi Pap Ltd.	1.00	0	1.00	0	Constant	0.79
33.	South India Paper Mills Ltd.	0.86	14.50	0.86	14.20	Decreasing	0.77
34.	Genus Paper Products Ltd. [Merged]	0.79	21.20	0.84	15.90	Decreasing	0.77
35.	Nepa Ltd.	1.00	0	1.00	0.30	Decreasing	0.76
36.	Delta Paper Mills Ltd.	0.75	24.80	0.87	12.90	Decreasing	0.75
37.	Malu Paper Mills Ltd.	0.73	26.80	0.87	12.60	Decreasing	0.74
38.	Orient Press Ltd.	0.93	7.20	0.91	8.80	Decreasing	0.71
39.	Balkrishna Paper Mills Ltd.	0.95	5.00	0.87	12.90	Decreasing	0.71
40.	Shree Ajit Pulp & Paper Ltd.	0.77	23.20	0.88	11.60	Decreasing	0.68
41.	K C L Ltd.	0.98	1.80	0.88	12.40	Decreasing	0.68
42.	Shree Krishna Paper Mills & Inds. Ltd.	0.88	12.50	0.89	10.90	Decreasing	0.67
43.	Rama Paper Mills Ltd.	0.68	32.30	0.89	10.70	Decreasing	0.62
44.	Padam Industries Ltd.	0.93	7.10	0.90	10.30	Decreasing	0.57
45.	N S Papers Ltd.	1.00	0	1.00	0	Constant	0.54
46.	Ballavpur Paper Mfg. Ltd.	0.68	32.00	0.93	6.70	Decreasing	0.53
47.	Yash Papers Ltd.	0.73	27.30	0.97	2.70	Decreasing	0.48
48.	Paramount Printpackaging Ltd.	1.00	0	1.00	0	Constant	0.46
49.	Shree Bhawani Paper Mills Ltd.	0.50	49.60	0.98	2.40	Decreasing	0.46
50.	Kalptaru Papers Ltd.	1.00	0	1.00	0	Constant	0.45

51.	Shakumbhri Straw Products Ltd.	0.55	45.50	1.00	0.20	Decreasing	0.44
52.	Perfectpac Ltd.	0.93	7.40	0.93	7.50	Decreasing	0.41
53.	Sangal Papers Ltd.	0.88	11.80	0.97	2.70	Decreasing	0.37
54.	Nath Pulp & Paper Mills Ltd.	0.79	21.50	1.00	0.30	Decreasing	0.35
55.	Sun Paper Mill Ltd.	0.73	27.20	1.00	0	Constant	0.34
56.	Plus Paper Foodpac Ltd.	0.68	32.10	0.96	4.20	Decreasing	0.33
57.	Rama Pulp & Papers Ltd.	1.00	0	1.00	0	Constant	0.32
58.	Shree Rajeshwaranand Paper Mills Ltd.	0.74	26.50	1.00	0.40	Increasing	0.29
59.	Ganga Papers India Ltd.	1.00	0	1.00	0	Constant	0.29
60.	Servalakshmi Paper Ltd.	0.48	52.20	0.95	5.30	Decreasing	0.26
61.	Rollatainers Ltd.	0.67	33.20	0.95	5.50	Decreasing	0.25
62.	Maruti Papers Ltd.	0.96	3.60	1.00	0.10	Increasing	0.24
63.	Nikita Papers Pvt. Ltd.	0.74	26.50	1.00	0	Constant	0.24
64.	Nachiketa Papers Ltd.	0.87	12.70	1.00	0	Constant	0.23
65.	Daman Ganga Board Mills Pvt. Ltd.	1.00	0	1.00	0	Constant	0.18
66.	Craft Corner Paper Mills Ltd.	1.00	0.40	1.00	0	Constant	0.17
67.	Mohan Fibre Products Ltd.	0.80	20.30	1.00	0	Constant	0.16
68.	Purity Flex Pack Ltd.	0.77	22.80	1.00	0.10	Increasing	0.15
69.	Hitech Print Systems Ltd.	0.89	11.00	0.99	0.90	Decreasing	0.15
70.	Vishal Coaters Ltd.	0.84	16.00	0.98	1.70	Increasing	0.14
71.	Parijat Paper Mills Ltd.	0.89	11.50	0.98	2.30	Increasing	0.14
72.	Nice Papers Ltd.	1.00	0	1.00	0	Constant	0.14
73.	B & A Packaging India Ltd.	1.00	0	1.00	0	Constant	0.13
74.	Sudhir Papers Ltd.	1.00	0	1.00	0	Constant	0.12
75.	Hanuman Agro Inds. Ltd.	0.80	20.50	1.00	0.20	Increasing	0.12
76.	Cosboard Industries Ltd.	0.81	18.70	1.00	0.20	Decreasing	0.11
77.	Ellora Paper Mills Ltd.	0.62	38.10	1.00	0.30	Increasing	0.11
78.	Saffron Industries Ltd.	0.66	34.50	1.00	0.20	Decreasing	0.11
79.	Kay Power & Paper Ltd.	0.59	40.60	1.00	0.20	Decreasing	0.11
80.	Gaurav Paper Mills Ltd.	0.61	38.80	1.00	0	Constant	0.11
81.	Claridge Moulded Fibre Ltd.	0.90	9.90	1.00	0	Constant	0.10
82.	P C I Papers Ltd.	0.95	4.60	0.95	4.60	Decreasing	0.10
83.	Greenland Paper Mills Ltd.	0.69	30.60	1.00	0	Constant	0.10
84.	Shree Karthik Papers Ltd.	0.64	36.50	0.99	0.90	Increasing	0.10
85.	Shree Jagdambe Paper Mills Ltd.	0.78	22.40	0.99	1.40	Increasing	0.09
86.	Gampa Alcoates Ltd.	1.00	0	1.00	0.10	Decreasing	0.09
87.	Shalimar Krafts & Tissue Pvt. Ltd.	0.82	18.00	1.00	0	Constant	0.09

88.	Shakumbhri Pulp & Paper Mills Ltd.	0.80	20.20	0.98	1.90	Increasing	0.07
89.	Coral Newsprints Ltd.	0.82	18.20	0.99	0.60	Increasing	0.06
90.	Meenakshi Paper Mills Pvt. Ltd.	1.00	0	1.00	0	Constant	0.06
91.	Deoria Paper Mills Ltd.	0.79	21.20	0.97	2.60	Increasing	0.06
92.	Lodha Offset Ltd.	1.00	0	1.00	0	Constant	0.05
93.	Maheshwari Paper Ltd.	0.97	2.80	0.97	2.70	Increasing	0.04
94.	Superior Industrial Enterprises Ltd.	0.79	21.50	0.99	0.90	Increasing	0.04
95.	Nec Packaging Ltd.	0.84	16.20	1.00	0.10	Increasing	0.03
96.	Bio Green Papers Ltd.	0.60	39.70	0.98	1.80	Decreasing	0.03
97.	Simplex Packaging Ltd.	1.00	0	1.00	0	Constant	0.02
98.	Shree Swami Harigiri Paper Mills Ltd.	1.00	0	1.00	0	Constant	0.01
99.	Vardhman Textile Components Ltd.	0.76	23.60	0.98	2.10	Increasing	0.01
100.	Viramya Packlight Ltd.	1.00	0	1.00	0	Constant	0.01
101.	Suryo Papers Ltd.	1.00	0	0.98	1.70	Increasing	0.01
102.	Victory Paper & Boards (India) Ltd.	1.00	0	1.00	0	Constant	0.01
103.	Lavasa Bamboocrafts Ltd.	1.00	0	0.67	32.70	Increasing	0.01
104.	Agio Paper & Inds. Ltd.	0.20	80.50	0.15	84.90	Increasing	0.01
	<b>Average</b>	0.86	13.71	0.91	9.02		99.97

**Note:** Technical Inefficiency (%) =  $(1 - \text{TE Score}) \times 100$  and Scale Inefficiency (%) =  $(1 - \text{SE Score}) \times 100$

It may be noted from the results that thirty six firms are lying on the technical efficiency frontier. Servalakshmi Paper Ltd. is the worst performer in the entire group, can produce the same output by 48 per cent of the inputs. Overall, the industry shows a good performance with mean technical efficiency levels of 0.86. The mean technical efficiency of 0.86 implies that it would be possible for the paper firms to produce the same output by 86 percent of the inputs. If we look at returns to scale findings, nineteen firms are showing increasing returns to scale, signifying the underutilization of plants. These firms can reap the benefits of economies of scale by increasing their size of operation upto the scale efficient size. Fifty eight firms are operating at decreasing returns to scale inferring over utilization of their plant capacities. This suggests that these firms should bring down their size of operation to the optimum plant size.

Table 4.2 shows the super efficiency scores, ranking of paper firms on the basis of their super efficiency scores and reference set of inefficient firms.



*Table 4.2: Super Efficiency Scores, Rank and Reference Set for Paper Firms in India for the year 2011-12*

<b>S. No.</b>	<b>Firm Name</b>	<b>Super Efficiency</b>	<b>Rank</b>	<b>Reference Set</b>
1.	Bilt Graphic Paper Products Ltd.	0.66	81	1
2.	Tamil Nadu Newsprint & Papers Ltd.	1.16	13	2
3.	J K Paper Ltd.	0.74	64	3
4.	West Coast Paper Mills Ltd.	0.63	92	4
5.	Ballarpur Industries Ltd.	0.82	42	5
6.	Huhtamaki P P L Ltd.	0.87	31	6
7.	Seshasayee Paper & Boards Ltd.	0.77	60	12, 3, 5, 2, 50
8.	International Paper A P P M Ltd.	0.57	100	3, 32, 2
9.	N R Agarwal Inds. Ltd.	0.79	50	9
10.	Emami Paper Mills Ltd.	0.61	95	32, 17, 1, 2
11.	Rainbow Papers Ltd.	0.68	76	11
12.	Ruby Macons Ltd.	0.81	45	12
13.	Sirpur Paper Mills Ltd.	0.64	88	32, 2,3, 50
14.	Kuantum Papers Ltd.	0.65	85	5, 2, 12, 50
15.	Mysore Paper Mills Ltd.	0.85	37	15
16.	Shree Rama Newsprint Ltd.	0.58	99	17, 25, 2, 12, 50
17.	Shah Paper Mills Ltd.	0.93	25	17
18.	Hindustan Newsprint Ltd.	0.81	44	50, 15, 2
19.	Parksons Packaging Ltd.	0.74	63	19
20.	Ruchira Papers Ltd.	0.66	79	32, 11, 1, 6, 3
21.	Shreyans Industries Ltd.	0.79	52	35, 3, 15, 50
22.	Karur K C P Packagings Ltd.	0.67	77	50, 32,3, 2
23.	Gayatrishakti Paper & Boards Ltd.	0.71	70	32, 17, 6, 48
24.	Dev Priya Inds. Ltd.	1.11	15	24
25.	Sidharth Papers Ltd.	0.91	26	25
26.	Satia Industries Ltd.	0.79	51	5, 12, 3, 50
27.	Star Paper Mills Ltd.	0.69	74	3, ,35, 15, 50
28.	Pudumjee Pulp & Paper Mills Ltd.	0.70	39	35, 3, 15, 50
29.	Sree Sakthi Paper Mills Ltd.	0.71	69	6, 35, 9, 3, 50
30.	Magnum Ventures Ltd.	0.66	82	32, 2, 50
31.	Laxmi Board & Paper Mills Ltd.	0.78	54	57, 24, 9, 35
32.	Sundaram Multi Pap Ltd.	1.08	16	32
33.	South India Paper Mills Ltd.	0.73	66	35, 3, 9, 50
34.	Genus Paper Products Ltd. [Merged]	0.66	80	2, 25, 45
35.	Nepa Ltd.	1.00	20	35
36.	Delta Paper Mills Ltd.	0.65	83	35, 3, 15, 50
37.	Malu Paper Mills Ltd.	0.64	87	50, 45, 25, 2
38.	Orient Press Ltd.	0.85	36	65, 48, 6, 35
39.	Balkrishna Paper Mills Ltd.	0.83	40	59, 24, 35, 57
40.	Shree Ajit Pulp & Paper Ltd.	0.68	75	12, 50, 9, 24
41.	K C L Ltd.	0.86	33	24, 65, 6, 48
42.	Shree Krishna Paper Mills & Inds. Ltd.	0.78	56	57, 50, 6, 24, 35
43.	Rama Paper Mills Ltd.	0.60	96	2, 25, 50, 45

44.	Padam Industries Ltd.	0.83	72	59, 57, 24, 35
45.	N S Papers Ltd.	1.48	6	45
46.	Ballavpur Paper Mfg. Ltd.	0.63	89	3, 50, 35, 9
47.	Yash Papers Ltd.	0.71	71	50, 2, 98
48.	Paramount Printpackaging Ltd.	1.27	9	48
49.	Shree Bhawani Paper Mills Ltd.	0.49	102	2, 50, 98
50.	Kalptaru Papers Ltd.	1.23	10	50
51.	Shakumbhri Straw Products Ltd.	0.54	53	45, 50, 102
52.	Perfectpac Ltd.	0.86	35	6, 65, 35, 48
53.	Sangal Papers Ltd.	0.86	34	24, 57, 45, 59
54.	Nath Pulp & Paper Mills Ltd.	0.78	55	57, 59, 35, 90
55.	Sun Paper Mill Ltd.	0.73	68	100, 50, 57
56.	Plus Paper Foodpac Ltd.	0.65	86	48, 50, 98
57.	Rama Pulp & Papers Ltd.	1.17	11	57
58.	Shree Rajeshwaranand Paper Mills Ltd.	0.73	67	50, 59, 45, 57, 103
59.	Ganga Papers India Ltd.	1.59	4	59
60.	Servalakshmi Paper Ltd.	0.45	103	2, 50, 102
61.	Rollatainers Ltd.	0.63	90	50, 48, 57, 100
62.	Maruti Papers Ltd.	0.96	23	45, 50, 102, 103
63.	Nikita Papers Pvt. Ltd.	0.74	65	50, 57, 100
64.	Nachiketa Papers Ltd.	0.87	30	59, 65, 57, 48, 72
65.	Daman Ganga Board Mills Pvt. Ltd.	1.80	3	65
66.	Craft Corner Paper Mills Ltd.	1.00	21	57, 72, 59, 65, 101
67.	Mohan Fibre Products Ltd.	0.80	48	98, 100, 50
68.	Purity Flex Pack Ltd.	0.77	58	48, 92, 65, 74, 101
69.	Hitech Print Systems Ltd.	0.88	29	50, 48, 100, 98
70.	Vishal Coaters Ltd.	0.83	41	45, 57, 50, 103
71.	Parijat Paper Mills Ltd.	0.86	32	59, 57, 103, 101
72.	Nice Papers Ltd.	1.16	12	72
73.	B & A Packaging India Ltd.	1.29	8	73
74.	Sudhir Papers Ltd.	1.00	18	74
75.	Hanuman Agro Inds. Ltd.	0.79	49	98, 50, 100
76.	Cosboard Industries Ltd.	0.81	47	59, 57, 35, 90
77.	Ellora Paper Mills Ltd.	0.62	93	98, 100, 50
78.	Saffron Industries Ltd.	0.65	84	2, 50, 98
79.	Kay Power & Paper Ltd.	0.59	97	48, 45, 50, 102
80.	Gaurav Paper Mills Ltd.	0.61	94	57, 50, 100
81.	Claridge Moulded Fibre Ltd.	0.90	28	100, 57, 50
82.	P C I Papers Ltd.	0.91	27	48, 65, 57, 100
83.	Greenland Paper Mills Ltd.	0.69	73	100, 50, 57, 48, 101
84.	Shree Karthik Papers Ltd.	0.63	91	57, 50, 100, 103
85.	Shree Jagdambe Paper Mills Ltd.	0.76	61	103, 57, 100, 50
86.	Gampa Alcoates Ltd.	1.00	19	86
87.	Shalimar Krafts & Tissue Pvt. Ltd.	0.82	43	102, 45, 50

88.	Shakumbhri Pulp & Paper Mills Ltd.	0.78	101	45, 50, 102, 103
89.	Coral Newsprints Ltd.	0.81	46	90, 57, 100, 101
90.	Meenakshi Paper Mills Pvt. Ltd.	1.04	17	90
91.	Deoria Paper Mills Ltd.	0.77	59	57, 50, 100, 103
92.	Lodha Offset Ltd.	1.12	14	92
93.	Maheshwari Paper Ltd.	0.95	24	90, 59, 57, 101
94.	Superior Industrial Enterprises Ltd.	0.78	57	74, 48, 92, 73, 101
95.	Nec Packaging Ltd.	0.84	38	65, 73, 48, 100, 101
96.	Bio Green Papers Ltd.	0.59	98	48, 98, 102
97.	Simplex Packaging Ltd.	1.31	7	97
98.	Shree Swami Harigiri Paper Mills Ltd.	4.55	2	98
99.	Vardhman Textile Components Ltd.	0.75	62	65, 101, 57, 100, 48
100.	Viramya Packlight Ltd.	1.49	5	100
101.	Suryo Papers Ltd.	0.98	22	101
102.	Victory Paper & Boards (India) Ltd.	5.27	1	102
103.	Lavasa Bamboocrafts Ltd.	0.67	78	103
104.	Agio Paper & Inds. Ltd.	0.03	104	103, 101
<b>Average</b>		0.90		

Different versions of Tobit model are presented in Table 4.3, which shows the results of tobit regression on technical efficiency.

*Table 4.3: Results of Tobit regression on VRSTE*

Model Specification	Constant	Age	Size	Ownership	LR $\chi^2$	Prob> $\chi^2$	Log-likelihood
<b>Model 1</b>	0.8536984 (0.000)***	0.0018874 (0.165)			1.99	0.1584	-19.134023
<b>Model 2</b>	0.884782 (0.000)***		0.0000239 (0.045)**		7.19	0.0073	-16.534828
<b>Model 3</b>	0.9261529 (0.000)***			-0.0174187 (0.893)	0.02	0.8923	-20.11941
<b>Model 4</b>	0.7954584 (0.000)***	0.0013852 (0.320)	0.0000216 (0.062)*	0.0519864 (0.686)	8.28	0.0406	-15.989525

\*Significant at 10% level; \*\* Significant at 5% level; \*\*\*Significant at 1% level

Number of firms = 104

The coefficients of age and ownership variables in tobit model are positive but insignificant, implying that technical efficiency scores are not a consequence of the age and the ownership of a firm. However, the coefficient of size is found to be positive and significant, implying that the bigger firms are more efficient. Bigger firms reap the benefits of economies of scale and they are able to spread the cost of production over more production units, resulting in low average cost of production and higher efficiency.

## 5. CONCLUSION AND RECOMMENDATIONS

This work is an attempt to examine the relative production performance of the paper companies in India by assessing their technical, scale and super efficiency performance for all the firms for which data was available in the Prowess for the year 2011-12. Input-oriented model is used to measure the efficiency of firms. Results show the mean technical efficiency scores of 0.86 for the Indian paper industry. Results show that ownership and age are not significantly associated with the efficiency of the paper firms. But size of the firm has a positive and significant impact on efficiency of the paper firms. Indian paper industry has the untapped potential to further improve its efficiency level. Firms with low efficiency levels should be encouraged to invest in skill development to use existing technology more effectively. R & D needs to be taken up to identify the suitable alternate fibrous raw materials to replace the imported conventional fibres used for paper making to ensure constant supply of raw material to the industry. High cost of basic inputs and increasing energy intensity leading to increase in carbon emissions are the important issues that need to be addressed to enhance the efficiency level of paper firms in India.

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## REALIZING THE BIG PICTURE OF COMPETITIVE ADVANTAGE: THE STAKEHOLDER APPROACH

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### ABSTRACT

*For years, strategy researchers and practitioners are trying to answer the question “Why do some firms perform better than others?” This paper provides an in depth literature review on the best known theories of competitive advantage and, to find a holistic approach to the phenomena of competitive advantage, offers a theoretical framework based on the stakeholder perspective as a reemerging concept in the academia as well as amongst practitioners. The starting point of this paper were the three distinctive views on competitive advantage, namely the SCP view, the Resource-based view, and the Relational view, each one uniquely contributing to the stakeholder perspective. This extant literature review shows that integration does not merely imply combining them together. The reconciliation of different views calls for taking the different underlying assumptions into account. Nevertheless, the stakeholder perspective on competitive advantage is not meant to replace any of them. It is complementary to the three views, but also sheds light on the incomplete picture of competitive advantage.*

**Keywords:** *Competitive advantage, RBV, relational view, SCP, strategy, stakeholder perspective*

### 1. INTRODUCTION

For several years sustained superior performance of firm has been a central concern of many scholars in the field of strategic management (Rumelt, Schendel, Teece, 1994). Even though the concept of competitive advantage has been actively used in the theoretical discourse on the subject of firm performance, its notion remains elusive (Powell, 2001; Rumelt, 2003). At the same time, the concept of stakeholder management evolved as another important research stream in trying to shed light on corporate performance. These two subjects have developed seemingly autonomously in the literature despite the fact that empirical research has continuously shown that corporate governance mechanisms such as boards and executive compensations play an important role in strategic management due to the impact they have on the strategic decision making process (Shen, Gentry, 2012). Stakeholder theory has begun to reemerge in a more prominent role in the strategy and performance discussion (i.e., de Luque et al., 2008; Godfrey, 2005; Harrison and Freeman, 1999; Hillman and Keim, 2001; Sisodia, Wolfe, and Sheth, 2007; Walsh, 2005 as cited in Harrison, Bosse, Phillips, 2010). This revival may be somewhat a result of intensive interest in theories considered to be ethically based in light of corporate malpractice the society has witnessed. An incentive for this paper came from an attempt to understand how a firm can create and maintain its competitive advantage in a complex and dynamic environment. The significance of sound corporate governance and related theoretical framework was an additional stimulus to the research. Thus, the paper provides a comprehensive literature review on theories of competitive advantage and also presents a stakeholder perspective in granting insight to the incomplete picture of competitive advantage.

## 2. THE FOUNDATIONS OF FIRMS' COMPETITIVE ADVANTAGE

When summarizing the widely accepted wisdom on business strategy and competitive advantage, one can state that 'modern business strategy maintains that (1) the strategic imperative of a firm should be sustained, superior financial performance and (2) the belief that this goal can be achieved through a sustainable competitive advantage in the marketplace (Hunt as cited in Klein, 2001)'. Although competitive advantage is perhaps the most widely used term in strategic management, it remains poorly defined and operationalized (Ma, as cited in Raduan et. al., 2009). Many scholars use the term without stating explicitly what they mean. Some authors use the term as synonym for superior financial performance (e.g. Peteraf, 1993; Foss and Knudsen, 2003), while others have described competitive advantage in terms of specific firm characteristics or attributes of strategy that enable financial performance (e.g. Porter, 1980; Barney 1991; Peteraf and Barney 2003). In the field of strategic management, two approaches dominate in shedding light on the phenomenon of competitive advantage. These approaches are: the industrial-organization (I/O) and resource-based view (RBV) perspectives. In the context of the connection between competitive advantage and stakeholder theory, over the past few years some authors have pointed out the importance of the relational view which has not been the center of increased academic attention (Dyer and Singh, 1998; Lavie, 2006; Freeman et. al., 2010; Harrison, Bosse, Phillips, 2010; Wu, 2013). In the following sections we describe the stated three perspectives. The dominant school of thought in strategic management has been the I/O, where the relationship between the firm and the industry is crucial. This theory was based on the SCP-paradigm to study industrial organizations and industries (Bridoux, 2004). A principal perspective for analyzing industry structures has been Michael Porter's (1985) *market-based view* and the model of *five competitive forces*. Within this view, competitive advantage results from a firm's superior position in a given industry, which it can attain by pursuing a certain generic strategy. Porter defines three main generic strategies: cost leadership, differentiation and focus (Porter, 1985). Cost leadership refers to achieving the lowest unit cost base of the industry, whereas differentiation is the ability to charge a premium price for offering some perceived added value to the customer (Porter, 1985). The focus strategy is achieved through a firm's decision to do business in a specific, narrow market while attempting to achieve either a cost advantage or differentiation within the chosen niche (Porter, 1985). When trying to define the variables that influence a firm's profitability, Porter states that a firm's profitability is influenced by its relative size compared to its industry rivals, suppliers and customers (Porter, 1985). Accordingly, the industry forces in which the firm operates requires that the firm adapts to these requirements in order to survive in the long run. In addition, the firms that fail to adapt to these requirements will be forced to exit from the industry/market (Ramos Korsaa, Røge Jensen, 2010). Thus, in order to achieve a favorable industry position, firms seek to position themselves in industries with high entry barriers, where the bargaining power of suppliers and customers is weak, newcomers' threats are poor and competition is limited. Firms with a superior position generate monopoly rents because they succeed in restraining productive output (Conner, 1991). When analyzing the restraints of Porter's approach, one of the main criticisms refers to its static nature in comparison with the today's turbulent environment (Tidd et. al. as cited in Ramos Korsaa, Røge Jensen, 2010). Bridoux (2004) also states that Porter's framework focuses on what makes some industries or positions within those industries more attractive (cross-sectional problem) rather than focusing on why some firms are able to achieve advantageous positions (longitudinal problem). Furthermore, Bridoux says that while the level of threats and opportunities in an industry influences firm performance, the returns from entering and doing business in an industry cannot be evaluated separately of the firm's resources and capabilities. In other words, Porter's work is critiqued

because it overestimates competition to the detriment of cooperation, resources and capabilities. When talking about the sole subjects of competitive advantage analysis, the Resource-based View (RBV) evolved as a complement to Porter's model (Barney, Arikan, 2001). This approach sees the firm's resources as the crucial determinants of competitive advantage and performance. It is assumed that some of the resources that a company uses are inelastic in supply and are thus a potential source of economic rents. However, in order for a resource to have the potential of being a sustained competitive advantage, it must contain the following four attributes: First, it has to be valuable in a way that it capitalizes on opportunities and/or annulates threats in a firms environment. Second, it must be rare in comparison with firms existing and potential competition. It also has to be imperfectly imitable and, fourth, there cannot be any strategically equivalent substitutes for this resource (Barney, 1991). Accordingly, a firm is believed to posses competitive advantage when it is implementing a strategy which none of its competitors are implementing at the same time, and none of the firms are able to duplicate the benefits of the chosen strategy. Limitations of the RBV approach stem from the fact that focusing only on the internal resources or core competence of the firm can limit the reach for learning new competencies. Hence, core competencies can also become „core rigidities“ in the firm, when established competencies become too dominant (Korsaa, Røge Jensen, 2010). Moreover, the RBV is criticized for its implicit assumption of static equilibrium. As a result, Teece et al. (1997) argue that in a dynamic environment, the dynamic capabilities perspective adds a new framework where focus is on creativity, expertise, relationships and technology in a global and rapidly changing business landscape. Moving away from Porter's model and the RBV leads us towards the Relational View. The central thesis of the Relational View (RV) is that a pair or network of firms can create relationships which result in competitive advantage (Dyer, Singh, 1998). In developing their model, Dyer and Singh suggested four possible sources of inter organizational competitive advantage: (1) relation-specific assets; (2) knowledge-sharing routines; (3) complementary resources; and (4) effective governance. In the literature, the relational view tends to be regarded as an extension of the resource-based view. For example, Lavie (2006) revisits the resource-based view and extends it in order to allow for the consideration of network resources in evaluating the competitive advantage of interconnected firms. In his work Lavie distinguishes shared resources from non-shared resources, identifies new types of rent, and illustrates how firm-specific, relation-specific, and partner-specific factors determine the contribution of network resources to the rents that firms extract from their alliance networks. The resource-based conditions of heterogeneity, imperfect mobility, imitability and substitutability are reevaluated, concluding that the nature of relationships may be more important than the nature of resources in creating and sustaining competitive advantage. However, there are two potential problems that need to be addressed (Wu, 2013). First, the relational view focuses on shared resources instead of non-shared resources (Dyer, Singh, 1998; Lavie, 2006). Thus, the relational view itself could only complement the resource-based view, rather than replacing it. Other resources or capabilities that are built within the firm still play important roles in the generation of competitive advantage. Second, the relational view only refers to inter-firm relationships; it does not include social partnerships between businesses and various NGOs or civil society organizations, which could also create strategic advantages for firms (Eweje, Palakshappa, 2009). To sum up, the relational view describes competitive advantage in a resource-based, relation-oriented, and inter-firm-level approach.

### **3. STRATEGIC MANAGEMENT AND COMPETITIVE ADVANTAGE: A STAKEHOLDER APPROACH**

#### **3.1. The Current Presumptions of the Stakeholder Theory**

Stakeholder theory is a subject that has generated many debates in the academic literature as well as between practitioners who have demonstrated growing interest in stakeholder analysis and stakeholder management (Laplume et al., 2008). Who are stakeholders? In his seminal work (1984), Freeman defines stakeholders as groups and individuals who can affect, or are affected by the strategic outcomes of a firm. Despite its popularity, Freeman's definition is often criticized as having a lack of clarity in terms of both the stakeholder and the stake. This debate revolves around the broad versus narrow conception of stakeholders. The broad concept sees the stakeholders as any identifiable individual or group who can have an impact on the achievement of a firm's objective or who is affected by the achievement of those objectives. In a more narrow sense, a stakeholder is any individual or a group on which the firm is dependent for its continued survival. Employees and managers, customers, suppliers, and the firm's owners are most commonly acknowledged as crucial stakeholders although the concept of key stakeholders may vary between firms. Research on stakeholder theory has evolved in three major directions: dimensions: the descriptive, the instrumental, and the normative approach (Donaldson, Preston, 1995). In brief, descriptive stakeholder theory describes how firms interact with their multiple stakeholders (Wu, 2010). The instrumental approach looks at the relationships between the practice of stakeholder management and the objectives of firm performance and the normative approach defines moral or philosophical principles for managers to perform their role. According to the normative view, firms tend to be consistent in their relationship with and treatment of stakeholders because they believe it is the right way to treat stakeholders, whereas the instrumental view suggests that firms treat stakeholders morally except when it is economically advantageous not to do so (Harrison, Bosse, Phillips, 2010).

#### **3.2. The Connection between the Stakeholder View and Theories of Competitive Advantage**

Stakeholder view is nowadays perceived as a comprehensive approach to examine how a firm creates its wealth. The stakeholder view is compatible with the three perspectives on competitive advantage (Post et al., 2002). When explaining the relation between Porter and stakeholder approach, it is important to note that Freeman (1984) argues that stakeholder management is compatible with the five forces model, but focuses more on stakeholder wants and needs. In that manner he suggest an upgrade of the mode, implementing a sixth force - relative power of other stakeholders, which advances the focus from industry structure towards stakeholder structure. Stakeholders are the major suppliers of firm resources. For example, employees supply labor and shareholders supply capital (Harrison, St. John, 1997). Accordingly, stakeholders are catalysts facilitating the creation of valued resources such as reputation or trust. These resources are often co-created by the firm and its stakeholders (Gregory, 2007; Heugens, van den Bosch & van Riel, 2002). In other words, the stakeholder view is compatible with the RBV approach in terms of obtaining valued resources. The stakeholder view could also be regarded as an extension of the relational view.

Many researchers questioned the uniqueness of RV and suggested that the view is an application of stakeholder theory with a different set of labels. In other words, some authors believed that the stakeholder perspective is an extension of Dyer & Singh's work (Freeman et al., 2010).



For example, Mattingly states that:

*Fundamentally, the SHV (stakeholder view) is partly an extension of the relational view of the firm (Dyer and Singh 1998) to sociopolitical stakeholders - especially local communities and governmental and regulatory agencies as well as private organizations such as citizen interest groups. The relational view suggests that the interfirm relationship a firm develops – particularly among participants in its supply chain – provide a potentially sustainable source of competitive advantage.* (Mattingly, 2004: 520 as cited in Freeman et, al., 2010: 108)

Even though these authors negate it, the relational view has been at the heart of the stakeholder theory and many authors have directly used the stakeholder theory in the analysis of inter-organizational relationships in a similar manner (e.g. Barringer and Harrison, 2000; Kanter, 2000; Mills and Chen 1996 as cited in Freeman et, al., 2010). Moreover, the stakeholder theory has always acknowledged the roles of customers and suppliers who were the centerpieces of Dyer and Singh's 1998 paper.

Accordingly, Freeman et. al. (2010) conclude that the development and popularity of the relational view in the literature on strategic management may serve as evidence that the field is unwittingly reaching for the stakeholder theory, believing instead that it deals mainly with noneconomic stakeholders.

### **3.3. Stakeholder Management in the Service of Competitive Advantage**

Although the concept of stakeholder management stems from the field of strategic management, not many studies have examined the relationship between stakeholder management to competitive advantage (Wu, 2010). However, some authors have examined the association between these two concepts. Freeman (1999) addresses the issue stakeholder management by taking a resource dependence approach. The firm relies for resources on the external environment, and the party that controls resources can affect the firm's strategies. Stakeholders can either withhold a resource or continue to supply it. The firm, by realizing how much interdependency exists between it and the stakeholder, should be able to react effectively. Accordingly, stakeholder management could be conceived as a reactive strategy that provides the firm with to cope with the resources it needs (Pfeffer & Salancik, 1978; Thompson, 1967 as cited in Cennamo, Berrone, Gómez- Mejía, 2007). Harrison, Bosse and Phillips (2010) suggest that firms, which share value with their stakeholders and include them in their strategic decision making processes, could gain benefits such as increased demand and efficiency, greater innovation, and an increased capacity to deal with unexpected events, which would altogether eventually become the source of competitive advantage. Jones (1995) posits that stakeholder management increases efficiency by building reputation. Reputation is developed through implementing policies and decisions that give stakeholders the impression that the firm is a trustworthy partner and competitive advantage is generated by reducing transaction costs and formal contracts (Jones 1995 as cited in Cennamo, Berrone, Gómez- Mejía, 2007). Based on these studies, it can be suggested that firms improve their competitiveness as a result of successfully engaging stakeholder relationships. Divergent stakeholders' interests, difficulty in individualizing and addressing stakeholders, and uncertainty in establishing idiosyncratic relationships explain why, once formed, these relationships may be difficult to imitate, providing the firm with an advantage. On the other hand, causal ambiguity also impedes the replication and leverage of critical resources within the firm (Cennamo, Berrone, Gómez- Mejía, 2007). Its potential advantages are thus questionable. Based on the previous sections, it can be concluded that research on the relation between competitive advantage and stakeholder management is at an early stage. It is not

completely clear how to apply the concept of stakeholder management to the main research streams of competitive advantage such as the resource-based view. This review shows that there is still a knowledge gap between stakeholder management and competitive advantage.

#### 4. CONCLUSION

In this paper, we provide an in depth theoretical review on the central question in strategic management: why some firms outperform others? The widely acknowledged approaches to the concept of competitive advantage were examined and the stakeholder theory was presented as an interesting subject in the theoretical discourse on the subject of firm performance. We have pointed out that value creation is the centerpiece of the competitive advantage concept. The source of competitive advantage is concerned with value creation. More specifically, Porter points out that resources and capabilities contribute to competitive advantage only if they enable favorable positions of the firm in a given industry, whereas the RBV postulates that resource heterogeneity creates differential value among firms (Peteraf, Barney, 2003). Critical resources that can generate more value with regard to the competitors are the source competitive advantage. The relational view goes one step forward and extends the concept of critical resources to relational resources such as relation-specific assets, knowledge-sharing routines which dominate value creation (Dyer & Singh, 1998; Lavie, 2006). If one seeks to find a connection between the concept of competitive advantage and stakeholder management literature, a part of the answer lies in the phenomenon on value creation (Wu, 2013). For example, in their paper entitled *Stakeholder Capitalism and the Value Chain* Freeman and Liedtka (1997) explore the idea of stakeholder capitalism. In particular, it is argued that creating value for stakeholders instead of value capture must be the priority of the firm. In the light of the stakeholder approach and with regard to the fact that sources of competitive advantage are manifold, one can argue that a firm can be regarded as a value-based network (Wheeler et al., 2003) and can enhance its capacity to create value by formulating a set of good and reliable relationships with its various stakeholders, through valued resources as well as activity drivers. To sum up, when it comes to value creation one can see that stakeholder management is rather compatible with competitive advantage. However, the relationship between stakeholder management and the sources of competitive advantage is still in line for further exploration. The detailed explanation of how and why different perspectives work to unlock the potential for competitiveness is the paper's main contribution. This extant literature review shows that still and all we face a knowledge gap in realizing the big picture of competitive advantage.

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## CLUSTERS AND ASSOCIATIONS AS THE WAY OF SURVIVAL FOR SMALL AND MEDIUM ENTERPRISES IN A GLOBAL MARKET

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### ABSTRACT

*Globalization refers to every sphere of life of the people. It shows that the events, conflicts or decisions taken in one part of the world result in consequences in other areas and parts of the world. Areas of globalization in the contemporary world are: finance, markets, technologies, strategies, research and development knowledge, consumption and lifestyle, law, etc. Then the globalization is a bond of connecting businesses, consumers and the state. Global companies have access to research facilities, technology, have more resources available for advertising, promotion, marketing, production, changing the assortment. Does the trend of globalization, small and medium-sized enterprises have a chance of survival? This article presents effects of globalization in Poland - in context of ten years after entry into the European Union; discusses how survival of small and medium-sized enterprises, shows strength of regional cooperation in the global market.*

**Keywords:** *associations, clusters, UE globalization.*

### 1. INTRODUCTION

A solution to survive and compete in the market for small and medium-sized businesses is the creation of associations and clusters. There are many benefits of cooperation: a common range of products and services, efficient distribution channels, marketing activities and visual identification system, initiating meetings and team building events, joint innovation, exchange of knowledge and experience and transfer of technology. Joint ventures provide greater bargaining power with suppliers, coordination of market buyers and sales, competitive advantage, certainty of contracts, stability of customers, knowledge producers and their production methods.

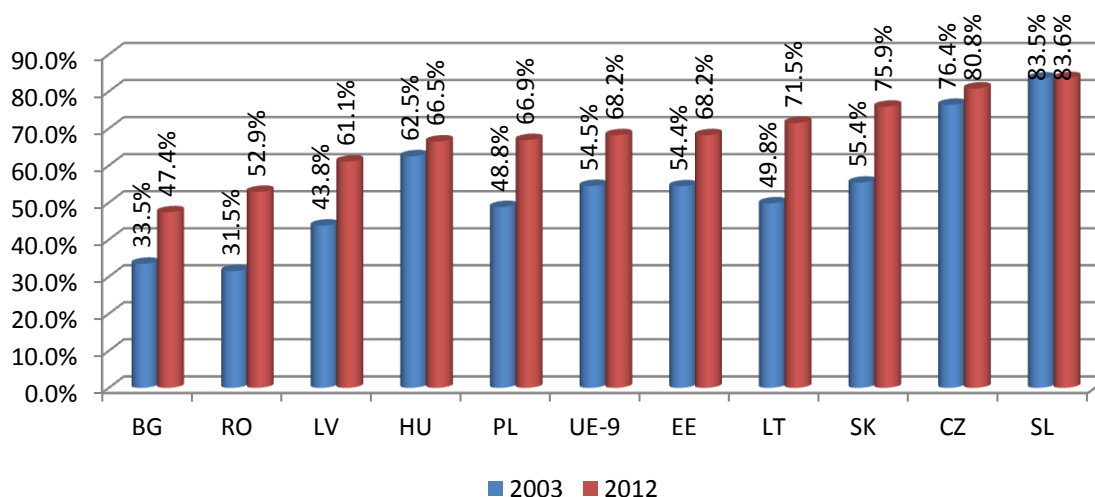
### 2. THE POSITIVE EFFECTS OF GLOBALIZATION IN CONTEXT OF POLISH ACCESSION TO THE EUROPEAN UNION

The development of globalization promotes growth of Internet, the general availability of mobile or cheaper means of transport.

*Globalization is process used to transform spatial scale of the social organization of human life in such a way that compounds are formed between remote communities and relationships of power achieve than continental scale (McGrew A., 2008, p.24).*

Globalization can be discussed in a broad sense. For Polish, however, it was important role of the euro globalization caused entry into the European Union.

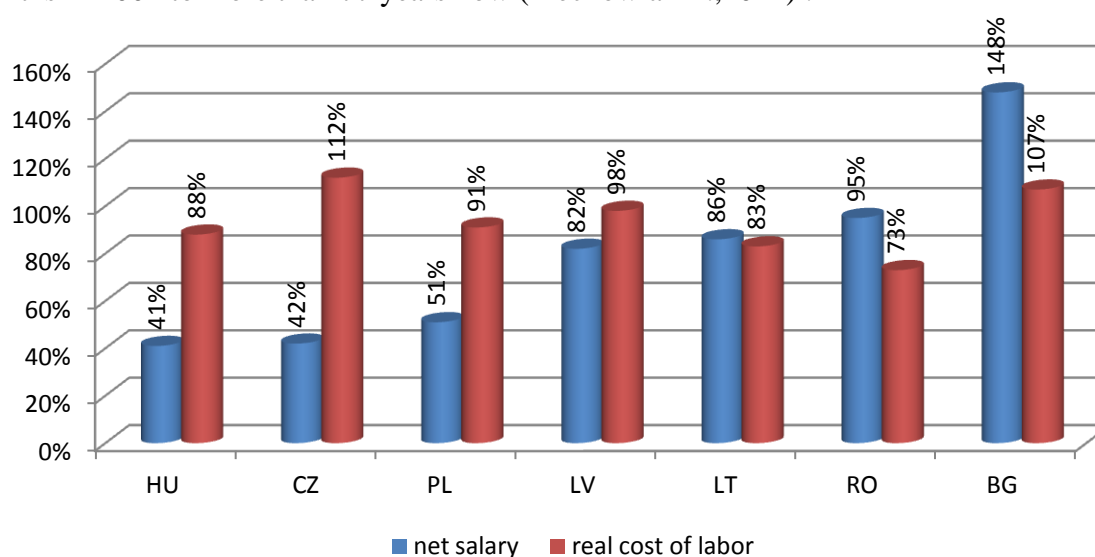
Over the last 10 years Poland has changed. Since 2004 Poland has received from cohesion policy more than 82 billion euros. Money received exceeded the amount of premiums States more than three times. As a result, the average level of EU funding per capita in the country amounted to 8.5 thousand. Thanks to obtained amount basic economic indicators have improved significantly. Over the past 10 years Polish GDP has increased almost twice.



*Chart 1. GDP per capita relative to the middle of the EU - 27 in 2003 and 2012 and the change in the years 2004-2012*

*(Eurostat, GPD and main components; Purchasing Power Standard per inhabitant, 2014; 10 years of Polish membership in the EU - 10 years of European Funds).*

Exports increased nearly 3 times after the opening of borders and the elimination of tariffs, labor productivity has increased by nearly 25% through better organization of labor and increasing emphasis on new technologies, the average and minimum wage has increased by over 60%. Much improved road infrastructure, increased life expectancy. Life expectancy has increased thanks to the support of EU funds in the medical sector from 74 years and 10 months in 2004 to more than 77 years now (Piechowiak L., 2014).



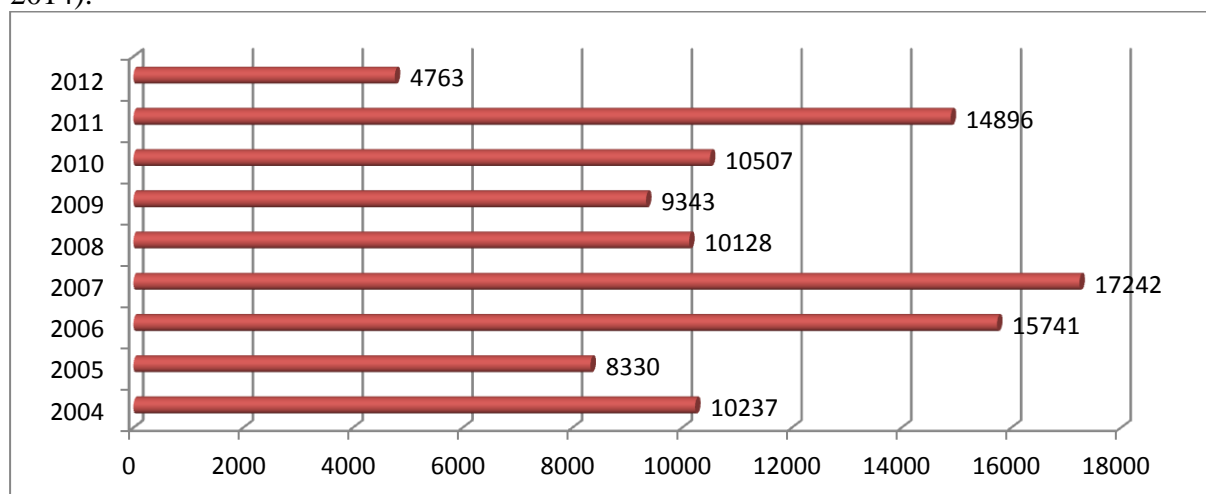
\* no data for Slovakia, Slovenia and Estonia. Real unit labor costs for the Polish since 2005

*Chart 2. Labour productivity in the countries of Central and Eastern Europe vs. EU average (based on: Eurostat, Annual net earnings - Net earnings - Single person without children, 100% of average wage earner and own calculations based on Eurostat, Real unit labor cost growth, 2014).*

EU Funds 2004-2013 - the most important effects:

- free movement of goods has resulted in exports to EU goods worth almost 3.5 billion zlotys - more than twice the Polish GDP (Kałużyńska M, Karbownik P., 2014);
- farmers received from the EU budget 53.7 billion in direct payments - calculations show that per recipient fell to an average of 38 362 PLN;
- built or modernized over 2 thousand km of expressways and highways;
- built or rebuilt over 14 thousand km of national roads and local government;
- length of built / rebuilt in 2004-2013 railroads totaled about 2.3 thousand km;
- in framework of agreements in the field of urban transport will be purchased over 2 thousand transport fleet units and modernized approximately 300 units,
- supported over 28 thousand companies;
- there will be implemented about 1200 results of research and development,
- 250 supported business environment for companies finished more than 13 thousand services;
- built and modernized almost 36 thousand km of sewerage network and 12 thousand km of water supply network,
- built and expanded and modernized 683 municipal wastewater treatment plants,
- it is estimated that by the FE number of employed aged 20-64 increased by about 800 thousand person;
- over 243 thousand new companies established by unemployed non-refundable grants,
- supported with 5 thousand nursery, kindergarten teams and points,
- 90 thousand students began studies in the fields of ordered, such as automation and robotics, biotechnology, construction, information technology,
- over 120 thousand Polish students under the Erasmus studied and took practice in EU countries and 37 thousand lecturers lead lectures at foreign universities or took place in their training;
- 55 per cent all schools in Poland have been equipped with computer labs, which created nearly 250 thousand positions.

The Union also indirectly contributed to the improvement in most sectors (Piechowiak L., 2014).



*Chart 3. Direct investment inflows into Polish in the years 2004-2012 (in millions of euros)  
(National Bank of Poland (20.03.2014r.)).*

Presence of the EU has increased the attractiveness of Polish as an investment location. Since 2004, the cumulative value of foreign direct investment (FDI) to the Polish exceeded 405 billion (Kałużyńska M., Karbownik P., 2014).

### 3. THE NEGATIVE EFFECTS OF EU GLOBALIZATION

Besides growing and raising optimism indicators also observed the negative effects of EU globalization. The first negative indicator is inflation, which showed an increase in prices for the last decade, about 90% - prices of different goods increased almost twice. At the same time, average salary has increased only by 75% and that with increased productivity. It is noted that despite satisfactory revenue growth rates suggest that more than half of households would have a huge problem if they had to realize the unexpected expense of up to one thousand PLN, for example, a broken TV, fridge and washing machine would be a real problem and financial crisis mean the whole family (Piechowiak L., 2014). Polish accession to the EU has provided Poles access to the labor markets of other Member States (Kałużyńska M., Karbownik P., 2014). Unemployment declined from nearly 3 million (19.5%) registered in labor offices to 2 million (13.3%). But this is not a satisfactory indicator - unemployment is reduced, because the country was left by 1.8 million people who could not find work. If not for their mass migrations, unemployment in Poland would be just as high as in Spain or Greece, which would amount to about 25%. For the last 10 years there has been a significant increase in public debt, which in 2004 amounted to about 430 billion PLN, and at the end of 2013 its value reached 837 billion PLN. The repayment of this debt at this time is impossible - the average Pole would have three years to work for the equivalent of about 1 thousand PLN per month or eight months for free. Another negative factor is natural growth - Polish woman in terms of fertility rate are one of the last places in the world - exactly 212. Polish woman deliberately postpone motherhood for later - first take care of his career, material resources, wealth, and only then decide to have children. What's more, they look at children in terms of financial expenditure - education, clothing, education, etc., and are often limited to one, sometimes two children.

### 4. THE METHODS OF SURVIVAL OF SME'S IN THE GLOBALIZATION OF THE EU

The role of small and medium-sized enterprises in the economy is very large. This sector has a high share in the GDP, thanks to it are new and varied jobs, unique products. The sector is characterized by creativity and innovation (Szymańska K., 2012, pp.42-54). For SME sector, globalization seems to be both: an advantage and a threat. The disappearance of market barriers, formalization of international relations, easier access to different goods, services, new technologies, cultural achievements, management methods, speed switching and adapting products and services to new consumer demands cause the development of this sector. However, financial constraints, technological potential of staff, uncontrolled privatization of the sector, rapid spread of crises integrated markets; increase in unemployment; exacerbation of aggressive competition inhibit its development. In the conditions of globalization, entrepreneurs observe that operating costs, procurement, production is very high for individual customers. Therefore, in order to survive in current market SME sector tends often to regional integration. It can occur in any form local partnerships - both formal and informal. They can be: Local Action Groups; clusters; Local Economic Recovery (LER) ([www.partnerstwo.org.pl](http://www.partnerstwo.org.pl)); Quick response and support; Strengthening the Competitiveness of Existing (Sobolewski A, 2007, pp.11-12).

#### 4.1. Local Action Group

Local Action Group (LAG) is a type of government partnership formed usually in rural areas, bringing together representatives of local organizations (both public, private and non-government) and inhabitants of area designated border communities States. Local Action Group implements Local Development Strategies in the area of population of 10 thousand to



150 thousand residents. This condition is, on the one hand - to provide "local" character, on the other hand - to ensure adequate capacity for implementation of the strategy (Status of implementation of the Rural Development Programme 2007-2013, 2012). A very important part of creating a LAG is that at least 50% of its members belonged to private sector and non-governmental as well as to be representative for area in which it operates (Szymańska K. *The value of region in the modern economy*, 2013, p.206). Local Action Groups are responsible for creating and implementing a local development strategy for the territory and the disbursement of grants allocated for these purposes (Szymańska K., *The Role Of Local Action Groups in Social and Economic Development Communes*, 2013, pp. 35-44). Among the objectives pursued by the LAG show: combating unemployment, promotion / production of local products, social integration, social mobilization, cultural tradition, environment, natural assets, development of tourism, entrepreneurship, the development of agriculture and agricultural processing (Chart 4) (The Ministry of Agriculture and Rural Development, 2009, p. 14; Szymańska K., *Factors Shaping Competitiveness of the Region*, 2014, pp.307-321). 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 (Szymańska K., *Local Action Groups in Social and Economical Development of Communes*, 2014, pp. 166-174).

## 4.2. Clusters

Regional cooperation on the local market is also possible thanks to the clusters (Szymańska K., *Organic Food Cluster answer to the problems of food in the world, Challengers of the Modern World*, 2013, pp. 222-227). According to M. Porter's *cluster is a geographic concentration of interconnected companies, specialized suppliers and companies in other related sectors and industries, as well as economic institutions (eg. universities, chambers of commerce)* (Porter M., 1990).

Clusters are groups of institutions and organizations that (Sobolewski A, 2007, p. 15):

- are interlinked;
- operate in a given area (district, province, municipality, region);
- are most often associated with a particular industry (eg Cluster Industrial Automation in Gdansk, Silesian Innovation Cluster of Clean Coal Technologies, and one of the most famous grape - Cluster of Information Technology in Silicon Valley in the U.S.);
- are complementary to each other (complementary);
- in collaboration achieve a higher degree of efficiency than if they acted individually (synergy).

Clusters as associations of local entrepreneurs have more productive force, negotiating and bargaining. They can freely shape conditions of production, sales, marketing and logistics in every area. They are counterbalance to unfair production, allow to verify source of raw materials and semi-finished products, which prevents formation of a negative image of the company. Clusters manufacturers can also guarantee quality of products coming from area (knowledge of components, raw materials, semi-finished-location and composition of origin), give a better chance to sell products to large chain stores, held more efficient exchange of information, joint fight for the client.

## 4.3. Local Economic Recovery (LER)

The purpose of the Local Economic Revival (LER) is to build partnerships at local level to improve economic environment, formation of local organizations, strengthening local economy, increasing participation of the residents in development of their county, municipality and creation of new jobs on the basis of available resources. Leaders of local

government with the business community, bankers, entrepreneurs, trade unions, environmental organizations, local government, chambers of commerce, development agencies are invited to participate in a series of five workshops for Local Economic Revival (each workshop with an interval of about one month).

The purpose of the workshop working A, B, C, C', D is to help residents in local environment:

- assessment of their position, economic conditions and their needs,
- development of a plan of local economic recovery,
- the creation of the concept of economic projects for local community,
- selecting best projects for further development.

*Table 1. A series of 5 workshops realized within Local Economic Revival*  
(<http://wup.poznan.pl/strony/64.php>, <http://wup.mazowsze.pl/new/?phtml=1262475535>).

<p><b>WORKSHOP A</b></p> <p>Factor analysis of economic components in the local community</p>	<p>I. Analyze how each factor affects economic conditions of the local community:</p> <ol style="list-style-type: none"> <li>1 access to capital;</li> <li>2 economic environment;</li> <li>3 infrastructure;</li> <li>4 human resources;</li> <li>5 quality of life.</li> </ol> <p>II. Determination of what is needed to cope with economic conditions of the local community.</p>
<p><b>WORKSHOP B</b></p> <p>Analysis 4 Principles of Economic Revival in the local community</p>	<p>I. Analyze how each of the 4 Principles for Economic Revival influences economic conditions of the local community:</p> <ol style="list-style-type: none"> <li>1 seal leaks;</li> <li>2 support existing local businesses;</li> <li>3 to encourage the creation of new jobs;</li> <li>4 recruiting (outside) of new companies profile desired for the community.</li> </ol> <p>II. Determination of what is needed to cope with the economic conditions of the local community.</p>
<p><b>WORKSHOP C</b></p> <p>Create proposals for economic projects that will stimulate economic development in the community</p>	<ol style="list-style-type: none"> <li>1 Summary of economic conditions of local community and develop a vision for community.</li> <li>2 Creating economic proposals aimed at local economic recovery of environment.</li> <li>3 Analysis of each project proposal by 4 Principles of economic recovery.</li> <li>4 Determination of how each project helps to improve economic conditions and an indication of the project's beneficiaries.</li> <li>5 Sheet of ranking of all proposals for economic projects.</li> <li>6 Choosing the best economic projects to further develop workshop C'.</li> </ol>
<p><b>WORKSHOP C'</b></p> <p>Development and selection of proposals for the implementation of economic projects in the local community</p>	<ol style="list-style-type: none"> <li>1 Selection of preferred vision of future by local community.</li> <li>2 Analysis of local community resources for each project.</li> <li>3 Identification of traps and disadvantages of each project.</li> <li>4 Determination of time required for implementation of each project.</li> <li>5 Examine interest groups support each project.</li> <li>6 The term beneficiaries of each project.</li> <li>7 Risk assessment, opportunities and threats of each project.</li> </ol>
<p><b>WORKSHOP D</b></p> <p>Project assessment and action plan at the end of the workshop</p>	<ol style="list-style-type: none"> <li>1 Rating projects.</li> <li>2 Select Project for Economic Revival in order to initiate them in community.</li> <li>3 Creating a grant proposal to raise funds for its implementation.</li> <li>4 Submission of a grant for additional resources to implement project generated in workshops of local Economic Revival.</li> <li>5 Obtaining financial resources (own and extra-budgetary) for the project.</li> <li>6 Implementation of the project.</li> </ol>

The next step is to implement the best project for the economic development of the local community.

#### **4.4. Quick Response and Colleagues Support**

Quick Response is an action selected group of trained individuals who provide a synchronized and organized assistance in adapting workers - this is an early intervention for vulnerable workers in the enterprise. Early intervention can reduce time it takes workers to find new employment by about 50%. The need for such interventions is result of restructuring plans, redundancies or closures (Sobolewski A., 2007, p.11).

For warning signs that might indicate a need to launch a Rapid Response may include:

- decrease in performance;
- a decrease in demand for product;
- decreasing employment, low dismissal;
- elimination of certain product lines or takeover product lines;
- old, depreciated equipment, facilities or infrastructure;
- sale of the company, or repeatedly moving from hand to hand;
- sold out materials, supplies, equipment,
- problems with payments, the outstanding balance, delay payments.

"Support Colleagues" is assistance provided to other employees through "Colleague - Advisor", a person who is working together with redundant people, enjoying their confidence. Colleague - Advisor helps people determine appropriate goals and develop plans, searches for them necessary services and provides support to help them in effective use of these services.<sup>117</sup>

#### **4.5. Strengthening the Competitiveness of Existing Businesses**

It is taking action to strengthen competitiveness of companies that stayed on the market and to maintain existing jobs through a variety of training and support activities (Sobolewski A., 2007, p.12).

### **5. CONCLUSION**

10 years in the European Union to Poland and Poles has brought many benefits. We have some beautiful roads, GDP is growing, the average salary as well. A Pole, who can't find work in the country can pack up and go to another. EU globalization is also a restriction- especially for the SME sector. Small businesses have an important role in economy worldwide. Small businesses represent more than 99% of the 18 million enterprises in EU. International companies threaten SME sector. Global companies have access to research facilities, technology - they have more resources available for advertising, promotion, marketing, production, changing the range. Moreover, they can dictate the terms of production, orders, payments - for example, up to 75 days payment period extended Procter & Gamble, and the 120 - Mondelez (Jacobs coffee, Milka chocolate). SME entrepreneurs have to obtain sources of funding are very limited. Entrepreneurs SMEs have difficulty with finding funding sources which are very limited. Therefore, any cooperation of entrepreneurs from one area, region or province can survive in the market. Forms described in the article are: Local Action Groups, Clusters, Local Economic Recovery, Quick response, Support and Strengthening the Competitiveness of Existing.

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<sup>117</sup> <http://bip.malopolska.pl/umwm/Article/get/id,124637.html>.

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## **SOCIAL RESPONSIBILITY OF COMPANIES**

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### **ABSTRACT**

*In recent years, a lot of attention has been put on corporate social responsibility (CSR). If the social responsibility is not built-in in every decision making process, companies should take into account its responsibility towards society and incorporate CSR into every segment of its business. Most people think that in order to be social responsible means to give money to charity or take care of the environment, but the term is much wider and deeper. This paper presents the description of the social responsibility in its full significance and includes a wide research on the implementation and perception of CSR in Croatian companies. The research proves that it is necessary to include CSR in daily business. Paper highlights concrete benefits that companies have from implementation of CSR approach.*

**Keywords:** *Corporate social responsibility, enterprises, sustainability, development, community*

### **1. INTRODUCTION**

Corporate social responsibility is a concept explained by a multitude of definitions by different authors. However, CSR presents a responsibility which company has towards society, environment, employees, suppliers, clients, thus to all members of society. Large corporations have a legal personality and their link with people and local communities is very strong. The problem lays in the fact that CSR is often ignored and companies come up with alternative solutions as opposed to the actual implementation of social responsibility. For example, the companies replace CSR activities with the department for philanthropic whose primary function is to support public relations. Ignoring social responsibility leads to a bad image of the company in public leading to poor business performance (Selvi, Wagner, Turella (2010). Various authors have investigated these issues. Selvi, Wagner and Turella (2010) in their research proved the existence of a positive relationship between the implemented system of social responsibility and corporate reputation in Turkey. They have analysed whether there is a difference of CSR in period before and during the financial crisis. Furthermore, Servaes, Tamayo (2013) conducted research about the connection between the existence of social responsibility of the company and business value of companies that have highly conscious consumers. They performed a set different studies and their results show that the existence or, on the other hand, the lack of social responsibility, influences the business success of companies. Different authors define different years for the beginning of CSR. Several authors argue that the modern concept of CSR began in the 1950s, when the major issues were moral

principles and ethical behavior (Stojanovic, Milinković, 2014). In the 1960s and 70s study of CSR began in companies when different social movements appeared against the traditional corporate management based only on profit. However, Croatian author Krkač argues that CSR in its full sense appeared in the 1990s (Stojanovic, Milinković, 2014). According to Baker, Groenwegenu and Honda CSR was developed in the following periods (Stojanovic, et al. 2014. pg 16):

- Start and innovation in 1960s;
- Development and expansion in the period from 1972 to 1979;
- Institution establishment from 1980 to 1987;
- Maturation phase from 1988 to 1996.

Various social movements and activist group while fighting for their goals were associated with human rights probably mentioning social responsibility of corporations. If companies behave morally and ethically at the same time they were expected to be socially responsible.

### **1.1. Research hypothesis and methodology**

Many scientific studies have shown the necessity that companies understand the importance of corporate social responsibility and how harmful is for them to ignore the CSR in their business affairs. This paper aims to demonstrate a positive relationship between the implementation of corporate social responsibility in Croatian companies and a positive perception of customers. In addition, the aim is to prove that the application of CSR leads to a greater business success. After literature review and analysis of available materials two hypotheses were created:

*H1: Corporate social responsibility contributes to a positive reputation of the company in public.*

The aim is to examine how the implementation of CSR in Croatian companies affects the perception of consumer and community on their business. Through web sites of the companies, the goal is to examine if consumers prefer their products because they operate socially responsible business, and if people have a greater desire to work in such business soundings. The aim is to find out which extent of socially responsible businesses gets better reputation then the companies who are not socially responsible.

*H2: Social responsible activities of company are positively likened to business performance.*

This hypothesis examines to what extent companies benefit from the positive reputation in public. Benefits in terms of preference for products and services of these companies, interest from potential employees to work in these companies and generally the level of the public support to their business.

In order to examine the above stated hypotheses authors conducted the study in two parts: (1) Web page analysis, (2) Questionnaire on perception of costumer. The first part is analysis of the top 100 companies from the business journal '*Lider*' and the 'Top 500 Companies' list, which lists the most successful companies according to new added value, productivity, revenues, assets and profit. The aim of this part was to examine the relationship between the business success of the company and the quality of corporate social responsibility. A list of the top 500 companies perfectly served because companies are already ordered by performance.

Web sites of the companies were analysed in order to check the following elements:

- existence of the Code of Corporate Governance,
- level of transparency (published financial statements, information on board members and other relevant information)
- existence of social responsibility program

The goal of the first research part was to extract the top and bottom five companies in Croatia with regard to social responsibility. The second part of research examines the attitudes of customer about the perception of CSR in the selected companies. In addition, the goal was to demonstrate a positive relationship between assessments of CSR with the opinion of the selected sample of people. Below are presented literature findings and research results.

## 2. SOCIAL CORPORATE RESPONSIBILITY

CSR is not just a trend required among companies, it is not a part of public relations, though a necessary precondition for existence of business. It must embed each segment of serious business. Today's business climate is influenced by globalization, which leads to a very large and colourful environment offering very tough competition and does not allow errors such as socially unacceptable behaviour. According to Lawrence (2013) companies cannot succeed when the society, which surrounds them, unsuccessful is. This is essential for understanding of CSR. It emphasizes the importance of the society that surrounds all businesses. It tries to explain that a business system cannot ignore the community, must not harm the community and without the success of the community and all the surrounding elements, there is no success for the business system. A definition brought by Selvi, Wagner, Turella (2010, pp. 2) states that CSR is when organizations take into account the impact of their decisions on society and the environment.

Corporate social responsibility should be embedded in the business as an integral part and be present in every process and each activity. In other words, the sponsoring various socially beneficial events and being environmentally aware does not mean company is socially responsible. CSR is a much wider concept based on the decision. Any decision taken by the corporation, the direction in which company chooses to operate, should be socially responsible. Selvi, Wagner, Turella (2010) in their work emphasize that CSR should not be confused with charity work, social activities or philanthropy, but all these elements are certainly part of it. According to them CSR includes an honest relationship with employees, transparent relationship between managers and shareholders and consideration towards protecting the health, safety and the interests of customers. The essence of CSR is in company's effort not to damage the system and not to violate the moral rules. CSR stands for corporations that are responsible while taking decisions, which influence the society around them. Otherwise, the world would be in chaos. It is necessary to understand, that no one expects from corporations to be "generous wealthy cousin" and invest their funds in various social goals. Society expects them to be responsible while doing business and making decisions that influence people and the quality of their lives.

Hereinafter the concept of CSR is described in detail through Davis model of CSR. Keith Davis developed the model, which consists of five values (Certo and Certo, 2008). Model answers the question: *how should a socially responsible company work and look like*. Davis's model of corporate social responsibility (Certo and Certo, 2008, pg. 50):

- 1) *Social responsibility arises from social power*: Davis argues that society can and should hold companies responsible for social conditions that result from the use of the power that these companies have in society.



- 2) *Companies must operate as two-sided open systems, open to receive information from society and open for public display of their own activities.*
- 3) *They must carefully observe and calculate the costs and returns of activities, products or services when taking decisions about their production. Technical feasibility and economic profitability are not only factors that should influence the decision-making.*
- 4) *Social costs associated with each activity, products or services are transferred to customers.*
- 5) *Business institutions, as citizens, have a responsibility to engage in certain social problems that are beyond their traditional areas of operation.*

All the settings for this model are reasonable, nothing unreasonable or impossible to achieve is required from companies. Corporate social responsibility does not constitute an additional cost and no extravagance, as many claim. From that point, no good arguments contrary to corporate social responsibility are found.

### **2.1. Importance of CSR in modern world**

In today's business environment, organizations are exposed to constant change and increasing competition. Companies that solely promote their products and services, while not paying attention to the social wellbeing and do not act responsibly towards the society, eventually lose the market competition (Stojanovic, et al. 2014, pg. 15).

Stojanovic and Milinković (2014) quoting Kotler and Lee (2009) listed benefits of CSR implementation. These benefits are: an increase in sales and market share, strengthening the position of the brand, enhancing corporate image and impact, capacity building to attract, motivate and retain employees, reduce operating costs, increase attractiveness for investors and financial analysts, opening up the possibility of financial incentives of regulators, improving relationships with the community and ultimately increase business reputation. These claims should be proven, but some of the benefits are self-evident. Selvi, Wagner, Türel (2010) also recognized several benefits from application of corporate social responsibility:

- Better reputation in the community and better financial performance, which leads to increased market share, retention of key personnel and directing investor confidence towards CSR.
- Improving the working environment, accordingly employee retention, motivation and productivity.
- Improving relationships and implications with local community, given the wide range of possibilities that this issue offers in the area of reputation, positive press.

It is clear that benefits listed by Stojanovic, et al. (2014) and Selvi, Wagner, Türel (2010) overlap. It all comes down to the same thing: a wide range of benefits for the company and greater business success. Such unanimity may signal the veracity of these claims.

Certo and Certo, (2008) claim that there are no empirical studies to show a clear link between CSR activities and profits. However, there may not be a direct relationship, but a better business reputation and other benefits undoubtedly lead to greater profits. As there is a clear link between CSR and business reputation of a particular company, it is logical to conclude that consumer confidence disappears if CSR is absent, especially if it results in severe consequences. Reputation leads to consumer confidence supported with following statement:

*"It takes 20 years to build a reputation and five minutes is enough to ruin it. If you think about it, you'll do things differently."* Warren Buffett ([www.businessinsider.com](http://www.businessinsider.com))

Argandona (2009) argues that social responsibility is not different from the moral responsibility and it should be seen as a duty. Only difference is that CSR extends as a duty to the whole community. Thorne (2009) sees the crisis of responsibility as the cause of the last financial crisis, particularly in the financial sector and states that this is an opportunity to rebuild CSR, but improved version in order to restore trust between the company and all stakeholders. Events in 2008 show that the well-known multinational corporations, drawn into various irregularities, went bankrupt and many people lost their money. No one can refute that a lack of CSR caused world financial crisis. Two banks can set an example of how CSR softened the crisis as they were bypassed from the last financial disaster: the Dutch Tridos Bank and U.K. Co - operative Bank. CEO of Tridos Bank explained: *by lending money to business projects and companies that are financially viable, but also environmentally and socially sustainable, we are balancing the positive impact on society with a healthy return on financial assets* (Thorne, 2009).

Carroll's pyramid (Stojanovic, Milinković, 2014) easily explains dimensions of CSR. The concept is multi-dimensional and cannot be observed at it as simplistic as many companies do. It is not something that a company should implement due to the pressure of the society or because everyone else has it. The pyramid ranks the CSR in four levels. Bottom is the base and the first level. Foundation shows that without profitability no other level is possible. The second level includes legal liability, it represents compliance with law and regulations and CSR requires more than the respect of written rules and laws to move to the next level. The third level is the ethical responsibility, describes behaviour in accordance with the ethical standards of CSR. Last level represents the philanthropic responsibilities. For a company this means to be a good corporate citizen and contribute to the wellbeing of the people and the communities in which it operates (Stojanovic, Milinković, 2014).

Companies that understand and accept this pyramid and install it into their business process can count on a long-term success. As Argandona (2009) stated: *Good company, excellent company, carries their ethical responsibility out in practice, and if not, it will not be good company, even if it achieves high gain, is super listed on the Stock Exchange and has a high reputation.*

## 2.2. CSR in Croatia

Croatian economy is still quite young and companies need to catch up with established practices of quality CSR applied in other, more developed countries. The key event in Croatia for CSR development was the first national conference on CSR titled *Agenda 2005*, held with the aim, as Kale, Paparella and Story (2010) stated, of formulating common priorities for the development of CSR in Croatia. Three years after the first national conference CSR became an important concept for encouraging collaboration between businesses, academia, civil society organizations and other professional organizations. This resulted, according to CSR in Croatia Report (2007), with mergers that encourage horizontal exchange of best management practices and regular publication on the contribution of CSR (Stojanovic, Milinković, 2014). Various associations in Croatia were involved in the promotion of CSR. Some of them are Croatian Business Council for Sustainable Development, National Network for Corporate Social Responsibility, Community CSR and the UN Global Compact Local Network Republic of Croatia. (Stojanović, Milanković, 2014).

An important event for the development of CSR in Croatia is the formation of CSR Index. Stojanovic and Milanković (2014) explained how this project, led by Croatian Chamber of Economy and the Croatian Business Council for Sustainable Development with the support of UNDP in Croatia and AED (Academy for Educational Development), developed a methodology for assessing voluntary social responsible practices in Croatian companies. This

project shows how prominent institutions are trying to raise awareness of social responsibility among Croatian companies. This award should certainly have a greater public response. The objectives of the project are (Stojanovic and Milanković, 2014.):

- provide Croatian companies an objective assessment of voluntary practices and relative comparison between companies,
- rank companies by CSR criteria which tributes to their achievements,
- increase the interest of the business sector, public and media for CSR,
- encourage all companies to implement social responsibility in their business.

According to information provided from the official site CBCSD (Croatian Business Council for Sustainable Development), competition for CSR Index was held in 2013. Companies had the opportunity to apply from the beginning of November to 16 December 2013; a questionnaire completed 88 small, medium and large public companies from Croatia. In addition, the official site of CBCSD noted that the 2013 competition formed new regulation for CSR Index. Rules for the first time combine the implementation process of the CSR Index and the method of implementation and evaluation of the best choices. The methodology for evaluation of Croatian companies, according to the CSR Index, is composed of different criteria (Stojanovic, Milinković, 2014. pg. 21):

- economic viability (mission and vision, strategic planning, revenue, exports, investment in development)
- inclusion of CSR into business strategy (CSR management in the enterprise, programs and activities related to the field of CSR: human resource management, environmental protection, consumer rights, corporate governance, community relations),
- work environment (employment policy, evaluation of, investment in education and employability of employees, the quality and safety of working conditions, organizational climate),
- environmental protection (management, monitoring of environmental impact, environmental protection measures, stakeholders and environmental management),
- market relations (relations with suppliers, customers and consumers, shareholders and corporate governance, competition)
- community relations (care for the local and social development, lobbying and advocacy).

These areas can be associated with economic performance (profitability, economic activities that lead to success), and show how CSR is embedded and adopted in all business functions. It is important to increase interest of the media and the public for CSR. If the media paid more attention to this topic, the public would be informed and pay more interest in implementing CSR in business.

### **3. EMPIRICAL RESEARCH**

As explained above two separate analysis were done. First the Web page analysis of the top 100 companies from the business journal '*Lider*' was done. The aim was to examine the relationship between the business success of the company and the quality of corporate social responsibility. Web sites of the companies were analysed to check the existence of the Code of Corporate Governance; level of transparency (published financial statements, information on board members and other relevant information) and existence of social responsibility program. The second part of the research was in a form of an online questionnaire on perception of consumer. The attitudes of consumers about CSR in the selected companies were examined.

## Web page analysis

Corporate social responsibility of each company from the list was evaluated according to data available on their website. Grades from 0; 0.5 and 1 were given for each criterion of CSR: transparency, program of CSR, Corporate Governance Code. Through this analysis, the second hypothesis was researched:

*H2: Social responsible activities of company are positively likened to business performance.*

This assumption stems from the fact that socially responsible activities apart the company from its competition and help build a better relationship with consumers which is ultimately the key to long-term success. To prove this relationship the position on the Lider's "Top 500" list and the companies' social responsibility program was compared. Research showed a weak but positive correlation between sequence number and customer social responsibility program (see table 1). This proves the presumed hypothesis ( $r = 0.248$ ,  $\text{sig.} = 0.05$ ).

*Table 1: Correlation between the position on Lider's "Top 500" list and existence of social responsibility program*

		Code of corporate governance	Social responsibility program	Transparency
Position (ordinal number)	Pearson coefficient	,073	,248*	,150
	Sig. (2tailed)	,469	,013	,137
*correlation is significant at 0,05 level (2tailed)				
** correlation is significant at 0,01 level (2tailed)				

*Source: author's research*

The quality of social responsibility program is just one component that accounted for the overall evaluation of the quality of corporate social responsibility. This correlation shows that companies ranked higher on the list were rewarded with better marks in social responsibility programs. This is important because social responsibility program states that the company is aware of the importance of developing CSR and its influence on business results. On the other hand, companies that are in higher positions on the list are companies that are larger, financially stronger and have people who deal with public relations and therefore have a better program of social responsibility. Also as a result, from this part of research after a detailed analysis, a list of five of the most (Top1 to Top5) and least successful (Low1 to Low5) companies was obtained. This list was used for the online questionnaire (explained below)<sup>118</sup>.

## Online questionnaire

The second part of the research was conducted using a questionnaire, created in the Google Docs, in order to examine the perceptions of consumers about the importance of CSR. Questionnaire was posted on Facebook and sent by email with instructions. Collected data was analysed using Microsoft Excel and statistical tool IBM SPSS Statistics. Out of 101 received responses, only 90 were used in the research. Most respondents (68%) are women, and the average age was between 18 and 30 years. Respondents were mostly students (46%) and employed people (39%). Almost a half of respondents holds a university degree (43%),

<sup>118</sup> In the online questionnaire, real names of the Top and Low companies were used in order to give the respondents the example of a most and least successful companies.

but there is also a high proportion with secondary education and higher education (respectively 21% and 32%).

The aim of the research was to examine how important quality and reputation of companies is, as opposed to price and the companies size. Assuming that quality, reputation and responsibility are more important, this would suggest a better performance of socially responsible companies. Results of online survey showed that the quality, with 43%, prevailed in the selection of products. The price is very close with 42% of responses. Superiority of quality suggests that a large proportion of respondents puts quality above price while choosing a product.

The aim was also to confirm that there is a relationship between CSR and the positive reputation of the company in public. Data collected from respondents through online survey was grouped into three groups: the quality of life as part of CSR, labour and working conditions as part of CSR and other activities of CSR. These sets were compared with variables related to attitudes towards certain companies that were taken from the results of the first part of the research - analysis. Through the online questionnaire, the hypothesis regarding reputation of the companies was examined.

*H1: Corporate social responsibility contributes to a positive reputation of the company in public.*

It is interesting to observe a positive correlation between the degree of agreement of respondents on positive actions from companies (most successful companies from the first part of the research) with regard to CSR and the degree of agreement (how much it matters to respondents if the company takes care for their quality of life) (see Table 2).

*Table 2: Correlation between variables*

Company and opinion of the consumers		Does company value our quality of life?
<b>Top1</b> - desirable employer	Pearson coefficient	0,222*
	Sig.(2tailed)	0,35
	N	90
<b>Top2</b> - reputation and socially responsible	Pearson coefficient	0,223*
	Sig.(2tailed)	0,35
	N	90
<b>Top3</b> - like purchasing their products	Pearson coefficient	0,324**
	Sig.(2tailed)	,002
	N	90

*Source: author's research*

Result showed a positive correlation ( $r = 0.222$ ,  $\text{sig.} = 0.35$ ) between the attitudes of respondents towards the Top1 as a desirable employer and the attitude towards the quality of life as an essential item in choosing products and services of a particular company. Meaning that the importance attributed to quality when choosing products is positively correlated with desirability of an employer. The data supports a positive correlation between the intake of quality of life as part of CSR when choosing products and services and the perception of a socially desirable employer. Link between reputation of a company and social responsibility in doing business was analyzed. More than half respondents stated that CSR makes a positive

reputation of the company and positive financial results. It is important to determine how the number of respondents who opted for CSR and positive financial results exceeds the number of those for positive publicity. Positive publicity is often replaced for CSR. Even 62% of respondents think that the biggest indicator of company success is business reputation in the public. Results showed that competitively priced products and services are the biggest indicator of success, but business reputation and good cooperation with the community by far exceeds this. Over half of the respondents believe that successful companies cultivate good relations with the community. Over half of the respondents (54%) agree that positive financial results and creating new values makes a company socially responsible. Out of 90 respondents, 62% believe that the company is socially responsible through sponsorship and donations, while 88% believe that CSR of the company is presented through environment care. Respondents have a positive attitude (75%) towards a positive effect of CSR on their lives. More than half of respondents (58%) are more likely to buy products and use services from socially responsible companies.

#### 4. CONSLUSION

Companies must take into account the impact of their decisions on the entire community: the environment whose preservation is necessary to ensure resources for future generations and care for their employees, which are the main companies. In addition to taking responsibility for their actions, the companies have to accept and develop socially responsible business in order to survive in the extremely competitive market. There are many examples where, due to the lack of transparency in business and unethical decision making by managers, large business systems collapsed in a very short time. To prevent this and to achieve sustainable economic system, CSR is the only way to go. Awareness of CSR in Croatia and its true meaning is not fully developed. One reason is relatively short period of existence of a market economy and CSR in Croatia, and another is a small number of authors and paper on this subject. Croatian Chamber of Commerce and other associations recognized the importance of CSR and engaged in its development and promotion. Positive financial results constitute only a part of CSR. As seen in the research the quality of life is important and CSR directly affects it, therefore companies which are socially responsible benefit from it. In order to evolve Croatian companies need to understand (more) the true meaning of CSR and impact of its implementation on consumers. Corporate social responsibility contributes to positive reputation of the company, but does not represent the only element of distinction. CSR is necessary and combined with other strengths results with development and success of the company. After all, various researches have been done and a conclusion can be made: consumers are willing to spend more money for a product whose manufacturer is socially responsible; employees are more willing to work in socially responsible companies than to receive higher wages; good reputation of the company attracts better business partners (Stojanovic, et al., 2014).

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## **REGULATION OF NON-FINANCIAL REPORTING – CORPORATE GOVERNANCE NEW DEVELOPMENTS OR OLD REQUIREMENTS?**

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### **ABSTRACT**

*The principle of transparency has been recognized as one of the main instrument of European company law while building an integrated capital market. Its importance is recognized by its application, which includes both financial and non-financial information about the company whose securities are traded on the Regulated Market. The affirmation of the principle of transparency contributes to build investors confidence in the capital market and ultimately affect all other stakeholders. There is a need to establish a balance between the protection of investors, on one hand, and the protection of confidentiality of information, on the other hand. The practice of European Court of Justice also follows this direction. Beside financial information, companies have also interest to voluntarily disclose certain non-financial information, particularly if it is designed as part of a package to improve their credibility and acceptance in key markets or if it enables them to undertake business more successfully. Within the EU, company reporting is covered by the 4th and 7th Company Law Directives. These Directives provide a set of minimum disclosures, supplemented in each Member State by national requirements. Authors in the paper will analyze requirements and newest trends regarding non-financial reporting within European company law. European Commission launched proposal for Directive on disclosure of non-financial and diversity information in April 2013. This proposal led to the ratification of the Directive on non-financial reporting by the European Parliament in April 2014 which final adoption is expected before September 2014.*

**Keywords:** *Company law, EU, Non-financial Reporting*

### **1. INTRODUCTION**

Disclosure and transparency requirements are key regulatory tools which help to ensure that companies effectively implement their obligations and are accountable for the business strategies which they adopt (Horak, Dumančić, Poljanec, 2014; Consultation on the potential economic consequences of country-by-country reporting under Directive 2013/36/EU, retrieved at [http://ec.europa.eu/internal\\_market/consultations/2014/country-by-country-crd4/docs/consultation-document\\_en.pdf](http://ec.europa.eu/internal_market/consultations/2014/country-by-country-crd4/docs/consultation-document_en.pdf)). Transparency, not only disclosure of financial informations, but also as regards non-financial information on environmental and social matters, leads to better company's performance. Transparent companies perform better over time, have lower financing costs, attract and retain talented employees and are ultimately more successful. That is why investors are interested in non-financial information in order to have a comprehensive understanding of a company's development, performance, position and impact of its activity. Importance of transparency is recognized by its application which includes financial and non-financial information about the company whose securities are traded on the Regulated Market. The affirmation of the principle of transparency contributes to build investors confidence in the capital market and ultimately affect all other stakeholders



(Horak, Dumančić, 2011, p. 86-93). There is a need to establish a balance between the protection of investors, on one hand and the protection of confidentiality of information, on the other hand (Horak, Dumančić, 2013, p. 10-21). Two directions can be recognized when analyzing recent tendencies in the area of affirmation of transparency principle regarding secondary EU law. One direction that gravitates to the simplification of the requirements for data delivery in the meaning of its content and technical issues, and the second one that emphasizes the importance of the transparency principle affirmation in the sphere of corporate social responsibility. What connects these two directions is the endeavour to preserve integrity of capital markets. In such interdisciplinary surrounding it comes to the changes of member states national laws.

Companies may find it in their interest to disclose voluntarily certain non-financial information, particularly if it is designed as part of a package to improve their credibility and acceptance in key markets, or if it enables them to undertake business more successfully. In sectors dominated by large multinational enterprises, disclosure of such information may be seen as an important business driver.

## **2. DISCLOSURE OF FINANCIAL INFORMATIONS ABOUT THE COMPANIES**

Within the EU, company reporting is covered by the Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54(3)(g) of the Treaty on the annual accounts of certain types of companies (further: Fourth Company Law Directive) and Seventh Council Directive 83/349/EEC of 13 June 1983 based on Article 54(3)(g) of the Treaty on consolidated accounts (further: Seventh Company Law Directive). These Directives provide a set of minimum information that should be disclosed, supplemented in each Member State by national requirements. The focus of those Directives is on companies' financial disclosure. But in the context of their annual report, as it is prescribed by the provision of the Article 46(1) of the Fourth Company Law Directive companies are required to disclose "...where appropriate, non-financial key performance indicators relevant to the particular business, including information relating to environmental and employee matters." The European Commission (DG Internal Market and Services) have sought stakeholders' views on the existing EU regime on non-financial (CSR) disclosure with a view to improving existing policy. A public consultation (running from November 2010 to January 2011) was launched in order to gather stakeholders' views on ways to improve the disclosure by enterprises of non-financial information (e.g. social and environmental). The consultation obtained responses from a wide range of stakeholders in the Member States who expressed mixed views regarding existing non-financial disclosure policy. However, a key message was that better disclosure of non-financial information is needed in order to increase the number of European companies that fully integrate sustainability and responsibility into their core strategies and operations in a more transparent way ((Framework Contract for projects relating to Evaluation and Impact Assessment activities of Directorate General for Internal Market and Services, Disclosure of non-financial information by Companies, Final report December 2011, retrieved at [www.cses.co.uk](http://www.cses.co.uk), p. 5). As a result of tendencies in financial reporting Directive 2013/34/EU of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC was brought. A new Directive on non-financial reporting represents amendments to this Directive. When analyzing transparency and reporting of financial information within the EU company law it also should be accentuated that the ECJ case law follow direction of disclosure of financial information that was established by European law bearing in mind importance of disclosure, transparency, protection of shareholders and as well all other stakeholders (e.g. judgement *Markus Geltl v Daimler AG*, C-19/11, judgement *Alfred Hirmann v Immofinanz AG*, C-174/12).

### 3. LEGAL FRAMEWORK FOR NON-FINANCIAL REPORTING

Beside the obligation for disclosure of financial information about the companies there is a constant need for affirmation of disclosure of non-financial information on policies, risks concerning environmental aspects, social and employees' matters, respect for human rights, anti-corruption and bribery issues and diversity on the board of directors. It is accentuate that transparency leads to better performance (European Commission Memo on Disclosure of non-financial and diversity information by certain large companies and groups (proposal to amend Accounting Directives – FAQ, Brussels, 16 April 2013). Current EU legislation, in particular Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, addresses the disclosure of non-financial information. Beside this directive there are also a number of sets of international guidelines for disclosure, which all are included in new Directive on non-financial reporting. Amongst these are:

OECD guidelines for Multinational Enterprises - The Guidelines are recommendations addressed by governments to multinational enterprises operating in or from adhering countries. They provide voluntary principles and frameworks for responsible business conduct in areas such as employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and taxation. The guidelines also provide advice on implementation (retrieved at <http://www.oecd.org/dataoecd/43/29/48004323.pdf>).

Global Reporting Initiative (GRI) - The Sustainability Reporting Framework provides guidance on how organizations can disclose their sustainability performance. It consists of the Sustainability Reporting Guidelines, Sector Supplements and the Technical Protocol. There are in addition sector supplements dealing with electrical utilities, financial services, food processing, mining and metals and NGOs. Other sector supplements are being prepared or piloted. It is understood that 1600 companies worldwide report using GRI standards. A comparison of a slightly earlier version of OECD guidelines 9 and GRI is also published by OECD. There is now a partnership between OECD and GRI (Synergies between the OECD Guidelines for Multinational Enterprises and the GRI 2002 Sustainability Reporting Guidelines retrieved at

<http://www.oecd.org/dataoecd/25/26/35150230.pdf>,

<http://www.globalreporting.org/ReportingFramework/G31Guidelines/>,

<http://www.unglobalcompact.org/>). The key parts of the Sustainability Reporting Framework are as follows. The text is based on GRI's description of the framework. The Sustainability Reporting Guidelines feature Performance Indicators and Management Disclosures that organizations can adopt voluntarily.

There are a number of other guidelines, generally concentrating on specific aspects of non-financial reporting as the United Nations Global Compact. This 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, labour, environment and anti-corruption. The UN Global Compact is based on ten principles derived from other material. The UN Global Compact represents the guiding principles on business and human rights implementing the UN "Protect, Respect and Remedy" Framework.

The European Commission launched a consultation on the potential economic consequences of country-by-country reporting by institutions required by Article 89 of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms (CRD), in particular as regards information contained in Article 89(1) (d), (e) and (f) thereof, including the impact on competitiveness, investment and credit availability

and the stability of the financial system. The results of the consultation will be taken into account in writing the Commission's assessment and report required under Article 89(3) of CRD (Consultation on the potential economic consequences of country-by-country reporting under Directive 2013/36/EU, Capital Requirements Directive or CRD, retrieved at [http://ec.europa.eu/internal\\_market/consultations/2014/country-by-country-crd4/docs/consultation-document\\_en.pdf](http://ec.europa.eu/internal_market/consultations/2014/country-by-country-crd4/docs/consultation-document_en.pdf) ).

However, the requirements of the existing legislation have proved to be unclear and ineffective, and are applied in different ways in different Member States. Currently, fewer than 10% of the largest EU companies disclose non-financial information regularly. Over time, some Member States have introduced disclosure requirements that go beyond the Directive. For instance: the UK introduced legislation in 2006 and updated it in 2013; Sweden adopted legislation in 2007; Spain in 2011; Denmark amended its legislation the same year and France in 2012 (retrieved at [http://europa.eu/rapid/press-release\\_MEMO-14-301\\_en.htm](http://europa.eu/rapid/press-release_MEMO-14-301_en.htm)). The EU 2020 Agenda on sustainable growth and jobs promotes the renewal of corporate social responsibility (CSR) and also the Single Market Act – Twelve levers to boost growth and strengthen confidence – “Working together to create new growth” from the 2011 stresses the importance of strengthening consumer trust and confidence in the EU Market, and achieving a highly competitive social market economy and sustainable economic growth. In this framework the Commission is also currently developing a Social Business Initiative and as it is stated in the Single Market Act there is a need to raise to a similarly high level the transparency of the social and environmental information provided by the undertakings in all sectors, across all Member State and should present a legislative proposal on the transparency of the social and environmental information provided by the companies which need was also recognized in the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Region entitled “A renewed EU Strategy 2011-14 for Corporate Social Responsibility” adopted in October 2011. The European Commission has proposed an amendment to existing accounting legislation in order to improve the transparency of certain large companies on social and environmental matters. Companies concerned will need to disclose information on policies, risks and results as regards environmental matters, social and employees related aspects, respect for human rights, anti-corruption and bribery issues, and diversity of the board of directors. Proposal for a directive as regards disclosure of non-financial and diversity information was launched by European Commission in April 2013. This proposal led to the ratification of the Directive on non-financial reporting by the European Parliament in April 2014 (European Parliament legislative resolution of 15 April 2014 on the proposal for a directive of the European Parliament and of the Council amending Council Directives 78/660/EEC and 83/349/EEC as regards disclosure of non-financial and diversity information by certain large companies and groups COM(2013)0207). The final adoption is expected before September 2014.

The new Directive regulates reporting in regard of non-financial information. In Directive 2013/34/EU new articles will be added with regard non-financial reporting.

#### **4. EU DIRECTIVE ON NON FINANCIAL REPORTING PROPOSAL**

The objective of the new Directive is to increase EU companies' transparency and performance on environmental and social matters and, therefore, to contribute effectively to long-term economic growth and employment. Large undertakings which are public interest entities (these are listed companies, credit institutions, insurance undertakings and any other entity designated by an EU member state as a public interest entity, e.g. because they are of significant public relevance due to the nature of their business or size) exceeding on their

balance sheet dates the criterion of average number of employees during the financial year of 500 shall include in the management report a non-financial statement containing information to the extent necessary for an understanding of the undertaking development, performance and position and of the impact of its activity relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters including: a brief description of the undertaking's business model, a description of the policy pursued by the undertaking in relation to those matters, including due diligence processes implemented, the outcome of those policies, the principal risks related to those matters linked to the undertaking's operation including where relevant and proportionate, its business relationships, products or services which are likely to cause adverse impacts in those areas and how the undertaking manages those risks, non-financial key performance indicators relevant to the particular business.

Reporting is mandatory, yet where the undertaking does not pursue policies in relation to one or more of those matters, the non-financial statement shall provide a clear and reasoned explanation for not doing so. This provision introduces „comply or explain“ principle in non-financial reporting (Horak, Bodiřoga-Vukobrat, 2011). As it is stated the explanation has to be clear and reasonable and this doesn't free a company from the obligation to identify and disclose its principal risks.

The Directive provides in exceptional cases Member States to implement Directive in their national law by allowing to the companies not to disclose information relating to impending developments or matters in the course of negotiation if such disclosure would be seriously prejudicial to the entity's commercial interest. In that case, in the duly justified opinion of the members of the administrative, management and supervisory bodies, acting within the competences assigned to them by national law and having collective responsibility for that opinion. Such omission does not prevent a fair and balanced understanding of the undertaking's development, performance and position and of the impact of its activity.

The Directive gives companies the significant flexibility to disclose relevant information in the way they consider most useful or in a separate report. The companies may use guidelines that they consider appropriate. That means that in requiring the disclosure of the information Member States shall provide that undertakings may rely on national, Union-based or international frameworks, and if they do so, undertakings shall specify which frameworks they have relied upon. This provision introduces the possibility to apply any of national, international or European recognized standards of non-financial reporting.

Since the subsidiaries are included in the consolidated management report of the undertaking, an undertaking which is a subsidiary undertaking shall be exempted from the obligation of separate non-financial reporting.

Member States may allow the company to provide a separate report rather than integrating the non-financial statement in the management report as long as the separate report is either published together with the management report or it is made publicly available within a reasonable period of time, not exceeding six months after the balance-sheet date, on the companies' web site to which reference shall be made in the management report.

The role of auditors is limited to verifying whether the non-financial statement or a separate report has been provided. It is up to Member States to decide whether to implement more rigorous verification methods or not, such as verification by independent assurance service provider.

Member States are responsible for putting in place effective procedure to enforce compliance. The general requirement, applicable to the management report, also applies to the non-financial statement. Member States shall ensure that members of the administrative,

management and supervisory boards have collective responsibility for drawing up and publishing the non-financial report in accordance with requirements.

Regarding information on diversity of the company boards' large listed companies will be required to provide information on their diversity policy such as age, gender, educational and professional background. The disclosure will set out the objective of the policy, how it has been implemented and the results. Companies that do not have a diversity policy will have to explain why not and this approach follows the general EU corporate governance framework.

## 5. CONCLUSION

The new EU Directive on non-financial reporting shows a significant step towards making business accountable to society and it is a major success for the corporate accountability movement in the EU. It will enhance the transparency of European business and its competitiveness within the wider international market. Disclosure of human rights, social and environmental risks becomes mandatory for some of the largest companies within the EU Market. This Directive is a result of tendencies in society as a whole that human rights and environmental issues in the companies have the same importance as their financial performance. Business should be transparent because of its impact as a key concern to its stakeholders and society as a whole. By complying with the requirements from the Directive companies will assure better performance at the market. Even the requirement applies to a relatively small number of companies these companies in certain sectors are leaders not only on European but at the world market. In addition, better transparency means a higher degree of confidence in the company, which ultimately lowers the cost of borrowed capital and increases the overall liquidity (Christensen, Hans, Hail, Leuz, 2014), and therefore a better allocation of capital (Horak, Dumančić, Poljanec, 2014).

As the Internal Market and Service Commissioner Michel Barnier said while adopting the Directive by European Parliament "... companies that already publish information on their financial and non-financial performances take a longer term perspective in their decision-making. They often have lower financing costs, attract and retain talented employees and ultimately are more successful. This is important for Europe's competitiveness and the creation of more jobs. Best practice should become the norm."

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## DECISION MAKING ON ACCESSION TO THE INDUSTRY CLUSTER ON THE EXAMPLE OF A FAMILY BUSINESS

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### ABSTRACT

*The aim of the article is to determine the role of the decision on entering a cluster in the process of family business development. The authors characterize cluster as an external way of the development of various kinds of business entities, with particular regard to family enterprises. They indicate that using the resources and skills accessible within a cluster might be an effective way serving the strengthening of competitiveness of family businesses in the conditions of a turbulent environment. Clusters, as contemporary forms of organizations created as a result of mutual, permanent cooperation as well as competition between representatives of various sectors: business, science, public authorities (local, regional, national) and also business environment institutions, achieve synergy through operating in a certain, specific entrepreneurial ecosystem.*

*A strategic decision on entering this type of cooperation network poses a range of new challenges. In the article, selected examples of the benefits that ensue from functioning in a cluster were presented, not only the hard ones, which produce relatively quick, measurable effects but also soft ones, more difficult to analyze and measure, which are visible after a longer period. Basing on literature review and the selected empirical research there were identified the key determinants of family business development. It was emphasized that in contemporary, unstable, competitive environment, those firms encounter a range of new difficulties, but also possibilities.*

*The decision-making on entering a cluster can create additional, so far not encountered chances, constitute a key factor of development and contribute to a significant improvement of their situation in the market. However, it is a difficult step owing to the fact that family businesses are perceived as entities avoiding changes, unwilling to take risk, orientated towards stable, peaceful functioning with respect for tradition and family values, not towards aggressive, expansive strategies. The entry of a family business to a cluster and the development of the activity in this type of a network are the actions requiring strategic thinking and making a number of transgressive decisions. The paper presents the main problems and the areas of such decisions, their potential results as well as the role of manager's decisiveness in this kind of undertakings.*

**Keywords:** *cluster, decision-making, decisiveness, entrepreneurship, family business*

### 1. INTRODUCTION

The question of efficiency and permanent development still constitutes the current challenge under conditions of environmental turbulence, including the ongoing globalization of economies. In the face of dynamic changes, both local and global, competition through

development has become common practice. However, if one intends to equal or exceed competition in this field, it is not only particular attention paid to one's personal resources (tangible and intangible), but also concrete external support by dint of cooperation with other diverse subjects that are needed.

Also family businesses permanently search for new opportunities in the field of enhancing their development. Some of them consider clusters a chance for the increase in firm's goodwill, since there is a real possibility to create a synergy effect through cooperation based on complementary resources of various partners from sectors of: business, science R&D, and business environment institutions.

The decision on joining the cluster constitutes a sign of the entrepreneurial attitude of family businesses, since it is expressed through creative and active endeavor to improve the already existing states of affairs, readiness to take up new challenges, actions or broaden the hitherto ones, as well as an endeavor to achieve tangible and intangible gains that may result in a considerable improvement in the competitive position in a particular market sector. The decision constitutes a direct result of creativity of this group of entrepreneurs, an active attitude towards arising opportunities that are frequently disregarded or belittled by others.

The objective of this article is to emphasize the significance of clusters, including the close cooperation between economic entities for the development of family enterprises that function under conditions of turbulent environment. Scientific considerations whose outline has been presented in the article, were conducted on the basis of selected results of empirical studies and literature references. The empirical studies were carried out on a sample of 11 family enterprises functioning in the "Aviation Valley" industry cluster. Personal interview were applied as a basic research method (including certain modifications – by reason of the use of dyads and triads, i.e. conversations held with two or three persons simultaneously – with representatives of family businesses being equally engaged in their functioning). In the course of the studies, also the elements of a narrative method were applied – the interviews sometimes were turning into loose talks held between the family entrepreneurs under research (notwithstanding the framework of the talks was controlled by the researcher). It provides much valuable information, including pieces that were not assumed while preparing the scenario of interviews.

The aim of the empirical studies was to verify the hypothesis, according to which a cluster creates a wide array of development opportunities for family businesses. Furthermore, the studies enabled the formulation of many interesting research conclusions that have been presented in this very paper.

## **2. FAMILY BUSINESS AS A RESULT OF FAMILY ENTREPRENEURSHIP**

Family business constitute probably the oldest (traditional) way of running a business amid various world cultures, primordial in relation to a country, clan, local community. They played and still play an important role in management processes. This kind of firm requires family members to be engaged in its development and functioning. This type of enterprise combines an economic aspect (firm) with a non-financial, emotional one (family). It comprises family and business ties that reciprocally permeate. Numerous problems result from this fact (e.g. quarrels and conflicts that may be transferred from a family to a firm, or vice versa), however one may take advantage of it so that it is beneficial for the enterprise (since a specific atmosphere that is based on trust and a sense of security prevails there and influences engagement, a tendency towards dedication, thus better employees' effectiveness). Many different definitions may be found in literature as regards the term family business. D.T. Jaffe (1990, pp. 27-36) defines family business as a unit, in which two or more members of a particular family share work and property (in case of non-public firms it is at least 51% of



shares and in case of public ones – it refers to possession of controlling shares). J.A. Davis and R. Tagiuri (1991, pp. 62-73) emphasize that family business is an organization in which two or more family members have an influence on management board through using the kinship connections, fulfilling a function of a manager or ownership. R. Donelley (1964, pp. 93-105) while elaborating on the nature of family business indicates the significance of succession by deeming that a business may be considered a family one when at least two generations of a family running the business may be identified, and when this connection (between generations) influences its policy, interests and objectives of the family.

Diverse and numerous definitions of family businesses, available in literature may result from many, frequently radically different criteria that are analyzed and taken into account while being defined. Table 1 includes variables used by National Family Business.

*Table 1: Criterion for defining family business (Heck, Trent, 2002, p. 610)*

<b>The essence on the definition</b>	<b>Valuables under research in National Family Business Survey (1997)</b>
<b>Property or management</b>	Status, structure of the ownership, joint ownerships, co-owner, making key decisions, shares value.
<b>Engagement in family business</b>	Number of family members who work in a family business, paid and unpaid relatives who do not live in the same household.
<b>Family succession</b>	Generations in a family business, planned change of a family business ownership structure over the next years, an intention that the business should remain in the family ownership.
<b>Multi-criterion approach</b>	Combination of at least two of the aforementioned criteria.

What follows from analyzing various definitions pertinent to family businesses is the conclusion that while describing their nature it is an issue of ownership, management and intergenerational succession (Chrisman et al., 2003) that is taken into consideration most frequently. It means that an enterprise in any organizational and legal form may be considered a family business if (Piecuch, 2013, p. 154 and the following ones)<sup>1</sup>:

- its capital is entirely or substantially owned by members of a particular company (some emphasize that it should be at least 50% of shares),
- at least one person from a particular family is a manager or considerably influences firm's management,
- at least one full succession took place (generational exchange), i.e. the firm is run by at least second generation of owners who intend to pursue on running it and shall remain in the family ownership<sup>119</sup>.

<sup>119</sup> In formal terms, succession is a transfer of an enterprise (ownership and management) to the younger generation by the older generation. It always constitutes a very difficult, crucial moment for family businesses, even for those of good financial condition and a recognized position in the market. It determined their strategic position, and continuity of functioning in the future. It results from the fact that it is associated not only with an economic (also formal, legal, organizational) but an emotional (perhaps even more difficult) aspect as well. Handing over the power by the older generation is always difficult. An enterprise is a place where they have spent a substantial part of their life. They frequently treat it like their own child. Moreover, it is a moment of realizing one's own old age, mortality and transience. It is associated with the sense of being forsaken, useless etc. If there is also a conflict resulting from different perception of firm's future – it is going to be difficult time both for the firm, and family that is involved. The process of succession should be therefore planned (a successor should be "taught"). The younger generation should be prepared for this step earlier, so that all the negative consequences are mitigated (compare: Piecuch, 2013, pp. 159-167; Bradley III, Short, 2008, pp. 213-225; Sharma et al., 2003, pp. 1-15; Lewandowska et al., 2012, pp. 119-130).

In every family business, overall behavior patterns, i.e. values, declared and followed by its members, play a very important role. Most frequently they refer to family traditions, contribute to the establishment of specific, family, paternalistic organizational culture, expressed *inter alia* by the fact that all employees are treated as family members, trust is placed in them, and emotional ties between them and the board are very strong<sup>120</sup>.

It is most frequently highlighted that family businesses attach a great deal of weight to tradition and pursuit of running the firm by next generation for following years. Thus they may well be perceived as conservative as regards their actions, avoiding difficult and risky situations, and conducting their business activity for many years in one domain. They frequently “face problems with strategic thinking and are too conservative: they just keep the status quo, are not inclined to introduce any changes and have no development plans. They are usually convinced their business is successful and planning changes in the context of uncertain future seems to them an excessive and often irrational risk-taking” (Nalazek, 2012, p. 59). It is continuity and stability, not maximizing profit which is associated with considerable risk including bankruptcy of the firm (which most frequently constitutes the only source of income) that they find the most important value. Value systems of family businesses are distinctly conservative. Despite this, they may play very useful and stabilizing role, namely they (Winnicka-Popczyk, 2010, p. 630):

- lead to the fact that family members identify their lifestyles with the development and prosperity of the firm, espouse continuity and continuation of an undertaking and maintaining family tradition,
- modify acting styles in an enterprise, hence their course is controlled and they are marked by evolution traits, which may constitute a clear advantage,
- consolidate and unite a family around the firm's activity, making it a factor of success, not a development barrier.

Increasingly more contemporary, entrepreneurial family businesses shed their conservative image. They search for new opportunities of functioning and development that may be profitable. They notice new opportunities while implementing changes, are aware that adjusting to them is contemporarily perceived as a condition necessary for a firm to survive and develop within a long period of time. Changes always arouse fear and apprehension, but for dynamic, entrepreneurial owners they constitute a chance that should be seized. Such chances are offered for instance by a family entrepreneur's decision, as regards joining cluster structures. Owing to this, new and hitherto unknown opportunities are opened up for family businesses – the range of their partners broadens, there is a possibility to transfer knowledge (acquire new knowledge) between various stakeholders, use good practices and others' experience, the enterprise is also becoming increasingly open to changes, novelty and innovativeness. This decision is difficult (it is pertinent to the firm's strategic position), but entrepreneurs who take up this challenge may count on benefits and an improvement in the firm's situation even under conditions of turbulent and uncertain environment.

### **3. INDUSTRY CLUSTER AS AN ENTREPRENEURIAL ECOSYSTEM**

Many different definitions may be found in economic literature as regards the term industry cluster, since their authors emphasize increasingly new heterogeneous features of a cluster and the aspects of its functioning. Industry cluster is usually an open socio-technical system, goal-oriented and having a particular structure. It is also an entrepreneurial organization, in

<sup>120</sup> Organizational culture is peculiar. On one hand and a sense of safety prevails there. Employees are treated like family members, relation between them are personalized. On the other hand, it is usually quite the contrary, non-family employees can be alienated, which may lead to lack of trust, creates interpersonal divisions, destabilizes the enterprise (see more in: Gibb Dyer, Jr, 1988).

which certain members contribute to its development. This type of a clusters is an example of a geographically proximate group of different firms and associated institutions in related industries, linked by economic and social interdependencies (Rocha, Sternberg, 2005, p. 270). C. DeBresson (1996, p. 161) argues that clusters are not a simple concentration of independent economic agents, but a display at an inter-industrial level, underlying networks of interrelated co-operating businesses. This is a local production system encompassing in a coherent territorial relationships different economic and social members, e.g. firms, universities, R&D units, industry associations, which work in related or supporting technologies and an infrastructure of institutions and social relationships that provide resources and promote the interests of the whole cluster (Boschma, Lambooy, 1999, p. 415). Industry clusters create flexible, advanced and complex institutional form of economic development activation, including local, regional, national and international entrepreneurship. Their unique, individual nature results inter alia from regional/local conditions: geographic, economic, socio-cultural, technological.

Contemporarily, there are many forms of industry clusters (e.g. technological, innovative, creative, network, concentric, institutional). Some of them have a formalized structure with legal personality. In other cases there are only conventional acting forms that lack legal personality. There is no one universal model however, associated with the way a cluster functions, nor an organizational pattern which would guarantee dynamic development. It results from the fact that any cluster has a different organizational structure, business environment, strategic potential, reflect different characteristics of cooperation of local scientific and business environment, type of economy, industrial and cultural traditions.

According to H. Rocha and R. Sternberg industry cluster have three necessary or defining dimensions: geographical proximity, an inter-firm network, and an inter-organizational or institutional network (Rocha, Sternberg, 2005, p. 270). These three key dimensions of the definition point out to the fact that industry cluster is established as a result of reciprocal socio-economic interactions, creating innovative milieus. The concept of this type of milieus is confirmed by factors that play a favorable role in the development of entrepreneurship, referring to a particular geographical area, a set of stakeholders, several tangible, intangible and institutional common elements; and even more important, the ability to share an organizational logic, a learning system, a relational culture and social capital (Llados et al., 2009, pp. 214-216). According to R. Camagni the local milieu provides the economic background and elements of continuity on which learning processes and tacit information transfer become embedded and accumulate over time, playing the same role as R&D departments and corporate culture in the case of large firms (Camagni, 1991, pp. 121-144). In economic literature, three main sets of elements mark innovative milieus (Fromhold-Eisebith, 2004, p. 750): effective actor relationships within a regional framework, social contacts that enhance learning processes, and image and sense of belonging. Therefore, if actors have developed a milieu (a club-like atmosphere with intensive knowledge exchange), which allows for an interaction that is simultaneously co-operative and competitive, a localized value-creating system can reach its full potential, i.e. transform into an “innovative cluster” (Steinle, Schiele, 2002, p. 851).

On the basis of the review of definitions it was deemed that innovative milieus are most frequently identified with the term entrepreneurial ecosystem. Every industry cluster is involved in many different ecosystems, alongside its supply chains, including suppliers and customers. It is commonly accepted that the concept of ecosystem is a framework that focuses upon the interdependence of firms and uses the ecosystem in the natural world as a metaphor to express those cooperative networks (Inoue, Nagayama, 2011, p. 1). In the literature on

economics and management it is indicated that the concept of the entrepreneurial ecosystem, business ecosystem, economic development ecosystem is defined as:

- a system of interrelated pillars (domestic market, foreign market, founding and finance, government and regulatory framework, major universities as catalysts, education and training, human capital/workforce, support systems/mentors, cultural support), that have an impact on the speed and ability with which entrepreneurs can create and scale new ventures in a sustainable way (Drexler et al., 2014, p. 9),
- a set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (e.g. firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g. the business birth rate, numbers of high growth firms, levels of 'blockbuster entrepreneurship', number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment (Mason, Brown, 2014, p. 5),
- an interactive community within a geographic region, composed of varied and inter-dependent actors (e.g. entrepreneurs, institutions and organizations) and factors (e.g. markets, regulatory framework, support setting, entrepreneurial culture), which evolves over time and whose actors and factors coexist and interact to promote new venture creation (Vogel, 2013, p. 446),
- the network of interactions among and between organisms and their environment (Theodotou et al., 2012, p. 8),
- a kind of favorable business climate, business-friendly environment, with positive forecast for job growth (McKeon, 2013, p. 86).

An ecosystem is defined by three key components: various stakeholders that have both developed and are the results of the ecosystem, the location where the ecosystem exists and the broader interdependency and interaction between the various stakeholders that constitute the ecosystem (Theodotou, et al., 2012, p. 8). Business ecosystems are characterized by large, complex, and global networks of firms, often from many different market segments, all collaborating, partnering, and competing to create and deliver new products and services (Basole et al., 2013, p. 2526). A common standpoint is shared by P.J. Williamson and A. De Meyer (2012, pp. 24-25), who deem that vibrant ecosystems are larger, more diverse, and more fluid than a traditional set of bilateral partnerships or complementors. Thus this type ecosystem can enable activities, assets, and capabilities to be flexibly and constantly reconfigured in response to the unexpected, can also help speed up innovation and improve the quality of customer service, or development of customer loyalty.

J.F. Moore (2006, p. 32) argues that business ecosystems surround, permeate, and reshape markets and hierarchies. Taking into account feedback between business and its environment, it is claimed that businesses don't evolve in a 'vacuum' and noted the relationally embedded nature of how firms interact with suppliers, customers and financiers (Moore, 1993, p. 76). He suggested that in this type of ecosystem, companies co-evolve capabilities around a new innovation: they work cooperatively and competitively to support new products, satisfy customer needs, and eventually incorporate the next round of innovations. The focus on value in a business ecosystem becomes thus on creating it for all members of the network, leveraging externalities and valorizing the social capital issued from the interactions with a singular purpose of building towards common welfare (Voicu-Dorobantu, 2014, p. 399).

According to C.K. Prahalad (2005, p. 65) the entrepreneurial ecosystem enables the individuals, enterprise and the society to combine effectively for the cause of generating economic wealth and prosperity. J. Suresh and R. Ramraj (2012, p. 96) stress that

entrepreneurial ecosystems can not only act as catalysts in speeding up the economic progress of stable economies but also can act as the prime mover when it comes to rescuing economies that have faced a sharp decline.

All things considered, one may infer that industry clusters build a contemporary ecosystem through creating an innovative environment capable of turning knowledge into new products and services, as a result of cooperation between various stakeholders (internal and external). Especially the very diversity of the members of the ecosystem in question constitutes already a value, since it is favorable for the “open model of innovativeness”. Improvement in the conditions pertinent to the transfer of knowledge processes and development of innovations, viable thanks to the formed economic community based on partnership may lead to a gradual increase in competitiveness including the boost in development both of particular stakeholders of the ecosystem and the region in which the entrepreneurial ecosystem was established and functions.

#### **4. DEVELOPMENT OF THE FAMILY BUSINESS IN CLUSTERS – SELECTED RESEARCH RESULTS**

The development category still constitutes one of the main issues pertinent to the analysis of many sciences (e.g. socio-economic and humanistic). Development as a multi-dimensional concept is implicitly intended as something positive or desirable and means: an event constituting a new stage in a changing situation; improvement, either in the general situation of the system, or in some of its constituent elements (Bellu, 2011, p. 2). In general terms, development is directly associated with the process of changes, since it refers to moving from one life phase to another, when the occurrence of new attributes, new state of affairs is observed.

R. Chambers argues that development is a good change (Nhanenge, 2011, p. 476). Development as a “timing process of changes” refers basically to positive quality changes that occur within the organization and thanks to them this organization adjusts to its environment or exceeds its predictable future alternations (Shanmugaratnam, 2001, p. 263). M.P. Cowen and R. W. Shenton (1996, p. 438) distinguish two forms of development: intentional (consists of the means to compensate for the destructive propensities of immanent change) and immanent development (which refers to development as an objective process driven by an inner logic or dynamic).

Practitioners and theoreticians of management point out to many ways and possibilities of the development of contemporary organization. According to M. Romanowska (2004, p. 200), a choice of the source of gaining organization resources needed for the strategic plan to be implemented may be considered a way of development. Two essential ways of firm’s development are under consideration in economic literature (Penrose, 2009, p. 50; Pasanen, 2007, pp. 317-338):

- into organic (internal growth), requires an enterprise to have its own innovativeness and organizational learning process, is associated with the necessity to create a R&D support, develop projects abilities, increase organizational flexibility, broad enterprise’s potential through the development of already existing objects or investments such as green field,
- inorganic (external growth), consists in cooperation with other entrepreneurs or attracting them. It is a favorable way of acquiring quickly new skills from a new disciple or mastering the art of competing in a mature sector.

Each of the development ways indicates certain advantages and disadvantages. Taking into account the investment risk, one may infer that external growth creates synergies and market power, but it can also destroy value if the management reinvests the firm’s resources or free cash flows in inefficient projects for their own personal interest (Samaras, 2007, p. 1). Internal

growth however, provides more corporate control, encourages internal entrepreneurship, and protects organizational culture, but it is often a slower way of growth compared to M&As, alliances, clusters since it requires the development of new resources internally (Samaras, 2007, p. 1).

In the face of turbulent environment, some family businesses while searching for effective development ideas, decides on entering an industry cluster. For instance family businesses constitute about 20% of all members of the “Aviation Valley” industry cluster ([www.dolinalotnicza.pl](http://www.dolinalotnicza.pl)). As for a cluster manager, a group of family businesses in a cluster is represented not only by Polish but also international family businesses (e.g. from France, U.S., Germany and Canada), whose owners come and settle in a cluster. According to M. Darecki, a cluster leader, there are still too few small firms, especially family businesses, which as cooperation partners of larger aviation firms could take over less complicated production, so that large firms can focus on the implementation of more advanced production only. According to him, it is an area that needs improvement namely family businesses should be created, attracted from other provinces or even countries. From the very beginning of a cluster, the decision makers assumed that large aviation enterprises in the Podkarpacie Province would cooperate with small, also family businesses which can perfectly earn a living through manufacturing series of aviation parts, whereas such production would not be financially rewarding for the largest enterprises (Kwiatkowski, 2013).

The “Aviation Valley” cluster is located in south-eastern Poland, since the region was distinguished by large concentration of aviation firms, universities, and aviation-oriented high schools. The main strategic objective of the cluster is to reinforce the position of this part of Poland as one of the leading aviation industry regions in Europe, including its transformation into the European center of advanced aviation and space industry. The cluster exists since 2003 and currently amalgamates 120 members, national and international aviation firms in particular. The cooperation between business and science within the framework of a cluster (in accordance with the Triple Helix model) resulted in the wide array of joint pro-development, research and investment projects. The dynamic development of the cluster results not only from the active attitude of cluster members and decision makers, but also of local authorities that promote and support the development of this structure in many ways. For instance, establishing the Podkarpackie Science and Technology Park and 200 ha of infrastructure around the airport directly contributed to attracting international investors (e.g. Goodrich – the producer of undercarriages partly relocated the production to this area. Also MTU Aero Engines, one of the world biggest manufacturers of power units is building the factory here). Taking into account the empirical research conducted on a sample of 11 family business during the Aviation Valley Expo Day 2014 – one may infer that:

- membership of the firms under research in the “Aviation Valley” industry cluster constitutes a source of wide array of tangible and intangible benefits for them, such as: transfer of knowledge, information exchange, an access to modern technologies, cooperation with the R&D sector in the field of indentifying causes of emerging problems and solving them, an opportunity to participate in joint trips to economic missions and trade fairs, development of human resources through specialist trainings funded by the EU,
- the firms under research feel the benefits from nationally and internationally recognized brand of the “Aviation Valley”,
- some of the firms under research thanks to being in a cluster gained new business partners, new markets or increased the level of its internationalization,
- some of the firms under research through cooperation in a cluster strengthened its relations with internal and external stakeholders in the national aviation industry,

- social capital in a cluster is favorable for the establishment of new companies,
- leader's visions, professionalism and activity of a cluster manager in the field of creating and conducting constantly new development projects, constitute a source of success in cluster.

A particular example of a polish family business that develops dynamically in a cluster and is one of its founders (animators) – is Ultratech Ltd. ([www.ultratech.pl](http://www.ultratech.pl)). The firm specializes in manufacturing parts and components for world aviation and energy firms. It was established in 2000 and one of the results at that time was a difficult economic condition of its owner. The Project of launching a business was to provide the owner's family with a stable source of income. After three years, the owner together with his partners initiated the cluster establishment process. The firm's success undeniably shows that the decision on external development through functioning in a cluster, including cooperation with large aviation firms constituted a basis for the successful business model. One of the effects of cooperation in the cluster was moving the main headquarters from small shop floor into the large, newly-built factory with modern, innovative, high-tech equipment, the employment increase up to 90 employees (in the future, 200) and the company's turnover is almost two million Euros per year. As regards the firm owner opinion – the "Aviation Valley" cluster creates very good development conditions for family businesses in the foreseeable future, providing them with an opportunity to achieve European level pertinent to production and services offered for industry, especially by reason of an facilitated access to: highly valuable resources, well-qualified employees and specialized R&D entities, universities, and the planned increase in the volumes of production of large firms with foreign capital.

All things considered, it should be concluded that clusters constitute a valuable development alternative for family companies. P. Pyłacz (2013, pp. 217-218) analyzing clusters impact on the development of family businesses, indicates that clusters attractiveness is primarily dependable on:

- accumulation of such values as: trust, knowledge, R&D institutions, industry and regional tradition,
- strong relationships between enterprises and their environment (technological and business-related base),
- geographical proximity of the entities that form a cluster: the high-tech enterprises, scientific institutions, R&D centers, local governments, financial institutions and other entities that have an impact on the development of a particular region,
- development of an efficient supply chain,
- cluster size i.e. a number of entities within its structure: the more enterprises, employees, specialized institutions, and other stakeholders, the higher the cluster independence,
- structure of the cluster does not need purchasing products or services from the outside while it reduces the risk of the "leak" of benefits derived from an innovative activity,
- cluster has an influence on creating business environment through e.g. economic lobbying.

Taking into account the diversity of contemporary clusters and cluster initiatives, it should be indicated that only effective clusters that are managed professionally are able to help family businesses, small and medium in particular, while building and strengthening their level of competitiveness in national and international markets.

## **5. STRATEGIC DECISIONS IN FAMILY BUSINESSES – IN TERMS OF THEIR EFFECTIVE DEVELOPMENT**

In accordance with the conducted considerations, the owner of a family business's decision on entering the cluster structure results from searching for external sources of development (inorganic) and strengthening the subject's competitiveness under conditions of turbulent

environment. Such an strategic decision creates a range of new challenges – new problem areas emerge that are associated both with potential profits and losses. Strategic decision-making problems constituting a consequence of entering a cluster concern identification and implementation of a new developmental business model – and may be categorized in the following way:

- redefinition of enterprise's visions and missions, taking into account the cluster leader's vision,
- effective use of the cluster recognized brand,
- permanent orientation towards adaptability, prediction of changes (envisaging, foreseeability) and creating changes favorable for the development of an enterprise under conditions of uncertainty,
- restructuring – loosening the organizational structure so that smoothness of barriers grows and flexibility of the deployment of employees and their professional mobility increases (Kanter, 2008, pp. 48-59),
- identification of new internal and external tangible sources and intangible strategic resources, and gaining or even reducing these resources<sup>121</sup>,
- redefining and rebuilding the chain of enterprise's values, targeted at achieving the synergy and scale effect, as well as overcoming symmetric and asymmetric barriers of the inner-sectoral mobility,
- determining the range of engagement in new projects and an increase in readiness of the enterprise to fulfill various rules,
- attention to maintain present partnership relations with stakeholders, as well as establishing new ones,
- determining an optimal pace of changes in particular areas of enterprise functioning and its development stages, so that it is provided with safe, relatively stable increase,
- moving from a monocultural organization to a multicultural one – changing the mentality of managers and other members of the enterprise<sup>122</sup>.

It needs indicating that the results of entering a cluster by family business, considered over a long period of time, are dependable on its management board's approach to ways of solving the aforementioned problems. In the context in question, soft aspects of management seem to be crucial for the development of family business and an increase in its competitiveness. S.J. Palmisano<sup>123</sup> argues that it is the organization culture that constitutes the factor being both the least susceptible to changes and fundamental for the long-term success of an enterprise:

<sup>121</sup> Redundancy (Lat. *redundantia* – excess) means surplus pertinent to what is necessary or ordinary. While building a strategy, this notion refers to the desired excess of resources and competence that constitutes protection in case of any damage of a part of a system. Redundancies of resources and competence are justified by reason of a possibility of the occurrence of unexpected circumstances. Next to the diversification of activity and resources, they constitute a basic tool that enables an increase in the organization flexibility, through providing it with material and immaterial diversity (Krupski, 2005, p. 28), without the need to manage under conditions of uncertainty. According to the author of the concept in question “a strategy means defined (*ex ante*) ideas, pertinent to values innovativeness, defined (*ex ante*) occasions that need to be taken advantage of, and defined redundancies of resources and competence that should be created by reason of chances and threats. [...] A strategy of an organization functioning in a turbulent environment may be defined in filter categories like: occasions (external), ideas (internal) and an excess of resources and competence” (Krupski, 2005, pp. 71-72).

<sup>122</sup> Diversity occurring in a cluster may be treated as an axis of leaders' development program and is built on the basis on the following values: respect and acceptance of various values, readiness to perceive common values and similarities and an ability to communicate, cooperate, and build relations quickly, solve conflicts and an “emotional integration” despite the differences between cluster participants (cf.: Kanter, 2008, p. 59).

<sup>123</sup> S.J. Palmisano till 2012 r. was a president of IBM, and since 2013 r. held a function of an independent advisor for the company's privacy and data standards (Palmisano, 2006, p. 127-136).



„Management board is temporary; profits are periodic. However values constitute a characteristic connective tissue responsible for firm's longevity” (Kanter, 2008, pp. 57-58). Research results presented in this article enable formulating a thesis that strong organizational culture of a family business constitutes the main constraint on its development in a cluster structure. Therefore a gradual weakening of the organizational structure that consists in moving from a monocultural organization to a multicultural one, constitutes a condition for taking advantage of numerous chances resulting from the cluster affiliation.

It is the decision-making management board that plays the key role in guiding a family business across the process of cultural change. “Decisive manager has the ability to reach daring decisions, feels comfortable about it and works expertly and relatively rapid. The decisiveness indicates character constancy, willingness to learn, considerable tolerance of ambiguity and high stress resistance. It is an attribute of the charismatic leader, which is also associated with following features: activity, commitment, conscientiousness and an ability to overcome the reluctance of subordinates as for changes. Furthermore, the decision-making ability is an asset derived from the manager's personality. Moreover, it is an effect of their intellectual development, as a result of solving numerous, new and complex problems under conditions of uncertainty, namely in a situation of considerable information gap, obsolescence of information and information chaos” (Jankowska-Miśkiewicz, 2014a, p. 246).

The increase in decisiveness of family business managers' who change organizational culture towards multiculturalism is expressed by the change of their mentality. The change consists in the permanent mastering of an ability to adopt attitudes and features that are placed at the edges of continuums spreading between extremes – therefore the factors of decisiveness pertinent to the management board of a family business are (Jankowska-Miśkiewicz, 2014b): „focus on the past and future”, „short- and long-term orientation”, „long and short time of making a decision”, „low and high activity (dynamics) of making a decision”, „low and high tolerance of novelty (openness to experience)”, „high and low conscientiousness, focus on tasks (low conciliatoriness) and focus on people (high conciliatoriness)”, „introversion and extraversion”, „low and high tolerance of novelty”, „high and low emotional sensitivity” (an ability to manage under conditions of culture shock [Marx, 2001]), „intuitive (synthetic) and rational (analytical) cognitive approach”, „female and male style of management (androgyny)”, „collectivism (co-operation) and individualism (competition)”, „high and low degree of power centralization”, „low and high adaptability”, „high and low distance of power, other- and inner-direction”.

Taking perfectly adaptive attitudes by the management board is not an easy nor a natural task, since mentality of any adult is formed – genetically, individually and culturally. Change of mentality of decision makers is evolutionary and leads to their individual transgression and constitutes the basis of transgression of the entire family business.

## 6. CONCLUSION

According to C. Steinle and H. Schiele (2002, p. 850), clustering is the dynamic process of development of locally rooted value-creating systems. Therefore, permanent cooperation with trusted business partners in cluster structure may turn out to be an important way of development for many family businesses. Conducting common socio-economic or research development project, fulfilling certain function or a partial task within the framework of the project, common coordination of particular processes in a cluster strengthens partners and is favorable for the increase in their fluency that is expressed by a quick identification of chances and threats created by turbulent environment. Partnership in a cluster results also in a wide array of other benefits e.g.: a possibility to reduce costs, facilitated transfer of knowledge and innovation, an organizational learning process, an increase in the quality of

products and services, reduction of resources and number of providers, securing supplies, shorter time of development of a new product, decreasing the risk associated with a new product and an innovation process, creating an appropriate entrepreneurship climate for the already existing and new investments. Thanks to the reciprocal complementing pertinent to e.g. intangible assets (intellectual capital) or material resources, family businesses that function in a cluster may flexibly respond to stimuli from the environment, and thereby develop dynamically, including determining new quality and value of development management even under increasingly complex conditions of external environment.

As a natural consequence of entering a cluster by a family business, a brand new developmental business model is identified and implemented. Subsequently, new challenges emerge – new problem areas associated both with potential profits and losses. Achieving an increase in competitiveness of the enterprise in question is viable primarily thanks to the decisiveness of the management board and an effective change of its organizational culture, from mono- to multiculturalism.

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# THE MOTIVATION MANAGEMENT MECHANISM THROUGH THE PRISM OF THE CORPORATE CULTURE AND THE CORPORATE SOCIAL CAPITAL

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## ABSTRACT

*The successful functioning of the organizational unit through optimization of the correlation between its strategy and its operational activities presupposes the introduction of a dynamic motivational mechanism which relevance depends on the expression of social capital (SC) in the company, meaning the corporate social capital (CSC).*

*The actuality of the problem lies in highlighting the role of the social capital, determined by the specific corporate culture, when devising the motivational techniques such as specific guidelines for successful corporate management.*

*Complying with this fact provokes an encouraging of good practices in change management for inspiring creativity and decision making in various fields of company activities to form and to maintain an atmosphere that combines business interests, priorities and opportunities. Sometimes empirical studies show certain difficulties in adopting and enforcing new, not very popular practice trends, as well as the establishment of conditions for their approval.*

*The main thesis is that the specific characteristics of social capital within an organizational unit are directly related to the operational processes in the company, thus the compliance with the CSC would enhance the effect of motivation as a function of the company management. That assumption can be specified in the operational management model aimed at creating an adequate motivational mechanism in the context of the expression of social capital in the company.*

*The paper will present this complex interdependence with all the various options for interpretation and perception about.*

**Key words:** corporate culture; corporate management; corporate social capital; motivation.

## 1. INTRODUCTION

Achieving results, corresponding to the goals of the company, is a fundamental task of every corporate management. The best way to provoke in the employees a desire to achieve these goals is appropriate motivational system which should be suitable for them. Despite the respective causality a lot of managers do not succeed to motivate their employees due to a wrong perception of the concept of motivation and its application.

## 2. MOTIVATION IS ACTION AND EMOTIONAL EMPATHY

Motivation is not what individuals think or feel but what they do. When they are motivated to achieve certain results, they are provoked to perform those actions with which they will reach the desired outcomes. The managers who should motivate individuals or teams to achieve certain results should accomplish this not only through presentations and appraisals which translate in a way the relevant information, but they should also establish constant communication channels. The key results in every internal communication are actions which

lead to the aimed results. It is hazardous for the success of a company if the actions of the employees are not acknowledged by the higher management or if the management is forcing the employees to improve their results by imposing orders. Managing through commands is predestined to failure in today's competitive, fast growing markets. Organizations are much more competitive when they have employees who are motivated to achieve higher results instead of doing it at the behest of the management. An essential condition in this case, however, is the requirement for a level of trust and acceptance of the leader of the organization. The first step in emerging trust in internal relationships is to conduct leadership conversations with the employees to determine what they need to do to incite their motivation and desire for improving results and achieving corporate goals.

The act of motivation is an act of generating an emotion. Strong emotional empathy is absolutely essential in the implementation of any new strategic managerial initiative. Even if the strategy is perfect for the senior management, the chance of it being successfully implemented is not substantial unless the middle management and the executive staff members are involved in its formation, unless they are motivated or emotionally committed to it. Managing through motivation of type Z combines basic cultural attachment towards individualistic values expressed by a collective model of interaction. At the same time it complies with the established norms and suggests satisfying the need for empathy (Ouchi, 1981). Motivation is to arise in an individual intrinsic motivation for action. In this sense the person who motivates and the person being motivated turn out to be one and the same individual, i.e. the subject being motivated should do it himself. Managers communicate with the employees to provoke in them intrinsic motivation. In other words, the striving of the management "to motivate" the employees to achieve results requires establishment of an environment in which the employees to be self-motivated to achieve these results.

When exposed to a situation when the employees are bearing the responsibilities for their own actions and are committed to the corporate goals, they motivate themselves to achieve the expected by the management high results.

In the long term, the success of the company depends on the ability of the managers to motivate (to induce motivation) their employees and teams to achieve higher results.

### **3. MOTIVATIONAL MANAGEMENT THROUGH TRUST**

**The trust** towards the management at a corporate level could be an essential motive for the employees not to look for a dynamic mobility.

If it is not enough, trust is at least a necessary prerequisite and a firm foundation for high motivation of the employed in a given business organization.

Trust is built with a lot of effort and persistence. The particularity in this sort of trust (professional trust) is that it does not necessarily get lost after the first professional failure. In professional relationships everyone is entitled to a second chance if they had earned themselves the first chance for trust.

Prerequisites for generating trust:

1. **Professionalism of the managerial team.** The team has to be clear with the work it is performing and it has to be competent on matters with which it engages.
2. **Competency of the manager on the subject of the qualities of his/her employees. The manager must know the qualities of his/her subordinates in the company.** He must allocate the tasks according to the professional skills and preparation of the employees. He must be able to delegate powers and competences.
3. **Informational transparency.** This could happen in various ways: by displaying prominently the positive feedback from clients, other companies and media; via simple participation in different social and charitable events with positive public response; by

using the features/capacity of the contemporary intra- and internet technologies, and through them the news of success to reach the employees at all levels of the organization.

4. **The words and the actions of the management must be one whole.** If there is a discrepancy between the promises the management made and their fulfillment without a solid and objective reason, this could lead to strong demotivation of the employees. It is preferable if the actions of the management speak more than their words.
5. **Persistence.** The management should approach the different situations in the same way. It is quite alarming for the personal and the professional qualities of a manager if he changes his criteria for making a decision based on his mood, different employees or some irrational personal reasons.

Successful organization is a result of a good management from a professional, who earned the trust of his employees resulting in the incensement in their motivation.

For the employed in the company it is motivating to know that they will be appreciated and treated objectively according to their professional qualities and achievements. In this way one predictable working environment is established in which the employees are aware what the consequences of their actions would be.

The position manager itself does not bring trust. The trust is earned by the person who performs this function. Therefore, before all he has to be thinking, compassionate person with strong personality. When a person earns trust based on his professionalism and personal qualities then the motivation in the other people to build trust in their own abilities as a result of their professional achievements, increases as well. Mutual trust leads to positive results for any organization.

#### **4. DEVELOPING OF EMPATHY**

The connection between the commitment of the personnel and the competitiveness of the firm is clear: the more the employees are committed and aiming at using their competences in favor of their job performance, the more competitive the company becomes itself.

Unfortunately, more and more owners and managers reveal deficiency of empathy in their employees. The examples which illustrate this trend are quite few: they vary from poor quality of work performance to leaving the company and creating new business with a stolen know-how and clients from the former employer. The cases with decreased loyalty, creativity, sharing of new ideas to improve the work quality are increasing. Part of the employers is trying to take preventive measures by creating contracts with penalty clauses in case the upper mentioned situations occur. However, this measurement is palliative, and the problem should have another solution.

The decreasing of empathy is also shared by the employees. The work engagement also decreases regardless of the business sector, the performed work, age group and the level of salary.

A new indicator appears that the companies are beginning to lose the so called controlled efforts and human capital which until recently the employees were providing at their own will. The controlled efforts are efforts, above those he is supposed to do, in order to retain his job. The human capital is part of the competences which increases the competitive advantage of the company.

The focus is not going to be places on those employers who put efforts to solve the problem. However, there are a lot more owners and managers whose behavior and actions are not only lacking contribution to the increasing involvement, but they are in a way encouraging action for its decrease. An example in the upper mentioned statement is the unreal presentation of the company during the interviews with candidates for vacant position, which after



employment leads to disappointment. Another thing is the promise of remuneration, which later could not be accomplished, as well as attitudes towards subordinates who do not fit into normal business interaction. Searching for the causes leading to deficiency of empathy only from one of the sides- the employers, would lead to one-sided answer. The other side – the employees, also has its “contribution”. In recent years there is a growing rate of manifestations, which generally can be explained by the lack of motivation: low loyalty, lack of interest in work, ineffective usage of the working time, etc. Having in mind that the commitment of people is increasing when their own core values are realized through the work, a "distorted" value system, based on the understanding “I will do enough so that I don’t get fired”, leads to a reduction of the controlled effort and work. Positive results, i.e. more satisfaction and hence a greater degree of employee engagement is related to the construction of a system of motivation. The main objective is relating the degree of empathy to achieving the personal goals and values through work. Leading principle in building a system of motivation in a certain company is a research of the factors for motivation, affecting its employees. Establishing an effective system for motivation is inconceivable without analyzing the motivating factors. Such an approach rejects the idea of creating a practical application of the motivation of "panacea" type, suitable for every firm and every staff member. The most explicit example for such understanding is the thesis that the only motivational factor is money and using it amongst all the employees in the company will increase their involvement. Without denying the impact of the financial incentives, we will enumerate few factors on the leading the list in numerous analyses: recognition for achieved results, work itself, taking responsibility, respect, good collegial relations. The standard management mechanism defined by Theories X and Y by Douglas McGregor (McGregor, 1960), believes that incentives (awards) are the most influential techniques to handle the decreasing motivation. It could be because employees perceive them faster than other motivational techniques. Incentives are not only salaries. Besides financial rewards, there are non-financial ones as well, but both types of incentives are a result of finished work. Although money is related to various aspects of our lives we are going to look at it as a fair reward for the employee for the results in his work during the past month. Another question is what is the amount of the remuneration and under the influence of what factors is this amount determined. As well as is the cost of living taken into account? And whether temporary correction is made when the prices are rising?

Increasing incentives for achieving higher motivation could have an effect but under certain conditions. The most important from them is justice – appreciating the employees’ achievements individually according to their merits. Employers and managers in our country do not take in consideration these conditions as they are seeking for excuse in low labor productivity.

With regard to the recognition of the professionalism and competences of individuals, they are not really admired by managers. In several cases it is considered as weakness and not as a motivational technique.

Recognitions are catalyst for the actions of the manager. They accelerate and reinforce the effect of defining a purpose, communication, way to express trust, rigor. Catalyzing effect, however, is only present if the monthly incentive could satisfy the basic needs of the employees (food, shelter, clothing), in one word, the normal life of a person.

Therefore, we could define incentives as important motivational technique only if they are in the form of adequate payment and social benefits. They are the ones which create high self-esteem at the workplace. And confidence stimulates higher achievements. The employee expects fair recognition for them. Acknowledgements are really the key to many things.



Whoever has received recognition for his achievements would confirm that after that a person feels self-fulfilling and satisfied with his work.

What should the incentives and the acknowledgments be when the motivation is decreasing?

We are suggesting the following mechanism:

1. Establishment of system of rules for flexible (not rigid and the same for all) financial rewards. The rules includes the following:
  - Accurate, current and well developed job descriptions, which indicate clear personal responsibilities for achieving results;
  - Measurable, tangible indicators for the specific position, which will evaluate the degree of fulfilling the responsibilities;
  - Who will assess the performance;
  - The criteria according to which will be performed the assessment
  - The limits in which the incentive could raise according to the achieved results;
2. Serious training of the management who will assess. The system of rules might be perfect, but if the management underestimates or overrates employees with their evaluations, the system would not work and the incentives would stop functioning as motivators.
3. Serious training of the management to properly give recognitions. This is not an easy task, but it is not impossible.
4. Promotion, promotion and again promotion of the advantages of the system for evaluation, reward and recognition. A single meeting, on which the new rules to be read and introduced, would not be enough. We should forget about a written order which introduces a new way of remuneration. Until the last person in the company is convinced in the advantages of the system for evaluation, reward and recognition, the motivation will not increase.

## **5. MOTIVATION THROUGH LEADERSHIP**

The results from the questionnaire meet the expectations that the bigger part of the employees and the managers have low motivation for work. Nothing is done in the companies to increase the motivation – neither with tangible nor with intangible resources.

Managers should act as leaders to motivate their employees; however, in our country they use orders and expect complete obedience. On the contrary, the employees are executing the orders at the minimum of their abilities therefore the effect of the work is not at all impressive.

In the surveyed companies there was not particular interest towards the offered motivational techniques. According to the respondents, they are based on theories, written by foreign authors who have no clue what it is to work in Bulgaria and respectively they are not applicable to our conditions.

We do not consider that these statements are correct. Is not it valid also for us the claim that when people work, they want what motivates them internally to be stimulated to a certain extend with external motivation, e.g. from their managers?

Motivation by the manager is “the weak link” in the motivational management in our companies.

In one very interesting article by Brian Tracy (Brian Tracy, 2005) five qualities of motivational management, seen in leaders, are displayed. Brian Tracy says that every manager has these qualities to certain extend and could develop them further in order to retain quality and suitable personnel in his company. These qualities are:

1. Perspective (insight)
2. It is about the fact that the leader should know well his subordinates and to give them tasks which are in accordance to what they do best.

3. Dignity. The leader should tell the truth, to live with it though everything, which he does, to deal honestly with his people, not to make compromises in what he believes, to admit his weaknesses, to develop his strengths.
4. Courage. This quality is always recognized in words and actions and strongly motivates employees. Manager with leadership behavior usually sets high goals (standards). In that way he faces himself difficulties and obstacles of all kinds and is tempted to compromise his values and views. And here the courage is necessary, which could inspire and motivate employees to climb up the ladder of their achievements with one more step.
5. Realism. This is a form of an intellectual honesty. A realist insists to see the world as it is, not what he wants it to be. His objective attitude and the refusal to indulge in self-deception are easily detected by employees. The courageous leader encourages the rest to have the same way of perception, to accept the facts as they are. This does not mean that he is always right, but that he always expresses the real situation in the best way according to him.
6. Responsibility. According to Tracy, the responsibility is the most difficult quality to build. The leader, who motivates, takes full responsibility for the results. His personal responsibility is translated in his confidence that everything depends on him and regardless of the circumstances, he is required to give personal answer for everything happening on corporate level.

It is obvious the relation which is found as well in this interpretation between the quality and the level of the corporate culture, the level of the social capital, which is build and established on business level and the given dimensions of leadership nature and the tendency of its recognition. It is clear that the quality of the social capital depends on the level of trust and the degree of integration. When switching to the vertical dimensions of the social capital /and more specifically to the vertical dimensions of trust itself/, the arrangement of social preferences, emphasizing the leader and interpretation of leadership as quality parameter appears. Leadership skills and leadership charisma are the foundation of the modern vision of leadership, although there are still transmissions of outdated interpretations of the phenomenon, which, however, in the general case, is with negative influence on the effectiveness of leadership. It is not coincidentally that the literature speaks about “marginal propensity to recognize the leader” (Danchev, 2009), since here it could be established one complicated combination of economic, psychological, cultural, etc. prerequisites that extend the overall focus of the analysis. The managers in Bulgaria, for example, require above everything obedience and submission. They do not encourage new ideas. None of the managers takes responsibility for mistakes. Everybody is hoping for better clients who will value the high quality which the company offers. Those managers do not have qualities to create internal motivation amongst their employees. This is due to some cultural attitudes and values, which are difficult to change. The cultural profile of the Bulgarian is “uncertainty avoidance, which is reflected in the fear of the new and change” as well as of the confession of external causality, which means that it is always looking for “someone else who should be responsible – the state, the government, etc.”. Company culture and social capital are depending on the specifics of the national economic genotype with all his conservatism, reflecting on the specifics and quality of human capital, respectively - its management in the business environment. Marginal propensities for support (commitment) in generating trust horizontally and for recognizing the leader vertically (Danchev, 2008, 2009) are in direct correlation with the degree of synchronization between historical maturity and business maturity. In this sense reputational indicator of the social profit are hugely dependent on the degree of development and the forms of manifestation of the business maturity. In the

research of the social capital it appears logical that this business maturity is interpreted as kind of social maturity which is respectively related with the specific characteristics and disposition of the economic genotype but is at the same time linked to the company culture itself (Milanova, Naydenova, 2013).

## 6. CONCLUSION

It is important for every person managing human potential to systematically make efforts to increase the motivation with the help of few major actions:

- To rely on the abilities of the employees, their achievements and actions;
- Not to forget to give different incentives for the performances and the achievements;
- To be realists and encourage the employees also to be like them. They should realize that everything they want has its own price. They have weaknesses which should be overcome, they have standards which should be adhered to if they want to survive in the conditions of a competitive market;
- To admit their mistakes on time in order not to lose the game. For example, when the employees make a mistake, the managers should think first if they were clear when explaining the goals, which the employees should have aimed at;
- To take responsibility for the failures.

Motivation could be managed thorough leadership, but it is before all relevant to the Bulgarian perceptions of leadership and motivation. They are functions of the genesis of the cultural matrix, respectively of the social capital on macro and corporate level. In this sense, their positive change is absolutely possible and necessary to individual and social effectiveness and contribution more dynamic.

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## RESOURCE DEPENDENCE AS THE FOUNDATION FOR INTER-FIRM RELATIONSHIPS DEVELOPMENT AND COLLABORATIVE ADVANTAGE

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### ABSTRACT

*Nowadays companies have limited discretion to build independent strategy. It is indisputable that the outcomes of their actions are strongly influenced by the inter-firm relationships in which they are embedded. Modern companies are motivated to form inter-firm relationships for a wide variety of reasons but most come under the heading of perceived resource deficiency. The desire to remain their competitiveness makes firms to look for new ways to fill in the gaps in their resource bases. Frequently the potential of each partner alone, consisting of tangible and intangible assets, core competencies and skills, is inadequate to achieve its strategic objectives. But through entering into business partnerships, it becomes possible for a firm to gain the requisite resources needed to respond to market challenge or opportunity of some sort. In other words, common motive for formation inter-firm relationships is the desire to gain collaborative advantage which refers to the synergy that can be achieved by integrating the resources of one firm with that of others. The paper addresses two following tasks. The first part of the paper provides an theoretical overview of the idea of inter-firm relationships with particular focus on resource dependence as the motive for entering such relationships. Moreover, it points out main indicators of such relationships development. The second, empirical part of the paper is an attempt to explore the dependence between relationship partners' resource dependence and the most important indications of inter-firm relationship development. This part also exemplifies the synergistic outcomes obtained by Polish companies, resulting from pooling of partnering firms' resources.*

**Keywords:** collaborative advantage, inter-firm relationships, resources, resource dependence

### 1. INTRODUCTION

In the contemporary world enterprises act under permanent pressure of strong competition and changing environment circumstances. These conditions force them to search for new ways of doing business and strengthening their competitiveness. Responding such reality, over the past decades enterprises have started to establish several inter-firm relationships in order to accomplish their strategic goals. Today it is indisputable that the business relationships in which a firm is embedded have strong impact on its capacity to be competitive. Developing inter-firm relationships became so popular as a business strategy due to the fact that it enables companies to enter global markets, absorb new technologies, share knowledge and other resources needed to maintain competitiveness and accomplish the development objectives. Firm's competitiveness and its market position are primarily associated with the ability to develop particular categories of resources. But at present it becomes more and more difficult to develop company's resources individually. This results from the fact that quite frequently developing such resources as new knowledge or the access to the new market requires long-lasting and costly activities. In some industries it is even

impossible to undertake them individually due to high expenditures that exceed firm's potential. In recent years it has been recognized that a common motive for entering inter-firm relationships is firm's feeling of vulnerability or deficiency in certain areas. Nowadays inter-firm relationships are usually designed to acquire collaborative advantage through synergy. This means that the partners of a relationship mutually derive the benefits that neither would have been able to achieve while acting individually. Such synergistic benefits are possible to be reaped from a relationship thanks to establishing a relationship with a partner with complementary resource endowments. Moreover, if partners' resources not only complement each other but are also linked in a specific way, combining together they create unique elements of a particular relationship's potential.

## **2. THE IDEA OF IN INTER-FIRM RELATIONSHIPS**

The review of literature shows that there are different approaches to define business relationship. However, the crucial issue while defining the nature of inter-firm relationship is to put emphasize on how the companies behave towards each other. The relevant literature enables us to identify the inter-firm relationship as the pattern of interactions as well as the mutual conditioning of behaviors over time between two organizations. While describing inter-firm relationships it must be noted that they significantly differ from interactions occurring on the market. According to Easton, "...the relationship elements of the behavior are rather general and long-term in nature. Interactions, by contrast, represent the here and now of inter-firm behavior and constitute the dynamic aspects of relationships" (Easton, 1992, p. 8). Time seems to be of great importance here due to the fact that both past and the future affect current behavior of relationship parties as well as their expectations and promises underlie the interaction within the relationship (Ford, Gadde, Hakansson, Snehota, 2003, p. 38). Long-term orientation of partners makes them more eager to engage resources and adapt processes in order to derive particular benefits. In other words, inter-firm relationships can be described long-lasting linkages between enterprises that agree to modify the way they do business and integrate their resources in order to share the cooperation outcomes. While analyzing the nature of an inter-firm relationships we have to underlie that they involve such elements as: mutual orientation of business partners, the exchange concerning the subject of relationship, partners' commitment leading to deepening the existing relationship exchange, the interdependence of cooperators and, several investments that each partner makes in a relationships (Easton, 1992, p. 8; Czakon, 2007, p. 46). The last element - investments made by one firm into the relationship – is of significant importance because it stabilizes the relationship and is a powerful signal for the other partner. It is an evidence of partner's commitment to the relationship. As far as the substance of inter-firm relationship is concerned, we should point out that the resource ties have been recognized as a very important aspect. The development of the relationship sometimes requires some adaptations or investments specific to a single relationship. Particular adaptations in partners' resources and investments made by them imply their confidence in other party's commitment to the relationship due to the fact that the other party will sustain considerable loss in case the partnership is terminated. So specific investments and adaptations are recognized as the evidence that the relationship partner can be trusted and believed that he cares for the cooperation.

## **3. RESOURCE DEPENDENCE IN INTER-FIRM RELATIONSHIPS**

According to resource based view of the firm each organization is a collection of unique resources that provides the basis for its strategy. The review of literature enables us to define firm resources as all assets, capabilities, organizational processes, organization attributes, etc.

controlled by a firm which enable it to conceive of and implement strategies that improve its efficiency and effectiveness (Barney, 1991, p. 101; Oliver, 1997, p. 700). As highlighted by resource based view, competing enterprises differ in their resources and capabilities in important and durable ways what in affects their competitive advantages and disadvantages. Over the past decades, we have observed that in the conditions of strong competition many enterprises are not able to stay self-sufficient in the field of creating their resource bases, in particular with regard to knowledge assets. Changes in the environment force companies to dynamic reactions concerning modifying their resources. If they want to retain their competitiveness in the 21<sup>st</sup>-century hypercompetitive landscape, they need permanently monitor and modify their resources and fill in the niches in their resource bases. Such circumstances in turn stimulate companies to search for the desired resources outside the firm. As the result, today many enterprises form inter-firm partnerships in order to gain the access to particular capabilities or assets of strategic importance. Given the fact that nowadays many companies choose inter-firm cooperation in order to develop their resources, it seems necessary to think about the explanation of such decisions. Based on literature review, we can point out that getting the access to other firms' resources is perceived by many enterprises as more beneficial than simply purchasing them on the market, even if it is possible. Such a kind of approach refers to the fact that individual resources of one company may not yield to a competitive advantage. However, through the synergic combination and integration partners' resources the competitive advantage may be obtained. As highlighted by several authors, such synergistic combination and integration of cooperating firms' resources is primarily associated with obtaining collaborative advantage, sometimes called also complementary advantage (Huxham, Vangen, 2006, p. 3; Xavier, Ramachander, 2000, p. 484). We have to note that sometimes firm's ability to generate rents from its resources requires to utilize them in conjunction with the complementary resources of another company. In particular, developed market enterprises search for relationships with partners with complementary resource endowments. Complementary resource endowments are defined as distinctive resources of business partner, such as local market knowledge, particular technical resources or access to distribution channels etc., which collectively generate greater rents than the sum of those obtained from the individual endowments of each partner and therefore they offer potential for strategic development (Dyer, Singh, 1998, p. 667; Lin, Yang, Arya, 2009, p. 923). Thus we may say that resource complementary refers to the degree to which the assets and capabilities of relationship partners' enable to obtain collaborative advantage.

While explaining the motives for forming inter-firm relationships in the light of resource based view, some authors argue that due to their complementary, combined partners' resources become more valuable, rare and non-imitable than those utilized by partners alone (Dyer, Singh, 1998, pp. 668-669). This means that such combined assets and capabilities become partners' strategic resources (Barney, 1991, pp. 105-106). Moreover, quite frequently the firms which choose cooperation, through forming several inter-firm relationships, get the access to the resources that cannot be purchased from the external sources on the market. What is also of significant importance, specificity of resources allocated for the particular relationship combined with the degree of their complementary are decisive factors in generating the economic benefits being the result of inter-firm cooperation.

#### **4. THE INDICATORS OF INTER-FIRM RELATIONSHIP DEVELOPMENT**

However, once a company has identified a potential partner with the requisite complementary strategic resources, another challenge is developing the organizational mechanisms and processes necessary to access the benefits from complementary strategic resources. The review of several research findings presented in the literature shows that the ability of partners

to derive the benefits from complementary strategic resources depends on compatibility in the partners' objectives, decision processes, cooperators' experience in conducting inter-firm relationships, information and control systems and mutual trust between partners (Heffernan, 2004, pp. 114-125; Owens, Quinn, 2007, pp. 758-780). The ability to introduce and manage above mentioned variables and processes is necessary to obtain relationship development that is the foundation for accomplishing cooperating partners' objectives.

According to relevant literature, creating efficient communication system within a relationship, resource sharing, joint creating the system of measuring the results that partners obtain within the relationship, reducing control mechanisms and instead increasing the level of mutual trust between partners, as well as general partners commitment to cooperation, have been recognized as the indications of a relationship development (Ford, Gadde, Hakansson, Snehota, 2003, pp. 38-61; Holmlund, 2008, p. 32-62).

Communication between firm that have formed a business partnership is said to be the foundation process that facilitates relationship development and its maintenance. It is due to the fact that communication is an essential part of cooperation system that involves an equity and mutuality of exchange within a relationship. Relationship's communication system focuses on solving the problems that may occur between partners, making decisions and developing interpersonal relations between cooperators. Moreover, communication system serves as the means of encouraging partners' commitment and loyalty to particular relationship. In other words, inter-firm communication is a kind of dialogue that results in the changes and adaptations necessary for relationship progress (Donaldson, O'Toole, 2002, pp. 149-151; Heffernan, 2004, pp. 115-116). Communication system existing between relationship partners is of significant importance for the process of setting the objectives that partners want to accomplish through cooperation. Many authors emphasize that the ability to formulate in a precise way what is firm's desired outcome of a particular relationship belongs to most critical factors of successful inter-firm cooperation. Such ability is primarily associated with the quality of communication between business partners which is measured by the accuracy, adequacy, timeliness, completeness as well as credibility of information shared by partners. Most scholars agree upon the fact that the higher is the quality of communication between cooperating firms and the more intense the communication is, the more stable and developing the relationship is (Hardy, Philips, Lawrence, 2000; pp. 68-69).

While discussing about the objectives that cooperators want to accomplish, we must note that another variable perceived as crucial for relationship development is similarity in partner's goals. In some cases companies have common goals, but mostly they differ somehow. The significant issue here is that relationship partners perceive each other as essential for successful accomplishment of desired objectives. Similarity in the goals that partners desire to accomplish through cooperation enables them to find a common ground. This in turn protects the relationship against pushing through partners-own interests that could result in some opportunistic behavior destroying the relationship (Owens, Quinn, 2007, pp. 758-780; Chin, Chan, Lam, 2008, pp. 437-545). Moreover, extant literature holds that also joint setting the specific and described in detail measures for the assessment of the relationship goals accomplishment is an important factor influencing the quality and development of the relationship (Kauser, Shaw, 2004, pp. 17-52; Owens, Quinn, 2007, pp. 758-780; Volkokari, Helander 2007, pp. 597-608; Cousins, Lawson, Squire, 2008, pp. 114-135).

Another variable that exists in the literature, which is considered as the foundation for relationship development and success, is mutual trust between cooperating firms. Trust has been recognized as a crucial factor fostering inter-firm successful cooperation due to the fact that it curtails opportunistic behavior and reduces the level of risk and uncertainty perceived by relationship partners (Hunt, Lambe, Wittman, 2002, pp. 17-35; Mellat-Parast, Digman,



2007, pp. 802-818). Based on literature review, we can point out several approaches to describe the nature of inter-organizational trust. In general there are two categories of definitions: one that understands trust as predictability and the second which focuses on the role of partners' goodwill. Anyway, the review of those approaches leads to the conclusion that the crucial issue while defining inter-firm trust is a belief that a relationship partner will perform actions which will bring some positive outcomes for the company and that a partner will not take unexpected actions that may result in some negative outcomes (Anderson, Narus, 1990, pp. 42-58). Moreover, Child, Faulkner and Tallman emphasize that inter-firm trust means that cooperating company has sufficient confidence in its partner to commit valuable resources to a relationship although there is a risk the relationship partner may take advantage of this commitment (Child, Faulkner, Tallman, 2005, p. 50).

Most scholars agree upon the fact that communication and trust between relationship partners are highly interdependent. The level of mutual trust grows up as the result of constant and detailed exchange of information between cooperators. Hardy, Philips and Lawrence argue that effective communication between partnering enterprises enhances both aspects of trust: predictability and goodwill. Predictability arises from shared meaning between partners that results from constant information exchange and the goodwill arises from partners' participation in the communication process (Hard, Philips, Lawrence, 2000; p. 69). Here, we must point out that honest information sharing between partners is perceived as a proof of their closeness which is one of the indicatives of relationship strength. The review of literature presenting several research findings on inter-firm relationships proves that there is strong impact of effective communication and mutual trust on the outcomes of the relationship (Adbor, 2002, pp. 71-100; Cullen, Jahnson, Sakano, 2000, pp. 223-240).

Among important indicators of inter-firm relationships' development several researches enumerate also partners' experience in the field of cooperation, anticipated duration of a partnership and the fact that the objectives which are said to be accomplished through cooperation are of strategic importance for both partners. If cooperating firms desire to make strategic progress, it seems obvious that they focus on long-term cooperation. As said earlier, long-term orientation encourages relationship partners to engage their strategic resources and adapt processes in order to derive the desired outcomes. Moreover, cooperators' experience in managing joint projects enables them to set proper coordination and control mechanisms as well as build efficient communication system. This in turn implies the increase of trust between relationship partners.

## 5. RESEARCH METHOD

The study was a component of the comprehensive research project on management of inter-firm relationships established by companies operating in Poland. The project was sponsored by the Polish Ministry of Science and Higher Education (the National Knowledge Center). The research procedure involved three steps. In the first step the symptoms of inter-firm relationship development and potential synergistic partnerships' outcomes have been listed. The process of generating research ideas was sourced by the findings of the team previous research, the analysis of the literature and discussions within a research team. In the second step the questionnaires survey has been conducted on a target group of the companies operating in Poland. The questionnaires were sent to the managers representing 750 out of 2000 firms that have been nominated for "Good Company" Prize. Target enterprises have been chosen and according to their profitability and innovativeness. In total, one hundred and nine firms replied positively and contributed to the study. In the third step expert focus group interview has been conducted in order to verify the findings from the second step. The experts target group consisting of ten scholars and CEOs of Polish companies whose task was to

contribute to the discussion on the analyzed issues. The survey, among others, helped to determine the benefits that Polish enterprises were able to derive through forming business relationships with other firms. However, one of the main research problems was to identify how resource dependence influence the development of inter-firm relationships.

## 6. RESEARCH FINDINGS

An important aspect of conducted research was to obtain the information about the relations between cooperators' resource dependence and the most important variables fostering partnership development. We assumed that resource dependence include such aspects as high degree of cooperators' resources complementary and high level of the resources allocated for the partnership. The variables fostering partnership development involve: effective coordination mechanisms, high level of relationship partners' contribution, symmetry of partners' contribution, effective communication system, the ability to define the objectives as well as the measures for the results achieved within the relationship, high level of mutual trust and partners' goals similarity. These variables have been identified through a comprehensive literature review. The measures used in the survey allowed us to calculate Spearman correlation coefficients between the high level of the assets allocated for particular partnership and the above mentioned factors fostering relationship development. As the second aspect of relationship partners' resource dependence refers to the high level of partners' resources complementary, we also calculated Spearman correlation coefficients between high partners' resources complementary and the chosen factors fostering relationship development. The obtained correlations are given in table 1 and table 2.

*Table 1. Spearman correlation coefficients between high level of the resources allocated by the partners and chosen factors fostering relationship development (Elaborated by the authors based on the research findings)*

	<b>High level of mutual trust</b>	<b>Precise goals</b>	<b>Effective communication</b>	<b>Relationship importance</b>	<b>Goals similarity</b>	<b>High degree of resource complementary</b>	<b>Precise outcome measures</b>
High degree of allocated resources	<b>0,56</b>	<b>0,65</b>	<b>0,57</b>	<b>0,59</b>	<b>0,52</b>	<b>0,52</b>	<b>0,71</b>

The research findings presented in the table 1 show that the strongest positive correlation (0,71) exists between high degree of the resources allocated for the relationship and the fact that business partners are able not only to precisely define the desired objectives but also to settle precise measures for evaluating the outcomes of the relationship. The high value of correlation coefficient should not be surprising. If the company allocates some valuable resources for the cooperation with another firm, then it carefully strives to control the way how its resources are utilized. It means that this company will be naturally involved in the activities aimed at evaluating the results of cooperation. The next symptoms of relationship development that are highly positively correlated with high degree of allocated resources are: the fact that partners settle precisely the goals to be accomplished through cooperation (0,65), the fact that the relationship is of strategic importance for both partners (0,59), effective communication system within the relationship (0,57) and high level of mutual trust within the

relationship (0,56). The ability to precisely define the desired outcomes of cooperation is an important element of effective communication between partners. If both parties are able to communicate their expectations and then establish particular relationship, they are more willing to allocate valuable assets for the cooperation. Moreover, if the desired relationship outcomes are of significant importance for their strategy and competitiveness, they do not hesitate to invest their resources in such cooperation arrangement. As far as we analyse the correlation between high degree of the resources allocated for the relationship and effective communication between partners (0,57), we have to underlie that if a firm allocates some of its valuable resources, it aspires to strive after monitoring the activities undertaken by a partner which involves, among others, controlling the information flows. In other words, the more resources a firm allocates for the relationship, the more careful it monitors the communication within the relationship. And if communication is perceived by partners as effective, the level of mutual trust increases.

*Table 2. Spearman correlation coefficients between high degree of partners' resources complementary and chosen factors fostering relationship development (Elaborated by the authors based on the research findings)*

	<b>High level of mutual trust</b>	<b>Precise goals</b>	<b>Effective communication</b>	<b>Relationship importance</b>	<b>Goals similarity</b>	<b>High degree of allocated resources</b>	<b>Precise outcomes</b>
High degree of resource complementary	<b>0,71</b>	<b>0,61</b>	<b>0,59</b>	<b>0,64</b>	<b>0,61</b>	<b>0,52</b>	<b>0,57</b>

The analysis of correlations presented in the table 2 indicates that the strongest positive correlation (0,71) exists between high degree of partners' resources complementary and high level of mutual trust within the relationship. As said earlier, resource complementary refers to the degree in which partners' assets and capabilities enable to achieve some synergistic outcomes that could not be achieved individually. We can assume that in case of high degree of partners' resources complementary, they become strongly interdependent what entails their goodwill and commitment to the relationship development. This in turn results in partners' closeness and growing mutual trust. The second symptom of relationship development which is highly positively correlated with high degree of resources complementary is the importance of a relationship from a company's point of view (0,64). This seems to be quite obvious because if a particular business partner offers the assets and capabilities that are needed by the other firm, it naturally means that this cooperative arrangement is of significant importance for him. Moreover, such situation results in high degree of interdependence between co-operators and this makes the relationship very important for partners' future point of view. The next symptoms of relationship development that are highly positively correlated with high degree of partners' resources complementary are the following: the ability to precisely define relationship objectives (0,61), partners' objectives similarity (0,61) and effective communication between cooperators (0,59). If we discuss about the goals that relationship partners desire to accomplish through cooperation, the ability to precisely communicate what

benefits the firms desire to derive from the partnership first allows them to look for the resources that are characterised by the highest degree of complementary and second, motivates them to build an effective communication system which protects against partner's opportunistic behaviour. Also, as said earlier, effective communication allows to control the usage of the resources allocated by the firm for particular cooperation arrangement.

Another significant issue of the conducted research was to investigate the results of inter-firm cooperation that are regarded as synergistic effects which would not be achieved while operating on the market individually. The obtained research findings concerning this problem is presented in table 3.

*Table 3. The main synergistic results of inter-firm cooperation (Elaborated by the authors based on the research findings)*

Enterprises' objectives	Percentage of enterprises
<b>Entering new market</b>	<b>63,3</b>
<b>Product quality improvement</b>	<b>62,4</b>
<b>Launching new product</b>	<b>55,0</b>
<b>Modifying utilised technology</b>	<b>54,1</b>
<b>Introducing new technology</b>	<b>47,7</b>
<b>Internationalisation</b>	<b>40,4</b>

The data presented in table 3 suggests that among the synergistic benefits that the investigated firms have derived from inter-firm relationships, the most common are the outcomes in the field of marketing. The investigation of the cooperation results proves that the biggest group of research participants was able to enter new market (63,3%), improve the quality of their products (62,4%) or launch a new product (55,0%) through establishing business partnerships with other companies. Among different research issues, we tried to investigate who are the business partners of analyzed companies. According to our research findings, cooperating enterprises more frequently accomplish above mentioned goals through developing the relations with their buyers. Only in case of the benefit that is product quality improvement, more than 40,0% of the companies acknowledged that they derived it from cooperation with their suppliers. As it is evident in table 3, 40,4% of research participants have derived another benefit being a sign of collaborative advantage – they entered a foreign market which means that they expanded their businesses. The conducted analysis allow us to say that another important area of synergistic results of inter-firm relationship concerns the technology possessed by the firms. Modern companies are conscious of the fact that their technology modernity has a strong impact on products' quality as well production costs. According to presented research data, over half of investigated firms were able to modify the already utilised technology and 47,7% of respondents have introduced a completely new one. Realising the importance of the utilised technology modernity, studied companies mainly establish and develop the beneficial relationships with their suppliers. No doubt that the aforementioned data prove that investigated enterprises have already found developing inter-firm relationships as the way of gaining from synergy that turns in to collaborative advantage. Implications from the study allow us to say that the ability to settle and then successfully manage inter-firm partnerships results in improvement of strategic flexibility and consequently in the strengthening of company's market position and competitive what in fact leads to the increase of company's financial outcomes.

## 7. CONCLUSION

The conducted research proved that inter-firm relationships can bring about several positive effects for cooperators. Successful companies understand that the ability to share their resources and combine forces with business partners has a significant impact on their overall performance. The conducted studies lead us to the conclusion that the point of an enterprise aspiring to maintain its competitiveness shape-up boom is to cooperate and achieve collaborative advantage. The data presented in the paper confirm that establishing inter-firm relationships allows to extend the firm's reach without increasing its size. However, the possibility to benefit mutually from a particular relationship depends on several variables that influence the development of a relationship and shape its quality. Among the factors of crucial significance for inter-firm successful development the paper focuses in particular on the importance of business partners' resources complementary and high level of relationship partners' resources contribution. The research findings regarding correlations presented in the paper prove that certainly there are links between high level of the resources allocated by the partners and high degree of partners' resources complementary and such prerequisites of relationship development and quality as: effective communication system, the ability to set the objectives as well as define measures for the results gained by the partners within the relationship or high level of mutual trust. As the research findings provided insight into relations between aforementioned variables, we can say that the cooperators' resources interdependence (involving partner's contribution and resources complementary) is a critical condition to achieve common purposes and gain collaborative advantage. Knowledge concerning the impact of relationship partners' resources dependence upon the development of cooperation arrangement, its quality as well as the likelihood of mutual benefits for cooperators enables companies intentionally create the conditions favourable their successful in the field of inter-firm cooperation.

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## POSITIVE RELATIONSHIPS AT WORK – WHAT DO THEY CAUSE AND WHAT DO THEY STAND FOR IN POLISH COMPANIES

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### ABSTRACT

*Positive relationships at work (PRW) are receiving an increasing attention in business studies. Most of the analyses are conducted under an umbrella approach of Positive Organizational Scholarship (POS) that concerns various organizational phenomena and processes responsible for 'the positive deviations' in organizations. The main aim of this paper is to present specificity of the positive relationships in Polish companies and their consequences on the organizational development. The analyses are based on the results of a research project carried out within the POS approach. In the course of the project both the quantitative and qualitative research methods were applied. The project concerned the key areas of organizational resources that trigger positive processes and phenomena such as development supporting employee behaviours. Positive relationships at work were analysed among those areas. As the nature of PRW is complex and ambiguous the paper begins with the presentation of the idea together with PRW manifestations examples grasped in the studied companies. Then the impact of the positive relationships on the company development is presented. Particularly, the analyses are focused on the correlation coefficients and regression analysis showing the links between PRW variables and company performance indicators such as work efficiency, innovativeness, company reputation, customer and employee satisfaction. Generally, the study proves the crucial role played by the PRW in contemporary organizations. In the conclusion the research results are discussed in a context of other contributions and the further research ideas arising from this one are presented.*

**Keywords:** *positive organizational potential, Positive Organizational Scholarship, positive relationships at work*

### 1. INTRODUCTION

Man is the social animal. Inter alia that refers to a basic need for making relationships with others. As a typical contemporary adult spends the most of his or her time at work, relationships with other members of organisation must and they do play a very important role in everybody's professional life. Relationships influence individual satisfaction at work, well-being but also individual commitment, performance, quality of decisions etc. If they are positive the employees show more positive attitude towards an organisation, feel less overloaded with work and their well-being grows (Ragins, Dutton, 2007, p.3-25; Grant, Parker, 2009, pp. 317-375).

Positive relationships at work (PRW) receive currently the growing attention within Positive Organizational Scholarship approach which covers different contributions made in the field of business studies and aimed to analyse positive phenomena, processes and their outcomes for organisations. The paper represents this positive approach to relationships at work and is intended to report a part of research project results collected in Polish companies in 2013. The project regarded a concept of the positive organisational potential (POP) which refers to such a state and configuration of organisational resources that creates an organisational climate and culture strengthening development supporting employee behaviours (Glińska-Neweś, Stankiewicz, 2013, pp. 23-24). In the course of our research some elements were identified in the POP framework as its key areas. Positive relationships at work were included in this

category. The key or essential role played by these elements is connected with their extraordinary influence on overall company development indicators.

The nature of positive relationships at work is rather complex and this is why, apart from presenting their effects for organisations, the paper includes the definition created in the course of research together with specific manifestations found in studied companies. The research project consisted of several steps including quantitative method (questionnaire) and interviews with company representatives and experts. Both methods delivered results presented in this paper.

## **2. THE ESSENCE OF POSITIVE RELATIONSHIPS AT WORK**

The idea of relationship seems to refer to a primal notion and as such is difficult to define. Certainly it is a link between partners that determines their mutual attitudes and represent their positive or negative connections. Relationships can be expressed then by friendliness, tolerance, trust, respect or hostility, manipulation, aggression. According to the social exchange theory (Blau, 1964) relationships are built on the basis of individual episodes of interactions accompanied by acts of exchange. A nature of series of tangible and intangible goods exchange acts determines the nature of the relationship, i.e. whether it is personal or professional, what is the extent of intimacy etc. (Spector, 2012, s. 158). Mutuality of these exchange acts determines elements and outcomes of the relationships, e.g. trust, affection, respect, etc. Consequently, an affect may be the defining element of the relationship (Reis, Collins, Berscheid, 2000, pp.844-872). On the contrary, analysed from the process perspective, relationships may be regarded as different forms of social support through which e.g. workmates provide each other assistance in the task implementation, provide information or emotional help (Halbesleben, 2012, p. 113).

Relationships have a significant impact on employee behaviours in organisations. Regardless of whether these are internal or external relationships they serve as the prism through which people perceive, understand, assess or experience their work and the whole life (Blustein, 2011, pp. 1-17; Reis, Collins, Berscheid, 2000, p. 844). In organisations the execution of tasks is influenced by relationships with co-workers as they shape what an individual thinks, feels and does (Kahn, 2007, p.189). Relationships developed with colleagues encourage employees to continue their work even if they do not have to (Halbesleben, 2012, p. 107). Among the crucial processes in organisations which are shaped by employee relationships, researchers mention decision-making, knowledge management, communication, and creativity (Atwater, Carmeli, 2009, pp. 264–275; Kram, Isabella, 1985, pp. 110-132; Rawlins, 1992).

The importance of relationship quality implies the need for defining their positivity. If we take again the social exchange theory perspective the relationship positivity will refer to the extent to which it provides partners with the resources (Halbesleben, 2012, p. 107). However, this kind of assessment is complicated by the fact that the exchange is not necessarily equivalent. Moreover, if the relationship partners try to keep the equivalence of the exchange at all costs it does not appear to be positive as well. Defining positive relationships through an affect is also difficult due to its subjectivity and very complex nature. Particularly, it refers to a fact that a positive and healthy relationship may contain both positive and negative interactions and episodes (Allen, Turner de Tormes Eby, 2012, pp. 3-14). To avoid these definition problems Roberts propose to link the positivity of relationship to an individual real sense of connection and reciprocity (Roberts, 2007, p. 31). Similarly, on the POS ground, Dutton and Heaphy equate positive relationships with high-quality connections. The quality of connections relates to whether the connective tissue among the individuals is life-giving or life-depleting (Dutton, Heaphy, 2003, p. 263). High-quality connections that are flexible, strong and resilient enable the transfer of vital nutrients.



In particular, the positivity of relationships is regarded and evaluated on a basis of its dimensions. Allen and Turner de Tormes Eby gathered the most appropriate approaches in this area (Allen and Turner de Tormes Eby, 2012) including:

1. Affective tone, i.e. the degree of positive and negative emotions that accompany relationships.
2. Emotional carrying capacity, i.e. the extent to which the relationship comprises the whole range of different positive and negative emotions.
3. Tensility, i.e. the extent to which the relationship can survive in different circumstances, facing tensions, challenges and problems.
4. Interdependence, i.e. the frequency, strength and extent of mutual influence and impact of relationship partners.
5. Intimacy, i.e. partners' openness in self-disclosure and responding.
6. Permanence, i.e. the extent to which the relationship is strong and embedded in organisational habits.
7. Trust, i.e. the belief that relationship partners can be depended upon and care about their partner's needs and interests.
8. Hierarchy, i.e. the degree that dominance shapes the relationship.

The nature of positive relationships at work may be also perceived differently according to the national culture, however this problem has not been elaborated yet in literature. Taking into account the aforementioned definitional problems as well as the important role played by positive relationships at work, in the course of the research project we tried to identify the meaning of PRW for Polish companies and their outcomes and consequences for the main performance measures. The following paragraphs present the results.

### **3. NATURE OF POSITIVE RELATIONSHIPS AT WORK IN POLISH COMPANIES**

#### **3.1. Methods**

Two qualitative methods were used to set the most appropriate definition of positive relationships at work regarding Polish culture and Polish companies. In the course of Delphi session method, apart from questions concerning other positive organisational potential elements and their antecedents, we asked an experts panel consisting of 12 academics and businesspeople to name the most distinguished PRW facets. Their opinions were collected and the most frequent elements in their statements were analysed and categorised. Then, through interviews with 14 company representatives we recognized particular PRW manifestations together with their consequences for organisations (as they appeared impossible to be separated). The interview regarded the most distinct symptoms of POP elements and their change directions.

#### **3.2. Results**

The following definition is proposed as the result of both Delphi session method and interviews in companies: the positive state of employee relationships means that they are based on positive attitudes and emotions such as kindness, friendliness, respect, acceptance and trust. Table 1 presents the most adequate examples of PRW manifestations in companies. Their Polish characteristic refers mostly to do problem of power distance and formality which will be discussed in the last paragraph.

*Table 1: Manifestations of positive relationships in Polish companies (based on: Glińska-Noweś, 2013, p.136-137)*

Company A: positive relationships stimulate employees to discuss openly the problems of the organisation, but also their personal problems. The staff are friendly to each other, happy to talk to each other, not only about professional issues. Business relationships often turn into social, based on common interests, mutual friendliness.
Company B: if you enter e.g. the marketing department you can see smiling, happy people. People want to work in such a team. A good working atmosphere and good working relationships have a huge impact on the final success, and the board is trying to take care of the relationships to be positive. Thanks to a positive spirit you can see a greater employee engagement, they are more likely to work longer hours, if necessary, willing to submit their ideas and suggestions, they are not afraid to take initiative.
Company C: the company management declared that employee relationships are an important factor of the organisational climate. Despite the Polish ceremonial and large power distance culture, in this company managers and administrative staff mostly address each other with first names, which is quite unusual.
Company D: kindness and positive relationships are within their organisational culture based on trust, commitment and responsibility. Controversial behaviour is avoided such as exposing yourself and your own personal achievements, seeking arguments in your defence in place of the search of how to solve problems. The result is a current and immediate exchange of knowledge between employees and organizational units. At the same time competition, both between individuals and teams can be observed.
Company E: interpersonal relationships and the atmosphere at work are good, the best relationships are maintained with people with whom you work closely. In departments the atmosphere varies. Directors are struggling to improve relationships among the teams, the least favourite is the sales department.
Company F: pays special attention to sincerity, showing acceptance and respect. The attitude of taking the most positive interpretation of someone's words is shaped within the company, accepting differences in the perception of reality.
Company G: relationships between supervisors and employees are direct, usually everyone calls each other by their first name. Most managers are internally promoted. They know the staff and despite their promotion they still retain their existing relationships. The internal meetings have informal character and language: employees openly present problems, they do not avoid difficult topics. Managers often talk about issues directly with employees at work. However, in the meetings with a presence of external partners formal relations are maintained.
Company H: the group of closest associates are a group of friends. Most employees have known each other for several years. Employees like to spend time with each other. For example, many of them share a hobby of fishing. Collegial relationships are part of the organizational culture. Every employee should build positive interpersonal relationships with co-workers. If they cannot, or will not do it, it destroys working relations and they will not be able to stay in the company, they will be excluded.
Company I: relationships between employees are very emotional but they are like family relationships. Workers meet each other in private, they have joint interests such as scuba diving. It also happens that employees come to the office with their children. Clearly there is a sense of link between employee and company interest.

Most of the aforementioned examples include statements regarding PRW consequences for company performance. They were, however investigated in the more comprehensive way in

the course of the quantitative survey. The following chapter presents briefly the method and its results.

## **4. PRW CONSEQUENCES FOR POLISH COMPANIES DEVELOPMENT**

### **4.1. Method**

A questionnaire was designed and sent (hard copy and on-line version) to managers representing companies operating in Poland and selected from rankings of outstanding enterprises. As the result 73 responses were collected. In this sample there was a dominance of large (i.e. employment over 250) Polish companies (100% of Polish capital), representing production sector, with average employee age of 30-40 years. In the questionnaire respondents were asked to evaluate a state of the listed items in their companies by answering to the question: 'to what extent, in your opinion, each of these statements characterize your company?' The scale used in the question was between 0% (I fully disagree) and 100% (I fully agree). The questionnaire consisted of 4 parts. The first part concerned the elements of Positive Organizational Potential 9 areas, including 6 items of positive relationships at work. These items were identified on the basis of aforementioned PRW dimensions and contained the following variables:

1. 'Employees can count on each other', expressing interdependence.
2. 'Employees show interest in each other', expressing intimacy.
3. 'Employees are frank with each other', expressing tensility.
4. 'Employees like each other', expressing affective tone.
5. 'Employees show acceptance and respect each other', expressing emotional carrying capacity.
6. 'Condition of IRs in employee teams translates into relationships among the teams in a company', expressing permanence.

The third part of the questionnaire was focused on a company development indicators; 7 items included:

1. We had a considerable increase in work efficiency between 2009 and 2011
2. We had a considerable increase in innovativeness between 2009 and 2011
3. We had a considerable increase in the quality of carried out business processes between 2009 and 2011
4. We had a considerable increase in our products quality between 2009 and 2011
5. We had a considerable increase in employee satisfaction between 2009 and 2011
6. We had a considerable increase in customer satisfaction between 2009 and 2011
7. We had a considerable development of company reputation between 2009 and 2011

In the second part respondents evaluated organizational conditions of POP elements (the problem skipped in this paper) and the fourth regarded a company profile and its performance indicators.

### **4.2. Results**

The data collected in the course of the quantitative survey allowed us to use several statistical analyses including Pearson's correlation coefficient ( $r$ ) and regression analysis (standardised value of the regression coefficient  $\beta$ ). The questionnaire reliability was verified with Cronbach's alpha coefficients and they ranged from .83 to .97.

The standard regression coefficients were used to measure the impact of the positive organizational potential key areas on each of the company development indicators (CD), i.e. on employee satisfaction, work productivity, innovativeness, quality of business processes,

product quality, customer satisfaction and company reputation. The obtained results supported the assumption that the growth in each POP variable will result positively in each of the CD indicators ( $\beta$  between 0.52 and 0.65).

For the purpose of this paper it seems particularly useful to present the results of the correlation analysis. Table 2 shows Pearson's correlation coefficients for positive relationships at work and company development indicators.

*Table 2. Correlations for positive relationships at work and company development indicators ( $p < 0,01$ )*

Variables	1	2	3	4	5	6
We had a considerable increase in work efficiency between 2009 and 2011	.38	.29	.27	.22	.28	.40
We had a considerable increase in innovativeness between 2009 and 2011	.43	.30	.26	.33	.28	.35
We had a considerable increase in the quality of applied business processes between 2009 and 2011	.46	.35	.29	.35	.38	.51
We had a considerable increase in our products quality between 2009 and 2011	.39	.29	.26	.32	.29	.44
We had a considerable increase in employee satisfaction between 2009 and 2011	.50	.43	.35	.35	.38	.44
We had a considerable increase in customer satisfaction between 2009 and 2011	.44	.33	.37	.35	.34	.60
We had a considerable development of company reputation between 2009 and 2011	.35	.21	.25	.25	.26	.50
The mean of organisational development manifestations	.49	.36	.34	.35	.36	.51
The mean of organisational performance	.39	.34	.29	.29	.28	.35
Legend: Variables describing interpersonal relationships: 1. Employees can count on each other 2. Employees show interest in each other 3. Employees are frank with each other 4. Employees like each other 5. Employees show acceptance and respect each other 6. Condition of PRW in employee teams translates into relationships among the teams in a company						

The data presented in Table 2 verify the link between positive employee relationships and company development. This may be confirmed on the basis of Pearson correlation coefficients which range from  $r=0.21$  to  $r=0.60$  for specific associations. Particularly, the strong correlation appears in case of the item 'condition of PRW in employee teams translates into relationships among the teams in a company'. This item remains in the strongest connection with the items: 'increase in customer satisfaction' ( $r=0.60$ ), 'increase in the quality of carried out business processes' ( $r=0.51$ ) and 'development of company reputation' ( $r=0.50$ ). The second PRW item which correlated strongly with the company development indicators is 'employees can count on each other'; it is associated particularly with 'increase in innovativeness' ( $r=0.43$ ), 'increase in the quality of carried out business processes' ( $r=0.49$ ), 'increase in employee satisfaction' ( $r=0.50$ ) and 'increase in customer satisfaction' ( $r=0.44$ ). Other PRW features show weaker correlations with CD but still these relations are positive and sufficient.

## 5. CONCLUSION

Relationships at work and particularly their positive state are hard to define. As it has been described in this paper the nature of relationships may be considered from various perspectives. Moreover, the notion of relationships and PRW will differ according to a national culture circumstances. On a very basic level attitudes to relationships in business are regarded on a dimension of deal-focused and relationships-focused approach (Gesteland, 2005) but more in-depth analyses are rather limited. The results presented in this paper may be regarded as a contribution to this research stream. Firstly, taking the Polish culture angle it seems the most appropriate to consider relationships as the affective phenomenon. Both experts and businesspeople representing Polish companies expressed their perception of positive relationships at work as the connections accompanied by kindness, respect, openness, trust. Secondly, analyses of our research results reveal cultural facets influencing the concept of PRW, at least in the Polish companies, i.e. power distance (Hofstede, 2003) and formality (Gesteland, 2005). Respondents, particularly business representatives emphasised that positive relationships at work reduced barriers and stimulated openness in communication between subordinates and superiors. Such barriers existence may be explained through the large power distance index for Polish culture which among different symptoms includes emotional obstacles in communication across hierarchy. Besides, large power distance in Poland correlates with culture formality. It is manifested, among others, through ceremonial communication, including addressing people with a polite mode (Mr. and Ms.) and a professional title. This issue also refers and defines to some extent the Polish notion of PRW as the respondents in their statements underlined the fact, that partners in positive relationships address each other with their first names. As the result it may be assumed that PRW reduce power distance and formality in relationships. On the other hand, on this basis we may say that both large power distance and formality are considered in negative way as barriers for effective cooperation if respondents emphasised PRW as tools for their elimination.

The second problem elaborated in this paper regards organisational outcomes of positive relationships at work. The results presented here generally confirm the findings of other PRW contributors. Positive relationships are beneficial not only to individuals and their physical and mental state. As employees involved in positive relationships with their workmates demonstrate higher performance, commitment and satisfaction (Halbesleben, 2012, pp.107-130), invest more energy in helping others (Chiaburu, Harrison, 2008, pp.1082–1104) and are more creative (Atwater, Carmeli, 2009, pp. 264–275), PRW appear to be beneficial also for organisations. In the research presented in the paper, PRW were analysed in connection to organisational development indicators.

Notably, positive interpersonal relationships are more strongly correlated with organisational development manifestations ( $r=0.47$ ), than with organisational performance ( $r=0.38$ ), i.e. indicators referring to finance. It corresponds with the aforementioned findings regarding the impact of PRW on employee satisfaction or engagement which results consequently in higher organisational performance indexes. Our research confirms, in fact, the link between positive relationships and employee satisfaction. Particularly, the strongest correlation has been found for specified PRW variables such as ‘employees can count on each other’, ‘employees show interest in each other’ and ‘condition of PRW in employee teams translates into relationships among the teams in a company’. What is more, an interesting result comes from the correlation between the positive relationships at work and the growth in customer satisfaction. It may be explained by a particular contagiousness of positive relationships which are transferred or translated into various employee connections including contacts with customers. This contagiousness can justify also other links, embracing the correlation between

the growth in the company renown and transferring in-team relationships into between-teams relationships. Transferring in-team relationships into between-teams relationships appears to be one of the most important variables analysed in the project as it is related also to the growth of work efficiency. It may be concluded on this basis that PRW are among the crucial factors of organisational coordination. The second variable that seems also particularly important for organisational development is the ability of employees to count on each other. Positive employee relationships can enhance, among others, the efficiency of information and knowledge exchange (Ibarra, 1993, pp. 56-87). The ability of employees to count on each other may be considered as the factor supporting this process. It may justify the overall impact of positive relationships on the growth in innovativeness, quality of product and business processes.

The research project presented in the paper and its results have their limitations. First of all, the most significant findings are derived from data collected through the quantitative methods used in the survey. The questionnaire was sent to single company representatives who could express only their general opinions while PRW are full of nuances and differ in case of each team in a company. Thus, the results are concerned as the contribution to further analyses. Actually, the more in-depth research project is currently realised by our team with the usage of qualitative methods, such as ethnography and shadowing. I hope to present its results on the future conferences.

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### Section 3

## Entrepreneurship Caught Between Creativity and Bureaucracy



## DETERMINANTS OF SME PERFORMANCE: THE IMPACT OF ENTREPRENEURIAL OPENNESS AND GOALS

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### ABSTRACT

*Entrepreneur's openness seems an important personality characteristic to have in the entrepreneurial process. It refers to a positive personal cognitive strength that has three sub-dimensions: learning, novelty, and feedback. Despite an increasing research on openness in entrepreneurship, significant questions still remain unanswered, both theoretically and empirically, about how entrepreneurial openness relates to specific determinants in the entrepreneurial process and outcomes.*

*This paper aims to uncover the relationships between entrepreneurial openness, goals and firm performance by proposing direct and mediation effects among studied variables. Given that entrepreneurial openness contains the notion of an entrepreneur's engagement in proactive behaviors, such as learning, novelty, and feedback seeking, and also an improvement orientation and the encouragement of exploration and involvement, we hypothesize that open entrepreneurs more often engage in setting growth-related goals that are at a higher level which in turn has a positive effect on firm performance.*

*Using a large database and applying structural equation modelling the results show that entrepreneurial openness has a positive impact on firm performance and that this relationship is mediated by goals. This results offer several theoretical and practical implications that are discussed in the paper.*

**Keywords:** *Entrepreneurial openness, Firm performance, Structural equation modeling*

### 1. INTRODUCTION

During the last decade a renewed interest in the role of entrepreneur's personality in the entrepreneurial process emerged (Baron, 2008; Rauch and Frese, 2007; Zhao et al., 2010). In specific, throughout the existing entrepreneurship literature (Brandstätter, 1997; Rauch and Frese, 2007; Zhao and Seibert, 2006) there is a strong view that openness is a good thing for entrepreneurs to have, especially in the phase of firm development and growth. Entrepreneurial openness inclines entrepreneurs to engage in learning, search for novelty, and seek feedback. This results in effective entrepreneurial behavior such as: (1) adapting to new technologies, competitive environments, and change (Antoncic, 2010; Marcati et al., 2008); (2) bringing innovative solutions (Brockner et al., 2004; Ciavarella et al., 2004); and (3) expanding the scope of the firm (Harper, 2006; Zhao et al., 2010). Despite the recurrent notion that openness is important for business success, there is a dearth of research that would investigate openness influences on entrepreneurial outcomes and that would combine its influence with other relevant personality (such as motivations or beliefs) or environmental determinants (such as dynamism or hostility) to impact entrepreneurial outcomes.

Based on the identified gaps in the literature, our research makes a contribution in two primary ways. First, it clarifies the influence of entrepreneurial openness on small firm outcomes, such as market share growth. We try to assess whether those entrepreneurs, who are more open to learning, novelty, and feedback, are also those who grow their first higher. Our second aim is to investigate whether goals, in the form of goal attainment probability, mediate the relationship between entrepreneurial openness and market share growth. The literature proposes that motivational mechanism, such as goals, should mediate personality-

outcomes relationship (Baum and Locke, 2004; McMullen and Shepherd, 2006), however the specified relationships that our theoretical model proposes have not been researched yet.

We continue the paper by developing theoretical arguments which support our model. This is followed by summarizing methods and analytical procedures that we used in our study and we present results from structural equation modeling analyses. We conclude the paper with a discussion of the results of our study.

## 2. HYPOTHESES DEVELOPMENT

In this section we develop the hypotheses that explain the reasoning behind our theoretical model of the relationships between entrepreneurial openness, goal attainment probability, and market share growth. But before turning to hypotheses development, we briefly explain the core constructs that we use in our theoretical development.

Entrepreneurial openness is an individual-level positive personal cognitive strength that has three dimensions – engaging in learning, searching for novelty, and seeking feedback. The construct and measure of entrepreneurial openness has been developed by Slavec, Drnovšek, and Hisrich and their paper is currently in the publication process. Our interest in conceptualizing and empirically testing ENOP sprang from entrepreneurial practitioners' and researchers' observations that entrepreneurs should be open to succeed in business (e.g. Busenitz and Arthurs, 2007; Seelig, 2009; Tower, 2008). Yet, a wider consensus among researchers of what constitutes an entrepreneur's openness has been lacking and different notions of entrepreneurs' openness have been so far suggested, for example openness to change (e.g. Brandstätter, 1997; Brockner et al., 2004), openness to novelty, ideas, and opportunities (e.g. Burmeister and Schade, 2007), and openness to feedback and learning (e.g. Busenitz and Arthurs, 2007; Harper, 2006). Based on in-depth multidisciplinary literature review, interviews and focus group with entrepreneurship practitioners and academics, and on large datasets empirical investigations, we conceptualized and proposed a measure of entrepreneurial openness, which is available upon request from the authors.

Entrepreneurial openness is a second-order construct defined by three dimensions. The learning dimension is seen in an entrepreneur's tendency to strive for knowledge regarding novel business approaches and learning from other people's experiences. This can be done either formally via seminars, webinars, conferences, school programs, and workshops or informally through following successful entrepreneurs and talking to the experienced relevant public (Busenitz and Arthurs, 2007). The novelty dimension is most often reflected when an entrepreneur searches for new opportunities, new products and services, new markets, and business partners (Burmeister and Schade, 2007; Harper, 2006). The feedback dimension describes an entrepreneur's inclination towards seeking opinions and suggestions, elaborating on proposals for improvements and changes during the evaluation of new opportunities, new products and services, and new markets (Busenitz and Arthurs, 2007; Frese, 2007).

Goals have been for long acknowledged to have an important role in entrepreneurial behaviors and actions (Baum and Locke, 2004) and we are particularly interested in how openness interplays with goals to impact entrepreneurial outcomes. The mediation mechanisms that we incorporate in the model are supported by substantial theory that presupposes that personality determinants do not work in isolation to impact outcomes; rather they are mediated by motivations that guide individuals in performing desired outcomes. Accordingly, goals are those motivating mechanisms that help transmit the positive influence of positive personality strengths to outcomes.

The outcome variable that is of interest in the present study is a firm performance indicator represented by market share growth. In specific, we investigate the direct and indirect effects that personality determinants have on market share growth. We present the model in Figure 1.

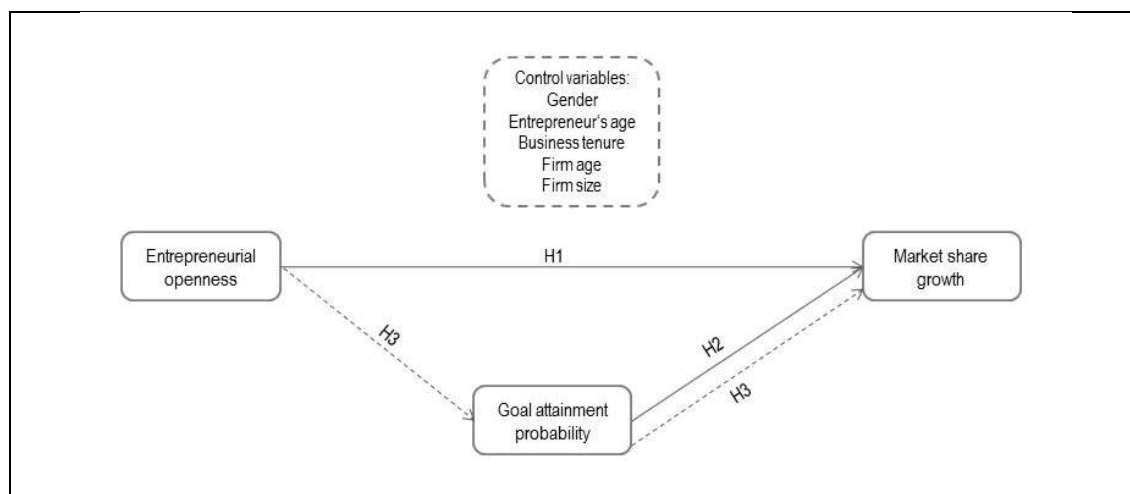


Figure 1: Theoretical model of the relationships between entrepreneurial openness, goal attainment probability, and market share growth

### 2.1. Entrepreneurial openness and market share growth

Practitioners' and scholarly evidence suggests that entrepreneurs' openness influences firms' performance in terms of growth and innovation (e.g. Busenitz and Arthurs, 2007; Marcati et al., 2008; Seelig, 2009; Tower, 2008). Yet, research that would empirically confirm these effects is still rare. In our model we propose a positive relationship between entrepreneurial openness and market share growth. This positive impact comes from broad interests of open entrepreneurs to engage in learning, to search for novel experiences and opportunities in business, and to seek feedback on their ideas to creatively solve problems and overcome challenges encountered in business. Openness favors the emergence of original ideas through nurturing individuals' creative cognitive styles in decision-making and problem solving (Marcati et al., 2008) and drives entrepreneurs in effective entrepreneurial actions that result in firm growth. We expect that such inclinations will lead small firms into gaining competitive advantage, which will result also in increasing their market share. For these reason we propose the following hypothesis:

**H1:** Entrepreneurial openness is positively related to market share growth.

### 2.2. Goal attainment probability and market share growth

Our second hypothesis focuses on whether entrepreneur's goal attainment probability impacts market share growth. Do those firms that have entrepreneurs with higher goal attainment probabilities also perform better in terms of market share growth? We view goal attainment probability as an indicator of intended entrepreneurial intensity and the willingness to achieve better firm performance. Entrepreneurs with such views strive for firm growth and profit and are also likely to pursue new avenues for firm growth (Carland et al., 1984) – they would engage in planning, set higher goals and also put a lot of effort to attain these goals. For these reason, we expect that higher goal attainment probability will have a positive influence on firm performance, specifically in terms of market share growth. We propose the following hypothesis:

**H2:** Goal attainment probability is positively related to market share growth.

### 2.3. Mediation hypothesis

The final part of our theoretical model presupposes that goal attainment probability will mediate the relationship between entrepreneurial openness and market share growth. We build the argument for this mediating role in two steps: first, we explain the relationship between entrepreneurial openness and goal attainment probability, and second, we develop the logic that supports the mediating role of goal attainment probability.

First, entrepreneurial openness is expected to have a positive impact on entrepreneur's goals and in setting and attaining these goals. Open entrepreneurs set higher goals and put substantial effort in accomplishing their goals. This avails them with higher probabilities of attaining goals that they set. Second, rating the probability of goal accomplishment higher should result in effective entrepreneurial actions to succeed in business which we already explained under hypothesis 2. Moreover, personality strengths may transmit their influence to firm-related outcomes through mediation mechanisms, such as goals and motivation, because in general some triggers are necessary for individuals to actually engage in behaviors (Baum and Locke, 2004; McMullen and Shepherd, 2006). For these reasons we expect that the relationship between entrepreneurial openness and market share growth will be mediated by goal attainment probability. We propose:

**H3:** Goal attainment probability is a mediator in the relationship between entrepreneurial openness and market share growth.

## 3. METHODOLOGY

### 3.1 Sample

We conducted a paper survey among 4,000 Slovenian entrepreneurs that were chosen from the official national database PIRS (Poslovni informator Republike Slovenije). We had the following selection criteria for our sample: 5-249 employees, privately-owned companies only, all NAICS sectors except sector 92 (public administration). Data was collected in the period from February to April 2012. We received 713 usable responses which accounted for a 17.83% response rate. We excluded surveys from those respondents that were not (co)owners or (co)founders of the firm where the survey was sent.

### 3.2. Measures

We measured entrepreneurial openness with a second-order three-factor measure that is comprised by 11 items. We present the items and the instructions for entrepreneurial openness in the Appendix of the paper. The first three items pertain to the learning dimension, the second three items pertain to the novelty dimension, and the last four items pertain to the feedback dimension. Items are measured on a 7-point Likert scale.

Goals were measured with a question pertaining to the probability to achieve the main goal that an entrepreneur specified as his/her main business goal. The probability ranged from “up to 15%”, “between 16 and 50%”, to “over 50%”.

Market share growth was measured on a 7-point Likert scale in which entrepreneurs had to rate the increase or decrease in market share of their firms in the last three years in comparison to competitors of about their firms' age and phase of development. The answers ranged from “major decrease” to “major increase”.

We included five control variables in the model: gender (0=female, 1=male), entrepreneur's age in years, business tenure measured in total years of employment, firm age measured in years from firm establishment, and firm size measured as the total number of full-time and part-time employees.

### 3.3. Procedure

To test our hypotheses in the proposed models we ran confirmatory factor analysis in IBM AMOS version 20.0. Structural equation modelling was applied for these tests. To test for mediation effect we performed the Sobel, Aronian, and Goodman tests.

## 4. RESULTS

The results of model testing are reported in Table 1. Hypothesis 1 predicted a positive influence of entrepreneurial openness on market share growth. The results confirm the hypothesis with a positive and significant standardized coefficient of 0.18 ( $p < 0.01$ ). However, we have to take into consideration the fact that this result includes also the mediation effect of goal attainment probability. Excluding the mediation effect, the relationship would be even stronger. Hypothesis 2 suggested that goal attainment probability would be positively related to market share growth and we were able to confirm this hypothesis, too. The related standardized regression coefficient is of 0.34 ( $p < 0.001$ ). Hypothesis 3 predicted a mediation effect of goal attainment probability in the relationship between entrepreneurial openness and market share growth. In the first part of this hypothesis we predicted a positive relationship between entrepreneurial openness and goal attainment probability and the results of our study confirm the positive relationship with a standardized coefficient of 0.12 ( $p < 0.01$ ). The overall hypothesis predicted the mediation effect. The results for these tests are reported in Table 2.

As we can see from Table 2, the three tests of mediation effects (the Sobel test, the Aronian test, and the Goodman test) reported that the mediation of goal attainment probability between the specified relationship entrepreneurial openness and market share growth really exists. For example, the Sobel test statistics is above the 1.96 threshold (specifically, 2.32) with a p-value below 0.05 (specifically,  $p = 0.02$ ).

*Table 1: Results of model testing*

	Entrepreneurial openness	Goal attainment probability	Market share growth
Control variables			
Gender	-0.04	0.18***	0.05
Entrepreneurs' age	-0.01	0.01	0.04
Business tenure	-0.04	-0.09	-0.15
Firm age	-0.04	-0.07*	-0.04
Firm size	0.13**	0.12**	0.10**
Entrepreneurial openness	-	0.12**	0.18***
Goal attainment probability	-	-	0.34***

Standardized coefficients are reported. Gender: 0=Female, 1=Male.

\*  $p < 0.05$

\*\*  $p < 0.01$

\*\*\*  $p < 0.001$

*Table 2: Tests of mediation with Sobel, Aronian, and Goodman tests*

	Sobel test		Aronian test		Goodman test	
	Test statistic	p-value	Test statistic	p-value	Test statistic	p-value
H3: Entrepreneurial openness → Goal attainment probability → Market share growth	2.32	0.02	2.31	0.02	2.34	0.02

Model fit indices are reported in Table 3 and were adequate, confirming a good fit between observed values and the values expected under the specified model (Hair et al., 2010).

*Table 3: Model Fit Indices*

$\chi^2$	DF	P	GFI	NFI	CFI	SRMR	RMSEA (90% confidence interval; p-close)
367.64	111	0.00	0.95	0.93	0.95	0.05	0.06 (0.05-0.06; 0.04)

## 5. CONCLUSION

Understanding who entrepreneurs are, what they do and what are the outcomes of their endeavors is an important aspect that is deeply investigated in the field of personality research in entrepreneurship because of the key role, which they play in firms' emergence and growth (Baumol, 1968; Shane and Venkataraman, 2000). While examining the impacts of entrepreneur's personality on firm-related outcomes has a long research tradition (e.g. Gartner, 1989; Zhao et al., 2010), researchers have recently embraced into the investigation of the combined influence of multiple personality variables and their causal, mediated, and moderated impacts on business start-up, firm growth, and their innovation performance (Baum and Locke, 2004; Rauch and Frese, 2007). With our study, we followed this stream of research and investigated direct and indirect effects of entrepreneurial openness and goals on market share growth on a sample of 713 Slovenian firms.

Entrepreneurial openness is a relatively new concept and refers to a positive personal cognitive strength that has three sub-dimensions: learning, novelty, and feedback. We sought to investigate its relationship to firm performance, with the latter being represented by market share growth. Our results show that openness plays an important role in fostering firm performance. We also evidence the crucial role of goals in this relationship as goal in the form of goal attainment probability acted as a mediator. Results confirmed that different personality determinants should be taken into consideration when assessing their role in the entrepreneurial process.

The results of our study have important implications. To succeed in the entrepreneurial process, entrepreneurs should be open and they should set clear goals for themselves and their firms. They also should put in a lot of effort in order to have better chances to accomplish their goals. For this reason, educators at different levels of the educational process should foster entrepreneurial personality strengths and ambitions and develop skills needed to be successful later on in pupils' lives. Entrepreneurs themselves have to acknowledge that having some personality strengths, such as entrepreneurial openness, may help them effectively overcoming the challenges that can be faced in the entrepreneurial process. Being open to learn something new, to search for new business opportunities, and to seek feedback to their ideas to improve them is certainly the right inclination for firm success.

Our research offers several opportunities for future studies, building also on the limitations that were faced in our research. For sure, future research should take a cultural differences lens to explore the extent to which entrepreneurial openness and goal attainment probability are embedded in the environment, social norms, culture, or attitudes toward entrepreneurship (Martín Martín and Drogendijk, 2014). Research should also ask whether there are any differences attributed to the economic situation in the investigated countries, industry specifics, and to environmental dynamism or hostility and expand the results gather on a Slovenian sample to other samples. Future research also might consider expand the model and incorporating other personality, environmental, and outcome variables to broader the understanding of the personality determinants in impacting business-related results.

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## APPENDIX

### Appendix A: Entrepreneurial openness instruction and items

For each of the listed activities regarding entrepreneurial openness, indicate on a scale of 1 to 7 how often you engage in the activity, where 1 means that you never engage in the activity and 7 means that you always engage in the activity.

	Never	Very rarely	Rarely	Some-times	Often	Very often	Always
I follow successful entrepreneurs to learn something from them (I watch TV shows about successful entrepreneurs and/or attend their lectures and/or read articles about them)	1	2	3	4	5	6	7
I learn new marketing approaches	1	2	3	4	5	6	7
I learn new approaches about managing the business	1	2	3	4	5	6	7
I look for ideas for new products or services	1	2	3	4	5	6	7
I look for new markets	1	2	3	4	5	6	7
I look for new business partners	1	2	3	4	5	6	7
I search for information about introducing my firm into new geographic markets	1	2	3	4	5	6	7
I carefully examine all changes proposed to me by others (for example I search for additional information on how to introduce changes, etc.)	1	2	3	4	5	6	7
I ask employees for their opinion on which improvements could be introduced	1	2	3	4	5	6	7
In terms of business matters, I have an open mind (thinking out of the box and evaluating all options)	1	2	3	4	5	6	7
In business, I search for creative solutions	1	2	3	4	5	6	7

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## SMALL AND MEDIUM ENTERPRISES (SMEs) INNOVATING IN THE LOW-TECH SECTOR

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### ABSTRACT

*With Small and Medium Sized Enterprises (SMEs) playing a key role in European work force and economic activity (Hansen & Winther, 2011), they are increasingly being explored across various research fields. SMEs are generally considered an important contribution to the dynamism and innovative performance of the economy. However, SMEs face challenges during the innovation process, which can be related to their size, resource scarcity, weak formal network contacts, lack of knowledgeable personnel and reluctance to delegate (Massa & Testa, 2008). Most of these challenges relate to creating and sustaining large and varied resources in-house (Kaufmann and Tödtling, 2003) but this is just one way of evaluating innovativeness. The link between R&D and innovation has been influence by the use of OECD's categorization of low, medium and high tech industries by technology intensity/R&D intensity (see Table 1). However, the correlation of R&D to the ability of SMEs to innovate is increasingly being questioned (Bougrain and Haudeville, 2002, Keizer et al., 2002). Past studies have mostly been derived from high-tech industries such as the electronics (Keizer et al., 2002), software and manufacturing (Larsen & Lewis, 2007), which inadvertently supports the use of R&D as the way for innovativeness in SMEs. This produce the phenomenon of innovation policies aimed at stimulating R&D. This has been criticized as ineffective for stimulating growth (Robson & Bennett, 2000) and more suitable for the needs of larger companies (Rothwell & Dodgson, 1991).*

*More recent research have shown SMEs traditionally associated with no or little levels of R&D producing innovative products and processes (Hirsch- Kreinsen et al., 2006). This phenomenon is observed especially for SMEs in the low-tech sectors. In this paper, we examined how SMEs can innovate in other ways other than the use of formal R&D such as through collaborations or coopetition as mentioned in Raza-Ullah et al. (2013) in the LMT industries. From preliminary results, we find that SMEs innovates via mechanisms such as distributed knowledge bases with the employment of capabilities embedded within the organization.*

**Keywords:** Innovation Process, Low-Tech, SMEs

### 1. INTRODUCTION

In many countries, SMEs make up a significant bulk of the economy. In the 2011 Innovation Union Competitive Report, it was recognized that SMEs are innovative but 'they do not grow sufficiently' (Innovation Union Competitiveness Report, p. 21). Vossen (1998), in his comparison of the relative advantages of small and large firms in the context of innovation concluded that SMEs, together with independent inventors are 'disproportionately responsible for significant innovations', drawing support from empirical studies on American SMEs (Acs and Audretsch, 1990, Acs and Audretsch, 1991)

In this paper, we focus on innovative SMEs in the low-tech sector. The interest in this particular category of SMEs stems from the observation of innovation studies being conducted around high tech sectors such as electronics, software, and manufacturing industries (Keizer et al., 2002, Larsen and Lewis, 2007, McEvily and Zaheer, 1999). The term 'SME' is also used like an overarching term and treated the population of SMEs as a

homogenous category. This inevitably implies that conclusions reached in these studies are applied to SMEs in all types of sectors. One of these conclusions is that R&D is as a important source of innovation for both large firms and SMEs (Le Bars et al., 1998). The link between R&D and innovation has been further promoted by OECD's categorization of low, medium and high tech industries by technology intensity/R&D intensity (see Table 1).

This relation between R&D and the ability of SMEs to innovate is however being questioned increasingly (Bougrain and Haudeville, 2002, Keizer et al., 2002). Studies point out for instance, in products or processes that involve recombining existing components that result in a new product or process, R&D can be difficult to define or measure especially when an innovation demands more re-engineering skills and trial and errors rather than production of new knowledge which is associated with formal R&D (Gadrey et al., 1995). While SMEs in low-tech sector may conduct R&D, because it is not conducted in a formal way, it may not be recognized or measured accordingly. SMEs in low-tech sectors have exhibited the potential to be innovators and can innovate, for example, from external collective research (Le Bars et al., 1998) instead of relying on the need to have in-house R&D. In addition, the way R&D has been defined limits it to only formal or significant R&D or activities from research departments are measured. This excludes the ad-hoc activities especially those from SMEs where it may take the form of experimentation, problem solving or learning-by-doing (Godin, 2008). Le Bars, et al. (1998) proposed that SMEs in LMT sector can still innovate by accessing external R&D (collective research) and they also tend to innovate more, such as in the food sector. Other research have highlighted SMEs traditionally associated with no or little levels of R&D in low-tech sectors producing innovation products and processes (Hirsch- Kreinsen et al., 2006). In an EU research project on the developmental perspectives of low-tech industries, Hirsch-Kreinsen (2008) examined the innovation potentials of low-tech and medium-low-tech (LMT) sectors. In the study, firms in LMT sectors are found to have limited resources and expenditure dedicated to R&D. These firms make up for it by using relevant practical knowledge, core competencies, establishing contact with a distributed knowledge base made up of actors from different fields and sectors (such as research institutions, suppliers, consultants etc.), displaying strategic flexibility and ability to meet fast-changing market conditions (Hirsch- Kreinsen et al., 2006). Kirner et al. (2009) also discussed how firms in low-tech sectors can choose a different path (non-R&D focused) to succeed in innovation. Similarly, Callan and Guinet's (2000) study of potential innovators found that the majority of potential innovating SMEs were found in the low-tech sectors. Technology developers on the other hand make up only a small percentage of the total SME population and are on average smaller and younger from the technical services sectors.

In this paper, we adopt the view that SMEs are highly heterogeneous and 'oriented individually to highly specific and specialized set of needs' (Levy and Powell, 2004, Woolgar et al., 1998). Particular attention is paid to the nature of the innovation processes in low-tech industries, where research in this area is limited but there is growing recognition of the need to understand the innovation process of SMEs (Hirsch-Kreinsen et al., 2005, Scozzi et al., 2005, Hall et al., 2009, Hoffman et al., 1998). Low-tech industries such as the food sector are dominated by SMEs and are seen as having low-levels of R&D and mature technologies (Muscio et al., 2010). However, low-tech sectors such as the food industry are an important area for the economies of many countries. For example, the Swedish food industry has developed from a protected sector in 1986 to one that is currently subject to international competition (Johnson and Onwuegbuzie, 2004). It is the 4th largest industry in Sweden with a production value of 18,8 billion EURO (2010) with more than 3000 companies (Swedish Trade Council, 2011). As one of the largest sectors in Sweden in terms of employment and production value, interest in promoting innovation in this sector is evident by the number of

intermediaries, clusters and initiatives designed to assist SMEs in their innovation journeys. In the EU context, it accounts for 11% of total employment and have linkages with other industries (Avermaete et al., 2003).

In studying how SMEs in low-tech sector innovates, one becomes increasingly aware of how processes are influenced by many different factors. Most of the factors are related to the nested nature of relationships in networks. This often posed a challenge when it comes to delimiting what to analyse in process research as it contributes to the complexity because processes can be simultaneously evolving. The involvement of multiple actors and perspectives in processes also means that it inherits issues such as biases of views, based either on retrospective or predictive accounts of the processes by informants (Halinen et al., 2012). To address these challenges, I will explore concepts and methods, to aid in identification and understanding of the key interactions of SMEs in the LMT sector during the innovation process. One such approach is adopting an event-based approach (Halinen et al., 2012) and looking through the lens of the actor-resource-activities (ARA) model (Håkansson and Johanson, 1992, Hakansson and Snehota, 1995).

## **2. INNOVATING SMEs IN LOW AND MEDIUM TECHNOLOGY (LMT) SECTOR**

The term Low and Medium-Technologies (LMT) sector have been popularized by policy makers and researchers alike based on the classification of industries used by OECD for categorizing manufacturing sectors (Table 1). Based on this table, firms fall in the LMT sector if their R&D intensity falls between 0% to 3%. This taxonomy (see Appendix 1) has been criticized for placing focus on R&D as the main driver of innovation and thus inadvertently penalizing those sectors that do not conduct or measure R&D. LMT sectors, like SMEs often carry the stigma as being viewed as ‘relatively stagnant’ due to their low R&D activities (Hirsch-Kreinsen et al., 2008) as opposed to their larger, high-tech comrades which are viewed as progressive and making notable advancement in the industry (Godin, 2008). Godin (2008), interestingly enough examined how the classification of low, medium, and high-tech came about through tracing the path of the measurements used as indicator of science and technology, to its adoption by OECD which further promote its popularity (see (Godin, 2008) for a more detailed rendition). What can be derived is that the popularity of the use of a classification (like the Low, Medium and High-tech Sectors) may not be appropriate and can give the wrong impression of how innovation, in this instance is achieved.

The LMT sector accounts for a large proportion of employment in manufacturing and add a large value in the manufacturing of the countries’ economies. According to Robertson and Smith (2008) who, based on European Union’s Community Innovation Survey (1998-2000) highlighted that most of the SMEs who innovated without necessary using formal R&D are classified as low/medium-technology firms. SMEs in LMT sector innovate through different, if not practical ways despite the lack of or minimum formal R&D. R&D, according to OECD classification has been defined and measured limits based on formal R&D (having an in-house R&D personnel/department for example) or significant activities from in-house research departments. This excludes the ad-hoc research-related activities for instance by those conducted by LMT SMEs where it may take the form of outsourcing to external research organizations (Le Bars et al., 1998), experimentation, problem solving or learning-by-doing (Godin, 2008). Some scholars, including Kirner et al. (2009) conducted studies on SMEs in LMT industries shows how they are choosing a different path (non-R&D focused) to succeed in innovation. This section continues by discussing major concepts, which SMEs in LMT sector innovate despite the lack of focus on R&D intensity.

## 2.1. Dynamic Capabilities

With resources frequently quoted as either a hindrance or a strategic advantage SMEs have when it comes to innovation, the term itself warrants a discussion in this section. Within the study of innovation, two major concepts can be brought up here: resource-based view (RBV) and dynamic capabilities (DC) needs to be addressed. RBV was first mentioned by Wernerfelt (1984) to focus on firms' resources instead of products. This was subsequently expanded on by Barney (1991) which relates it to building sustainable competitive advantage. Dynamic capabilities on the other hand, focus on the actual business processes, which enable the building of capabilities (which can be resource-related or in terms of manager's skills and routines) in face of change. For the purpose of this research in examining the innovation journeys of SMEs, the focus will be placed on DC as it relates to the changing phases of the Within DC literature, there are different veins of discussions about dynamic capabilities, for example Eisenhardt and Martin (2000) recognised dynamic capabilities as "organizational and strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve and die." They classified dynamic capabilities further into three groups: capabilities that integrate resources, capabilities that reconfigure resources within the firm and capabilities that gain and release resources. Development process, acquisition process and knowledge creation process are cited as examples of dynamic capabilities. These dynamic capabilities as seen as processes that are embedded within a firm.

Borch and Madsen (2007) defined dynamic capabilities as the ability to build or reconfigure external and internal resources. This concept of capabilities was introduced by Grant (1991) and is built upon the Resource-Based View in which firms engaged their unique, non-imitable nor substitutable resources in to create a competitive advantage. The concept identifies the capabilities when firms coordinate and utilize their resources because it is the transformation of the resources through such capabilities that resources becomes a source of competitive advantage for the company (Borch and Madsen, 2007). This is particularly relevant for SMEs in the LMT sectors as it draw on different parts of their embedded skills and capabilities during the innovation processes.

Bender (2008) introduced the concept of innovation enabling capabilities as a form of dynamic capability to understand the performance of innovative firms and its antecedents. They identified two analytical dimensions in this concept: transformational capabilities and configurational capabilities. Transformational capabilities refers to the 'enduring ability of an organization to transform available general knowledge into plant, firm or task specific knowledge and competence.' Welding as a traditional industrial technique is cited as an illustration since it is a general technique known all over the world. When it is transformed into a technique that produce high quality zero defect, it becomes a competence that is innovative and competitive from the others. Configurational capabilities refer to the ability to recombine knowledge, artifacts and actors. One aspect deals with the innovating firm's ability to assemble various sources of knowledge in a creative manner. This knowledge may exist in the form of scientific knowledge, codified or tacit knowledge in different actors. By involving different actors who possess relevant knowledge together also means having the ability to manage external collaborations and relations in a timely manner. The emphasis on these capabilities is on the transformation, rather than identification of knowledge and absorption of it as what is normally associated with absorptive capacity (Bender, 2008).

Le Bars et al. (1998) identified 'organizational competencies' that SMEs in LMT sectors possess while innovating: component and architectural competencies. Component competencies refer to having skills or assets aimed specifically to particular activities while architectural competencies are the ability to enhance new combinations between components either by designing or/and developing new products/processes. These highlight the types of

innovations, which emerged not due to R&D but through ‘unexplored organizational arrangement of a given product.’ In addition they found support that LMT industries’ innovation is often based on ‘spontaneous, improvised new technical devices’ and can also be referred as incremental and architectural innovation (Hirsch-Kreinsen, 2008).

Zahra and George (2002) on the other hand, proposed that a redefinition of absorptive capacity, which pertains to “knowledge creation and utilization that enhances a firm’s ability to gain and sustain a competitive advantage”, be recognized as a type of dynamic capability that can help facilitate the ability for knowledge creation to build on other organizational capabilities. To help bridge the transition from potential to realized absorptive capacity, social integration mechanisms are highlighted as the common factor in all four dimensions of absorptive capacity that is needed as firms’ maneuverer between organizations. Potential and realized absorptive capacities, the two subsets of absorptive capacity involves acquiring knowledge and integrating it while the latter refers more to the outcomes after the integration. This differs from Cohen and Levinthal (1990)’s definition of absorptive capacities which is the ability to recognize, learn and incorporate and apply the new knowledge. Spithoven et al. (2011) reviewed past literature on absorptive capacity and pointed out even though there are dimensions, which relate it to innovation activities, they are still conducted within the context of R&D activities. They believed that absorptive capacity includes both R&D activities and R&D related activities instead.

Having examined the various types of dynamic capabilities and how they have emerged over various fields of studies on innovation, this research proposed that there is a strong relevance of it for SMEs innovating in the low-tech sector. The traditional focus has been on resources, which due to their small size, SMEs are deemed to be at a disadvantage. However, as we can see, resources are only resources if they were to remain static. The transformation that is needed to transform them into valuable and useful resources for innovation is what dynamic capabilities are defined as. In this research, we agree with the definition as proposed by Teece et al. (1997) that dynamic capabilities is an ability to develop new forms of competitive advantage through renewing of competences and strategic management when “adapting, integrating and reconfiguring internal and external organizational skills, resources and functional competences to match the requirements of a changing environment.”

## **2.2. Collective Learning**

Keeble and Wilkinson (1999) define learning processes as the absorption of information followed by generation and diffusion of knowledge. This view of the learning processes as a collective activity for the firm places the emphasis on “the quality of social interaction and lines of communication.” Social and cultural elements play an important part in this learning process helping to form routines, norms and standards. These social interactions also indicate that factors such as trust and willingness to work together, elements, which can be difficult to capture, also has a role to play.

The motivation for presenting the aspects of social interactions and the possible actors involved during the innovation process is to highlight the different elements that goes under the heading of collective learning. Collective learning refers to interactive learning among several actors (both internal and external) (Gallina, 2009). Collective learning can occur in different locations with different permutation of actors but they contribute to the “production of new knowledge to different extents, depending on the intensity and dynamic of the learning processes.” (Gallina, 2009). This can occur in the context of SMEs in LMT sectors accessing external knowledge sources such as via customers, consultants, suppliers and exhibitions and fairs (Hirsch-Kreinsen et al., 2008) and building up a knowledge base which helps build the innovation strategies for these SMEs. Gallina (2009) did point out two conditions in which

collective learning can be more successful: first, the firms' attitude towards sharing knowledge with other network members (the willingness factor) and second, the possibility to pick up knowledge from different courses (the access factor)." As the organization learns from each other, the coordination and communication of the members within the knowledge base can improve as competences are developed (Keeble and Wilkinson, 1999).

When it comes to research on learning systems, SMEs have been caught in an array of mixed opinions. On the one hand, the smallness and resource constraints of SMEs as default conditions of which prevents them to develop competencies in-house. This is subsequently linked to a 'natural' quest for external resources or organization to learn from and then leverage their revamped internal competencies with cooperate with others to enable, for example innovation to occur. On the other hand, the other side of the same coin, SMEs are credited with being nimble in decision-making due to their small size (and thus founder-owner or owner-manager set-ups). Since the owners/managers/founders have to oversee almost everything, they have a good overview of what is happening and are able to make critical decision quickly. In addition, due to their social interactions and networking, they are also the resource that ventures to the outside world to bring new inspiration to the firm. This places an even higher emphasis on SMEs ability to manage the complex process of coordination and communication and relations with external organizations (Mittra, 2000).

The importance of key individuals who can be invaluable to the innovation journeys of some SMEs is a phenomenon that cannot be ignored. Hirsch-Kreinsen et al. (2008) identified some types of actors such as developers, manufacturers and service providers. They possess specialized knowledge, which plays an important part in the innovation strategies of some companies. Gallina (2009) summarize this aspect for SMEs in the LMT sector in that "it is rather clear that, due to their structural deficiencies, the relational position depends largely on the development of intangibles, such as the know-how and know-who." In addition to the know-how and know-who, an interesting observation is viewing innovation as a strategic reflexivity, which "implies a deliberate action by the firm that tries to negotiate its entry in a market and tries to imagine the consequences of this. This kind of action implies that the firm has a specific asset and that this represents the strength enabling it to innovate." (Gallina, 2009)

All this points to the 'importance of external actors and their specialist knowledge, the ability to coordinate network relations across company borders, especially with other company within the value chain' (Hirsch-Kreinsen et al., 2008). The ability to work across companies and provide channels of communication and other resources required for the cooperation is essential for a successful innovation strategy. The management also need to be professional in harmonizing and regulating the competencies and interest of the related partners to ensure the transfer of required knowledge.

In close connection to collective learning, Hirsch-Kreinsen et al. (2005) argue that there might be a neglect of how knowledge can also be distributed across boundaries which would enable SMEs in low-tech industries to utilise these knowledge away from the source it was generated. They also suggest that not only is information received from outside a network valued more by SMEs due to organisational proximity between actors, it is also a feature of LMT industries to have cluster and knowledge exchange in an informal manner. When the type of knowledge for innovation in LMT industries is examined further, it is found that they are more practical in nature and normally paired with other relevant core competencies (Hirsch-Kreinsen, 2008). This type knowledge sharing seems to indicate the typical manner in which SMEs in LMT sector functions and innovate.

### 2.3. Distributed Knowledge Base

One other way which SMEs in LMT sector innovates is through accessing external knowledge sources such as via customers, consultants, suppliers and exhibitions and fairs (Hirsch-Kreinsen et al., 2008) and building up a knowledge base which helps build the innovation strategies for these SMEs. By focusing on R&D as a driver of innovation, Hirsch-Kreinsen et al. (2005) argue that there might be a neglect of how knowledge can also be distributed across boundaries which would enable SMEs in low-tech industries to utilise these knowledge away from the source it was generated. They also suggest that not only is information received from outside a network valued more by SMEs due to organisational proximity between actors, it is also a feature of LMT industries to have cluster and knowledge exchange in an informal manner. When the type of knowledge for innovation in LMT industries is examined further, it is found that they are more practical in nature and normally paired with other relevant core competencies (Hirsch-Kreinsen, 2008). This type knowledge sharing seems to indicate the typical manner in which SMEs in LMT sector functions and innovate.

The types of exchanges and activities among the actors in the distributed knowledge base along with intermediaries can play a significant role in the innovation process of the companies as they 'often provide knowledge that initiates learning processes leading to concrete innovation measures in companies' (Hirsch-Kreinsen et al., 2008). Increased collaboration at regional, national and transnational levels also place firms in LMT sectors on a different playing field as they play a more active part than just being third-tier participants in supply chains. In clusters formation for example, all actors are regarded with equal importance in how they integrate and fit in - whether it relates to specific skills, effectiveness or 'technology level'. The knowledge base is further enhanced with participation, sharing and learning by the members of the organization. (Keeble and Wilkinson, 1999)

Knowledge, considered as the currency of R&D can be distributed through other channels that are eventually used by SMEs in LMT industries. In addition, innovation by SMEs in these sectors are often more practical and architectural in nature in that they recombine existing components to design and develop new products/processes. Hirsch-Kreinsen et al. (2008) suggested that to succeed in the innovation strategy, companies need to harness their 'dynamic capability', which includes the ability to use and advance existing knowledge, to continually recombine available knowledge and technology for enhancements and to integrate new knowledge. This ability is in turn dependent on the routines and structures of the company, which is embedded within the company.

Robertson and Smith (2008) defined distributed knowledge base as 'a set of knowledge/knowledge sources maintained across an economically and/or socially integrated set of agents and institutions. The firms are key to coordinating the different types of knowledge distributed among 'various knowledge bases according to such factors as industrial source, geographical location, intellectual (scientific or technical) location, social location and chronology.' According to their review of literature, which highlights formal distributed activities such as joint ventures, strategic alliances, outsourcing etc., they view knowledge distribution as 'uncertain and uneven'. This, they argue can make it hard to find the relevant knowledge, in addition to the possibility that such knowledge may have different links which may or may not be connected. The management of knowledge bases within LMT sectors as such can be challenging not just due to the nature of knowledge itself. The sources of knowledge need to be traced, weigh in terms of importance and map according and under which circumstances it is utilized. Firms in LMT industries, due to their uncertain environment need to manage a changing array of knowledge bases. They are also often characterized by belonging to different or overlapping networks and owners who have

different levels of training (Robertson and Smith, 2008). With the discussion on distributed knowledge base, one can only begin to see the tip of the complexity involved in such a study. As rightly pointed out by Robertson and Smith (2008), studies of dimensions of network structure to understand how knowledge bases are related in connection to innovation can be naïve due to the multi-facet and multiple connections of firms, whether across local and international networks or even between different layers of innovation systems.

### 3. METHODOLOGY

Organization and strategy researchers have studied used various methods to study business processes and these methods are applied in the context of business networks to understand the interactions within networks (Halinen et al., 2012). Processes are influenced by many different factors, most of which are related to the nested nature of relationships in networks. This often posed a challenge when it comes to delimiting what to analyze in process research as it contributes to the complexity because processes can be simultaneously evolving. The involvement of multiple actors and perspectives in processes also means that it inherits issues such as biases of views, based either on retrospective or predictive accounts of the processes by informants (Halinen et al., 2012). For example, to understand about the current behavior, one would need to know the history of the relationships of the actors/resources/activities involved in an event. This is preferably done over several events, not just a single one for robustness. However, this would greatly increase the complexity and analysis (Smith and Laage-Hellman, 1992). The use of events as a unit of analysis in business network research is one method that may be suitable to study processes as discussed by Tidström and Hagberg-Andersson (2012). Events are seen as overlapping as different individuals perceive it. Events are related also to other events, creating possible patterns. In the network context, various actors contribute to an event in different ways. In applying this to process studies, a focal event is used suggested to be used as a tool for analysis as it draws attention on the activities that are most relevant to the process concerned. Event-based Network Process Analysis (eNPA) proposed by (Halinen et al., 2013) claim to address some of the challenges mentioned. They defined network processes as ‘comprising sequences of connected events and activities that unfold over time in and around networks’. Events, which can also be known as episodes (Håkansson et al., 2009) or moments (Medlin, 2002) are analysed and used as building blocks that make up the interactive process in networks in this approach. Events may be viewed from different levels, such as company-level or dyad level or it can refer to certain phases where change might occur in for example, the innovation journey of a SME. This method claimed to be useful when studying multi-actor and multi-level networks using events as a unit of analysis. It is versatile in that it allows the possibilities of multiple events influencing a particular process and that it can be simultaneous processes. While this underlines once again the complexity and multiple levels of events, eNPA seems to be a relevant choice to “seek in-depth understanding of the process in the studied network context” (innovation process of SMEs in this instance (Halinen et al., 2013)).

#### *Empirical Selection*

The selection of SMEs is drawn from the food sector in Sweden as a deliberate choice as it is a sector considered to be highly controlled by regulations and managed with traditional processes. The application of technology in this sector are not always immediately visible and this have made it a unique sector as it have influenced processes and products in ways that might not be attention-drawing by itself. The Swedish food industry has developed from a protected sector in 1986 to one that is currently subject to international competition (Johnson and Onwuegbuzie, 2004). It is the 4th largest industry in Sweden with a production



value of 18,8 billion EURO (2010) with more than 3000 companies (Swedish Trade Council, 2011). As one of the largest sectors in Sweden in terms of employment and production value, interest in promoting innovation in this sector continues to grow as evident by the number of intermediaries, clusters and initiatives designed to assist SMEs which makes up most of the industry. This development in Sweden's food sector may or may not be echoed in international cases, which can add richness to this research.

In this study, primary data collection was first collected in 2011 by conducting interviews with a focal SME followed by snow-ball sampling along its unique network by identifying key actors, resources or organizations that contributed to the innovative product/process. 30 interviews were conducted with food SMEs and their network actors in Sweden in spring 2011, during the period from March to April 2011 either through face-to-face interviews lasting 1-2 hours or via telephone interviews with representatives from 28 organizations. For the informal networks whose aim was to understand network learning, snowball sampling was conducted beginning first with the owners of the SMEs and contacts were provided where interviews were set-up. Semi-structured interview guides were utilized to assist the interview process. A similar exercise was conducted between Autumn 2013 and Spring 2014 to include two more in-depth case studies to be included into the empirical data.

#### **4. CONCLUSION: PRELIMINARY FINDINGS**

As this paper is work-in-progress, preliminary analysis of the data has pointed to a few themes, which needs further examination:

- i. The criticalness of failure – In three of the four case analyzed, failure was experienced in some point which had either provided the case companies experience which is critical for the second or third attempt to achieve a further milestone than before. In most innovation studies, factors for failures are examined and listed. This paper proposed to examine failures as an impetus for innovation and that it is a necessary path for the creation and development of dynamic capabilities in an organization.
- ii. Key actors are also deemed to be important in the innovation of SMEs in LMT sectors. These actors have been described as 'spiders in the web' and played critical role(s) in the innovation process. While SMEs have been described as being lacking in resources and hence are on a constant quest for external resources, our empirical data indicates that by including key actors in the board or as part of the SME's network, access to such resources are 'inherited'. The selection of such key actors is an important factor to the success of SMEs' innovation journey.
- iii. Management characteristics and organizational capabilities – Our data find that organizational capabilities evolved as part of the innovation process along with management characteristics. These differ greatly from case to case basis due to the combination of actors, resources and activities, which makes each innovation journey different, and build organizational capabilities in various ways.

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## THE INTELLECTUAL CAPITAL IMPACT ON THE BUSINESS ENTITY PERFORMANCE

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### ABSTRACT

*The accounting profession today has to be creative more than ever and balance between exact principles on one, and requirements of modern economics and business on the other side. Current accounting and financial reporting practice does not fully meet the information needs because the investments in intellectual capital as well as any contribution that comes from it are not shown. Relying only on the financial information may result in wrong decisions when allocating resources or setting long term objectives and strategies. The business processes and results should also be observed through flows of intellectual capital and its impact on business performance. Despite interesting proposals from accounting theorists and practitioners, referring to different systems and models of evaluation and presentation of intellectual capital, the fact is that we still don't have a systematic and detailed form of recognition, evaluation, disclosure and determination of the accounting value of intellectual capital which would be accepted as a standard. That is why the central question of this paper is how to measure its impact if it is not financial statement category?*

*In this paper we adhered to assumption that intellectual capital is a complex whole consisting of three main components, and that its value is generated by its usage. Proposing qualitative and quantitative indicators for each component and using accounting financial and nonfinancial information, we present model of relationships between intellectual capital components and their impact on business performance. Model of the intellectual capital impact on business performance is obtained as a result of study conducted on a random sample of 80 Croatian business entities, with a 95% confidence level and 11% margin of error, and application of Principal Component Analysis and Structural Equation Modeling.*

**Keywords:** *accounting, intellectual capital, business performance*

### 1. INTRODUCTION

Although invisible in traditional financial statements, intellectual capital is important influential factor that impact development of company, its performance and competitiveness. Despite its importance, there is still uniform definition of it, as well as formalization in a way that it can be reliably evaluated, recognized and presented. Current accounting and financial reporting practice does not fully meet the information needs because investments in intellectual capital as well as any contribution that comes from it are not shown. Accordingly, relying only on the financial information may result in wrong decisions when allocating resources or setting long term objectives and strategies. Such issues are particularly emphasized in knowledge – intensive industries, but also in countries, such as Croatia, which aspire to base their development strategies on the concepts of social and knowledge economy.

In this paper we explain one of the possibilities for considering intellectual capital through its main components and their indicators, at the same time determining and illustrating the influence of relations between intellectual capital components, as well as their influence on specific business performance indicators. The purpose of paper is to confirm the basic premise that intellectual capital affects the business performance, therefore it has a kind of value and that value is generated by its usage, so it should be considered from the accounting point of view and reported as a part of financial statements' notes. Such approach should be a part of strategic accounting. The paper begins with theoretical overview of intellectual capital definition, its classification and previous studies and models presentation. What can constitute each intellectual capital component? How the structural capital affect human or relational capital? Does the intellectual capital affect profitability and efficiency? These are some of the questions which form the central part of the paper referring to setting and testing the model of intellectual capital influence on business performance.

## **2. THE CONCEPT OF INTELLECTUAL CAPITAL**

The concept of intellectual capital is a subject of several disciplines, especially management, human resource management, information technology, accounting, finance, marketing, intellectual property, and others. Such wide interest confirms the role and importance of intellectual capital in value creation and business performance on the one hand, but on the other hand, a number of different terms and definitions of intellectual capital appear, that lead to new questions and issues in efforts to define it uniquely. From the accounting point of view, when some category (item) should be evaluated, recognized and disclosed, it is necessary to know exactly what it is, what is going to be evaluated and what exactly is going to be disclosed. According to that, the definition of intellectual capital should make clear what is meant by intellectual capital and which are its components. So, for the accounting approach to intellectual capital the first step should be to have generally accepted term and its definition. Despite significant interest for concept of intellectual capital and all efforts in its defining and measuring, we still do not have a unique term for it, and therefore no unique definition. Without getting into detailed analysis about different terms and definition of intellectual capital, it is necessary to mention that the term intellectual capital in the relevant literature can be also find as intangibles, intangible assets, invisible assets, intangible capital, intangible sources or intangible values, intellectual property, intellectual assets, knowledge assets, human capital, information capital and many more. If we consider only the term intellectual capital used in its definition, we still have a number of definitions. The interesting fact is that intellectual capital definitions mainly are not classical definitions we are used to, but a kind of illustration, indication, descriptions of intellectual capital, its meaning, function, and components, mainly referring to assumptions and statements of its intangible nature and difficulties in determining its value. Among the most common definitions are those describing it in the context of value creation, or creation and strengthening the competitiveness of the business entity. Furthermore, in accordance with the dynamic nature of intellectual capital and its role in value creation, the definitions describing and emphasizing flows, connections and relations between intellectual capital components, as well as interaction of intellectual capital with resources from environment, are also represented. Intellectual capital is also defined by specifying its components, as well as the distinction of his presence at individual and collective level, or as a difference between market and book value of the business entity. In recent years more emphasized and frequent is dynamic approach in defining intellectual capital through which it is considered as a result of using interlaced intellectual, human capital and organizational resources of business entity, and that as such it cannot stand alone or be evaluated separately from other assets (Choong, 2008). In this paper we adhere to such

dynamic consideration of intellectual capital, observing it as a complex whole consisting of three main components, which flows and interaction explains its concept and enables to understand its value.

### **3. INTELLECTUAL CAPITAL COMPONENTS**

Regardless the different classifications of intellectual capital, and very often the lack of clear boundaries between its components, most authors in relevant literature adhere to intellectual capital classification into three components - human, structural and relational capital. Although sometimes the different terms are used, the definitions for each of these components in the literature are similar, so we used some of them to describe intellectual capital components below. Besides that, each component has an important role and contribution for business entity's performance, so their interdependence and interaction which makes and explains their contribution, and thus the overall contribution of intellectual capital to performance of a business entity should be kept in mind.

#### **3.1. Human capital**

Human capital as an intellectual capital component is usually described as generator and core of intellectual capital, referring to the overall range of individual and collective knowledge and education, skills and competency, as well as other individual characteristics such as employees' responsibility, motivation, creativity, innovation, loyalty, experience and others. However, employees are not human capital themselves, but they become it only when turn their knowledge and skills, or any other individual characteristic, into actions aligned with business strategy, contributing at the same time to tangible and intangible value creation for the business entity (Priručnik za upravljanje intelektualnim kapitalom u tvrtkama, 2004.). In other words, employees generate intellectual capital by their competencies, attitudes and intellectual agility (Engström, Westnes and Westnes, 2003, Roos, Pike and Fernström, 2005). Mentioned group or individual characteristics such as education, skills, motivation, experience, innovation and others, are considered as human capital items and usually are observed as human capital sub-components. Different classifications of human capital sub-components (Joia, 2007., p. 15.; Roos, Pike i Fernström, 2005., p. 77.; .Marr, 2005., p. 33.) represent just an illustrative and general example of human capital structure, so it is necessary to understand that each classification should be done specifically for a particular business entity. In such case, the composition of the human capital of a particular business entity will be affected by its legal form, type of the ownership, branches in which it operates way of value creation as well as the value that is intended to achieve (Roos, Pike and Fernström, 2005, p. 76). Finally, the human capital does not exist and act isolated, but integrated with other forms and components of intellectual capital in the business entity. So it is needed to create an organization environment in the business entity which will support the creation, usage and implementation of employees' knowledge and skills, as well as their mutual communication. Hereby we have already included a part of another intellectual capital component – structural capital, which is described below.

#### **3.2. Structural capital**

Structural capital definition is very often considered as human capital infrastructural support, or a set of factors which significantly contribute to business performance and remain in the business entity after its employees leave. Very simple and clear definition of structural capital is given by Bontis (1998), who describes it as all mechanisms and structures which support and enable employees to develop and allocate better their cognitive resources and thus improve the business performance of the entity. Intellectual capital components are often

defined and described by citing their items. The same is with structural capital items which are also used in its description and considered as its sub-components. According to Stewart<sup>124</sup> (Stewart, 1997, referenced by Joia, 2007), structural capital refers to technology, manuals, processes and their descriptions, and networks that enable to store knowledge and competencies in a way that they remain in the company after the employees leave. Youndt, Subramaniam and Snell (2004) also consider structural capital as a kind of grant that company owns and which consists of employees' knowledge, skills and information in the form of patents, licenses, manuals, databases, culture, reusable ideas, ways of performing tasks, systems, processes and the like. A number of other structural capital sub-components can be found in the literature, such as software, strategies, plans, intellectual property, drawings, brands, routines, procedures, IT systems, different documentation, so it can be concluded that the structural capital can be considered as an overall tangible and intangible infrastructure of a business entity that enables the running of business process.

Structural capital is the only intellectual capital component which is owned and controlled by a business entity. Besides that, a lot of structural capital items are complementary with specific human or relational capital items, and considered together they form an logical whole. As Bontis note, in a case that a business entity does not have enough good systems and procedures that allow intellectual capital activities, the entire intellectual capital of business entity will not be realizable (Engström, Westnes and Westnes, 2003, p. 288).

### **3.3. Relational capital**

Relational capital can be described with relationships and knowledge exchange between entities in the company, but also with relationships and exchange of knowledge between business entity and entities from its outside environment. Relational capital is very often identified as customer capital, but since it does not contain only relationships with customers we considered it in a broader meaning. Developed and good quality communication between employees, organization units or other entities in the company is very important for successful communication and relationships with subjects from outside environment. Sub-components of relational capital are not always owned by business entity, but they have a long-term influence on mentioned relationships. For example, Sundać and Švast (2009, p.46) explain the meaning and importance of relation capital by its sub-components such as are business networks comprised of sales, marketing, distribution and electronic networks, relations with partners, consumers, distributors and suppliers. They also mention interest groups, brands, image creation and ability to attract future customers. Similar sub-components are listed by Roos and Roos (Marr, 2005., p.32.), Itami (Marr, 2005.,p. ,32), while Roos, Pike and Fernström (2005., p.75) add also the relationship with unions, universities as new knowledge sources, owners, media, local and state government, legislative subjects, and so on.

## **4. PREVIOUS METHODS, MODELS AND STUDIES**

The intellectual capital concept has always been interesting for scientist and practitioners from different areas. Among the areas closely linked to business performance and success, this concept has been much more considered from the management point of view than from the accounting point of view. By the second half of 1990s, a number of models and methods for managing intellectual capital have been developed, all on the basis that the maximum contribution of intellectual capital will be achieved if it is carefully managed. But at the same time, all those models have not emphasized and have even ignored the role of accounting function and accounting information. In all this efforts, the need for good management of

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<sup>124</sup> Stewart, T.A.: Intellectual capital, New York, 1997.



intellectual capital set up a challenge for accounting profession in the context of developing a new approach to business performance measurement which will also include intellectual capital. A part of accounting literature dealing with intellectual capital issues has offered a few models and methods for its accounting and measurement, but mainly referring to principles and methods characteristic for traditional financial accounting and reporting. Considering the intellectual capital characteristics and traditional accounting framework, it is understandable that their implementation is hard to realize. On the other hand, a number of studies focused on connection between intellectual capital and company value, while a smaller number of researches are directed to precise identification of modes of determining its value and ways in which intellectual capital creates or influences the company's competitiveness and success. Some of models and methods proposed for measuring intellectual capital are listed below, classified under direct intellectual capital methods, market capitalization methods, return of assets methods, and the scorecard methods. The direct intellectual capital methods are based on identifying the components of intellectual capital and their direct measurement (Roos, Pike i Fernström, 2005.). Such methods' disadvantage is a large number of components that should be measured, but Rodov i Leliaert (2002, p. 329.) note that although such methods are complex they are also the most accurate in determining the value of intellectual capital. In the relevant literature (Sveiby, 2010.) under this methods usually are mentioned The Value Explorer™, Intellectual Asset Valuation, Total Value Creation (TVC™), Inclusive Valuation Methodology (IVM), Accounting for the Future (AFTF™), Technology Broker, Citation – Weighted Patents, HR Statement, Human Resource Costing & Accounting (HRCA1 i HRCA2), EVVICAETM and Dynamic monetary model. A number of methods can be found under the market capitalization method based on the assumption that the positive difference between market value of shares and company's equity stands for company's intellectual capital. Such methods usually include (Sveiby, 2010) Investor assigned market value (IAMV™) Market-to-Book Value, The Invisible Balance Sheet, Tobin's q. Those methods are mainly cash methods intended for determining intellectual capital at the company level. The exception is FiMIAM method (Rodov and Leliaert, 2002.) with elements of both direct and market capitalization method, whose application is intended for determining intellectual capital value at the company level but also for each component. The return of assets methods refers to ratio of the average profit of business entity (average pre-tax profit within three to five years) and average tangible assets in the same period of time (Rodov i Leliaert, 2002., p. 328; Sveiby, 2010.). The examples of this method are Knowledge Capital Earnings, Economic Value Added – EVA™, Calculated Intangible Value (CIV). The scorecard methods are focused on determining different intangible or intellectual capital components and generating indicators and indications which are shown with map of goals – scorecard, or in the form of graphs. This group of methods includes (Sveiby, 2010.) ICU Report, Regional Intellectual Capital Index (RICI), IAbM, SIPCAP, Public sector IC, Intellectus model, Intangible assets statement, IC – Index™, Topplinjen/Business IQ, National Intellectual Capital Indeks, MAGIC projekt, Danish Guidelines, IC-dVAL™, IC Rating™, Value Chain Scoreboard™, Meritum guidelines, Knowledge Audit Cycle, Holistic Accounts, Value Creation Indeks (VCI), Skandia Navigator™, Intangible Asset Monitor, and finally Balanced Score Card. Besides all attempts and efforts for intellectual capital measurement and reporting, contained in different models, methods and guidelines, there are also some studies and empirical researches done with the purpose to find solution for intellectual capital recording and reporting. Nemec Rudež and Mihalič (2007) conducted a study of intellectual capital of the Slovenian hotel industry. They have examined the intellectual capital categories and flows between them, as well as influence on the business entities' performance. Using the descriptive

statistics methods, Pearson's correlation coefficient, regression and multiple regression analysis, authors have confirmed hypothesis that there is a positive correlation between pairs of intellectual capital components in the hotel industry, that intellectual capital has a positive effect on financial performance of Slovenian hotel industry, and finally, at the end, that customer relation capital (they have divided relation capital to end – customer and non – end – customer relation capital) has the strongest direct impact on financial performance of observed companies. According to such result, Nemec Rudež and Mihalič (2007) concluded that development of end – customer relation capital will improve financial performance of Slovenian hotel industry, while the continuous and coordinated development of all intellectual capital components are needed for financially successful business of observed companies. De Castro i López Sáez (2008.) conducted a study with purpose to establish and confirm main components of intellectual capital, or “building blocks” of the intellectual capital balance sheet. That is why they started with mainly accepted intellectual capital components – human, structural and relational capital, and examined whether such classification exists and whether is supported by business entities from the high technology area in Spain. Using the descriptive statistics methods and factor analysis, the main dimensions of intellectual capital for mentioned business entities has been determined. Finally the authors gave a proposal of an average intellectual capital balance sheet of Spanish high tech companies for the observed time period. Such approach can be useful as a guideline for managers interested in structuring the intellectual capital balance sheet of their companies. Among the applicative tested models and proposals of intellectual capital valuation it is important to mention the Mrša and Nekić's (2002) proposal. It is a model which is most similar to the accounting approach of valuation and disclosure of company's intellectual capital. Briefly, in example that authors have offered as application of model, the method of present value of net cash flows has been used, the units that create money in the company have been defined, their future cash flows have been estimated and the appropriate discount rate has been applied to the future cash flows. Mrša and Nekić (2002) also suggest formula for estimation of net present value of business entity and its units, emphasizing that it is needed to calculate the most probable value, the lowest and highest expected value, and determine which value of business entity to choose in a way it represents the most probably realization of future economic benefits. They have calculated and analyzed all that for a few units in one business entity, and separated the one with present net value higher than its book value. The difference between present and book value has been attributed to intangible assets of chosen entity. One of the latest theoretical model, although not intended to measuring intellectual capital or intangibles of the company but to determine relationships within the intellectual capital and value creation of the company is proposed by Mhedhbi (2013) as a result of study on the sample of Tunisian companies. The author confirmed hypotheses about intellectual capital components mutual influence, and intellectual capital influence of the value creation of the company.

## **5. RESEARCH RESULTS**

### **5.1. Research sample**

In order to determine the relationships between intellectual capital components and their impact on business performance, a research has been done on a sample of Croatian business entities by survey method and processing of secondary data. The survey has been conducted in the year 2011, on a random sample of 80 Croatian business entities, with 95% confidence level and 11% margin of error<sup>125</sup>. A questionnaire has been used to collect data for human, structural and relational component, while the data referring to financial performance of

<sup>125</sup> The representativeness of the sample was checked through the calculator for the sample size on [www.raosoft.com/samplesize.html](http://www.raosoft.com/samplesize.html)

entities in the sample has been obtained by processing the data from their financial statements available at the secondary sources like Financial Agency, Zagreb Stock Exchange, business portals or business entities' web site. The examinees filled the questionnaire by marking the level of agreement or disagreement on a five-level point Likert scale for each item that had a form of statement. Statements for each intellectual capital component have been formulated as an original researchers' proposal or on the basis of studied relevant literature.

## **5.2. Research methodology**

Previous and even current research of the intellectual capital impact on business performance, determination of relationships between its intellectual components, as well as determining their composition and structure, are mainly based on regression analysis, correlation and factor analysis. In this study the *Principal Component Analysis* – PCA has been used for determining the composition and structure of intellectual capital components, while the Structural Equation Model – SEM has been used to determine the direct and indirect impact of intellectual capital components on business performance, as well as for determining their interrelationship.

SEM is a multivariate technique combining the aspects of interdependence and dependence techniques, that is, factor analysis and multiple regression analysis, which allows simultaneous examination of a series of interrelated dependence relationships among the measured variables and latent constructs as well as between several latent constructs (Hair 2009). According to that, structural model represents one or more dependence relationships linking the hypothesized constructs in the model. Because of that, this model is most useful to represent relationships between latent constructs such as intellectual capital components which are not measurable directly, but indirectly by measurable variables and indicators. SEM allows determination of interdependent relations between dependent and independent variables even when dependent variable from first relation represents independent variable in the second relation.

Latent construct is hypothetical directly immeasurable concept that can be "measured" or presented through measurable variables or indicators which can be collected through a questionnaire. In our study each statement in the questionnaire presented one of the indicator or variable for the associated latent construct, that is, intellectual capital component. PCA is a variable reduction procedure that from a larger number of variables generates a smaller number of variables grouped into main components, by which the majority of observed variables' variance is represented. This is very useful in cases like ours when there are data on a large number of variables but there is some redundancy in those variables, meaning that there are correlations between variables subsets, possibly because they are measuring the same construct. Because of those correlations it is assumed that a smaller number of variables grouped into main components which will represent the variance of the majority of observed variables, could be extracted (Lehman et al, 2005). Although similar in many aspects, PCA is not equivalent to exploratory factor analysis which purpose is to explain the interrelations of large number of variables by a smaller number of latent variables or factors. PCA aims to reduce larger number of variables into smaller number of latent constructs which contains the largest amount of information that can be generated from the observed variables. So, as we have mentioned before each intellectual capital component is presented with some number of measurable variables. Using the PCA mentioned variables are grouped into main components, that is, into different sub-component for each intellectual capital component. Basically six to ten sub-components which meet the criteria of PCA have been extracted for each intellectual capital components. It is also interesting that all such sub-components make sense when observed individually.

### 5.3. Construction of the model and the research hypotheses

Main components obtained by PCA which now represent the sub-components of each intellectual capital component, as well as financial statement analysis indicators as sub-components, enabled us to set hypotheses and make conclusions using the SEM. It is SEM characteristic that researcher has to be familiar with theory and issues of research area, because on that basis he/she determinates the number of constructs and presumes meaningful and expected relations. According to that, we have set a number of hypotheses assuming the interrelation of intellectual capital components and its influence to specific financial performance indicators. In the observed relation, each intellectual capital component is presented by one main component derived by the PCA and chosen among others. Consequently we assumed a set of hypothetical relations and tested them with SEM. Obtained results are described by the following model.

Figure 1 show our model where three constructs, or intellectual capital components, are represented by following variables:

- Structural capital (SC) is represented by variables referring to the level of technological equipment and improvement of IT solutions (SC 1), adaptation of computer programs and computer systems to business needs (SC 2), and the application of IT systems enabling simple, fast and unlimited access to relevant information and databases (SC 3). All variables are part of larger main component derived with PCA.
- Relational capital (RC) is completely represented by one of the major components derived with PCA. It includes variables referring to relations with partners as a source of knowledge (RC 1), level of success in dealing with complaints and clients' inquiries (RC 2), and time required to solve problems in their relationship with clients (RC 3).
- Human capital (HC) is represented with variables referring to managers' leadership skills (HC 1), capability to manage changes and adapt to new market situations (HC 2), and ability to motivate employees (HC 3).

PCA has been also applied on financial statements indicators resulting with few sub-components. For the purpose of testing our model which shows the intellectual capital influence on business performance, we have chosen sub-component referring to profitability and efficiency as one of possible business performance indicator. Variables in the associated component refer to specific indicators of profitability and efficiency as financial performance (FP) indicators:

- FP 1 – Net profit margin ((net income + interests) / total revenues)
- FP 2– Gross profit margin ((profit before taxes + interests) / total revenues)
- FP 3– Company effectiveness (total revenue / total expenditure)
- FP 4 – Business activities effectiveness (operating income / operating expenses).

Finally, following hypotheses have been made:

H1: Structural capital has a positive impact on human capital

H2: Structural capital has a positive impact of relational capital

H3: Relational capital has a positive impact on human capital

H4: Human capital has a positive impact on profitability and efficiency

In the hypothesized model, each hypothesis is represented by a one-way arrow between the constructs – intellectual capital components and financial performance indicators. To explain the proposed model as well as our main hypothesis that intellectual capital value is generated through its usage, it is necessary to remind on and emphasize the dynamic approach of defining intellectual capital through interrelationship and interaction of its components.

Consequently we have assumed that human capital only after being under the structural and relational capital influence, has a direct impact on profitability and efficiency, while the structural and relational capital have indirect one, that is, through human capital. Furthermore, structural capital is considered as a starting point in setting hypothesized relations, because we simply consider it as an infrastructure without which other components cannot act. Therefore our model and hypotheses can be explained by statement that developed information and technological infrastructure positively influences management skills including managing in changing environment, leading and motivating employees, as well as effective communication with clients. After all, communications with partners, considering them also as a knowledge source, positively affects managers' skills and ability of adoption to new market situations. Finally, such human capital directly affects the indicators of profitability and efficiency.

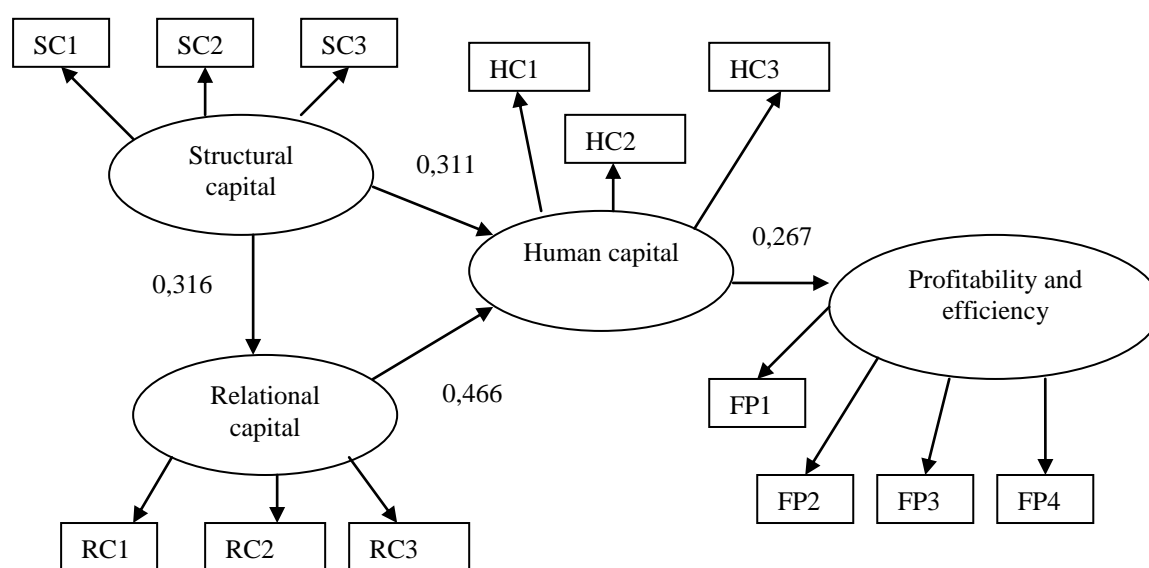


Figure 1. The model of intellectual capital impact on the business profitability and efficiency  
(Authors' research)

Described model has been tested with SEM. The Confirmatory Factor Analysis applied through the measurement model resulted with indicators of model acceptability and appropriate loadings meaning that assumed variables for each component appropriately represent the belonging intellectual capital component (value of loadings meets the criteria of minimum 0,5, loadings are higher than their standard errors and the level of significance is below 0,05 (Hair, 2009)). In the structural model, structural capital is an exogenous construct, affecting directly and indirectly all other components. It is necessary to emphasize that in H3 human capital stands for endogenous construct, while in the H4 is exogenous and influences profitability and efficiency. Mentioned model resulted with fit indices for its confirmation and acceptance, such as RMS Standardized Residual 0,073, Steiger-Lind RMSEA Indeks 0,057, Population Gamma Index 0,970, Adjusted Population Gamma Index 0,956, Bentler – Bonett Non-Normed Fit Index 0,95, Bentler Comparative Fit Indeks 0,961.

Table 1. Estimated structural parameters for hypothesized relations in the model  
(Authors' research)

Hypothesis	Assumed relation	Estimated structural parameter
H1	Structural capital → Relational capital	0,316**
H2	Structural capital → Human capital	0,311*
H3	Relational capital → Human capital	0,466*
H4	Human capital → Profitability and efficiency	0,267**

\* p – value < 0,01

\*\* p – value < 0,05

Table 1 shows the estimated structural parameters for each of assumed hypothetical relation. All estimated parameters are positive and significant which confirms that all assumed hypotheses are supported. Besides, coefficients are standardized so each coefficient indicates the extent to which change in one intellectual capital component for one standard deviation will affect the change of the component on which it has influence. The indirect influence of structural and relational capital on profitability and efficiency can also be seen from the Figure 1. Because of that, two hypotheses more can be set, indicating the mentioned indirect influence:

H5: Structural capital indirectly and positively affects the profitability and efficiency

H6: Relational capital indirectly and positively affects the profitability and efficiency

Considering the Path Analysis rules, the indirect impact of structural capital on mentioned performance indicators can be shown through the impact of human capital or through the impact of relation and human capital, as follows:

$$SC \rightarrow HC \rightarrow \text{Profitability and efficiency} = 0,311 \times 0,267 = 0,083$$

$$SC \rightarrow RC \rightarrow HC \rightarrow \text{Profitability and efficiency} = 0,316 \times 0,466 \times 0,267 = 0,017$$

So also the total indirect impact of structural capital can be calculated as 0,100 (0,083 + 0,017) while the total indirect impact of relational capital to profitability and efficiency is 0,124 (0,466 x 0,267).

The profitability indicators are important not only for indicating the capability of increasing invested funds but also because of indicating the business success measured as a ratio of revenues and specific balance sheet categories. According to that this group of financial performance indicators is significant for owners, managers and investors. Consequently, knowing the influence of intellectual capital on profitability can be very important and useful for analyzing and planning future business performance of a specific company. Since the efficiency indicators are calculated as revenues and expenses ratio, management is interested in getting this ratio high. In this sense the information about intellectual capital influence on those indicators can be of great help when analyzing past results and making decisions for future business.

Future studies should work out in more detailed and show the direct impact of intellectual capital on all items needed for calculating the profitability and efficiency indicators, or even all financial statements indicators.

## 6. CONCLUSION

Financial statements and indicators obtained by their analysis are still necessary and relevant for decision making, but certainly they can't be considered as the only one and complete one. Because of intellectual capital intangible and invisible characteristics it is still not possible to consider it in a traditional accounting manner, neither calculate its accounting value. But it is possible to determine its flows and influence on business performance, determining at the same time its contextual value. Information about mentioned flows and influence should be of great help for company's management indicating areas which should be improved or modified for successful business.

For the purpose of widening the process of business analysis and decision making by understanding the impact of company's intellectual capital, we have presented a model of intellectual capital influence on financial performance, precisely profitability and efficiency. Model proves the mutual influence between structural, relational and human capital as intellectual capital components, but also their direct and indirect influence, and thereby intellectual capital influence to selected profitability and efficiency indicators. Hypotheses about positive influence of developed informational and technological infrastructure on certain management skills and communication with clients and partners have been confirmed. Besides that, hypothesis about positive impact of communications with partners, considering them also as a knowledge source, on managers' skills and ability to adapt to new market situations, has also been confirmed. Therefore, through indirect influence of structural and relational capital, and direct influence through human capital, the hypothesis about positive and significant influence of intellectual capital on profitability and efficiency has been confirmed.

The resulting model should be tested on the samples of business entities for different industries because structure of intellectual capital components as well as financial analysis indicators will differentiate according to characteristics of business area. Such activities will not be possible without accounting experts' support, knowledge and competencies, confirming the need and contribution of accounting profession to this issue.

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## THE ROLE OF KNOWLEDGE PROCESSING MANAGEMENT IN SME DEVELOPMENT AND ECONOMIC GROWTH

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### ABSTRACT

*Small and medium enterprises (SMEs) contribute to economic development by virtue of their employers numbers and increasing share in Gross National Product(GNP). SMEs strengthen the resilience of the countries to face a competitive and challenging global environment. A large body of investigations has been done on the identification of factors which facilitate the creation or development of SMEs. One of the most important factors which affect the creation and development of SMEs is individuals' information processing. In this study, by using a theoretical model, we tried to determine the role of knowledge processing in recognizing those opportunities which lead to SME creation and development. Based on Olson's theory (1985) we considered two moods for cognitions styles which affect knowledge processing in entrepreneurs and lead to SME creation: intuition versus analysis and The result of factor analysis showed that opportunities are both born and create but not by accident, we found those entrepreneurs who develop and create SMEs have special characteristics in recognizing and processing the information. They can process the business related information much faster than typical people. This ability allows them to turn their knowledge into a large endowment of assets which form a new SME or extend an existing one.*

**Keywords:** economic growth, knowledge process, SMEs

### 1. INTRODUCTION

SME development is the process of recognizing profitable opportunities and founding an organization to exploit them. Information resources are scarce. Due to the asymmetry of information, individuals with higher alertness can grasp information and exploit it faster than others. Hence, one of the most important factors which contributes to SME development through opportunity recognition is the information processing style of an entrepreneur (Julien & Vaghely, 2002). During last three decades, scholars showed that knowledge processing style is mainly affected by the individual's cognitive styles. While an individual has an intention to create a venture, the cognitive styles may nurture some self-cognitions. Thus, this may lead to prevent or encourage a person to follow his/her intention (Timmons & Spinelli, 2005).

We know very little about the ways in which cognitive styles develop or inhibit the SME development through different information processing. Hence, the main objective of this study is to clarify the relation among SME development and knowledge processing style by considering the mediator role of different cognitive styles.

This study contributes in the SME development literature body in two main ways:

- 1- First of all, we present some theoretical facts for various kind of knowledge and information processing methods and determine its relation with different cognitive style.
- 2- Second, we try to prove the exact amount of the effects of independent variables (information processing styles) on SME development.

## **2. GARTNER'S CONCEPTUAL FRAMEWORK OF NEW VENTURE CREATION**

William Gartner, in his well-known article draw a question on SME development which is what are the main differences of each entrepreneur's venture with the others? He then stressed that for answering this question, one should integrate the constituents variables of various ventures.

He believed the creation of an entrepreneurial venture is a multidimensional phenomenon, entrepreneurs and their SMEs, their activities and responses and the environment which they have to operate are, at the same time, complicated and unique. Thus NVC (new venture creation) is highly depend on the components of the comprehensive model which he defines as shown on Figure 1 (next page).

As it is obvious in the model, information processing models contributes to venture creation through cognitive factors of individuals. We explain these factors in following parts.

## **2. VARIOUS KIND OF KNOWLEDGE FROM HAYEK'S VIEW**

Hayek (1937) determined two main kinds of knowledge:

- 1- The main body of knowledge which is scientific and sustainable and can be used through each field by those field's experts.
- 2- Diffused information about determined time and places which is important for individuals only because it help them to judge about different situations.

The second type of knowledge is the key for economic development in societies (Hayek, 1937).

## **3. INFORMATION PROCESSING AND SME'S DEVELOPMENT THROUGH ENTREPRENEURIAL OPPORTUNITY RECOGNITION**

How individuals' information processing can help them to identify entrepreneurial opportunities and venture creation, is the question which we are going to answer it in this section. Information processing is the dynamic combination of heuristic and algorithmic information.

Entrepreneurs as an information processor, use both of information type for business's opportunity identification. Recent studies introduced individual's information processing as the most important ingredient in NVC (Vaghely & Julien, 2010).

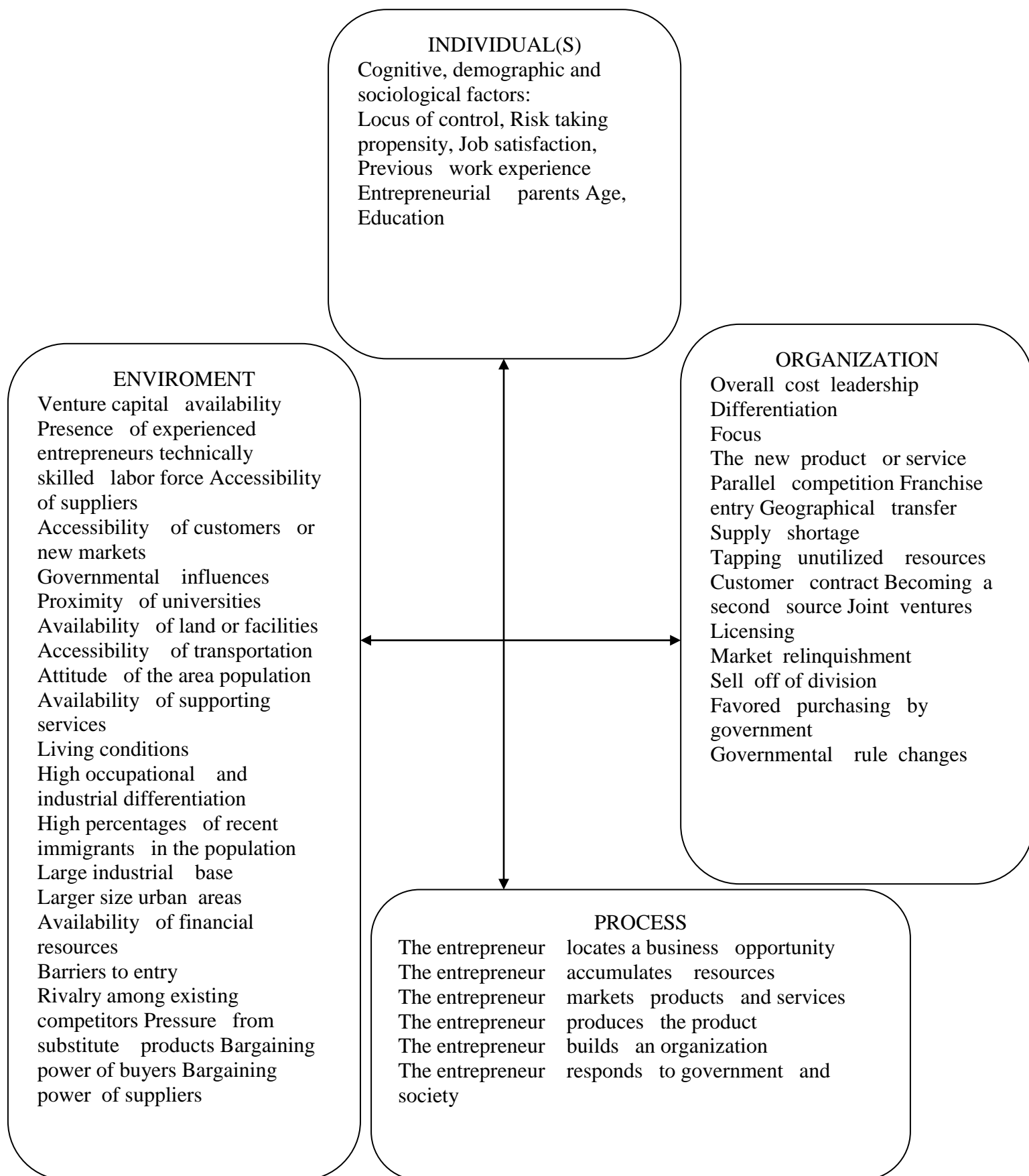


Figure1: the variables of conceptual framework for venture creation (Gartner, 1985)

#### 4. KEY VARIABLES IN KNOWLEDGE PROCESSING

##### Intuition

Psychologist of cognitive school define intuition as the immediate knowing of something without the conscious use of reasoning. Knowing is different of reasoning. The former is having a range of information while the latter is thinking logically and analytically. Intuition is something that usually accours when an individual is confronted to new situation(Csikszentmihalyi & Sawyer, 1995).

##### Knowledge

This term can be defiend as a combination of information, experience, context, interpretation and reflection. Knowledge is rich information, action-oriented and leads to sensemaking and intpretation(Davenport et al., 1998).

#### 5. SCHEMATA AND INFORMATION PROCESSING

While information turnning into some embedded, organized, interconnected knowledge dtructure, it leads to grater impact. On the other hand, individuals do not actively process all the information they confront, rather, they usually prefer to depend on a set of personal schemata to undrestand how to behave. That is why they can react to different business situation with relatively little active information reasoning. Thus it can help them to immidiate decision making about business creation activities, considering the information they recive(Keisler & Sproull, 1982).

Cognitive scripts are defined as schematic knowledge structures in individual`s mind, which determine one`s self-diagnosis appropriate behavior in specific situation(Gioia & Poole, 1984). Information processing models are part of such abstract structures. The function of cognitive scripts is to simplify information process, but ofcourse, individual`s biases interfeer into this process which affect judgment and decisions. The interference of biases through cognitive scripts can be both supportive or disincentive for business creation activities( Gioia & Manz, 1985).

#### 6. METHODOLOGY

This study assumes that information processing styles affect SME development activities through individual`s cognitive scripts. For estimating this assumption, we used multidimensional regression model. The indicators of independent and dependent variables are representend in Table 1 (next page). These indicators were measured by likert`s five- point scale. The main model of the study`s assumption is as below:

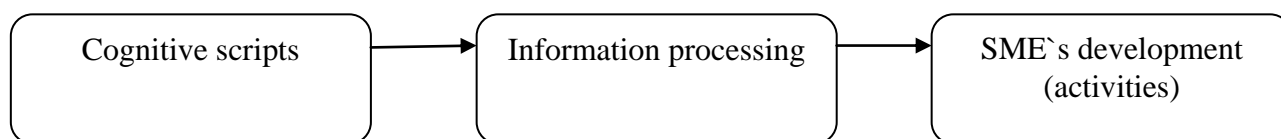


Figure 2: The main model of the study

The following questionnaire was designed according to the above-mentioned factors:

A)cognitive scripts:

- 1- to what extent do you use algorithmic process( or use of formula) for decision making?
- 2- To what extent do you use archives information for business activities?
- 3- How much do you let your employee use their self expriences of make decision in their own way?
- 4- How much do you use of trial and error method for business activities decisions?
- 5- How do you evaluate distinc employees` behaviour is usefull for your business activities?

B) SME`s development:

- 1- Did the number of new customers grow for your business within last 3 months?
- 2- Did the unite of products sales grow for your business within last 3 months?
- 3- Did the total sales of all product`s categories increase within last 3 months?

These questions were designed into structured questionnaires and were filled by the 25 techno-entrepreneurs in random sample.

## 7. RESULT

### Regression analysis

To be confidence about using regression analysis, the Durbin-Watson test was estimated. The result for this test is 0.68 which is reliable. We used enter method for regression analysis. The adjusted R square is 0.825 which is very significant and indicates that 82% of the variability in the dependent variable is explained by the regression.

In coefficients table, all the constant and coefficients are significant. Beta coefficients for all independents variables (use of algorithmic process, use of archived information, use of employees` expriences in their own way, use of trial and error method, benefit of distinct employee) are 0.162, 0.195, 0.645, 0.236 and 0.449. The regression equation for all dependent and independents variables is as follow:

$$(Y = -4.82 + 0.86x_1 + 2.03x_2 + 0.43x_3 + 0.85x_4 + 1.06x_5)$$

(1)

### Friedman test

Friedman test is used to rank the independent variables. The rank of the variables with this test is as follow:

*Table1: Friedman`s estimation results*

Variables	mean	Rank
use of algorithmic process	3.96	5
use of archived information	3.22	4
use of employees` expriences in their own way	1.24	2
use of trial and error method	1.1	1
benefit of distinct employee	2.4	3

It means that the significance of these variables on dependent one is as shown above. Table 3 shows the software results for Friedman test.

Thus the ultimate model of the study will be as follow:

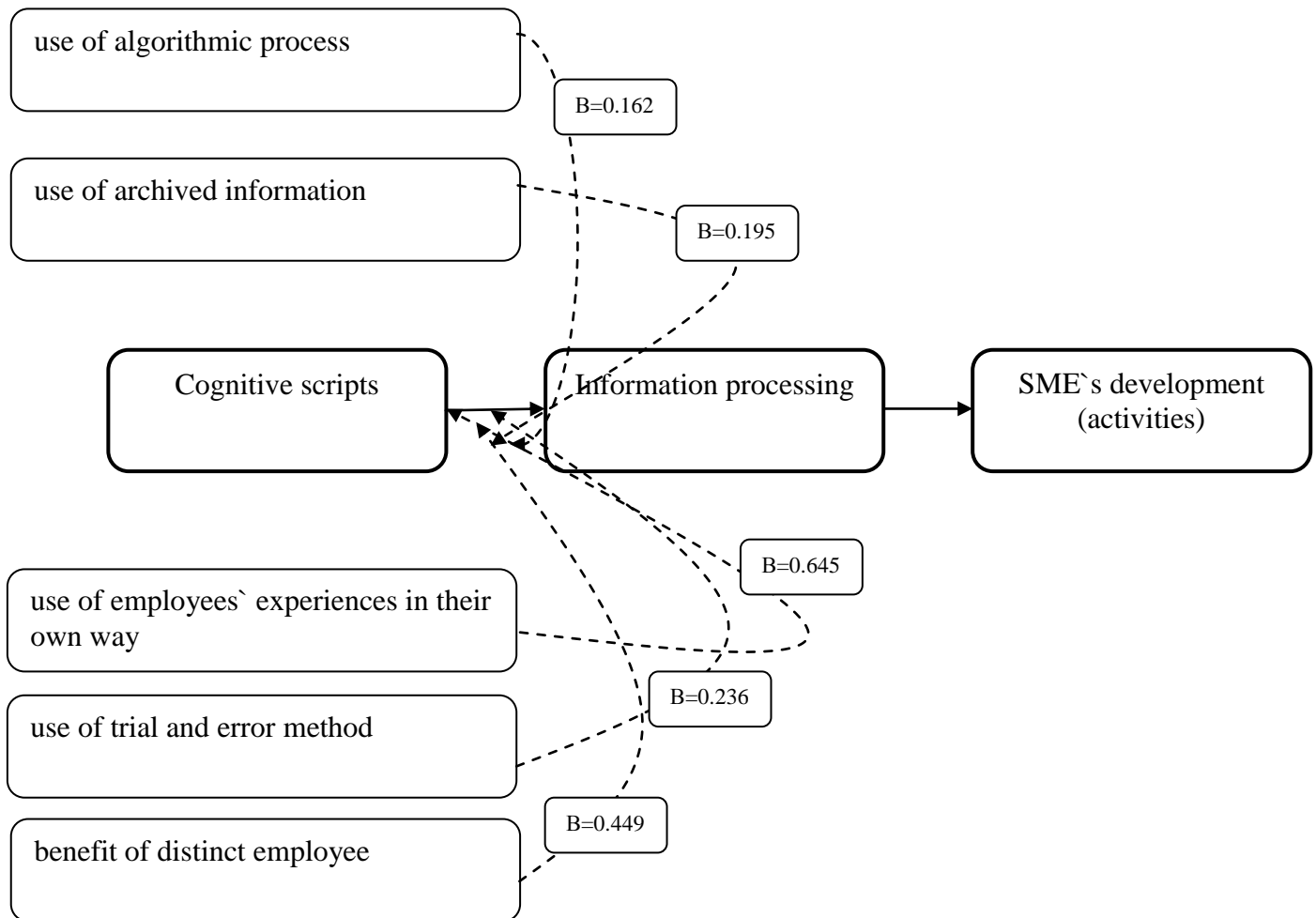


Figure3: the ultimate model of the study

## 8. DISCUSSION AND CONCLUSION

In this study, we tried to identify the critical role of cognitive scripts in information processing and its effects on business developing activities, especially opportunity identification. We discussed that there is a little amount of knowledge about the role of individual as an information processor. Individuals grasp knowledge from environment and process it to identify a profitable business opportunity. Thus, it is obvious if there is not information processing, there will not be an opportunity too. However, this process is not as simple as it looks. Scholars believe, individuals' biases affect their knowledge processing through their cognitive scripts. This is the key functionality which has been discussed less than other topics.

In order to estimate the effect of information processing on business developing via cognitive scripts, we designed a conceptual framework (figure2) and introduced some variables regarding literature. As regression analysis show, because of the high amount for  $\beta$  coefficient in three heuristic variables (use of employees' experiences in their own way, use of trial and error method, benefit of distinct employee), it can be concluded that entrepreneurs in our sample benefit from heuristic information processing in their business development activities. Meanwhile, this result will prove the positive relation between dependent and independent

variables in the study's assumption. Although we tried to shed a light on the subject of cognitive scripts and its role in information processing and business development, there is still much more which should be studied in future researches.

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## ENTREPRENEURIAL ORIENTATION AND BUSINESS STRATEGY – ANALYSIS OF ENTREPRENEURIAL OPINIONS IN SERBIA

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### ABSTRACT

*This paper resulted from a doctoral dissertation, which had one of the goals to analyze empirical research and to determine which strategic objectives entrepreneurs and managers consider most important for the success of the business. Moreover, the paper analyses strategic issues that entrepreneurs and managers are facing with each day; problem of creating long-term relationships with customers, concern of improving the quality of products and services, dispute how to increase consumer satisfaction etc. In the current, difficult economic conditions entrepreneurs and managers are forced to re-examine how they operate and to determine its strategic objectives and their importance to the survival of the business. Therefore, the aim of the paper is to analyze empirical research and to determine which strategic objectives entrepreneurs and managers consider most important for the success of the business. The research for this paper was conducted using a questionnaire on a sample of companies from Serbia.*

**Keywords:** business strategy, entrepreneurship, entrepreneurial orientation, management

### 1. INTRODUCTION

A strategy represents a general framework for decision-making process in business enterprises. Today we recognize the global strategy on entrepreneurial or corporate level which represents the highest level of management and resulting with selected concept of strategic development which includes global goals, identifying strategic business areas, and containing the global financial development projection. On the lower level is a business strategy that is relevant to all market segments which produce profits and are located within the individual organizational units.

Entrepreneurial orientation is closely related to strategic management. Although the top management does not impose, it reflects the strategic direction of the behavior of the various levels of management. Adaptation of companies to changing business conditions includes an entrepreneurial aspect of the strategy, i.e. a strategy that can help company to resolve internal conflicts between integration, flexibility and innovation. In the current, difficult economic conditions entrepreneurs are forced to re-examine how they operate and determine its strategic objectives and their importance to the survival of the business. Strategic advantages of enterprises are constantly competing in product improvement, cost reduction, and a higher level of service delivery to customers. Fighting for survival and business growth is continuous and companies compete to their competitive advantage. The business strategy of entrepreneurs should develop and capitalize on these advantages in the market.



## 2. ANALYSIS OF EMPIRICAL RESEARCH

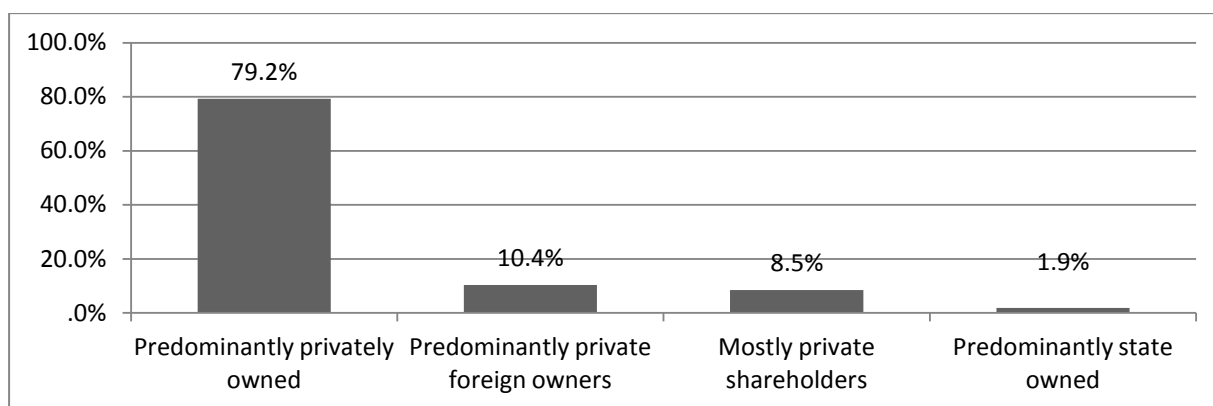
Scientific objective of this paper is to determine which strategic objectives, according to the entrepreneurs, hold the key to business success. The research wants to contribute to the development of knowledge about the importance of setting up strategic business objectives as a source of competitive advantage, but also as a way of shaping a modern and successful entrepreneur. Empirical research was conducted on a sample of companies in Serbia. The survey questionnaire was sent to 320 companies that have been selected at random. The questionnaire was answered by 106 respondents which makes the return rate of 33.13 percent. The collected data were processed using the statistical program SPSS 20.

The following tables and graphs indicate the structure of the analyzed companies according to baseline characteristics: basic activity, form of ownership, and an analysis of the market in which the company operates. Table 1 shows the structure of the enterprises considering its core business. Most of the respondents, 34.9 percent, are engaged in wholesale and retail trade. Immediately after the trade activities is the manufacturing industry with 18.9 percent of the surveyed companies. In third place is a construction activity which makes 8.5 percent of the analyzed companies.

*Table 1: Structure of enterprises by industry (authors' research)*

Activity	Number	%
Agriculture, forestry and fishing industry	3	2,8
Manufacturing industry	20	18,9
Electricity, gas, steam and air conditioning industry	1	0,9
Construction industry	9	8,5
Wholesale and retail trade, repair of motor vehicles and motorcycles	37	34,9
Transport and storage industry	6	5,7
Accommodation providers and food service industry	6	5,7
Information and communication industry	4	3,8
Financial and insurance activities	5	4,7
Real estate industry	2	1,9
Professional, scientific and technical activities	5	4,7
Education industry	1	0,9
Human health and social care industry	1	0,9
Arts, entertainment and recreation industry	0	0,0
Other service activities	6	5,7
Total	106	100

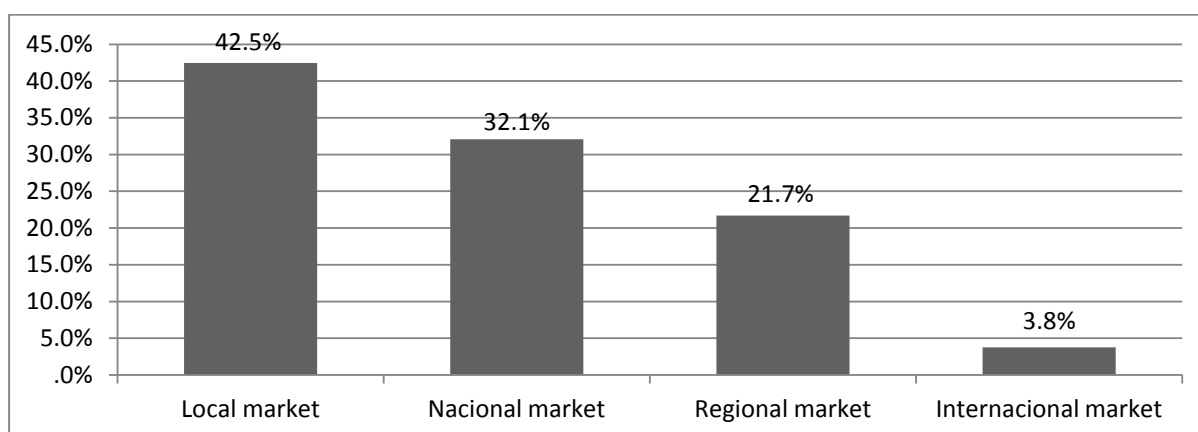
Figure 1 shows the ownership structure of the analyzed enterprises. The analysis shows that enterprises are predominantly private owned where there are no mixed ownership. In the sample there is 79.2 percent of privately domestic owned enterprises, 8.5 percent of enterprises in the private shareholders, 10.4 percent of enterprises in the private foreign ownership and 1.9 percent of enterprises in state ownership.



*Figure 1: The ownership structure of the analyzed enterprises (authors' research)*

In Figure 2 we see that most of the companies operating in the local market, 42.5 percent, followed by companies that operate only on the national market, 32.1 percent, while companies that operate in regional markets constitute a bit more than one fifth of the total number of respondents.

Companies that are active in the international market make up 3.8 percent of the surveyed companies. In this survey question, the local market is defined as the one at the county level, the national market is defined as a market in the state, the regional market is defined as the market of former Yugoslavia and the international market is defined as the market worldwide.



*Figure 2: Structure of the companies regarding to the operating markets (authors' research)*

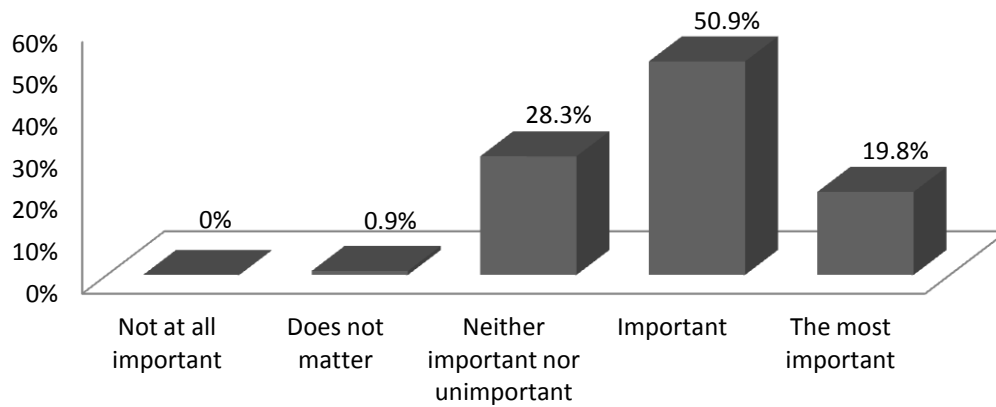
Table 2 presents data on the characteristics of the sample considering age and sex structure of the respondents, their qualifications, and position within the company. Most of the responders were between the ages 36 to 50 years, 64.2 percent. 29.2 percent of the respondents were up to age of 35 years, while 5.7 percent of respondents are between the ages of 51 and 65 years. Only 1 responder was over 65 years. Furthermore, most of the respondents are male, 81.1 percent. Given the degree most of the respondents have a Bachelor degree, 64.2 percent. 27.4 percent of respondents have a High school diploma, and 8.5 percent of responder's have professional Master's degree. None of the responder has PhD or Master's of Science degree. Table 2 also analyzes the structure of respondents according to the length of working life in the company. Most of the respondents have 5 to 10 years of working experience, 47.2 percent, followed by respondents with 2 to 5 years of working experience, 23.6 percent, while the proportion of respondents up to 2 years of working experience is 4.7 percent. Most of the responders were between the ages 36 to 50 years, 64.2 percent. 29.2 percent of the

respondents were up to age of 35 years, while 5.7 percent of respondents are between the ages of 51 and 65 years. Only 1 responder was over 65 years. Furthermore, most of the respondents are male, 81.1 percent. Given the degree most of the respondents have a Bachelor degree, 64.2 percent. 27.4 percent of respondents have a High school diploma, and 8.5 percent of responder's have professional Master's degree. None of the responder has PhD or Master's of Science degree. Table 2 also analyzes the structure of respondents according to the length of working life in the company. Most of the respondents have 5 to 10 years of working experience, 47.2 percent, followed by respondents with 2 to 5 years of working experience, 23.6 percent, while the proportion of respondents up to 2 years of working experience is 4.7 percent. Those responders with 10 to 20 years of working experience make 21.7 percent, while only 2.8 percent of respondents have working experience in the company more than 20 years. With regard to the position within the company 41.5 percent of respondents were business owners, while the vast majority of respondents belonging to middle and lower level management.

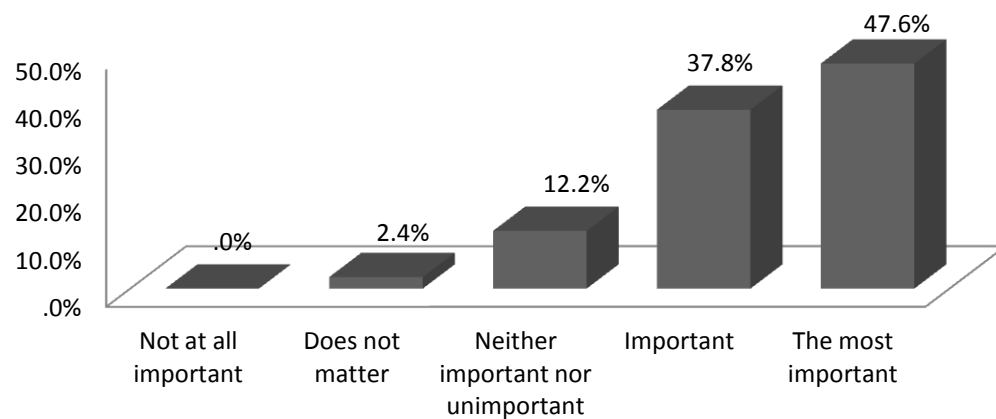
*Table 2: Personal information on the subjects covered in the survey (authors' research)*

		Absolute frequency	Percentage of frequency
Age	Up to 35 years	31	29,2%
	36-50 years	68	64,2%
	51-65 years	6	5,7%
	Over 65 years	1	0,9%
Sex	Male	86	81,1%
	Female	20	18,9%
Education qualifications	High school	29	27,4%
	Bachelor Degree	68	64,2%
	Professional master's Degree	9	8,5%
	Master of Science	0	0,0%
	Doctorate of Science	0	0,0%
Working experience	Up to 2 years	5	4,7%
	2-5 years	25	23,6%
	5-10 years	50	47,2%
	10-20 years	23	21,7%
	Over 20 years	3	2,8%
Position in company	Owner	44	41,5%
	Member of the Supervisory Board	0	0,0%
	Member of the Board	0	0,0%
	Middle level management	38	35,8%
	Lower level management	23	21,7%
	Employee	1	0,9%

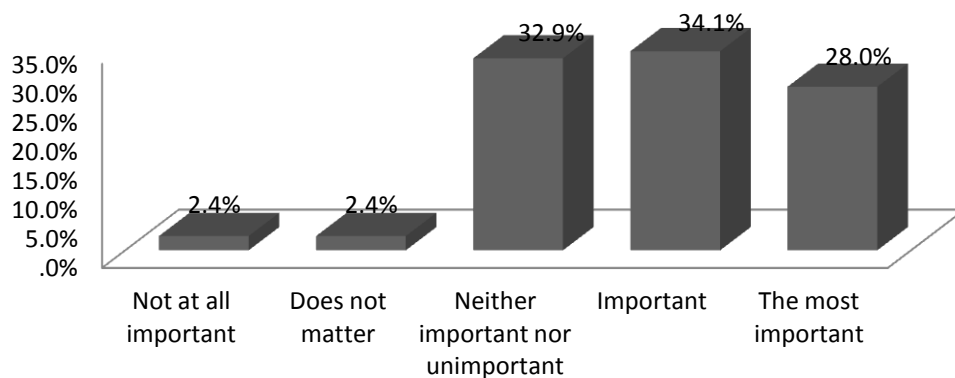
The importance of strategic objectives in the company was examined by using Likert scale from 1 to 5. Respondents were asked to estimate how much a particular strategic objective is important for their companies. The score 1 means that the objective is not important for the company, and the score 5 means that the objective is extremely important for the company. The following charts show the most important strategic objectives for the companies in Serbia.



*Figure 3: The importance of the strategic objective of creating long-term relationships with customers (authors' research)*



*Figure 4: The importance of the strategic objective of improving the quality of products and services (authors' research)*



*Figure 5: The importance of the strategic objective of increasing consumer satisfaction (authors' research)*

Figures 3, 4 and 5 are showing how the respondents rate the importance of the strategic objectives of the company; "Creating long-term relationships with customers", "Improving the quality of products and services", and "Increasing consumer satisfaction". With these three objectives most of the respondents felt that these are just the most important strategic objectives for their business enterprise. On average, for the aforementioned strategic objectives, the vast majority of respondents believe that the stated objectives are important or the most important for their business. Through the analysis of these three charts we can conclude that majority of companies nowadays are formed because of the purpose of increasing customer satisfaction, because of the creation of long-term relationships with people, and because of the improvement of goods and services in the market. However, it is interesting to notice that responders did not value strategic objective of long-term profitability as the most important objective for them. That objective is only at ninth place in this survey. The following figures show the less important strategic objectives for the companies in Serbia.

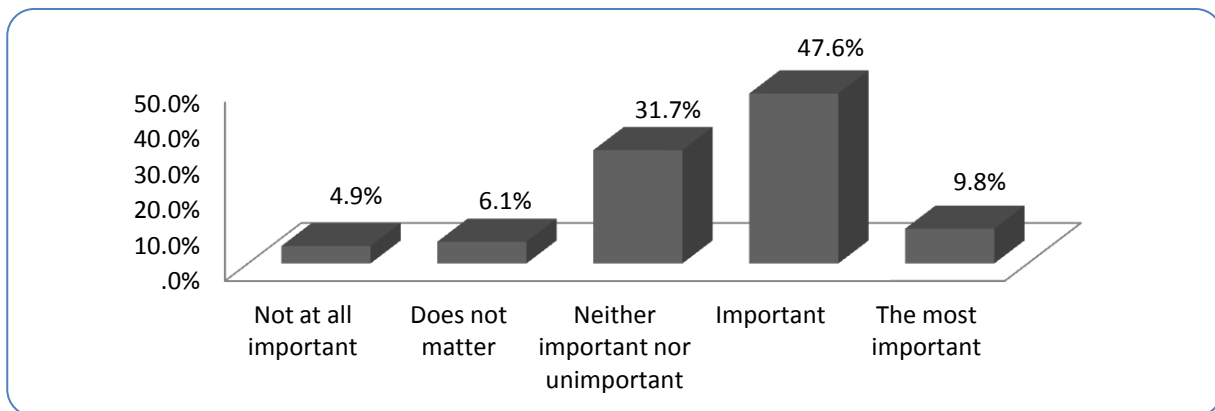


Figure 6: The importance of the strategic objective of increasing challenges (authors' research)

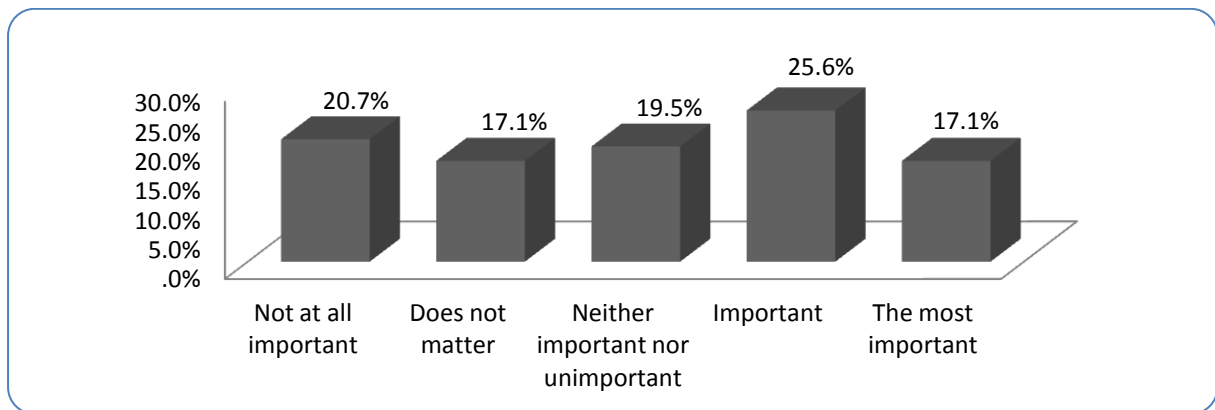


Figure 7: The importance of the strategic objective of developing our own brand (authors' research)

On Figures 6 and 7 we see that for the responders the strategic objectives „Increasing challenges" and "Developing our own brand" have very little importance. In both of these strategic objectives very high percentage of respondents think that these objectives are neither important nor unimportant for the company (31.7 and 19.5 percent), i.e., responders do not have formed opinion

about these strategic objectives. Furthermore, very small number of responders thinks that these objectives are the most important objectives for their companies (9.8 and 17.1 percent). If we analyze responders who do not matter for these objectives and to whom these objectives represent “not at all important” scale we can see significant percentages (4.9 and 20.7 percent).

Table 3 shows descriptive analysis of the importance of strategic objectives for the companies in Serbia. Besides the measures of mean and dispersion ratio this table provides the values of the coefficient of asymmetry. Asymmetry coefficient is used to determine the distribution of deviations from the normal distribution of variables. According to theory the asymmetry coefficients, analyzed between -1 and +1, indicating that the distribution of these variables approaches a normal distribution. Asymmetry coefficients for all strategic objectives are satisfactory. All analyzed strategic objectives are evaluated at least once with value 5. Eight strategic objectives are neither once rated as totally irrelevant and these objectives are: long-term profitability, improvement of product quality, reducing costs in relation to competition, increased customer satisfaction, improving image of the organization, creating long-term relationships with customers, employee development and satisfaction, and increase market share.

*Table 3: Descriptive analysis of the importance of strategic objectives for companies in Serbia (authors' research)*

	N	Min	Max	Mod	Arithmetic mean	Standard deviation	Asymmetry coefficient
Long-term profitability	106	2	5	3	3,64	0,978	0,154
Improving the quality of products / services	106	2	5	4	3,90	0,768	-0,335
Reducing costs in relation to the competition	106	2	5	3	3,76	0,952	-0,116
Expanding the diversity of products	106	1	5	4	3,50	0,886	-0,585
Increasing consumer satisfaction	106	2	5	4	3,92	0,782	-0,093
Improving image of the organization	106	2	5	4	3,90	0,716	-0,003
Creating long-term relationships with customers	106	2	5	4	4,00	0,840	-0,295
Development of own brand	106	1	5	3	3,16	1,180	-0,105
Taking the lead market position	106	1	5	4	3,70	0,896	-0,333
Development and satisfaction of employees	106	2	5	4	3,85	0,871	-0,229
Increase market share	106	2	5	4	3,80	0,810	-0,169
Increasing challenges	106	1	5	3	3,39	0,900	0,028
Other	106	1	5	1	1,83	1,037	1,027

### 3. CONCLUSION

Entrepreneurship and entrepreneurial orientation are closely related to strategic management. Although the top management does not impose, it reflects the strategic direction of the behavior of the various levels of management. Integration of entrepreneurship with strategy has two aspects: a strategy for entrepreneurs and entrepreneurial strategy. Strategy for entrepreneurs addresses the needs of developing entrepreneurial activity, while entrepreneurial strategy involves the use of creativity and entrepreneurial thinking in developing the company's strategy. Adaptation to changing business conditions involves the entrepreneurial aspect of business strategy. Strategy can help the company to resolve internal conflicts between integration, flexibility and innovation.

Through conducted research we recognize that all entrepreneurs do not share same opinion about the importance of certain strategic objectives. Responders from Serbia gave the averaged highest grade to strategic goal of creating long-term relationships with customers (4.00). The importance of this objective for the Serbian company points the value of mode (most frequent score 4). The next objective which importance is evaluated on average high score is the strategic objectives of increasing consumer satisfaction (3.92). Furthermore, the most common score for this objective is also 4. The third objective that responders found very important is strategic objective of improving the quality of products and services. For this objective the average grade is 3.90 and mode is 4. It is also interesting to note that the most common value for the objective of "long-term profitability" is just 3 which is very unusual for entrepreneurs.

It can be concluded that for the majority of Serbian companies the most important is to achieve strategic objectives: creating a long-term relationships with customers, improving the quality of products and services, and goal of increasing consumer satisfaction.

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## **BENEFITS AND PERSPECTIVES OF SMALL AND MEDIUM-SIZED ENTERPRISES IN ALBANIA AND KOSOVO**

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### **ABSTRACT**

*Small and medium enterprises represent a significant portion of GDP and are recognized as pillars of Economy in Albania and Kosovo. They are the first generators of employment and have a positive impact on revenue from taxes and fees. SMEs are the main bearer of new technology and innovation in the field of economics and the development and exchange of experiences between countries and cultures.*

*The main problems facing the SMEs are administrative barriers, project financing, lack of specialists in specific profiles and the fact that Albania and Kosovo are places where there is still much work to be done to improve the high degree of informality. Both countries are undergoing a transition as post-communist countries after receipt of independence from Serbia. Another important aspect is international competition from neighboring countries. This competition should be considered in light of coverage of domestic needs of goods and services as well as opportunities to supply foreign markets.*

*Despite the difficulties, benefits for these countries SMEs have a very positive impact, both in terms of macro and microeconomics as main drivers of economic growth. SME perspective is also conditioned by the political situation in the country. Granting of candidate status for access to the European Union will have a very positive impact and create facilities for SMEs to facilitate financing procedures as well as benefiting funds financed by the EU, facilitating the administrative bureaucracies, movement of human capital for training and exchange of experiences in other countries in the EU.*

**Keywords:** *Employment, Transition, Informality, Development, GDP*

### **1. INTRODUCTION**

Small and medium enterprises have an important role in the economy of Albania and Kosovo, because they provide the largest contribution to GDP and social life of the population. Development of the SME sector is considered to be one of the most efficient economies in transition, which generates sustainable economic growth, employment and poverty reduction, not only in transition countries like Albania and Kosovo, but in the whole European economy. This is one of the reasons why the European Union has reviewed the definition of SMEs by creating facilities for these types of businesses because the 25 European countries that counted 23 million SMEs provide around 75 million jobs and represent 99% of enterprises<sup>126</sup>.

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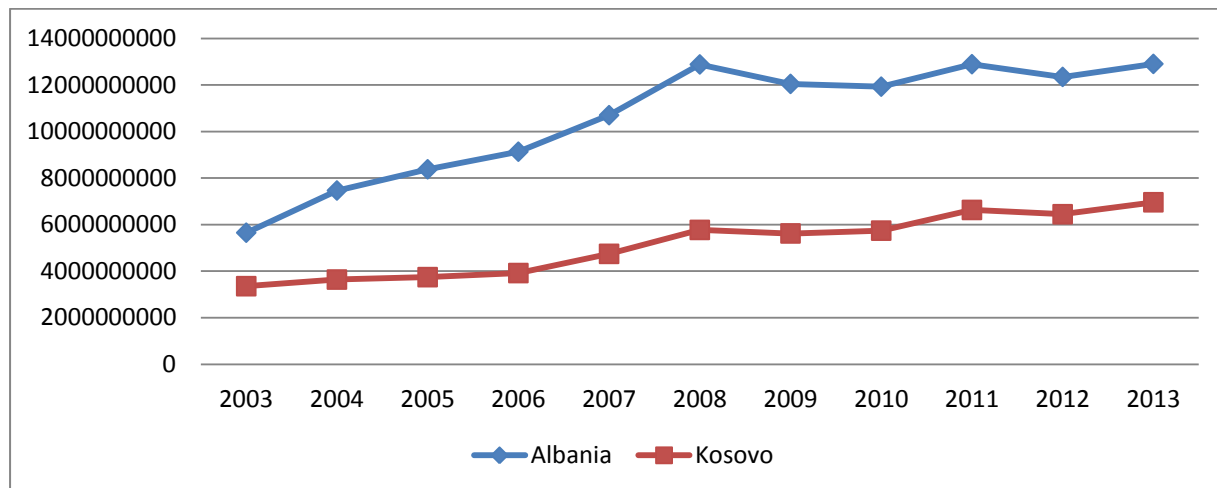
<sup>126</sup> The new SME definition -User guide and model declaration, European Commission



SMEs are seen as the main sources for the formation of entrepreneurial skills, innovation and improvement of other macroeconomic factors. In this analysis we will identify the barriers, benefits and prospects of these businesses according to the respective countries.

## 2. MACRO-ECONOMIC SITUATION

Lately the economic growth has been positive, presenting a growing trend of gross domestic product (GDP), presented as follows:



*Chart 1: Gross Domestic Product (GDP) in Albania and Kosovo (World Bank)*

By the end of the de-stabilization period caused as a result of the collapse of financial speculation in 1997, tax revenues as a percentage of GDP in Albania had a growing trend in the coming years, with the most pronounced increase until 2008. By January 1st it became effective VAT rate of 10%, with the lowest in the region and Western Europe. The revenue collected to GDP ratio reached its highest level in 2008 by 9.8%<sup>127</sup>, year out which we faced the effects of declining consumption and deepening the trade balance (Flow of Goods in Foreign Trade) as a result of the gross domestic product (GDP).

The Income tax structure in Albania is similar to what most countries call tax corporate income (Corporate Income Tax). The essential difference is that with international practice or not being subject to income tax in Albania depends on business turnover rather than the legal form of the organization of business activity. In 2009, it was the first year of the impact of global economy and financial crisis in the Albanian economy, although with significantly less effect in the region. The slower pace of economic growth was reflected in the ability to contribute to the fees and charges to individuals and businesses, both in terms of direct taxation (income) and indirect tax on it through the reduction of the consumption of goods and services. The global financial crisis has had slight impact on GDP growth in Kosovo, slowing to 4% in 2009. An important role in the GDP of these countries plays and emigrant remittances, which due to crisis financial declined drastically in recent years.

<sup>127</sup> [www.minfin.gov.al](http://www.minfin.gov.al)

### 3. THE DEVELOPMENTS IN THE SME SECTORS:

According to the legislation of Albania and Kosovo about SME is defined as what it is in accordance with the following parameters (Figure 1.)

Enterprise size	Number of employees (Albania)	Number of employees (Kosovo)	Annual turnover Albania
<b>Micro</b>	1-5	1-9	>10 mln lek
<b>Small</b>	6-20	10 - 49	>80 mln lek
<b>Medium</b>	21-80	50-249	>250 mln lek

*Figure 1: SME-s Definition in Albania<sup>128</sup> and Kosovo<sup>129</sup>*

The elements which are defined by the size of these businesses are in compliance with European standards and stating the number of employees and annual turnover the latter is a change from the standard European economic power based on these two countries. It is also worth mentioning that the difference between a small and medium business in Kosovo is defined only by the number of employees without any annual turnover specifications.

The economy in Kosovo and Albania is dominated by small-micro enterprises. The domination has been an undeniable fact throughout the transition period and reflecting the structure of both economies. About 90% of enterprises have from 1 to 4 employees. In Albania, the bulk, 69%, are self-employed while only large enterprises have 50 or more employees representing 1.3% of total enterprises, but their contribution to employment is very significant 26.7%. About 52% of active enterprises are concentrated in the districts of Tirana and Durrës<sup>130</sup>. The industry and other services such as education, health and financial intermediaries, represent 76.5% of enterprises with 50 or more employees.

In 2013, according to the Registry of Enterprises there are 111,083 enterprises that conduct economic activity.

These enterprises mainly operate in the following sectors: From 111,083, a very considerable number of SMEs are estimated at 109,677. According to the data of the two countries the statistics notice the sector of trade in goods and services which occupies the most important share of the economic activity.

<sup>128</sup> Ligje.info (Ligji. Nr.8957, datë 17.10.2002 )

<sup>129</sup> <http://www.mti-ks.org>

<sup>130</sup> INSTAT Raport 2014

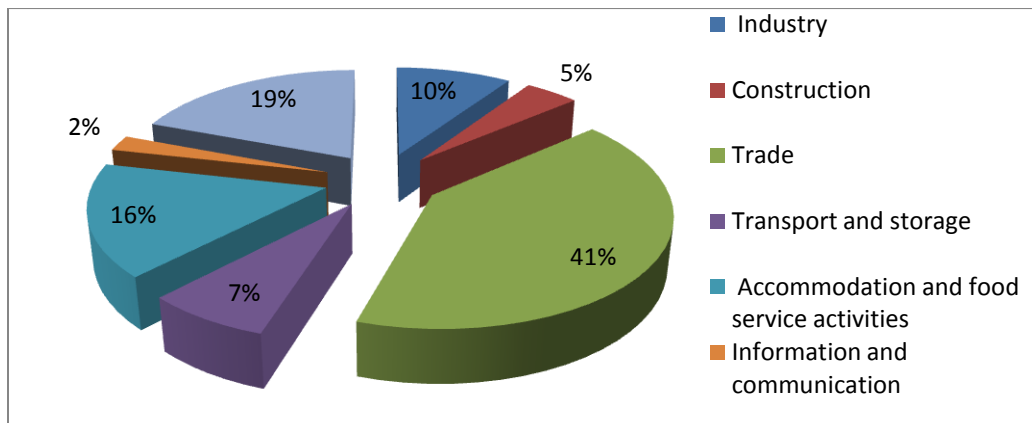


Chart 2 : Active SME by economic activity in Albania (INSTAT Albania, Report 2013)<sup>131</sup>

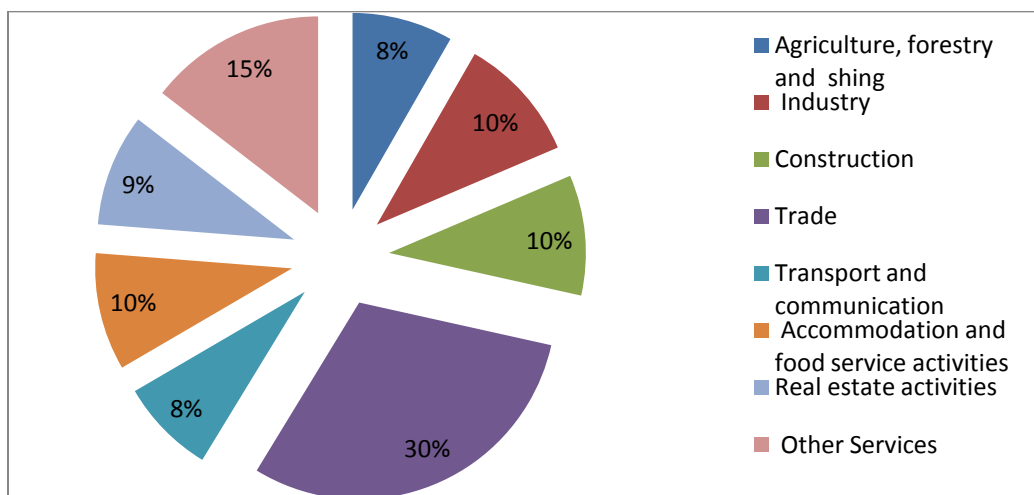


Chart 3 : Active SME by economic activity in Kosovo (Statistical Agency of Kosovo, Report 2013)<sup>132</sup>

By analyzing various studies conducted in both countries and the reports produced by the respective institutes, as well as the development of strategies pursued by the ministries of economy and trade of both countries' respective international institutions and publications. The challenges facing SME encounters in these two countries are: the informal economy, the protection of the legal system, problems in the right to property and difficulties with obtaining construction permit. A barrier which affects the development of SME financing their remains. In the graph below are presented some of the main barriers.

<sup>131</sup> <http://www.instat.gov.al/al/figures/statistical-databases.aspx>

<sup>132</sup> [http://ask.rks-gov.net/publikimet/cat\\_view/12-regjistri-statistikor-i-bizneseve](http://ask.rks-gov.net/publikimet/cat_view/12-regjistri-statistikor-i-bizneseve)

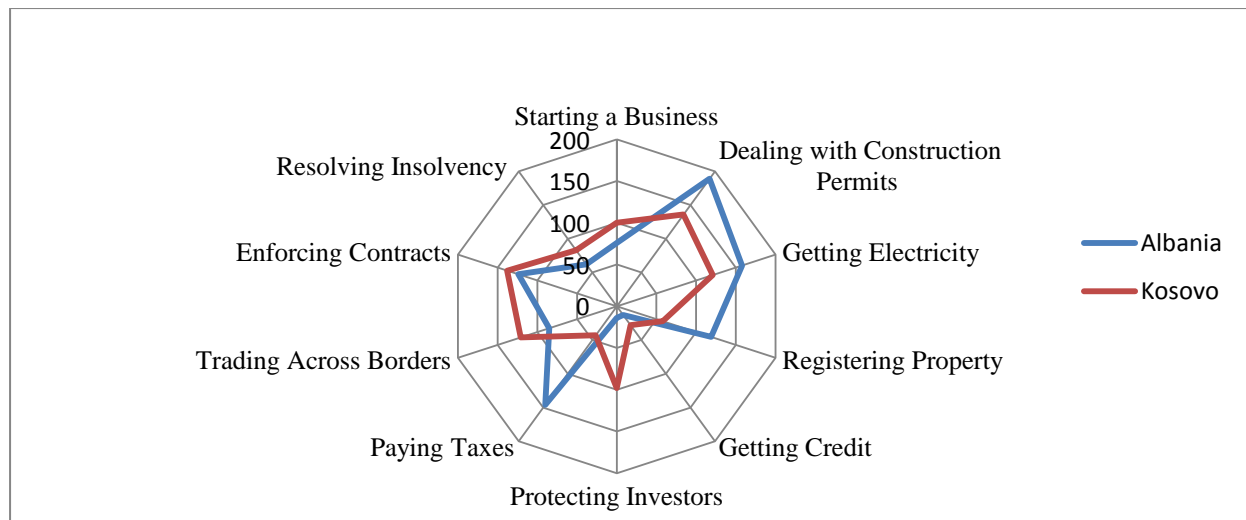


Chart 4: The Business Environment in Albania and Kosovo (Doing Business, Report 2014)<sup>133</sup>

Although the level of financing SMEs have increased in recent years, it is still considered insufficient to promote a rapid development of this sector. Also SMEs also face a lot of new difficulties obtaining loans from the banking sector, where the cost of the loan is relatively high. Bank requirements are not favorable to businesses, particularly the high level of 120 -150 % collateral and high interest loan required for investment in machinery and equipment. What is missing is supporting policies for freshly started businesses. There is a lack of alternative financial resources for SMEs as venture capital, innovation vouchers, and business angels. The same situation has been observed in Kosovo. Despite the increase in the number of second-tier banks and the increase in banking competition, high interest loans remain high, creating a barrier for business investments. This type of contraction began in 2009 and continues to cause problems in the economic system.

### 3.1. The Internet and electronic commerce

In recent years in Albania, the number of SMEs that use the services of second-generation Internet has grown, especially by the younger generation of entrepreneurs and managers. According to AEPC 2011, online coverage rate is over 50%. This is much lower than the 67.6% of the EU countries. With all the improvements in the legal framework only 10,000 of 100,687 active businesses have broadband Internet. Using the Internet and other electronic services is helping businesses in Albania and Kosovo by educating the population. Using modern equipment cuts cost and time in business activity, but still remains very limited for many reasons. This has to do, not only with the location of the business or whether they have access to internet services, but also to the amenities offered and installation costs. According to a report by the Institute for Economic Studies, the state of business in Albania is still primitive and requires hard work performed by the individuals or owners.

The lower level of R&D and human resources (especially in technical fields) promote a culture of entrepreneurship and education. Human resources and innovation are closely linked. The use of human resources is essential for economic progress of the country. Learning about

<sup>133</sup> <http://www.doingbusiness.org/>

entrepreneurship is one of the key competences at a European level and should be included in all levels of education including primary, secondary, medium and high level education. This is a long-term reform. The process involves not only curriculum reform, but also a number of training programs to promote a culture of entrepreneurship.

The legal system in both countries is in an enforcement phase, primarily supporting international and the European Union establishments. One of the objectives is creating a justice system that is more efficient, reliable and motivated in promoting local business climate and attracting foreign investment.

#### **4. THE PERSPECTIVE OF SMEs IN ALBANIA AND KOSOVO**

Given the impact of SMEs in the economic development of a country and its effect on GDP and employment, the promotion of innovation and technology should have greater impact on policies pursued in this sector by improving barriers mentioned above. In case of facilitating the financing of businesses, lending and funding schemes would be of a great interest for businesses in several cities and for different purposes such as: working capital, investments in inventory and immovable assets. Another alternative is to attract foreign investment, given that both countries pose a high potential for development. One advantage is that both countries have created agencies relevant to promoting and developing. AIDA and KIES are respected enterprises that facilitate administrative procedures and policies and support SMEs through various grants to improve their activity.

Development of innovation and technology is of great interest in spite of a lack of business incubators. Albania is now part of the European Network of SMEs and EEN. Implementing proactive policies to support building capacity for technology companies, particularly for SMEs, remains a challenge for the 2013-2020. This positive aspect has sparked the creation of a business Innovation Centre (BIC) which will contribute to the SME development process by combining national and regional sources of knowledge and innovation into a functional network of competencies. Regional knowledge groups consisting of Public Universities, Institutes, Regional Development Agencies, Municipal Business Centers, Business Associations and Private colleges should become a functional network. We should also focus on increasing the intellectual capacity and the preparation of professionals, improving the educational system higher education and professional training.

#### **5. CONCLUSION**

Albania and Kosovo are considered markets with high growth potential in the Balkan area. Despite the global economic slowdown, they have managed to maintain macroeconomic stability. They have been in the attention of European Union countries most affected by the crisis and in particular the countries that are geographically closer to these two states, as has a strategic geographical location and a favorable climate for the development of different activities. Albania has favorable infrastructure, as it relates to other states in sea, air and ground. Macroeconomic and political situation is favorable. The tax rate is low and favorable for promoting foreign investment. In recent years the governments of both countries have taken initiatives to encourage new investments, such as Albania 1 Euro and are associated interactions with neighboring countries like Greece and Italy, countries that partner with busy level economic cooperation to a higher level in%. Granting of candidate status for Albania in Europe, is a very important step as it increases trust towards institutions and the economy in general often named as informal and with a high degree of informality. Kosovo presents a particular interest for investors, as though

not a part of the European Union, the official currency is the Euro, it favors the rock of goods to other countries. Infrastructure is developed and the contemporary. Kosovo Co-operation relations with the United States to facilitate exports. Both states represent a favorable climate and potential for investment and development associated with the request and workforce. The average age of the population is under 35 years old and literate. In Kosovo education was developed by the American and British standards, while in Albania according to European standards, where most spoken languages are English, Italian, French. Recent years has been to open the Turkish language, because Turkish investment as the number towards these two countries has increased considerably in recent years. In both countries the sectors with potential for development are: service sector, mineral industry, tourism, energy and agribusiness, as agricultural land and climate are favorable situation for the development of all plants. From studies done, we think it would be more favorable for the economy of both countries, like Albania and Kosovo to operate as two separate states, but as a common market, because they have the same characteristics and potential, but having a small area compared to other states this limits the level of exports because they cannot adequately satisfy external demand. Knowing that Kosovo imports over 90% of the products, a considerable part of Albania would be favorable operating as a single market to avoid customs barriers or other costs.

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## **ROLE OF SMEs IN THE ECONOMIC AND SOCIAL DEVELOPMENT: CASE OF TERROIR PRODUCTS IN SOUSS MASSA DRAA REGION (MOROCCO)**

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### **ABSTRACT**

*The study of entrepreneurship as well as Small and Medium-sized Enterprises (SMEs) interests more and more the practitioners, politicians and academics around the world seen their weight in the global economy. Small and Medium-sized Enterprises have no universal definition but are rather defined by their size based on their number of employees, Balance sheet total and Turnover whose boundaries differ from one country to another. Driven by entrepreneurship, SMEs represent a real lever for economic and social growth especially in emerging economies level. Now, it is generally accepted that Small and Medium-sized Enterprises are endowed with a potential of innovation, job creation and income growth. Thus, in a global context, SMEs in developing countries try to survive and to expand their activities on other markets which is not an easy task. So, the difficulty of the context in which they operate makes it a model worth studying. Thus, our paper aims to draw up the profile of SME entrepreneurs in the field of terroir products in Souss Massa Draa (Morocco) region in order to understand their main motivations and aspirations. So we shall clarify the main obstacles facing these entrepreneurs on one hand and the important role they play in Moroccan economy on the other hand. Our study suggests adopting a strategy based on network weaving to better promote terroir products and contribute to the sustainable development of the region. This strategy must be accompanied with the independence from financing to allow these SMEs to grow up and reach an international dimension.*

**Keywords:** *Developing countries, Economic, Entrepreneurship, SME, Social*

### **1. INTRODUCTION**

The study of entrepreneurship as well as Small and Medium-sized Enterprises (SMEs) interests more and more the practitioners, politicians and academics around the world seen their weight in the global economy. Entrepreneurship and SMEs are closely linked and contribute effectively to the development worldwide. The aim of this paper is to draw up the profile of SME entrepreneurs in the field of terroir products in Souss Massa Draa (Morocco) to highlight the contribution of SMEs in a turbulent rural context. To respond to our objective, we'll draw a literature review of SMEs then we'll demonstrate their contribution to national economies. We shall then focus on terroir SMEs to clarify their main obstacles and to demonstrate their important role in the Moroccan economy.

## **2. SMALL AND MEDIUM-SIZED ENTERPRISES: A literature review**

### **2.1. From Entrepreneurship to SMEs.**

Entrepreneurship is a field of study that examines the entrepreneurs as well as the economic and social effects of their behaviors (Filion, 1997, p. 156). It is a multidimensional field that continues to interest researchers, practitioners and politicians worldwide. Today, there is no doubt about the contribution of the entrepreneurial act to the economic development (Haugh, 2007 ; Tedmanson et al, 2012). Thus, nations incite to the entrepreneurship and integrate it into the majority of their debates aware of his role. Indeed, the local and regional development passes necessarily by the stimulation of entrepreneurship in the sense that it allows to generate jobs and increase incomes (Organization for Economic Co-operation and Development « OECD », 2003). Naturally, stimulate entrepreneurship is necessary for development but remains insufficient because national conditions (Economic Growth, population growth, culture, and national entrepreneurship policy) influence the opportunities which are vital to foster the entrepreneurial act (Bosma and Levie, 2009). Entrepreneurship corresponds to the starting up of a business and to the creating value for the entrepreneurs as well as for the community (Peredo et McLean, 2006). Entrepreneurship is therefore intimately linked to the Small and Medium-sized Enterprise (SME) seen that the act of creation generally gives birth to small structures (Vesrtraete, 2002 ; Marshesnay, 2008). This overlap between the SME and Entrepreneurship clears up when we dig into history. In 1953, the United States Congress voted the Small Business Act to promote SMEs in the economy. In the late 1970s, Prime Minister and French economist Raymond Barre has invited every unemployed person to take his fate in hand by creating his own work rather than relying on an employer. The purpose of this strategy was to transform the plague of unemployment into an asset contributing to the economic and social development through entrepreneurship. Thus, the logic of the SME as a development key began little by little to substitute itself for that where the progress of a country was only attributable among its large companies. Therefore, the years 1970-1985 have marked the transition from "big is efficient" to "small is beautiful". These years were marked by a growing interest among researchers for SMEs as denotes the small business innovation Development Act (United States -1982) or the Trois-Rivières conference of 1984, which will result, a few years later in the creation of one of the most well-known research groups in SMEs the AIREPME (International Association for Research in Entrepreneurship and SMEs). Since the 1970s, SMEs are perceived as an engine of economic growth as well as a surefire way to innovation and performance. Today, the term "entrepreneur" in French refers directly to any manager of a SME (Marshesnay, 2008), letting think that the study of SMEs passes inevitably by the entrepreneur and his environment. Accordingly, if entrepreneurship is a multidimensional concept that obeys to the rules of the environment in which it operates, we shall also see that SMEs are defined differently worldwide.

### **2.2. Definition of SME**

Although the SMEs interests researchers and practitioners worldwide, they have never agreed about a generally accepted definition. Indeed, SMEs are defined differently by each nation according to its economic development phase and social environment (Harvie, 2004). Thus, the idea of unanimity around a single definition is utopian. As we have seen, it is in the 70s that the SMEs started to be recognized as an engine of economic growth and development. One of the earliest references to SMEs concerns the 1971's report of the "Bolton Committee" concerning the British firms. According to the national archives of United Kingdom, Bolton Committee defines a "small firm as an independent business, managed by its owner or part-owners and having a



small market share<sup>134</sup>. This definition which presents purely qualitative characteristics of the SMEs will inspire several contemporary researchers. These researchers will focus on qualitative definitions of SMEs based on intrinsic variables such as the mode of decision-making (Belletante and al., 2001), the presence of the owner in the management of the company (Miller and Toulouse, 1986)<sup>135</sup>, the predominance of family management style etc. In general, qualitative definitions of SMEs refer directly, for their great majority, to the entrepreneur's position in the creation and management process. However, even if the debate on the integration of qualitative data in the definition of SMEs is present in the literature, national economies prefer to refer to quantitative data which are more pragmatic. These definitional criteria of SMEs generally concern data such as the annual balance sheet total (refers to the value of the company's main assets), The annual turnover (determined by calculating the annual income of the enterprise without including value added tax (VAT) or any other indirect tax) or The staff headcount (includes the owner-managers, employed, persons working for the enterprise, Partners Benefiting from financial advantages from the enterprise.) (Harvie, 2004; Senderovitz, 2009). The following table summarizes some definitions of SMEs worldwide. For developing countries, we wanted to collect some data of countries close to the Moroccan economic and social context.

Country	Doing Business 2014 Ranking	Number of employees	Annual turnover	Balance sheet total
<b>Developed countries</b>				
Canada <sup>136</sup>	19	<500	Not applicable	Not applicable
European Union <sup>137</sup>	Not applicable	< 250	≤ €50 million	≤ €43 million
Singapore <sup>138</sup>	1	<200	\$S100 million	Not applicable
United Kingdom <sup>139</sup>	10	< 250	≤ £11.2 million	≤ £5.6 million
United States <sup>140</sup>	4	< 500	≤ \$7 million	Not applicable
<b>North African Developing countries</b>				
Algeria <sup>141</sup>	153	<250	Dinar 2 billion	Dinar 500 million
Egypt <sup>142</sup>	128	< 50	Not applicable	Not applicable
Morocco <sup>143</sup>	87	< 200	< MAD 75 million	< MAD 50 million
Tunisia <sup>144</sup>	51	<300	Not applicable	Not applicable
<b>Institutions<sup>145</sup></b>				
African Development Bank	Not applicable	<50	Not applicable	Not applicable
World Bank	Not applicable	<300	≤ \$15 million	≤ \$15 million

*Table 1: definitions of SMEs worldwide.*

134 <http://webarchive.nationalarchives.gov.uk/+http://www.dti.gov.uk/sme4/define.htm> (Retrieved 20/06/2014)

135 In (Ignas, 2012)

136 From Environment Canada <http://ec.gc.ca/p2/default.asp?lang=En&n=D35E8873-1>

137 Article 2 of the Annex of Recommendation 2003/361/European Commission ( under the number C(2003) 1422]. Official Journal of the European Union.

138 From Spring Singapore <http://www.spring.gov.sg/aboutus/pi/pages/performance-indicators.aspx>

139 (Source : <http://www.dti.gov.uk/sme4/smehome.htm> ) if it satisfies at least two of the following criteria. See Section 248 of the Companies Act of 1985.

140 United States International Trade Commission. 2010. 2-3

141 SME orientation act n° 01-18 du 12.12.2001, SME's ministry Algeria.

142 Selon (HUSSEIN ELASRAG, 2011)

143 (from: <http://www.dti.gov.uk/sme4/smehome.htm> ) if it satisfies at least two of the following criteria. See Section 248 of the Companies Act of 1985. (Retrieved 11/06/2014)

144 Official statement of financial market (CMF), Bulletin du CMF 2588 ( Mercredi 03 Mai 2006).

145 (Gibson and Van der Vaart, 2008)

The lack of coherence in the definition of SMEs worldwide makes difficult their comparison. Thus, we confine ourselves in this section to highlight the overall importance of SMEs in some countries to show the weight of these enterprises in the global economy prior to focus on their impact in the developing countries and specifically in Morocco

### 2.3. Contribution of SMEs in national economies

Significance of small and medium sized enterprises (SMEs) to the economy and society in terms of their contribution to output and employment is now indisputable (European Commission, 2011). Besides its role of economic lung, The World Bank's Doing Business reports indicate that a healthy SME sector corresponds with a reduced level of informal or "black market" activities (World Business Council for Sustainable Development, 2007). SMEs have an important role both economically and socially, but also on reducing the informal economy in countries what makes them vital for the local, regional and international development. Seen the absence of a unanimous definition of SMEs across the world, we will limit ourselves to highlight the role some SMEs play in their contexts without proceeding to any comparison. In 2012, the 20 million European SMEs have played an important role in the economy of the Eurozone. These SMEs have registered 86.8 million jobs representing 65.5% of jobs in Europe in the same year (European commission, 2012). Today, European SMEs represent 99% of all businesses and are the engine of economic growth, innovation, job creation and social integration (European Commission, 2014). The SMEs importance is also felt in the Asian economies (Harvie, 2004). Indeed, SMEs are deeply anchored in the Asian economy. In Japan, 99% of businesses are SMEs generating 69% of total employment and 53% of value added. It's the same for Singapore, first country on the ease of doing business following the report of the World Bank (Doing Business 2014). Indeed, this ranking is the result of an economy compounded of 99 % of SME employing 70 % of the population (7 out of every 10 workers) and contributing to 50% to the national GDP<sup>146</sup>. In the United States, Small businesses are the backbone of the U.S. economy and the primary source of jobs for Americans (Office of the United States Trade Representative). The Small Business and Entrepreneurship Council<sup>147</sup> reported in 2011 5.68 million employer firms of which 99.7% are SMEs. In 2011, these companies were responsible for 33% of total exports. According to U.S. Census Bureau data<sup>148</sup>, between 1993 and 2013, SMEs were responsible for 63% of job creation (that is to say 14.3 of the 22.9 million new jobs). Thus, according to the same source, after the 2009 recession, SME has played a mattering social role by generating 60 % of the new jobs (from mid 2009 to mid 2013). SMEs are as important in developed countries as in emerging countries (Radas and Bozic, 2009). Indeed, the role of SMEs in these countries may leave understand that social ambition (reducing unemployment) is more present than economic ambition (creating competitive business) (Marshesnay 2008 p. 152). However, most of the SMEs operating in emerging countries suffer from the difficulty of facing the competitors in a globalized context. This competition in terms of costs quality and productivity affects their capacity of investment and financing thus weakening their potential for growth and development. For North African economies, the turbulence of the social, political and economic environment poses a real challenge to their SMEs. As a result, economies of North Africa rely on the dynamic

146 Spring Singapore. Retrieved 30/06/2014.from <http://www.spring.gov.sg/aboutus/pi/pages/performance-indicators.aspx>

147 <http://www.sbecouncil.org/about-us/facts-and-data/> (Retrieved 06/07/2014)

148 <http://www.census.gov/econ/susb/>

and adaptability of their SMEs in order to enhance their competitiveness and restructure their economies (United Nations Economic Commission for Africa Office for North Africa, 2008). In Egypt, three-quarters of new employment generations are caused by SMEs which constitute more than 99% of all non-agricultural private enterprises (Elasrag, 2011). This situation is reproduced in Libya where 96 % of companies are SMEs contributing to 93% employment (United Nations Economic Commission for Africa Office for North Africa, 2008). In Tunisia, 97% of companies are SMEs (Agency for the Promotion of Industry, June 2002.). However, these SMEs are composed of individual companies without job creation capacity among which 66% suffer from financial problems<sup>149</sup>. These problems are also present in Algeria, where 95% of companies are SMEs among which 90% have a family character. In Morocco, country of the study, more than 95 % of companies are SMEs. Their contribution in the economy is thus crucial. , they are the authors of 20% of the value added and account for 40% of production (Hamoumi. 2012). However, as in any developing country, these companies represent a fragile and fragmented tissue with low growth. Aware of the importance of SMEs in development scene, the Moroccan state established several reforms to promote them (supports for the creation, fiscal incentives, booking 20% of the budget allocated to public markets ...). These reforms have had a positive effect on the national economy propelling Morocco from the 97th position to 87th<sup>150</sup> position between 2013 and 2014 according to the World Bank doing business report. Accordingly, in addition to having an impact on the Moroccan economy, these companies generate social value by employing more than 50 % of the Moroccan workforce. Thus, the contribution of SME in national economies is well established. In the theater of development, the role played by SMEs and micro firms is very important not only because they are defined as the growth engine but also because they represent the largest percentage of firms in the Economic Activity (Duarte, 2004). This role is particularly important in emerging economies where the debate on the social role of SMEs is most present. We shall so concern ourselves with the terroir sector in order to clarify this role.

### 3. CONTEXT OF THE STUDY

#### 3.1.The SME of terroir

As we have shown, SMEs play an important role in the development of the economies worldwide. A role which becomes accentuated in developing countries where economic and social problems are more pressing. Indeed, these countries are characterized by the presence of rural areas which slow down the growth process initiated by the cities. Following the example of the Souss Massa Draa Morocco region, these rural zones abound of human and cultural heritage on one hand and authentic products (terroir products) on the other hand. According to UNESCO (2005), « A Terroir is a geographical limited area where a human community generates and accumulates along its history a set of cultural distinctive features, knowledges and practices based on a system of interactions between biophysical and human factors. The combination of techniques involved in production reveals originality, confers typicity and leads to a reputation for goods originating from this geographical area, and therefore for its inhabitants. The terroirs are living and innovating spaces that can't be reduced only to tradition». Terroirs are also analyzed as an answer to the globalization and to the standardization of the consumption by protecting the social and cultural diversity in a sustainable way (Brodharg, on 2000). Besides all

149 (IACE) <http://www.iace.tn/>

150 Rankings on the ease of doing business (World Bank)

the virtues of SMEs that we praised throughout this paper, the terroir enterprise, allows to build the identity of a region and revitalize durably a rural area in desertification phase through the products it delivers (Polge, 2003). Thus, a terroir enterprise is a company which pulls its specificity of links of strong intensity with a soil identified by physical characteristics (geographic and agro-climatic), historical and social, that's to say cultural (Rastoin Vissac and Charles, 1999). So, terroir sector takes a collective form and requires the presence of three key factors: history, soil and entrepreneurial will (Marshesnay, 2001). Thus, our study concerns entrepreneurial initiatives (individual or collective), generating jobs and wealth and preserving the cultural heritage of the area where they operate.

### 3.2. Methodology

To meet the objectives of our research, we conducted a literature review on SMEs. This literature review allowed us to identify the important role of SMEs in the economic and social fabric of emerging economies. We subsequently focused on the terroir SME which contribute in one way or another to the development of our region of study. Based on this literature review, we conducted an exploratory qualitative study which allowed us to refine our knowledge about the study context. So we conducted semi-structured interviews with a dozen of terroir business leaders. The topics covered include the reasons for the creation, their main problems and their perception of success. We subsequently conducted a quantitative study of 35 companies specialized in the production and marketing of Argan Oil and its derivatives.

### 3.3. Field of study

Region Souss-Massa-Draa (SMD) is located in Morocco. It covers a total area of 70,880 km<sup>2</sup> (10.3% of national territory). It's a belt while going from the Atlantic Ocean to the Algerian border which divides the country into two parts (parts). This position confers to the region a relay role whence passes all north-south flows and that's what provide it an important strategic economic and socio-cultural roles. It covers two prefectures *Agadir Ida Outanane* and *Inezgane Ait Melloul* and five provinces *Chtouka Aït Baha*, *Taroudant*, *Tiznit*, *Ouarzazate* and *Zagora*. SMD region has over 50% of rural population which does not prevent it from recording an unemployment rate of 13.5% above the national level (15.4%)<sup>151</sup> and contribute to 12.3% of Morocco's GDP<sup>152</sup>. The region is endowed with a big potential in terroir products due to the conservation of an ancestral knowledge. Among the local products of the region SMD, the Argan is doubtless one of its most known wealth. The argan tree of Morocco is ranked World Biosphere Reserve by UNESCO and is spread over a wooded area of 830,000 ha covering a large part of the SMD region. It plays an important ecological role in the fight against desertification in addition to its socio-economic role in providing income for thousands of rural families according to the Moroccan Ministry of Agriculture and Maritime Fishing. In SMD region, terroir SMEs generally take the form of collective entrepreneurship under the name of income generating activities (IGAs) and are subject to special state attention.

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151 Conseil régional du Souss Massa Draa, 2010. Web site : [www.regionsmd.com](http://www.regionsmd.com) (retrieved 15/06/2014)

152 Centre Régional d'Investissement. Publication N°12 June 2010.

### 3.4. Presentation of the study sample

<b>Business profile</b>	
<b>Year of creation</b>	N : 35 Minimum : 1992 Maximum : 2013 Mean : 2007,97 Std. Deviation 3,899
<b>Number of employees</b>	N : 35 Minimum : 4,00 Maximum : 77,00 Mean : 21,5143 Std. Deviation 19,88995
<b>Area of activity</b>	National Territory: 85,7% National and International : 14,3%
<b>Entrepreneur Profile</b>	
<b>Age</b>	N : 35 Minimum : 25,00 Maximum : 68,00 Mean : 40,6286 Std. Deviation: 9,57351
<b>Level of education</b>	without : 28,6 % Elementary school : 25,7 % Secondary school : 25,7 % with a university degree. : 20,0%
<b>First work experience ?</b>	Yes : 58,8% No : 41,2%

*Table 2: Presentation of the study sample*

### 3.5. Finding

The majority of terroir SMEs in our region operate in a turbulent landlocked and rural environment. These SMEs are generally grouped under the collective initiatives (IGAs). Our sample is composed of 60% women's cooperatives and 40% of individual companies. Aged on average 40 years old and having a relatively low level of education (only 20% exceeded higher education), the main motivation for the creation of entrepreneurs in our sample is as economic as social. The main aspiration of entrepreneurs turns around improving their income (60%) followed by the creation of an employment for them or for somebody of their circle of acquaintances (42,9 %). A minority of the firms of our sample (14.3%) reached a maturity allowing them to market their products internationally. The collective nature of most companies surveyed reinforces the role of networking and stakeholders in the process of wealth creation for terroir SMEs in accordance with what we have gathered during our exploratory study. Entrepreneurs in our sample give great importance to networking. The same importance is given to the improvement of their income and the production of a social impact through the creation of jobs. Among the striking factors that emerged from our study, the desire of the entrepreneurs to be independent from the external financing which constitutes the most important the challenge for them. The independence of financing is as important to our entrepreneurs as the growth of their project or the improvement of their revenues. Thus, we asked terroir entrepreneurs on their attitude towards these elements (Networking, Social Impact and Income improvement; Independence from financing, Growth and Income improvement) (Likert scale 1 - 5 from few mattering to very important) starting from the hypothesis of the absence of difference between the two groups of observations. We have opted for the Wilcoxon test, which is effective on small samples and applies on qualitative variables (Carricano and Poujol, 2008) to test this hypothesis.

		N	Mean Rank	Sum of Ranks
Networking - Social Impact	Negative Ranks	6 <sup>a</sup>	13,00	78,00
	Positive Ranks	23 <sup>b</sup>	15,52	357,00
	Ties	6 <sup>c</sup>		
	Total	35		
Networking - Income improvement	Negative Ranks	5 <sup>d</sup>	9,20	46,00
	Positive Ranks	22 <sup>e</sup>	15,09	332,00
	Ties	8 <sup>f</sup>		
	Total	35		
Independence from financing- Income improvement	Negative Ranks	0 <sup>g</sup>	,00	,00
	Positive Ranks	20 <sup>h</sup>	10,50	210,00
	Ties	15 <sup>i</sup>		
	Total	35		
Growth- Independence from financing	Negative Ranks	22 <sup>j</sup>	12,25	269,50
	Positive Ranks	1 <sup>k</sup>	6,50	6,50
	Ties	12 <sup>l</sup>		
	Total	35		

*Table 3: Wilcoxon Signed Ranks Test*

a. Networking < Social Impact ; b. Networking > Social Impact; c. Networking = Social Impact ; d. Networking < Income improvement; e. Networking > Income improvement ; f. Networking = Income improvement; g. Independence from financing< Income improvement ; h. Independence from financing> Income improvement; i. Independence from financing= Income improvement ; j. Growth< Independence from financing; k. Growth> Independence from financing; l. Growth= Independence from financing

**Test Statistics**

	Networking - Social Impact	Networking - Income improvement	Independence from financing- Income improvement	Growth- Independence from financing
Z	-3,165 <sup>a</sup>	-3,478 <sup>a</sup>	-4,055 <sup>a</sup>	-4,078 <sup>b</sup>
Asymp. Sig. (2-tailed)	,002	,001	,000	,000

*Table 4: Wilcoxon Test Statistics*

a. Based on negative ranks ; b. Based on positive ranks; c. Wilcoxon Signed Ranks Test

The significance of this test allows rejecting the null hypothesis concerning the absence of difference between the two groups of observations. The sense of the Z statistic allows us to conclude that terroir entrepreneurs give more importance to weaving their stakeholder's network rather than producing a social impact. They are also more interested by networking comparing to improving their revenue. Thus we can say that networking is seen as a success indicator by our sample's entrepreneurs. This finding is coherent with the Stakeholder Theory who define the power in an enterprise as "stakeholder's ability to influence an organization to do something it would not otherwise do" (Lafreniere and al., 2013, pp.82). It's the same for the independence from financing. Indeed, our sample makes it more relevant than revenue improvement and the project growth. This finding shows a similarity with the Resource-Based View which relates the success of an organization to the resources it possesses (Durand, 1997).

**4. CONCLUSION**

Closely related to soil, to history and to the local population, Terroir SMEs are vital for the SMD region. On the one hand they allow asserting its identity on the international as having a culture and an ancestral knowledge recognized in terroir products and secondly, these companies

contribute significantly to reduce unemployment in the region as shown by our study with an average of 21 jobs created by business. However, SMEs in this sector suffer from several problems among which the dependence of financing who affects the enterprises growth in addition to the entrepreneur's income. So, seen the different challenges that oppose these SMEs, our study suggests adopting a strategy based on network weaving to better promote their products and contribute to the sustainable development of their region. This strategy must be accompanied with the independence from financing to allow these SMEs to grow up and reach an international dimension. Seen that these strategy will probably not be an easy task for an enterprise operating in a developing country, we join Hamimaz (2009) about the necessity of states to make greater efforts to value terroir activity in disadvantaged rural areas. Thus, we believe more than necessary the establishment of structures of accompaniment for these entrepreneurs to sustain their economical and social impacts and reducing their financial dependence.

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## COOPERATION OF SMEs AND INSURANCE COMPANIES IN CREATION OF MARKETING VALUE OF INSURANCE PREMIUMS

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### ABSTRACT

*Small and medium enterprises (SMEs) are the backbone of the development of countries in transition. They contribute to an increase in GDP, exports, market economy and its competitiveness, since they have the largest capacity of rapid adaptation to market changes. Insurance market is certainly one of the most perspective ones in transition countries like Serbia, but also one that is strengthening each year. Although the sum of overall insurance premium is increasing, there is still a lack of public awareness of the necessity and significance of possessing various kinds of insurance policies. One of the opportunities lies in establishing cooperation between SMEs and insurance companies in order to create more attractive and, from consumers' point of view, valuable offer. This cooperation is based on the fact that SMEs are primarily engaged in certain forms of service activities and, therefore, can be an effective insurance distribution channel. Secondly, SMEs are tending to be the most profitable segment of insurance market if they overcome the legally imposed framework of obligatory insurance and accept it as a voluntary action. SMEs are in a position to contribute the creation of marketing value of insurance premiums, which can bring significant benefits to enterprises, insurance companies, employees and general public. Therefore, this paper examines the degree of existing cooperation of small and medium-sized businesses and insurance companies in Serbia and the current role that SMEs have in this cooperation. The aim of this paper is to highlight the importance of such cooperation and suggest ways of its further improvement.*

**Keywords:** *Cooperation, Insurance companies, Insurance premiums, Marketing value, Small and medium enterprises*

### 1. INTRODUCTION

The SME sector is the most important segment in economies of almost all countries in the world (Đuričin and Beraha, 2010). In developed market economies, small and medium-sized enterprises are globally significant economic force that contributes employment, profits creation and rise, economical flexibility, adaptation to rapid technological and market changes and increase of

economic growth (Thirlwall, 2011). As in many other countries of the world, small and medium-sized enterprises play a key role in the recovery and growth of the Serbian economy, especially when bearing in mind that, in the period from 2000 to 2009, it was the most effective segment of the economy and major contributor to growth and employment (Beraha, 2011). The importance of small and medium enterprises in Serbia illustrates the fact that these organizations make 99.8% of total non-financial enterprise sector (Ožegović and Pavlović, 2012).

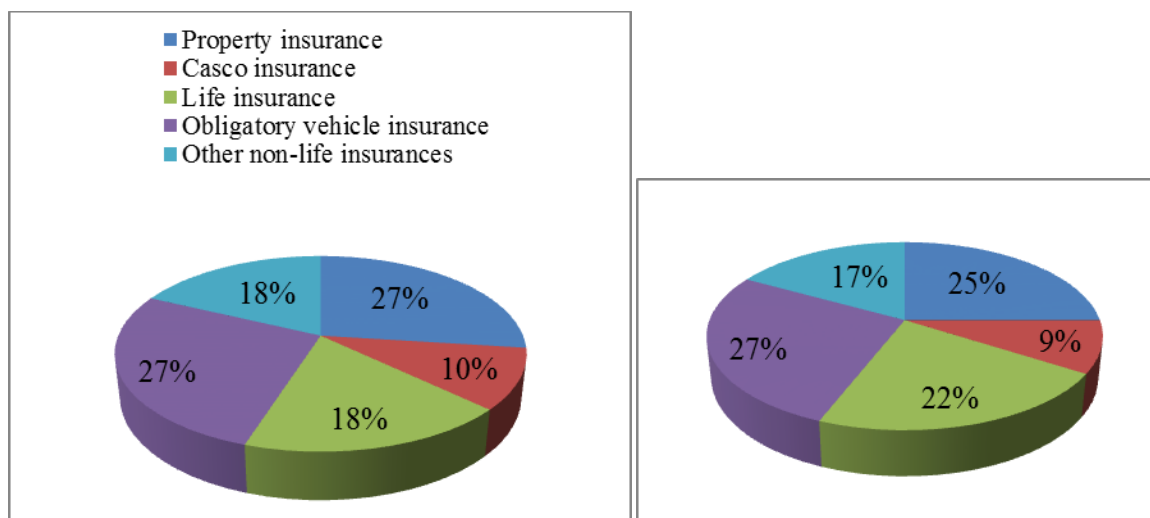
Some of the most important characteristics of SMEs, that represent main reasons for this trend of positive growth (Pokrajčić, 2002), are: a high degree of business flexibility, fast innovation acceptance, easier establishment and maintenance of close relationships with customers, encouragement of employees initiative, gathering further knowledge and experience and generation of new workplaces. Thanks to these characteristics, SMEs are able to take advantage of emerging market opportunities. When it comes to Serbia, one of those opportunities is cooperation with insurance companies. Like in other Central, Southern and Eastern European countries that constitute a highly potential region when it comes to insurance (Kjosevski, 2012), insurance market is certainly one of the most perspective, dynamic and fast-growing in Serbia. Although the sum of overall insurance premium is increasing annually, there is still a lack of public awareness of the necessity and significance of possessing various kinds of insurance policies. SMEs that are primarily engaged in certain types of service activities can be an effective distribution channel of insurance services and, therefore, represent adequate intermediaries. In accordance with the theory of financial intermediaries, market imperfections such as asymmetric information and transaction costs, have long been portrayed as the main reasons for the existence of intermediaries and insurance agents (Bhattacharya and Thakor, 1993). However, during the last two decades, contemporary tendencies (technological progress, globalization, etc.) have had a major impact on the reduction of price asymmetries and transaction costs, thus the importance of intermediaries, as seen from that point of view, have decreased. On the contrary, this has not led to a reduction in demand for their services, but to the increase in the demand. Consequently, a number of authors (eg. Santomicro and Allen, 2001; Scholtens and van Wensveen 2000, Gorton and Winter, 2002; Germain, 2005) proposed expansion of the focus of financial intermediaries theory to explain their existence in modern financial markets. According to Cummins and Doherty (2005), in modern market conditions, it is possible to identify two functions of intermediaries and insurance agents. The first is the traditional function of intermediaries and insurance agents – selling of certain types of insurance to customers. The second function is creation of market opportunities, or, in another words, function of market makers. As the intermediation process in which customers come in contact with insurance companies is extremely complex and multidimensional, information - educational function of intermediaries help customers make the right decision when choosing an insurance policy. On the other hand, insurance intermediaries are able to analyze customers' needs and gather feedback to provide additional, marketing value for insurance customers (Cummins and Doherty, 2005). From the modern market perspective, maximization of such value is the key to surviving fierce competition (Cuadros and Domínguez, 2014).

## **2. INSURANCE MARKET IN SERBIA**

The insurance industry, as a segment of broader financial system, is considerably affected by national and international economic developments and regressions (Ma, 2011; Liedtke, 2009). Additionally, it is closely related with the saving characteristics and financial strength of citizens and market subjects (Basturk, 2012). When it comes to Serbia, in the first quarter of year 2014,

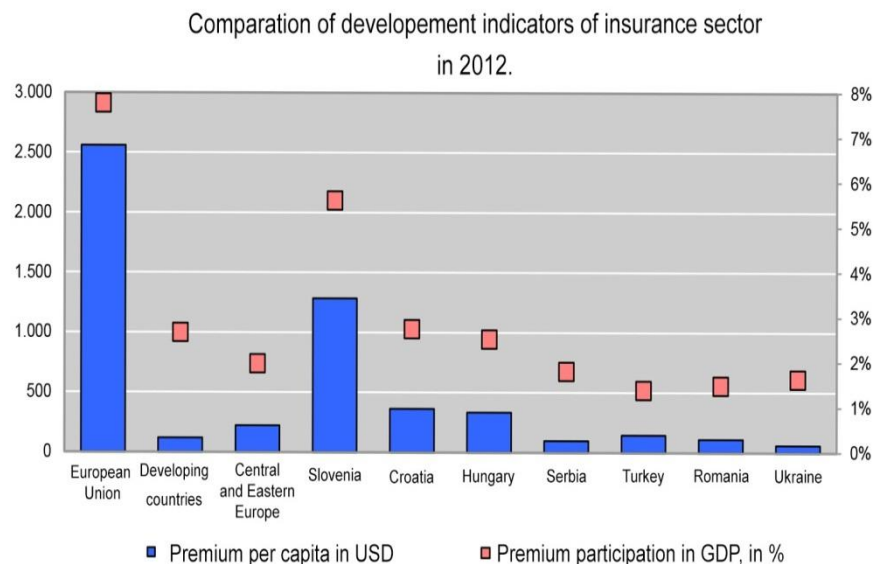
28 insurance companies operated in the market, and the number hasn't changed compared to the previous two years. Among them, there are 24 companies that deal with insurance business only and four reinsurance companies. Seven companies deal with life insurance only, 11 only with non-life insurance, while six companies deal with both, life and non-life insurance. Regarding ownership structure, 21 are mainly foreign-owned and seven are domestic-owned. Since 2005, when started entering the market and gaining Greenfield licenses, foreign insurance companies recorded a dominant share, which, at the end Q1 2014, was as follows: 89.6% of life insurance premium, 62.3% of non-life premiums, 71.9% of total assets and 65.6% in overall number of employees in this business sector. The presence of private section in insurance industry causes stronger competition among insurance players, due to presentation of better qualitative productions, introduction of innovations and seeking for personnel with better insurance knowledge and sales skills (Shekarey and Heidarzadeh Arany, 2010). In addition to insurance companies, 19 banks that have received necessary approval from the central bank (National Bank of Serbia), 86 of insurance intermediaries and 105 insurance agents (entrepreneurs) operate in the market.

It should be noted that the total amount of insurance premiums increased in the first quarter of 2014. to 136 million euros or 187 million USD, or 3.2%, compared to the same period last year. Non-life insurance segment is dominant in the insurance market in Serbia, as evidenced by the fact that non-life insurance premiums accounted for 80.7% of the total insurance premium in 2012. (Doganjic, 2013), 82% in 2013. and accounted 78% in 2014. As seen in Chart 1, there was an increase in the share of life insurance from 18% in the same period of the previous year to 22% in the first quarter of 2014. (National Bank of Serbia, 2014). When analyzing the period from 2004 to the 2013, Doganjić (2013) noted a steady increase of insurance premiums each year.



*Chart 1: Share of different insurance types in total insurance premium in Q1 2013. (left) and Q1 2014. (right) (National Bank of Serbia, 2014)*

Although development of the insurance market in Serbia, measured by premium growth, shows retention of slightly positive trend, Serbian insurance sector is still underdeveloped and its development level is considerably below the average for European states. For example, the weight of insurance to the GDP of some countries was over 10% in 2012, such in the Netherlands, the United Kingdom and Finland (Cristea, Marcu and Cârstina, 2013), compared to the share of 1.8% in Serbia. This ratio amounted up to 7.8% for the 27 member states of the European Union. According to the 99 USD or 75 EUR premium per capita, Serbia occupied the 70<sup>th</sup> place in the world that year. In 2013, situation had not changed and premiums had the same estimated share in the GDP, while the premium per capita was 107 USD or 78 EUR. However, compared with the group of developing countries with an average of 2.7%, and the countries of Central and Eastern Europe, with an average share of 2%, it was concluded that Serbia had a satisfactory position. Also, it represented an improvement regarding premium per capita in 2012. and Serbia moved to 65<sup>th</sup> place in the world. The same indicator amounted 2,558 USD for 27 European Union states, 223 USD for the countries of Central and Eastern Europe and 120 USD for other European developing countries. Switzerland was on the first place in the world, followed by the Netherlands and Denmark, while Slovenia and Croatia occupied 28<sup>th</sup> and 48<sup>th</sup> place (National Bank of Serbia, 2013).



*Chart 2: Comparison of development indicators of insurance sector in European countries in 2012. (National Bank of Serbia, 2013)*

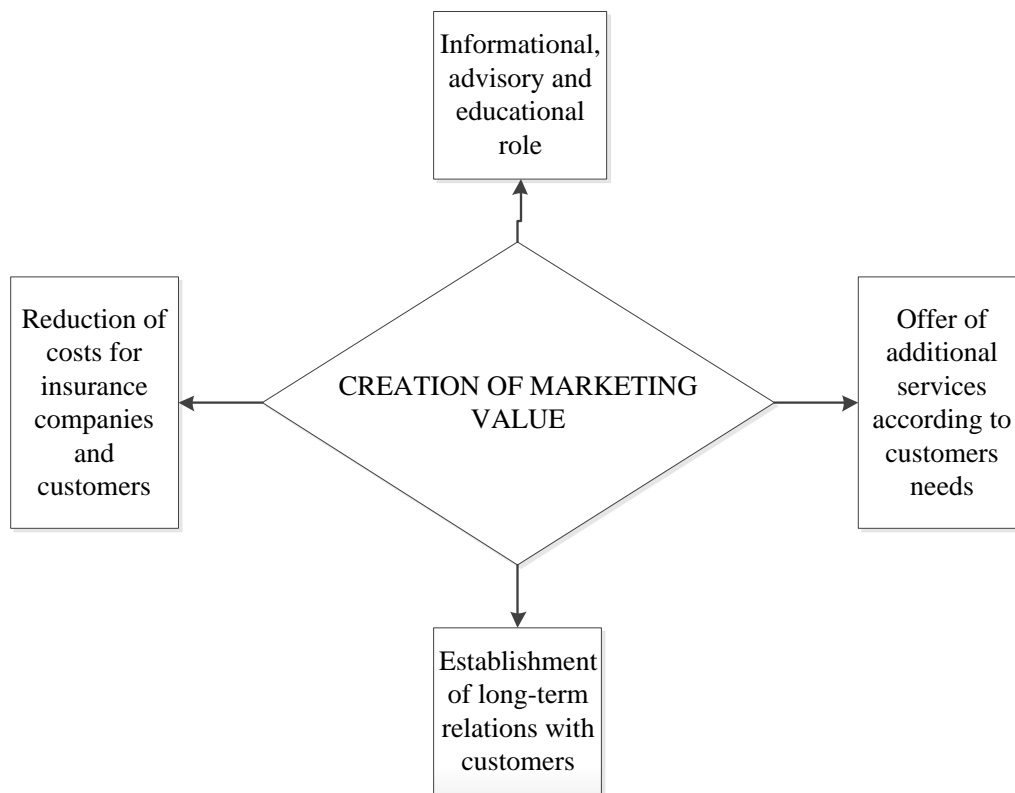
### 3. COOPERATION OF SMEs WITH INSURANCE COMPANIES

One of the greatest contemporary market opportunities lies in cooperation establishment between SMEs and insurance companies in order to create more attractive and, from consumers' point of view, valuable offer. This cooperation is based on the fact that SMEs are primarily engaged in certain forms of service activities and, therefore, can be an effective insurance distribution

channel. Secondly, SMEs are tending to be the most profitable segment of insurance market if they overcome the legally imposed framework of obligatory insurance and accept it as a voluntary action. As insurance intermediaries, SMEs have a certain degree of independence in relation to customers and ability to mediate between them and insurance companies (Čolović, 2010). Besides SMEs which exclusive role is insurance sales and distribution, insurance services are often provided by enterprises that are indirectly related to that kind of business, although it is not their primer one, such as: travel agencies, banks, shippers, entities that perform technical inspection of vehicles etc.

### 3.1. Contribution of SMEs to creation of marketing value of insurance premiums

This contribution is reflected through: informational, advisory and educational role based on proper risk identification, reduction of distribution costs for insurance companies, reduction of the costs of searching for the best options for customers, offer of various additional services based on analyses of customers' needs and achievement of long-term relationships with customers and users of insurance services (Figure 1).



*Figure 1: Creation of marketing value contributed by insurance intermediaries*

Insurance intermediaries must, first and foremost, be able to make proper risk analysis and propose adequate insurance concept considering the risks and characteristics of each individual case. Exact risk analysis represents the assessment of potential hazards that threaten the insured customer and serves as a prerequisite for insurance concept development, as well as the basis for making choice of certain insurance type or company (Ostojić, 2007). Therefore, intermediaries

have an important role as insurance advisers in process of type and scope of insurance coverage selection and choice of insurance company (Čolović, 2012). In terms of economies of scale, intermediaries can more efficiently explore the range of insurance companies in relation to individual customers because they possess the skills, capabilities, financial strength and reputation, unlike individual customers, and offer the most appropriate option. In order to perform informational and educational role, insurance intermediary must be equipped with enough experience and knowledge “to be able to manage the complexity and intangibility of the insurance services provided, so that there is no doubt of the customer’s level of comprehension”. Overall, it is a matter of the insurance intermediary’s ability to inform the customer of the elements of the particular insurance and increase the comprehensibility in order to make the service more attractive (Bazini, Elmazi and Sinanaj, 2010). Informational role of intermediaries is not manifested only in relation to customers but also to insurance companies. During the process of matching, intermediaries are able to assess more efficiently the level of risk of the insured customer than insurance companies. This information are crucial for reduction of the information asymmetry between customers and insurance companies that provoke wrong selection and moral hazard. In this way it is possible to prevent opportunistic behavior of any of the aforementioned parties (Swiss Re, 2004). Finally, while in developed countries insurance is a part of education, tradition and life, in less developed countries the awareness level of the insurance necessity is very low, therefore the insurance is most often regarded as an item of expenditure which is not required by potential customers (Cristea, Marcu and Cârstina, 2013). So, educational role of intermediaries is crucial in education of the entire population in this field. As a result of the educational process, as Liedtcke (2007) stated, the insurance should not be regarded as an unnecessary expenditure, which would only be done once all other customers’ basic needs would be satisfied, but as a form of effective protection, security and saving money.

The existence of insurance intermediaries means that it is not necessary insurance companies to build their own distribution systems to enter the insurance market, as SMEs provide an efficient channel of distribution for insurance companies. As a result of the foregoing, insurers do not have to invest large amounts of resources to build distribution channels. From customers’ point of view, as intermediaries always have the latest information about the offer of different types of insurance, legal regulations and conditions, they bring significant cost savings in process of finding the most suitable option. In other words, they contribute to the reduction of search costs that customers would bear if they independently had to seek for the best offer. Consequently, intermediaries indirectly reduce insurance costs for the customers (Insurance Intermediaries in Europe, 2010). Also, individual customers may have significantly less bargaining power if they enter into direct negotiations with insurance companies. Small and medium-sized enterprises, due to a greater number of customers than one, are able to achieve better conditions for individual customers and negotiate and communicate in their name (Spulber, 1999).

The achievement of long-term relationships with customers and users of insurance services is one of the most important business aspects of insurance intermediaries. They are able to implement a relationship marketing approach better than insurance companies due to smaller number of customers and higher familiarity with their personal characteristics and needs. A relationship marketing approach allows insurance intermediaries to offer a product or service in response to needs incited by customers and based on experience and information gathered during some period of time. This approach can significantly increase sales and profitability because the more intermediaries know about individual customers, the more effectively they can be approached with appropriately targeted products (Harrison, 1993). The focus of relationship marketing

approach, and, consequently, a key to profitability, is development of long-term relationships with customers, no matter if they are individuals or companies (Bazini, Elmazi and Sinanaj, 2010). Customer segmentation, differentiation of more profitable customers from less profitable customers and emphasize on lifelong customer relationships are key marketing strategies for competitiveness and ability to survive in modern marketplace (Chan and Ip, 2011). As a result of taking care of consumers' needs, their proper treatment and investment in building of long-term relationships, customers become more loyal to certain insurance intermediary, which is crucial to business sustainability (Keh and Lee, 2006; Kumar and Reinartz, 2006; Lars, 2007). Nevertheless, establishment and maintenance of such relationships is extremely hard in case of insurance services, due to the fact that financial services are complicated in nature and such relationships may be very complex. The first reason for that is the fact that insurance customers rarely buy just one product, but rather purchase a whole range of products, often called a "package". The second particular reason is the frequency of contact between the insurance intermediaries and their customers. Although financial services companies in general are similar regarding this matter, insurance companies can be placed at "low-end" extreme, as, both in terms of commercial and individual customers, personal interaction between the parties is limited, and in some cases there may not even have been an opportunity at all to meet personally. This requires well educated and highly trained employees, in order to manage relationship establishment and maintenance despite seldom personal meetings. For each case, priorities concerning how much involvement should be invested in each relationship should be established, taking into consideration type of service and type of customer concerned. The more complex provided services and customer needs are, more important is long-term commitment and larger resources are required (Bazini, Elmazi and Sinanaj, 2010).

The offer of various additional services based on customer needs is one of the most important aspects of marketing orientation of insurance companies in Serbia. There has been evidence in the market that such orientation contributed other sectors closely connected with the insurance. For example, in addition to basic offer of travel insurance that insurance companies provide through travel agencies, innovation represent such services as damage compensation in the event of theft or loss of baggage, legal and translation services, as well as assistance in the event of theft or loss of travel documents. Compensation to customers in case of insurance arrangements cancellation is another innovation offered by the insurance companies in Serbia, in cooperation with travel agencies. These innovations, implemented based on thorough analyses of customers' needs, provide travelers additional protection and make travel agencies more responsible business partners which, consequently, contribute to increasing number of tourist services users (Ostojić, 2007).

#### **4. CONSLUSION**

Various SMEs, such as travel agencies, vehicle registration agencies, medical facilities, etc. can be effective intermediaries in the insurance market in Serbia, which has been so far underdeveloped. Insurance companies have an interest to collaborate with SMEs, because of various aspects of their contribution to the creation of more appealing, and, from customers' point of view, valuable offer. Their roles as advisors and educators, insurance distributors and cost-reduction contributors, detectors of emerging customers' needs and builders of long-term relationships with commercial and individual customers, help creation of marketing value of insurance premiums. Consequently, such marketing approach can significantly contribute the



overall increase in insurance premiums and faster awareness creation regarding the insurance necessity and significance in developing markets.

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## EDUCATION FOR CREATIVITY

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### **ABSTRACT**

*Creativity is a process, of having original idea that has values or an intelligence of having fun or joy not knowing it all. A big part of being creative is looking for a new ways of doing things within whatever activity you're involved in. Creativity isn't just about coming up with new ideas; some ideas might be completely crazy and impractical. An essential bit of every creative process is evaluation of imagination, creativity and innovation. The creative process depends on generating ideas, making unusual connections evaluating ideas, and making judgement about ideas. A major problem with education system, in many of the old, industrialized countries is uncreative education. With that amount of waste of time, there's something wrong with the system— with impersonal forms of education, with people sitting in rows and not discovering the things that impassion them or invigorate them or turn them on. That's increasingly the case with the culture of standardized testing. It's totally counterproductive. Looking back, there were certain sorts of lessons with certain teachers when they give an opportunity to do things that invigorated people. When found things you're good at, and then tend to get better at everything because your confidence is up and your attitude is different than people can be creative. Human culture is so diverse and rich—and education system is becoming increasingly dreary and monotonous. Collaboration, diversity, the exchange of ideas, and building on other people's achievements are at the heart of the creative process. An education that focuses only on the individual in isolation is bound to frustrate the old educational system.*

**Keywords:** *creativity, education, education system, ideas,*

### **1. INTRODUCTION**

This paper provides an overview of the stages and processed involved education for creativity, how creativity is processed in the brain, the temperament and character traits present in highly creative individuals and how certain childhood experiences have an impact on the development of the creative potential. Not so much today, as this path seems to lead more to mirages than any promised land. Even as the high school graduation rate is at an all-time high, and the college enrolment rate is growing steadily (from about 50% in 1975 to 68% in 2012 according to the National Centre for Education Statistics) unemployment too has risen sharply. In 2012, a whopping 53% of recent college grads (age 25 or under) were jobless or underemployed. The US spends more annually per school-aged child (ages 6-23) than any other country, and yet we trail many countries in math and science proficiency. We seem to be achieving more and more, only to become less relevant. Our economy has changed. Just as the world's agrarian society gave way to manufacturing in the 19<sup>th</sup> century, so the industrial age has now given way to the information age. At the same time, ability to stay ahead of this change has diminished (Liu, D.2013).

Thomas Friedman calls it “The Great Inflection” “hyper connected” era in which “the skill required for every decent job is rising as is the necessity of lifelong learning.” And not only do workers today need more skills, they need vastly different skills than they did a few decades ago—skills that for the most part are not being emphasized in primary, secondary, or higher education. Friedman argues that success in this new age requires more “individual initiative”; he cites the

importance of “P.Q (passion quotient) and C.Q. (curiosity quotient)” in addition to plain old I.Q. This is undoubtedly true but passion and curiosity won’t materialize out of thin air. Have to give people the room and ability to flourish. More specifically, we need to ensure every student and young person has the foundational knowledge and skills he or she needs to play a role in new economy. And not only play a role, but revolutionize. Need a people who can help solve the big problems of our time e.g. food shortages, access to education, climate change, income inequality, and the global water crisis and so on. How do we cultivate such people? Continuing to increase the emphasis on STEM<sup>153</sup>, as well as reading, writing, and critical thinking skills, is a key. Without a proper foundation in these areas, students will inevitably struggle as they move through secondary and higher education and into the workforce. Phil Reggie, Dean of Arizona State University Online, calls this the “Swiss cheese effect”. Students can’t fill in gaps of knowledge at the same time they build upon them and so instead of continuing to grow into more sophisticated thinkers, learners, and doers, they spend all their time just trying to keep their heads above water. Instead of developing passion and curiosity in new areas, students just end up dealing with frustration and failure. Many shy away from entire subject areas, mistaking a lack of foundational knowledge for a lack of talent or ability. This is particularly prevalent in STEM subjects. “I’m just not good at math”, a student says, and just like that whole career opportunities disappear engineering, architecture, and economics. Nearly 60% of US students who express an interest in STEM at the beginning of their high school careers have changed their minds by graduation. Meanwhile, “science and engineering careers are forecasted to grow more than 20% by 2018, twice the rate of the overall US labour forecast.” At that rate, won’t have enough people who are even minimally qualified to fill the jobs of the future, let alone those who can initiate major breakthroughs. How many Alexander Flemings, Marie Curies, and Thomas Edison’s will we miss out on? Outstanding teaching, education content, and instructional design, in combination with personalized learning tools, will address this issue. Teachers can do even more of what they do best: motivate, provide individualized instruction, provoke discussion, and encourage critical thinking. Meanwhile, personalized learning tools facilitated by innovations in technology can ensure that high-quality and highly relevant content is delivered to each student in the most effective way, allowing every learner to master fundamental skills more efficiently and freeing up time for deeper learning, creative thinking, and tinkering (Apple and Facebook were founded). Those that are struggling with a given subject can quickly get back on track and gain confidence; meanwhile, those that are already excelling can extend themselves to new heights. Success will not come easily. It will require plenty of hard work and dedication by everyone in the education eco-system, including students. But by using technology and data to inform and tailor instruction, and placing a high value on the best instructors, we can better equip more young learners to not just keep up, but to break through. The potential for greatness is there. We just need to unlock it, not continue to waste it (Liu, D.2013).

## **2. ABOUT CREATIVITY**

A creative process may begin with a flash of a new idea or with a hunch. It may just start as noodling around with a problem, getting some fresh ideas along the way. It’s a process, not a single event, and genuine creative processes involve critical thinking as well as imaginative insights and fresh ideas. Everybody has tremendous creative capacities. A policy for creativity in education needs to be about everybody, not just a few. So education for creativity is about the

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<sup>153</sup> Acronym of Science, technology, engineering and mathematics

whole curriculum, not just part of it. Creativity is a disciplined process that requires skill, knowledge, and control and requires imagination and inspiration. The challenges currently faces are without precedent. More people live on this planet now than at any other time in history. The world's population has doubled in the past 30 years. We're facing an increasing strain on the world's natural resources. Technology is advancing at a headlong rate of speed. It's transforming how people work, think, and connect. It's transforming our cultural values. We're living in times of massive unpredictability. The kids who are starting school today will be retiring around 2070. Nobody has a clue what the world's going to look like in five years, or even next year actually, and yet it's the job of education to help kids make sense of the world they're going to live in. Sixty years ago we were told that if you worked hard, went to college, and got a regular academic degree, you'd be set for life. Nobody thinks those'd true anymore and yet keep running school systems as though it were. So many people have degrees now that an individual degree isn't worth a fraction of what it used to be worth. So being creative is essential to us, it's essential for the economy. According to Ken Robinson who works for a lot with Fortune 500 companies, companies always saying: „We need people who can be innovative, who can think differently.” Analysing mortality rate among companies, it's massive. America is now facing the biggest challenge it's ever faced-to maintain its position in the world economies. All these things demand high levels of innovation, creativity, and ingenuity. Instead of promoting creativity, we're systematically educating it out of kids. It's fundamental human truth that people perform better when they're in touch with thing that inspires them. It's no surprise that so many kids are pulling out of it. Even the ones who stay are often detached. Only a few people benefit from this process. But it's far too few to justify the waste. People often associate creativity with the individual. There a social dimension to creativity that's particularly relevant in the 21<sup>st</sup> century. Most original thinking comes through collaboration and through the stimulation of others people's ideas. Nobody lives in a vacuum. In practical terms, most creative processes benefit enormously from collaboration. The great scientific breakthroughs have almost always come through some form of fierce collaboration among people with common interests but with very different ways of thinking. This is one of the great skills we have to promote and teach-collaborating and benefiting from diversity rather than promoting homogeneity. Education have a big problem at the moment-education is becoming so dominated by this culture of standardized testing, by a particular view of intelligence and a narrow curriculum and education system, that we're flattening and stifling some of the basic skills and processes that creative achievement depends on. According to Robinson, creativity can be taught. But people think they can't teach it because they don't understand it themselves. But there are actually two ways of thinking about teaching creativity. First of all, people can teach generic skills of creative thinking, just in the way teachers can teach people to read, write, and do math. Some basic skills can free up the way people approach problems-skills of divergent thinking, for example, which encourage creativity through the use of analogies, metaphors, and visual thinking. Ken Robinson a while ago worked with an executive group of a Native American community. They wanted from him to talk to them about how they could promote innovation across their tribe. They are sitting around a boardroom table for the first hour, and he guess they were expecting get some flip charts out and show them some techniques. They did a little of that, but what he actually got them to do was to get into groups and draw pictures of some of the challenges they're facing as a community. After a few minutes people start to think visually-to draw pictures or move rather than sit and write bullet points-something different happens in the room. Breaking them up so they aren't sitting at the same desk and getting them to work with people they wouldn't normally sit with creates a different

type of dynamic. So you can teach people particular skills to free up their own thinking, of valuing diversity of opinion in a room. But in addition to teaching those skills, there's also personal creativity. People often achieve their own best work at a personal level then they connect with a particular medium or set of materials or processes that excites them. If you combine a personal aptitude with a passion for that same thing, then you go into a different place creatively. If creativity and innovation are so important, should we assess them? You can't assess people-in general-for being creative because you have to be doing something to be creative. If you're working in math class and the teaching is encouraging you to look for new approaches, to try new ways of thinking, then begin to judge the level of creativity and imaginativeness within the framework of mathematics as we would within the framework of music or dance or literature. Sir Robinson makes a distinction between teaching creatively and teaching for creativity. Teaching creatively means that teachers use their own creative skills to make ideas and content more interesting. Some of the great teachers we know are the most creative teachers because they find a way of connecting what they're teaching to student interests. There is teaching for creativity, where the pedagogy is designed to encourage other people to think creatively. Have to encourage kids to experiment, to innovate, not giving them all the answers but giving them the tools they need to find out what the answers might be or to explore new avenues. Within particular domains, it's perfectly appropriate to say, "We're interested in new and original ways you can approach these issues." Whether there would be an individual grade for creativity, that's a larger question. Certainly giving people credit for originality, encouraging it, and giving kids some way of reflecting on whether these new ideas are more effective than existing ideas is a powerful part of pedagogy. But you reduce everything to a number in the end, and shouldn't. That's part of the problem. The regime of standardized testing has led us all to believe that if you can't count it, it doesn't count. Actually, in every creative approach some of the thing we're looking for are hard, if not impossible, to quantify (Robinson, 2009, pp. 22-26).

## **2.1. Fundamentals of Creativity**

Five insights can help educators nurture student creativity in ways that enhance academic learning. There are five fundamental insights that can guide and support educators as they endeavour to integrate student creativity into the everyday curriculum.

*1. Creativity Takes More than Originality* – people commonly think of creativity as the ability to think outside the box, be imaginative, or come up with original ideas. Scholars generally agree that creativity involves the combination of originality and task appropriateness (Kaufman & Sternberg, 2007; Plucker, Beghetto, & Dow, 2004). Teachers who understand that creativity combines both originality and task appropriateness is in a better position to integrate student creativity into the everyday curriculum in ways that complements, rather than compete with, academic learning.

*2. There Are Different Levels of Creativity* – researchers have drawn a distinction between these two levels of creativity: the contributions made by everyday people (little-c creativity) and the lasting, transformational contributions made by mavericks within a domain (Big-C creativity). In an effort to broaden the concept, we developed a more nuanced, developmental model, which we call the Four C Model of Creativity (Kaufman & Beghetto, 2009). This model describes the following levels of creative expression:

- *Mini-c*, or interpretive, creativity (such as a 2nd grade student's new insight about how to solve a math problem).

- *Little-c*, or every day, creativity (such as a 10th grade social studies class developing an original project that combines learning about a key historical event with gathering local histories from community elders).
- *Pro-C*, or expert, creativity (for example, the idea of the flipped classroom pioneered by teachers Aaron Sams and Jonathan Bergmann).
- *Big-C*, or legendary, creativity (for example, Marie Curie, Mark Twain, Martin Luther King Jr., and Claude Monet, among others, include stories of persistence and resilience, traits associated with creativity at all levels. Exploring such biographies can capture students' imagination, raise important questions, and even dispel misconceptions about creativity in particular fields of study. Learning about C.S. Lewis's struggles with writer's block, for example, may help a young student realize that such challenges are universal).

The Four C Model provides a framework for including creativity in the curriculum and helping students develop their creativity to higher levels.

3. *Context Matters* - some education thinkers have expressed concerns that U.S. schools are stifling student creativity, or causing a "creativity crisis" (Bronson & Merryman, 2010). Although a narrow focus on convergent teaching and learning can suppress creative thinking, the good news is a robust human trait; students can be protected and bounce back from creativity-stifling school and classroom practices (Beghetto, 2010). For instance, research shows that creativity can suffer when people are promised rewards for creative work, when learning conditions stress competition and social comparisons, or when individuals are highly aware of being monitored and evaluated by others. Conversely, creativity generally thrives in environments that support personal interest, involvement, enjoyment, and engagement with challenging tasks (Hennessey & Amabile, 2010). The key insight from this research is that teachers should do their best to minimize features of the environment that can impede creativity (social comparisons, contingent rewards, and so on). Instead, teachers should help students focus on the more intrinsically motivating and personally meaningful aspects of the work by discussing how students might incorporate their personal interests into the tasks and by acknowledging their creativity.

4. *Creativity comes at a Cost* –creativity can have benefits that transcend temporary enjoyment. It can produce effective solutions to highly complex societal problems; lead to higher levels of career success; and create intense personal enjoyment, engagement, and meaning in life (Kaufman, 2009). But the benefits come with a cost; creativity requires work, effort, and risk. Many years of painstaking effort are needed to develop the expertise to make creative contributions that go beyond the everyday level.

5. *There's a Time and a Place for Creativity* – educators can help students develop their creative metacognition by providing them with informative feedback on their own creative strengths and limitations. Feedback should follow the Goldilocks Principle (Beghetto & Kaufman, 2007) – it should be neither too harsh (stifling students' motivation) nor too mild (failing to acknowledge real-world standards). Teachers should provide honest feedback that strikes the just-right balance between challenging students and supporting them as they develop their creative competence.

### **2.1.1. Creativity and Education**

Train people to carry out tasks in a better way, acquire new techniques and skills, and to accumulate new knowledge. But the whole essence of creativity lies in its freshness, its freedom, its newness. Creativity is often unexpected and exciting. It involves seeing things in new ways

and breaking rules. Creativity may result in something radically different e.g. Picasso/Stravinsky, or it may involve the unfolding of an old, established form with a total freshness e.g. Bach and the fugue. Creativity is not a skill; it is not a sort of muscle of the brain, or a technology of the mind. Creativity makes use of knowledge and skill but that is not where its roots lie. Creativity is an energy that constantly bubbles out of a child, even if he/she is forced to sit at a school desk for hours on end. Can't make your child creative, it simply is creative. The most difficult thing in the world is to get out of the way and let this creativity happen. The thrill, the imagination, the play of childhood passes although for some it never really goes. But what has happened, why does the world become so dull for some of us? Punishment and cruelty are obvious answers. And the low value that adults put on play and the high value they put on learning, knowledge, technique, seriousness and making a living. Seeking reward can be a significant block, knowing that some people are doing is valuable and then trying to repeat it. Children lose the fun of painting and begin to look at what their fellows are doing and this can be an important phase in learning, or it can be the first step to becoming over compliant to external values and rules. As adults have internalized authority; have roles, models, values that are not our goals that are placed upon us. All this can destroy creativity. The deadline, the writer's block the program's goals – all can kill the creativity. By contrast, creativity is unconditioned; it is its own reward. But external goals, rules, etc. that become internalized can destroy creativity and cripple the mind. Not to mention the idea of an “undetectable brain damage” which is the result of pain, anger and frustration which all conspire to destroy the subtle nature of the brain and make it dull and mechanical. When creativity is blocked the mind becomes terribly frustrated. It may become angry, violent and destructive. Or it may become dull, mechanical, depressed. Is our whole society suffering from a creativity that is frustrated? Our civilization praises the new, the novel, and the unexpected. This can be another block. Trying to do something different each time can be another block to creativity. Creativity is a mind that is fresh, alert, sensitive. It is a mind that is not dull, mechanical, afraid, restricted. That is an energy which moves through the whole body. Creativity can simply be seeing each day as new and fresh and full of potential. The hardest thing is to allow this creativity in ourselves and in others. Creativity is so important to all people that we can't leave it alone when we see it in others, can't allow our children simply to be themselves. People know a better way to do things, an easier path, and all this does is to divert the creative action from its source by introducing something external. Must praise, reward, direct and intervene. Knowing that a better way to do things, an easier path and all this does is to divert the creative action from its source by introducing something external. It is so easy to “help” the child, to enlarge its world. All people must learn the importance of having the total freedom to be wrong, to make mistakes, to push something to its limits and then throw it away (Peat, F.D., 1989).

### **2.1.2. Teaching the Brain to Learn**

Many educators have heard the old maxim, “If all learning is 0 to 10, then 0 to 1 is the most important.” Brain research backs up this nugget of wisdom, and neuroscientists such as Bruce E. Wexler, a professor of psychiatry at Yale University School of Medicine in New Haven, CT, believes nurture may play a larger role than nature when the test scores are tallied. Wexler makes it his business to keep up on the latest brain research, and his analysis suggests that the right kind of early interventions and techniques can change a child's educational future. Properly influencing the brain's “distributed neuro functional systems” matters, because these systems form the foundations of cognitive ability. According to Wexler, “These systems are not wired at birth, and they're not determined by our genetics. They're profoundly influenced by the type of



stimulation and activity that children receive while growing up. This neuroscience brain research point of view is consistent with the need to emphasize early developmental experiences in preschool, kindergarten, first grade and second grade.” Wexler’s analysis supports the notion that kids who come to school without healthy cognitive stimulation may not be operating at their potential. “And that means that there is an opportunity to intervene and improve these neuro systems and functioning abilities,” he said. “We can influence their abilities to learn, as well as provide material to help them learn better.” Steve Miller agreed that early intervention is important to prepare the brain for learning, but the chief science advisor for California-based Neryanix (a company that uses brain wave monitoring technology to measure a learner’s attention level) added that neuroscience research bolsters the contention that educational intervention can benefit students across all grades. “Intervention for struggling high school students can provide significant benefits,” he said. “The adolescent brain undergoes enormous changes, and we’re only beginning to understand how to harness these changes to benefit the education of high school students.” Miller added that the area of neuroscience called “brain plasticity” continues to “fundamentally change the way we think about learning, intervention, and the impact of the choices in our diet and physical and cognitive exercise that impacts the onset and severity of age-related neurological diseases. Physical and cognitive exercises are good for the health of the brain.” The idea that the brain must be prepared to learn also applies to emotional states, because emotions influence cognitive abilities. Lori Desautels an associate professor at Marian University’s School of Education, said, “Current brain research tells us that emotions are intimately tied to learning. When we look at math, science and all academic subjects, we cannot neglect that emotions and cognition are intimately connected. When we connect highly emotional relevant and meaningful daily life experiences when teaching math and science, we have created a state of mind that is more at ease.” Desautels referred to the work of neurologist and educator Judy Willis, who pointed out that, “Research has shown us the positive and negative effects that students’ emotional states can have on the affective filter in their amygdala (a part of the limbic system connected to the temporal lobe). Additional evidence now demonstrates the multiple benefits of the dopamine release that accompanies students’ expectation of intrinsic reward.”(Thompson, G., 2014). Creating anticipation, curiosity and even some short-term acute confusion releases dopamine in the brain and “brings about more pleasurable feelings toward learning, and the effort needed to produce math and science results in a safe learning environment,” said Desautels. Operating under the understanding that the brain is neurobiological wired to survive, Desautels concluded that if students feel or experience a threat in the process of learning, their attention to the task is disrupted because they pay attention to the threat “and the prefrontal cortex, the seat of our problem solving and higher level thought processes, shuts down.” Neuroscientists have long told educators that true learning actually builds neurological connections, and that building process usually occurs during active lessons. To this end, Betsy Hill, president and COO of the Chicago based BrainWare, said, „We must find ways to engage students and create opportunities to interact with the material. If the teacher is the only one talking, the teacher is the only one learning. After students learn something, they can practice teaching it to other students.” New experiences can structurally and functionally change the brain by building connections only when educators use teaching strategies that are most aligned with how the brain learns. Whether it’s called “experiential” or “project-based learning”, Michael Baum, principal of Wisconsin based Sophia Consulting, cautioned that such techniques are not a cure for all. “There is a fair amount of research indicating that discovery learning, r learning by doing, can be very powerful if it is rigorously structured,” he said. “There is research

comparing discovery learning models to more directed structured models, and the conclusion is that unless you have a really rigorous discovery learning model, you are better off doing direct instruction.” Good learning, Baum contended, comes from a combination of factors. Some things are better learned by rote, others are better learned experientially. “There is a huge amount of research showing that the left brain and right brain dichotomy is not true,” he said. “No brain research or empirical research exists behind the idea that people learn a particular way and that’s the way everything must be presented. I think the similarities between how we learn math and science, and how we learn other subjects, probably outweigh the differences.” BrainWare’s Hill added that beyond the brain function that leads to memorization, “There are other kinds of skills that are often now referred to as “executive functions.” This includes things like working memory the ability to hold information in your mind and manipulate it.” A strong working memory leads students to “not jumping to an answer, but thinking through various options.” Myron W.Pincomb, founder of education consulting company The Pincomb Group, calls executive function the “big thing „because it allows people to ultimately operate effectively in society. Instilling those skills calls for a multifaceted approach, despite everything we know about the brain. “There’s usually more than one way to get to the end result,” said Pincomb. “You need to figure out the best way for each person.” (Thompson, G., 2014).

### 3. THE MODERN SCHOOL: CREATIVITY AND THE LANGUAGE OF LEARNING

Job as educators is not creating the workforce of tomorrow; it’s creating the citizenry of tomorrow. Teachers must take back the language of the classroom, reclaim their creativity and create a shared vocabulary that makes sense to the children under their care, says Science Leadership Academy Founding Principal Chris Lehman. If the modern school is to succeed, teachers must take back the language of the classroom, reclaim their creativity and create a shared vocabulary that makes sense to the children under their care. According to Lehman, there is a growing number of teachers who don’t believe their school is getting things right. To make matters worse, many of these same teachers have concerns about their own children’s education. Lehman framed his address by identifying three biases: idea of using new tools which are modern and speed to realize old ideas; teacher’s job is create the citizenry not workforce the country needs and, finally, public education is a heart of democratic experiment and is a requirement of democratic ideal society. According to Lehman, the problem is use of the compliance model to educate. You do what you are told, and when you ask why we’re doing this, you don’t get a good answer. Students can’t draw logical connections between what they’re learning and their daily lives; they’re beginning to ask very scary questions, like meaningless of schooling or education at all. The teachers have to redefine the relevance of the school experience and that is a very hard work. In order to truly realize potential, Lehmann outlined what he identified as the necessary components of the modern school. He said that kids should leave our walls as voracious learners. According to Lehmann have to:

**Develop a sense of active, vigorous play** need to refocus ourselves on what’s good for the child and stop simply doing what’s good for us.

**Build caring institutions** that students always at the first place and they should never be the implied object of their own education. They should put them front and center in language.

**Make schools inquiry driven** need to dare kids to ask question that they don’t know the answers to and encourage them to take the skills we are teaching them and apply them in the world.

**Kids need to be teacher** mentored kids need those voices in their lives, need leaders to create more spaces for kids to be mentored by the adults in the school.

**Schools can be community-based; right now** there is a vibrant community inside schools, and need to start sharing that with the larger community outside walls. Can invited scientists and historians and authors into classrooms without them actually needing to be there.

**Have to be passionate** schools need to help students find their voice and then take the time to listen.

**The day has to be integrated and make sense** because there is no guaranty that the myriad teachers children see in a day are speaking the same language, said Lehmann. Schools need common value, common rubrics and a common language to create an integrated environment.

**Encourage students to be meta-cognitive, thinking about the way they think** trying to get students to understand the way they learn and give them the capability to think about the way they think.

**Learning should understanding-driven** according to Lehmann; the most impactful learning happens “when the work the kids create is the most important work of the class.” True understanding happens, he said, when kids truly have skin in the game.

**Changing the world** by creating modern, engaging schools and classrooms, have to commit to some things like: must be humbled by the task and be sceptical, acknowledging that inquiry is for all of us and should never settle for easy answers, have to lead, have to organize, have to ensure that our ideas live in practice, need to consistently ask the questions, should problematize everything, need to empower students to remember it’s their education, and it is going to be their work, need to be one school and that means being what you are for everyone, not just a subset of the population, need to continue the conversation and keep everyone talking, should always have fun, must be willing to be transformed by this work and recognize that have so much left to learn and finally, need to remember that we teach wisdom.

(Riedel, C., 2014).

### **3.1. Reinventing Education to Teach Creativity and Entrepreneurship**

Don’t need to memorize things, but still need teacher to guide students toward learning the best ways to problem solve. The question is: How do you measure that? Students all over the country are sitting for state standardized exams. Schools’ futures and funding depend on the number of students who fall into performance bands like “Advanced”, “Proficient”, and “Approaching Basic” based on bubble sheets and number two pencils. Great teachers want benchmarks to measure progress and ensure that they are closing the gap between students in their classroom and the kids across town. What you measure should matter. The problem is that most classrooms are measuring the wrong thing. Schools used to be gatekeepers of knowledge, and memorization was a key to success. Thus, we measured students’ abilities to regurgitate facts and formulas. Not anymore. As Seth Godin writes, “If there’s information that can be recorded, widespread digital access now means that just about anyone can look it up. We don’t need a human being standing next to us to lecture us on how to find the square root of a number.” Given this argument, many entrepreneurs see a disruptive opportunity to “democratize” education, meaning that everyone now has a platform from which to teach, and anyone can learn anything anywhere anytime. Ventures like Udacity, ShowMe, LearnZillion, and Skillshare increase the efficiency of the learning market by lowering barriers to knowledge acquisition. There is an inherent bias in the promise of these new platforms that favours extraordinarily self-directed learners. But by itself, this “anything/place/time” learning won’t lead to the revolution we seek. Have the responsibility of unlocking the potential of every student because the world needs more leaders, problem-finders, and rule-breakers. Teachers are perfectly positioned to take on this challenge. Teaching’s

primary purpose should be to ensure that every student graduates ready to tinker, create, and take initiative. The primary purpose of teaching can now shift away from “stand and deliver” and becomes this: to be relentless about making sure every student graduates ready to tinker, create, and take initiative. Schools must be staffed with passionate teachers who foster creativity, perseverance, and empathy. Schools should be producing kids who tinker, make, and experiment, collaborate, question, and embrace failure as an opportunity to learn. Schools must be staffed with passionate teachers who are not just prepared to foster creativity, perseverance, and empathy, but are responsible for ensuring kids develop these skills. Most importantly, in these schools, old-fashioned gradebooks and multiple-choice tests aren’t good enough. Teachers need better tools to track several dimensions of student progress. Most importantly, in these schools, old-fashioned gradebooks and multiple-choice tests aren’t good enough. Teachers need better tools to track several dimensions of student progress. Kids are more than just test scores. The narrative is important, and teaching demands a new type of CRM (classroom relationship management) to capture anecdotal notes and evidence of student growth. Teachers must become disciplined and analytical about identifying students’ strength and skill gaps, continuously turning classroom data into a plan of action. Schools like this exist in the dozens, but need them in the hundreds of thousands. Short changing kids if aren’t relentless about measuring outcomes in these new models. Teachers are the linchpins here. They’re much more than just motivational coaches, they must become results-oriented diagnosticians of student learning. In a world where the sheer volume and accessibility of information is growing exponentially, perhaps what’s most remarkable is that to create, tinker, and take initiative in this new world doesn’t always require high-tech gadgets. Imagine a world in which all teachers were relentless about fostering that same creativity in all of their students (Medbery, J., 2012).

#### **4. CONSLUSION**

As parents, educators, and creativity researchers, encouraged by the increased attention being paid to creativity and the recognition that it has a role to play in schools and classrooms. It’s essential, however, that education leaders develop a thorough understanding of creativity and that they take the time and care necessary to ensure that the benefits of creativity are realized in schools and classrooms. Signs that policymakers have also recognized creativity connection already begin to see. Helping to drive it is an understanding that producing a creative thinking work force boosts in economy and job growth (Ross, P., 2013). At the Nijmegen Unconscious lab in The Netherlands, Ap Dijksterhuis and his colleagues have shown that participants who are distracted for a while from a main creative challenge end up generating better ideas, and more of them, than others who just work straight through. Dijksterhuis’s theory is that the period of “incubation” allows your creative unconscious to get working. Unconstrained by convention and deliberation, your unconscious makes novel links between concepts that you would have missed if you’d stayed focused on the task. A British psychologist led by Ken Gilhooly has looked into this question and they say it’s best to work in the incubation period on a different kind of mental activity. The researchers gave over a hundred volunteer’s one of two main challenges. One was verbal in nature and involved spending five minutes coming up with as many new uses as possible for a brick (akin to brainstorming session in the office). The other was a spatial task, equivalent to a design-based project at work, and this involved arranging five simple shapes into recognizable objects (a triangle, letter C and rectangle formed in such a way to resemble an ice cream cone). After the time was up, the participants switched tasks for five minute incubation. Half stayed on the same kind of mental activity if they’d been arranging shapes now they

completed a mental rotation exercise, judging whether one shape was the same as another but in a different position (both are spatial tasks). The other half of the participant's switched mental activities barnstormers now did mental rotation (switching from verbal to spatial), shape sorters now did anagrams (spatial to verbal). One the incubation period was over, the participants returned to their main challenge for an additional five minutes and the key test was whether they'd outperform a control group who'd just worked on either the brick task or the shape task for ten minutes straight through. The take home finding was that incubation breaks boosted creative performance, but only when the time was spent engaged in a different kind of mental activity. Participants who in the break switched from verbal to spatial, or from spatial to verbal, excelled when they returned to their main task in terms of the number and quality of their solutions. The change in focus freed up their unconscious to spend the incubation period tackling the main challenge. On the other hand, the participants who'd used the incubation period to perform the same kind of activity verbal or spatial were unable to capitalize on the break. Staying in the same mental domain appeared to tie up their unconscious, robbing its ability to work behind the scenes. This study has clear implications for how to optimize your performance at work. The next occasion that you feel burnt out on a creative task and decide to take a time out, don't simply switch to a similar kind of project. Aim to work in a completely different way. If you were writing, try switching to numbers or design and vice versa. While you're doing that, your unconscious will be free to work its magic (Jarrett, C., 2014). Not long ago, the US was considered the number-one nation in the world when it came to science, technology, engineering and maths education. Now, nearly a generation later, it's number 17 and 25 in science and maths respectively. And this isn't just an American issue; the UK has slipped in the rankings too, now occupying 16<sup>th</sup> place in science and 28<sup>th</sup> in maths. The US government woke up to the problem during a gathering of the Council on Competitiveness, a non-governmental organisation of CESs, university presidents and labour representatives. In 2006 State of the Union speech, President George W. Bush committed the US government to legislation to promote STERN education to prepare the next generation for the high-tech jobs of the future. Although their intentions were good, bureaucratic system missed a huge opportunity. They left out the essential element: creative thinking. Creativity has been the long-standing missing ingredient in education. Companies have been desperately seeking it since the last depression. Creative thinking leads to innovation, and innovation leads to success. Sure, science, technology, engineering and maths are necessary, but without the initial creative stimulus for solving a problem or imagining the possible, nothing would ever be accomplished. Critical thinking and critical business drive our economies. And creative thinkers will always drive innovation. Although we'll certainly need science, technology, engineering, the arts and maths to produce whatever it is we want to accomplish, conceiving it will always require the creative mind (Kamen, J., 2013).

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## THE SIGNIFICANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES FOR CROATIAN EXPORT

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### **ABSTRACT**

*Until the end of the 20<sup>th</sup> century, the prerequisite for the presence on the global corporate scene was the size of the company. Technological changes, above all the development of online business and lower costs of telecommunication and transport services in the last 20 years have also enabled medium and small sized companies to organize their business on the global scale. Many small and medium-sized enterprises mostly from the developed countries have succeeded in internationalizing a considerable part of their business, aided by various measures of economic policies of their governments. The governments do this both for the importance of export and for the significant contribution of small and medium-sized companies in employment and GDP. Croatian small and medium-sized enterprises also contribute significantly to employment and GDP and are becoming active on the international market, however without sufficient support from the government for now. The paper points to the possibilities of medium and small sized companies in the Republic of Croatia to use the experiences of small and medium sized companies of the developed countries in order to further expand their corporate activities onto the international market.*

**Keywords:** *medium and small sized companies, internationalization, export, international trade*

### **1. INTRODUCTION**

The liberalization of international trade, the reduction or complete discontinuation of tariff and non-tariff barriers, the great advances in technology, especially information technology and the price reduction of transport and communication services have created conditions for inclusion in international visible and invisible trade of a great number of enterprises. The liberalization processes in terms of General Agreement on Tariffs and Trade (GATT), and World Trade Organization and within the framework of different regional economic integrations and between them started in 1960-s, and were especially intensive in the 1980-s. New circumstances enabled not only large, but also small and medium-sized companies to expand their business horizons from the national to the international market. Not only did the new circumstances enable them for this, but they forced them to it. Namely, there were no more tariff and non-tariff barriers protecting them from foreign competition on domestic markets, nor were they protected in terms of transport costs, which were previously so high, especially for low-cost products, that they impeded sales on remote markets. In the new circumstances, companies face almost identical competition on the domestic markets as they would on foreign markets. In order to be able to compete, they needed to achieve economy of scale, apart from meeting other prerequisites. The attainment of the economy of scale results in reduction of costs per unit of product and enables companies to better face their competitors. However, the economy of scale, especially in small countries with small national markets is most frequently difficult to achieve, forcing companies to expand their business outside national borders. In many industries, such as automobile, pharmaceutical, aviation, informatics etc. economy of scale is hardly attainable even in the largest national markets such as America. The Croatian market, both due to the number and

purchase power of the population, belongs to small national markets making it difficult for not only large, but also small and medium-sized enterprises to achieve economy of scale and successfully face foreign competition. Nonetheless, economy of scale is not the only driving force making companies expand their business internationally. There is also a range of other motives, the most significant of which is the increase in business and possibility of generating additional profits.

## 2. SMALL AND MEDIUM – SIZED ENTERPRISES IN THE REPUBLIC OF CROATIA

In the Republic of Croatia all enterprises are classified into four categories: large, medium-sized, small and micro. The classification criteria include the number of employees, annual turnover and total assets, whether they are taxable entities in terms of profit, i.e. fixed assets, whether they are taxable in terms of income. The classification, according to the Small Business Development Promotion Act (Official Gazette 29/04, 63/07, 53/12, 56/13) is shown in Table 1. The same criteria apply to classification of companies in the European Union.

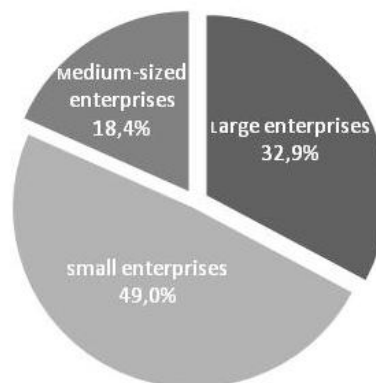
*Table 1: Criteria for the classification of small and medium-size business sectors*

Type of business	Headcount: Annual Work Unit (AWU)	Annual turnover in m EUR	Annual balance sheet total in m EUR
Micro	0-9	2	2
Small	10-49	10	10
Medium-sized	50-249	50	43

Source: Small Business Development Promotion Act (Official Gazette 29/02; 63/07; 53/12; 56/13)

In the total number of companies registered in the Republic of Croatia in 2013, 96,906 (99.6%) of them belong to the small and medium-sized business sector, and only 348 to the large business sector. It is noteworthy and significant for the economic development of the Republic of Croatia, that from 2001 to 2013 the number of small and medium-sized enterprises increased from 56,416 to 96,906 while the number of large enterprises in the same time period decreased from 571 to 348 ( [www.cepor.hr/izvješće](http://www.cepor.hr/izvješće) 2013-12.8.2014.,p. 13). Picture 1 shows that small and medium-sized enterprises are also the main employers. They hold a share of over two thirds in the total number of employees in Croatia. Employment in 2012 in relation to 2011 grew by 5.3% in the small business sector and fell by 4.8% in the large business sector (CEPOR, p. 13).

*Graph 1. Employment in Croatia according to the size of enterprise in 2012*



Source: Small and Medium Enterprises Report for Croatia – [www.cepor.hr/izvješće2013-12.8.2014](http://www.cepor.hr/izvješće2013-12.8.2014). p. 14



In 2012 small and medium-sized companies had a share of 43.6% in total export of the Republic of Croatia. From 2011 to 2012 total income of Croatian enterprises from exports grew by 1.04%. The growth is owed to the increase in exports of medium-sized companies, which was 2.1% (Ibidem, pp. 13, 14). These data show the significance of small and medium enterprises for Croatian economy. Also, these companies have a similar significance for the economy of other European Union member states. There are 23 million small and medium sized businesses in the European Union, accounting for 98% of the total number of businesses, and they have provided two thirds of the total private employment and around 80% of new jobs created over the past five years.

([www.ec.europa.eu/enterprise/policies/sme/facts-27.7.2014](http://www.ec.europa.eu/enterprise/policies/sme/facts-27.7.2014).)

Situation is similar in many countries outside the European Union. The significance of small and medium-sized companies in these countries is especially considerable in terms of employment. Most new jobs are created by young and newly founded companies. Thus, the net growth of employment in the USA from 1980 to 2005 was achieved by companies younger than five years, and the newly founded companies accounted for 20% of new jobs in the same time period, even though they make up only 3% of total number of companies in the USA (Metller, Williams, 2012 p. 13). According to OECD research, for companies sharing similar characteristics in terms of country, size, industrial area and age, age is a more significant indicator for creation of new jobs, rather than size. This means that creation of new jobs decreases with the age of the company (Ibidem, p. 5). Due to the great significance of small and medium-sized enterprises for national economies, many governments are adopting measures for the promotion of new companies and support of their growth and development. In June 2008 the European Commission launched The Small Business Act (SBA) for Europe ([www.ec.europa.eu/enterprises/policies-4.8.2014](http://www.ec.europa.eu/enterprises/policies-4.8.2014).), a set of measures designed to help small firms. The Small Business Act defines ten activity areas, from entrepreneurship to internationalization. The Republic of Croatia, in which small and medium companies made up 99.6% of all businesses and participated with 51% in total annual turnover of all businesses in 2012 (CEPOR, p. 13), also adopted the Small Business Development Promotion Act (Official Gazette 29/04,63/07,53/12,56/13) defining a range of measures to facilitate and promote the business of small and medium-sized enterprises, and the Entrepreneurship Development Strategy 2013 – 2020 ([www.minpo.hr-25.8.2014](http://www.minpo.hr-25.8.2014).). Both documents prescribe measures similar to the Small Business Act; nonetheless, the general situation in the Republic of Croatia is that the implementation of official and legal documents is lacking. Even though the small business sector in Croatia, according to share in the total number of companies as well as the share in total employment is similar to that of other EU member states, the productivity of Croatian small and medium-sized companies is significantly lower than the productivity of small and medium-sized companies in other EU member states. This is true for both traditional sectors such as construction and tourism and for high-tech manufacturing and knowledge-intensive services. Around four fifths of employees in Croatian construction industry are employed in small and medium-sized businesses and they create around three quarters of value added. In the European Union small and medium companies in the construction sector employ a similar percentage of people, a little over four fifths; however, they create around four fifths of value added in the sector. Similar differences between the productivity of small and medium-sized companies in Croatia and that in other European Union member states are reflected in the tourism sector. In both Croatia and the European Union tourism-oriented small and medium-sized businesses employ around four fifths of the total number of tourism employees. In other EU member states they create three fourths of value added, while in Croatia the create only two thirds

of total value added of the tourism sector (SBA 2013 Fact Sheet for Croatia, p.2-[www.ec.europa.sme/facts-figures-analysis/performance-22.8.2014](http://www.ec.europa.sme/facts-figures-analysis/performance-22.8.2014)). The provided examples of the contribution of small and medium-sized companies to economic growth and development of the economically most developed countries in Europe, Asia and America, as well as their contribution to the economy of the Republic of Croatia, indicates an immense significance of these companies, especially for small economies. The accomplishment of the economy of scale in countries with small domestic markets is not possible without export. The transition of small and medium-sized companies from domestic market operation to mini multinationals by expansion of their business activities onto the international market in both scale and scope is a prerequisite without which small economies can hardly achieve economic growth.

## **2. STAGES OF INTERNATIONALIZATION OF SMALL AND MEDIUM – SIZED ENTERPRISES**

A part of small and medium-sized companies implemented internationalization as part of their business strategy from the very foundation (born global enterprises). However, most small and medium-sized companies develop international business in stages and over a longer period of time. Most frequently they have spent first several years operating on the domestic market, acquiring business experiences and knowledge and securing financial, human and other resources, then moved toward business activities abroad. The process of growing from a national to a multinational (transnational) company for small and medium-sized enterprises is most frequently conducted in six stages (Parboteeah, Cullen, 2011, pp. 177-178). They begin with a passive export, whereby enterprise meets export orders, but does not actively seek export business. Afterwards, in the second stage, managers actively seek export business. Considering the limited resources, they usually rely on foreign trade intermediation. At this stage export is perceived as a new business opportunity. In the third stage enterprises utilize significant resources and create export departments with an effort to increase export operations. By doing so they usually rely on local distributors in target economies. Later, in the fourth stage, due to an increased demand in certain economies, companies decide to open foreign branch offices. This requires considerable resources and staff competent in working in a foreign environment. In the fifth stage, small and medium enterprises decide to initiate foreign production, a very demanding and risky effort, the failure of which can bring into question the survival of the entire enterprise. In the sixth stage, companies develop an integrated business network abroad, which is one of the key characteristics of multinational companies and which makes them truly multinational. From the point of view of employment, affects on GDP and share in export, small and medium-sized companies are highly significant for any economy. This is why in many economies they can count on various types of assistance in finance, consulting and human resources during the process of internationalization and growth from a small or medium-sized company to a mini multinational company so they could easily advance through the stages. Perhaps the best indicator of the significance given by specific economies to the need for internationalization of small and medium companies is the statement by Katja Hall (Confederation of British Industry) chief policy director: „Improving UK's trade performance is central to our future prosperity-and MSB's (medium and small businesses-author's remark) have a critically important part to play in that process“ (CBI-Go your own way, p. 4 ([www.cbi.org.uk/media-11.8.2014](http://www.cbi.org.uk/media-11.8.2014))).

### 3. THE SHARE OF SMALL AND MEDIUM-SIZED ENTERPRISES IN TRADE OF THE REPUBLIC OF CROATIA

From its independence until today, the Republic of Croatia experienced a negative balance of foreign trade. Most years import has been covered by export in the volume of 50-60%. Oftentimes the public opinion, even that of the professionals has been that an implementation of various measures is required in order to decrease Croatian import. As Croatia is a member of the World Trade Organization and the European Union, such a possibility can hardly exist. This certainly does not mean that consistent measures should not be implemented to control the quality food and other imported goods. Besides, even if it were possible, limitations to importing have their own limits. Petroleum, gas, some food products, medicine, automobiles etc. are necessary to import due to the lack of domestic production. In terms of export increase there are no limitations except in knowledge and competence of a company to successfully face competition in the global market. Nonetheless, import is not the key problem in Croatia. The key problem is Croatian small export. If we observe the share of import and export in the GDP of the Republic of Croatia and other transition economies (Table 2) we can see that the share of Croatian import and export in GDP is lower than in any other transition economy. Import accounts for 36.4% of the GDP, which is almost 30 percentage points lower than the share of the next ranking country, Bulgaria, the import of which accounts for 64.2% of the GDP. However, the situation with the share of import in the GDP in Croatia shows where the main problem of Croatian participation in international trade is. Export in Croatia accounts for merely 20.7% of the GDP, which is (except Bulgaria with 52.3% share in the GDP) three times lower than any of the observed transition economies.

*Table 2: Share of export and import in GDP (%) in selected transition economies in 2013*

Country	Import 2013* in USD	Share of import in GDP (%)	Export 2013* in USD	Share of export in GDP (%)	GDP 2013** in USD
<b>Croatia</b>	20,961,000,000	36.4	11,928,000,000	20.7	57,538,524,789
<b>Slovenia</b>	29,490,000,000	62.9	28,735,000,000	61.3	46,900,000,000
<b>Latvia</b>	35,206,000,000	74.0	32,616,000,000	68.5	47,600,000,000
<b>Czech Republic</b>	143,955,000,000	72.5	161,901,000,000	81.6	198,449,884,393
<b>Slovakia</b>	83,822,000,000	87.5	85,494,000,000	89.2	95,800,000,000
<b>Hungary</b>	99,091,000,000	74.8	108,426,000,000	81.9	132,400,000,000
<b>Bulgaria***</b>	32,712,000,000	64.2	26,670,000,000	52.3	50,972,109,857

\* Source: <http://comtrade.un.org/pb>

\*\*Source:<http://data.worldbank.org/indicator/NY.GDP.MKTP.CD>;

<http://knoema.com/nwnfkne/world-gdp-ranking-2014-data-charts>

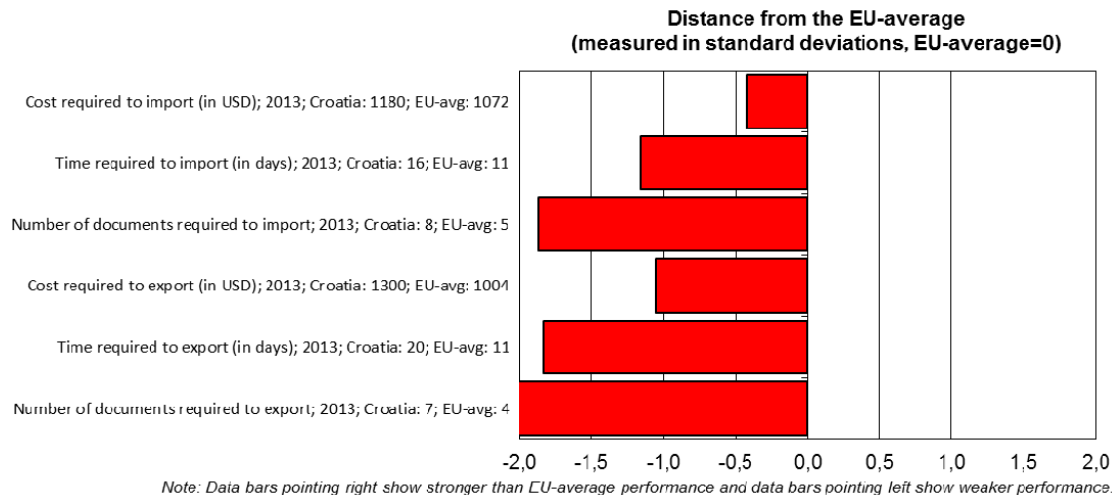
\*\*\* data available only for 2012

There are numerous reasons for poor performance of the Republic of Croatia in international trade. One of the more significant is expensive and inefficient administration. It affects all Croatian exporters, regardless of company size, but has the worst repercussions on small and medium-sized enterprises, due to their lower human and financial resources than that of large companies. Graph 2 shows that, in order to conduct foreign trade in Croatia, a considerably more

time and financial resources are needed than in other EU member states. In today's world, in which the advances in information technology and speed of transport and business operations have become one of the significant features of a competitive edge of a company, data in Graph 2 provide an answer in great part to the reasons for Croatian long-term negative balance of foreign trade, but also point out the measures to be undertaken to ensure a simpler, faster and cheaper foreign trade for Croatian companies.

*Graph 2: Distance from the EU-average (measured in standard deviations, EU-average=0)*

#### Internationalization



Source: SBA 2013 Fact Sheet for Croatia, p.11 ([www.ec.europa.sme/facts-figures-analysis/performance-22.8.2014](http://www.ec.europa.sme/facts-figures-analysis/performance-22.8.2014))

Considering the share of small and medium enterprises in total number of businesses in the Republic of Croatia, without the share of these companies in export activities a more significant increase of Croatian export and creation of a more stable balance of trade would hardly be possible. Even with all the bureaucratic and other obstacles hindering their international business, the share of small and medium enterprises in total export of the Republic of Croatia has been on the rise in the last several years. From 2010 to 2012, all three groups of these companies (micro, small and medium) had an increase in foreign sales revenue. Table 3 shows that the sector of small and medium-sized business has increased the share in total foreign sales revenue from 40 to 44%. However, in many economies, developed and developing, small and medium enterprises account for over 50% of total export. These countries, such as Italy, South Korea and China, belong to the biggest global exporters (Cavusgil, Knight, Riesenberger, 2008, p. 13). Many small and medium-sized companies from these and other countries, even though employing only several dozen people, have managed to find market niches and generate a great share of their income through international business. Their countries of residence help them in various ways, from favorable financial conditions to market research, promotional activities and favorable risk insurance conditions.

*Table 3: Foreign sales revenue of Croatian companies*

	<b>2010 in bn HRK</b>	<b>%</b>	<b>2011 in bn HRK</b>	<b>%</b>	<b>2012 in bn HRK</b>	<b>%</b>
Micro	6.407	7	7.835	8	7.502	8
Small	10.711	12	12.802	13	12.918	13
Medium	18.867	21	19.697	21	21.961	23
<b>Total SME</b>	<b>35.985</b>	<b>40</b>	<b>40.334</b>	<b>42</b>	<b>42.381</b>	<b>44</b>
Large	53.085	60	55.748	58	54.701	56
<b>Total</b>	<b>89.070</b>	<b>100</b>	<b>96.082</b>	<b>100</b>	<b>97.082</b>	<b>100</b>

Source: SME Monitor Report for the Republic of Croatia, p.15 (www.minpo.hr-25.8.2014.)

A number of Croatian small and medium enterprises generate a considerable part of their annual revenue by exporting; some of them – Šestan-Busch, DOK-ing, Lipik Glas, Telegra – have already become true mini multinational companies, while others, such as Jadranski Galenski Laboratorij or HS Produkt outgrew the status of small and medium-sized enterprises exactly due to the process of internationalization.

In a short period of time they moved from companies with a few dozen employees to companies with over 600 employees (Galenski Laboratorij) or 1,000 employees (HS Produkt). The provided examples of companies that managed to internationalize their business even in the unfavorable conditions present in Croatia, show that internationalization in Croatia is possible.

However, it is not a result of carefully planned government economic policy, but of managerial competence of the enterprises in finding market niches and successfully competing with companies from other economies. The share of small and medium-sized enterprises in Croatian export, which is also true for many other economies, is considerably higher than that shown in official statistical reports. Small and medium-sized businesses are often included in exported goods as manufacturers of individual parts of goods or intermediate goods delivered to large companies incorporating them into finished products. Official statistical reports only show data for end exporters. This additionally increases the share and significance of small and medium enterprises in export of the Republic of Croatia.

#### 4. CONCLUSION

The accession to the European Union offered the possibility to Croatian companies to place their goods and services on a huge market without tariff and other export barriers. However, at the same time the possibility was offered to companies of other 27 member states to limitlessly place their goods and services on the Croatian market.

This has increased competition on the Croatian market for Croatian companies and if they wish to survive they will have to make the quality and price of their products and services equal to or better than that of companies from other EU member states, as well as companies outside the Union, which, due to various trade agreements, also have easy access to the Croatian market.

One of the prerequisites for survival of not only large but also small and medium businesses will be the internationalization of business, i.e. placement of production on foreign markets. However, this is not only the task of a company, but of the government. When it comes to small and medium-sized enterprises, measures and activities set forth in the Small Business Development Promotion Act and Entrepreneurship Development Strategy 2013 – 2020, if consistently

implemented, will represent significant assistance to companies in achieving internationalization of their business.

Unfortunately, Croatia has not marked a great track record in implementing legal and strategic documents, so the question remains whether the situation with these documents will be any different. If the measures of economic policy defined in the mentioned documents will be implemented successfully, they will provide great assistance to small and medium-sized enterprises in acquiring competitive competence and in enabling larger product placements on foreign markets. Should the policies remain declarative only or should the inefficient, slow and expensive administration in international trade sector (and other sectors) continue, with insufficient investments in new product research and development, in education of human resources capable of working in foreign environments, which often considerably differ from Croatian working environment, Croatian small and medium businesses will still lag behind their European counterparts, and considering their total contribution to Croatian economy, this will signify further lagging of the economy of the Republic of Croatia.

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